

Nonstandard work arrangements and older Americans, 2005–2017

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Executive summary

Nonstandard or alternative employment relations refer to employment by a temporary help agency or contract company or as an on-call worker or day laborer. We refer to these nonstandard employment relations (which involve an employer and employee) and independent contracting collectively as nonstandard or alternative work arrangements in this report. Contingent workers are workers who do not expect their job to last or who report that their jobs are temporary. Contingent workers and workers in alternative work arrangements are measured separately. Both have become increasingly prominent in theoretical and policy thinking about how employment has changed in recent years in the United States and other postindustrial countries.

Until recently, only relatively poor information on the extent of contingent work and nonstandard work arrangements and how this has changed during the past several decades has been available. The May 2017 Contingent Worker Supplement (CWS)—conducted by the Bureau of Labor Statistics (BLS) 12 years after the last CWS and 22 years after the first—provides an opportunity to examine how contingent work and nonstandard work arrangements have changed over the last two-plus decades. This report examines these changes between 2005 and 2017, with special attention to how older workers—ages 55 to 65 and 65+—have fared.

Major findings

- Perhaps surprisingly, workers were slightly *more* apt to have standard work arrangements in 2017 than in 2005. In 2017, the total share of the labor force working in nonstandard arrangements was 10.1 percent, down from 10.9 percent in 2005.
- The share who worked as independent contractors fell to 6.9 percent from 7.4 percent.
- Older workers are more likely to be independent contractors than any other age group in both 2005 and 2017. However, the share of all older workers who are independent contractors declined from 10.8

SECTIONS

1. Executive summary • 1
2. Introduction • 2
3. Distribution and trends in nonstandard work arrangements • 3
4. Are older workers more or less likely to be in nonstandard work arrangements? • 12
5. Older workers: Where they work and job quality • 16
6. Policy implications • 19

About the authors • 21

Acknowledgments • 22

Endnotes • 22

References • 24

percent of those ages 55–64 and 18.3 percent of those ages 65+ in 2005, to 9.3 percent and 16.2 percent, respectively, in 2017.

- Among independent contractors, the share who were ages 55–64 increased from 18.8 percent to 22.9 percent; for those ages 65+, the share increased from 8.5 percent to 14.1 percent. In other words, 37 percent of independent contractors were older workers in 2017, up almost 10 percentage points since 2005.
- In contrast to the main body of the CWS, the questions on participation in the gig economy applied to the first job, second job, or other/additional work for pay. Data from BLS show that only 1.0 percent of workers engaged in electronically mediated (gig) work in the survey week in May 2017.
- Just under 22 percent of gig economy workers were employed in transportation and utilities.
- Among all workers and among workers ages 55–64, independent contractors had the highest median weekly earnings in 2005, though those in standard employment relations had the highest median weekly earnings in 2017.
- For workers ages 65+, however, independent contractors had the highest median weekly earnings in both 2005 and 2017, indicating the economic advantage for the oldest workers of being independent contractors.
- In May 2017, 89.9 percent of the workforce was employed in a standard work arrangement in their main job—and this proportion has been relatively stable since 1995.

Introduction

Nonstandard employment relations—that is, temporary help agency and contract company employment, and employment as an on-call worker or day laborer—as well as independent contracting have become increasingly prominent in both theoretical and policy thinking about how employment has changed in recent years in the United States and other postindustrial countries.¹ Interest in, and theories of, nonstandard work arrangements have outrun empirical evidence based on representative data and using consistent definitions and adequate measures. Until recently, only relatively poor information on the extent of nonstandard work arrangements and how these arrangements have changed during the past several decades has been available.

A major source of consistent data on nonstandard and contingent work was the important program of data collection undertaken by the Bureau of Labor Statistics (BLS) in their Contingent Work Supplement (CWS) to the February Current Population Survey (CPS) beginning in 1995 and replicated in 1997, 1999, 2001, 2005, and now, May 2017. Analysis of the earlier CWS data found that the employment shares of workers in nonstandard work arrangements were quite stable across all of the surveys from 1995 to 2005, with the share employed as independent contractors ranging from 6.3 to 7.4 percent, the on-call worker share ranging from 1.5 to 1.8 percent, the temporary help agency worker share ranging from 0.9 to 1.0 percent, and the contract company worker share ranging from 0.5

to 0.6 percent. In 2005, researchers at BLS found that, in all, 10.7 percent of workers were employed in these nonstandard work arrangements (Horrigan 2016).²

The May 2017 CWS—conducted 12 years after the last CWS and 22 years after the first—provides an opportunity to examine how nonstandard work arrangements have changed over the last two-plus decades. The years since 2005 encompass the Great Recession of 2007–2009, the period of the largest economic upheaval in the United States since the Great Depression of the 1930s. Comparing the results of the 2017 survey with those conducted in earlier years enables us to examine the extent to which the employment relationship and the experience of work in the lives of people and communities have changed. Given the relative stability that characterized nonstandard work arrangements as measured in the CWS between 1995 and 2005,³ this report focuses on comparisons between 2005 and 2017 and focuses on older workers, ages 55–64 and 65+. Our report helps to develop a common understanding of what has changed. It can inform a broader research agenda that can address the opportunities and challenges inherent in current work and employment realities. This is a prerequisite to the examination of whether and what new policies may be necessary to improve the functioning of the labor market.

Distribution and trends in nonstandard work arrangements

Table 1 shows overall employment growth for the period 2005–2017 and growth for workers in these two age groups. The first two columns indicate that the labor force grew by about 10 percent overall, while those in the labor force ages 55–64 and 65+ grew by 46 percent and 92 percent, respectively.

Table 1 also shows the percentage of persons in standard and all nonstandard work arrangements (independent contractors, on-call workers, temporary agency workers, contract company workers, day laborers) in 2005 and 2017, for all workers and for those workers ages 55–64 and 65+. We see that workers ages 55 and older (and especially those ages 65+) were less likely than workers overall to have standard work arrangements. Surprisingly, perhaps, in light of the general perception that there was a rapid rise in the share of workers in nonstandard work arrangements in the 12 years since 2005, workers in all of these groups (all ages, ages 55–64, and ages 65+) were slightly *more* apt to have standard work arrangements in 2017 than in 2005. Older workers were more likely to be independent contractors than any other age group in both 2005 and 2017. However, the share of older workers who were independent contractors declined from 10.8 percent of those ages 55–64 and 18.3 percent of those ages 65+ in 2005, to 9.3 percent and 16.2 percent, respectively, in 2017.

More generally, Table 1 shows that there has been relatively little change overall in the percentage of persons in the labor force in standard work arrangements and in each of the nonstandard work arrangements from 2005 to 2017: The percentages of temporary help agency workers and contract company workers have remained constant, at 0.9

Table 1

Shares of workers with standard and nonstandard work arrangements, 2005 and 2017

	Total employed (thousands)		Share with standard work arrangements		Share with nonstandard work arrangements									
					Independent contractors		On-call workers		Temp agency workers		Contract company workers		Day laborers	
					2005	2017	2005	2017	2005	2017	2005	2017	2005	2017
All workers (ages 16+)	138,952	153,331	89.1%	89.9%	7.4%	6.9%	1.8%	1.7%	0.9%	0.9%	0.6%	0.6%	0.2%	<0.1%
By age group														
Ages 55–64	17,980	26,236	86.2%	88.1%	10.8%	9.3%	1.5%	1.5%	0.8%	0.7%	0.6%	0.5%	0.2%	0.1%
Ages 65+	4,817	9,240	76.8%	78.5%	18.3%	16.2%	3.6%	3.1%	0.7%	1.1%	0.4%	1.1%	0.2%	0.1%
By education level														
LTHS	13,875	10,840	88.7%	87.8%	5.2%	7.8%	2.7%	2.5%	1.5%	1.3%	0.9%	0.4%	1.0%	0.3%
HS	42,521	41,584	89.8%	89.9%	7.0%	6.6%	1.7%	1.7%	0.9%	1.3%	0.5%	0.6%	0.2%	0.1%
Some college	40,761	43,249	89.2%	90.4%	7.4%	6.5%	1.8%	1.8%	1.0%	1.0%	0.6%	0.5%	0.2%	<0.1%
College	27,320	36,262	88.7%	89.8%	8.3%	7.5%	1.6%	1.4%	0.8%	0.7%	0.5%	0.7%	0.1%	<0.1%
Advanced degree	14,474	21,395	88.3%	90.4%	9.5%	7.2%	1.2%	1.4%	0.2%	0.4%	0.8%	0.7%	<0.1%	<0.1%
By race/ethnicity														
White	98,223	97,832	88.6%	89.6%	8.4%	7.7%	1.8%	1.7%	0.6%	0.5%	0.5%	0.5%	0.2%	<0.1%
Black	14,637	18,183	91.6%	90.8%	4.0%	4.9%	1.4%	1.8%	1.9%	1.9%	0.9%	0.7%	0.2%	<0.1%
Hispanic	18,062	25,525	89.7%	90.0%	5.3%	6.1%	2.1%	1.8%	1.4%	1.4%	0.7%	0.6%	0.7%	0.2%
Asian	6,656	10,039	90.8%	91.0%	6.2%	5.0%	1.1%	1.5%	1.1%	1.1%	0.7%	1.4%	0.1%	<0.1%
By work hours														
Full-time	113,798	125,240	90.4%	91.4%	6.8%	6.0%	1.2%	1.1%	0.9%	0.8%	0.6%	0.6%	0.1%	<0.1%
Part-time	25,154	28,091	83.3%	83.1%	10.4%	11.1%	4.3%	4.1%	0.9%	1.1%	0.5%	0.5%	0.7%	0.1%
By number of jobs held														
Has one job	130,759	145,423	89.2%	90.1%	7.4%	6.8%	1.7%	1.6%	0.9%	0.9%	0.6%	0.6%	0.2%	0.1%
Has multiple jobs	8,193	7,907	87.3%	86.6%	8.6%	9.2%	2.2%	2.9%	1.1%	0.9%	0.6%	0.4%	0.3%	<0.1%
All working women (ages 16+)	65,006	71,785	91.0%	91.7%	5.6%	5.3%	1.9%	1.8%	1.0%	0.9%	0.4%	0.4%	0.2%	<0.1%
Ages 55–64	8,495	12,396	88.8%	90.3%	7.7%	7.1%	1.9%	1.5%	1.0%	0.7%	0.5%	0.4%	0.1%	<0.1%
Ages 65+	2,202	4,164	81.1%	81.2%	13.3%	12.3%	3.8%	4.0%	0.8%	1.3%	0.7%	1.1%	0.3%	0.1%
All working men (ages 16+)	73,946	81,545	87.5%	88.3%	9.1%	8.4%	1.7%	1.7%	0.8%	0.9%	0.8%	0.8%	0.3%	0.1%
Ages 55–64	9,485	13,840	83.9%	86.1%	13.6%	11.2%	1.1%	1.6%	0.6%	0.6%	0.7%	0.6%	0.2%	0.1%
Ages 65+	2,615	5,076	73.3%	76.3%	22.5%	19.4%	3.5%	2.4%	0.6%	1.0%	0.1%	1.2%	<0.1%	<0.1%

Notes: LTHS is "less than high school" and HS is "high school." Full-time is 35+ hours per week; part-time is less than 35 hours per week.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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percent and 0.6 percent, respectively. The percent of on-call workers declined from 1.8 percent to 1.7 percent, while the share who worked as independent contractors fell to 6.9

percent from 7.4 percent. In 2017, the total share of the labor force working in nonstandard work arrangements was 10.1 percent, down from 10.9 percent in 2005.

Independent contractors

A surprising result in Table 1 is the decline in the share of independent contractors and the generally low estimates of how many independent contractors there are in the United States. We emphasize independent contractor arrangements in this report, as this is the type of nonstandard work arrangement in which older workers are most strongly represented.

Table 2 shows the demographic and labor market characteristics of the independent contractor workforce. A larger share of the independent contractor workforce was in the two oldest age groups in 2017 than in 2005 (see also **Figure A**). The share of independent contractors ages 55–64 increased from 18.8 percent to 22.9 percent; and for those ages 65+, the share increased from 8.5 percent to 14.1 percent. In other words, 37.0 percent of independent contractors were older workers in 2017, up almost 10 percentage points since 2005.

Table 2 also reports that from 2005 to 2017, there was an overall growth in the share of independent contractors with college degree or more (from 35.1 percent to 40.0 percent). The growth was most pronounced for independent contractors ages 65+: the share of workers with a college degree or more increased 11.5 percentage points to 52.3 percent. Independent contractors continue to be mostly white, but their share declined from 80.0 percent to 70.9 percent. The share of white workers decreased to a lesser degree for older workers ages 55–62 and 65+. While independent contractors mostly work full time (70.5 percent in 2017), more than half of older workers ages 65+ worked part time in 2017.

Overall, there has been a slight decline in the percentage of employed persons who are independent contractors from 2005 to 2017 in the CWS data, a relative stability that goes back to the first survey in 1995. The 2017 BLS CWS result differs from Katz and Krueger’s (2016) finding of an increase in the percent of independent contractors from 6.9 percent in 2005 to 8.4 percent in 2015. (They also reported an increase in all four categories of nonstandard work from 10.7 percent in 2005 to 15.8 percent in 2015.) This raises questions about possible reasons for differences between the BLS’s 2017 CWS and the 2015 Katz and Krueger/RAND study (Katz and Krueger 2016).⁴ Indeed, in a new working paper, Katz and Krueger (2019) note that their estimates of nonstandard work arrangements were too high, as they were skewed by spotty data and the recession of a decade ago.

A problem in estimating the extent of independent contracting in the United States is that independent contractors are often measured in different ways. The CWS supplement classifies an independent contractor as anyone who self-identifies as “working as an independent contractor, an independent consultant, or a free-lance worker, in the past week.” The CWS also focuses on a worker’s main job and does not consider those who work as independent contractors to supplement income from their main job, as is the case for many Lyft or Uber drivers, for example. Moreover, those classified as an independent

Table 2

Composition of independent contractor workforce, 2005 and 2017

	All ages		Ages 55–64		Ages 65+	
	2005	2017	2005	2017	2005	2017
By education level						
<i>LTHS</i>	7.0%	8.0%	7.9%	6.3%	5.5%	4.5%
<i>HS</i>	28.7%	25.7%	23.6%	24.8%	25.6%	19.9%
<i>Some college</i>	29.2%	26.5%	27.8%	29.5%	28.0%	23.2%
<i>College</i>	21.9%	25.5%	21.8%	25.6%	20.3%	27.8%
<i>Advanced degree</i>	13.2%	14.5%	18.9%	13.8%	20.5%	24.5%
By race/ethnicity						
<i>White</i>	80.0%	70.9%	86.0%	78.2%	89.7%	83.9%
<i>Black</i>	5.7%	8.4%	3.9%	6.0%	2.9%	6.0%
<i>Hispanic</i>	9.2%	14.8%	6.3%	9.9%	5.0%	5.8%
<i>Asian</i>	4.0%	4.7%	3.1%	4.4%	1.8%	3.8%
By work hours						
<i>Full-time</i>	74.8%	70.5%	73.7%	70.7%	47.9%	46.3%
<i>Part-time</i>	25.2%	29.5%	26.3%	29.3%	52.1%	53.7%
By number of jobs held						
<i>Has one job</i>	93.2%	93.2%	93.5%	93.8%	96.2%	97.5%
<i>Has multiple jobs</i>	6.8%	6.9%	6.5%	6.2%	3.8%	2.5%

Notes: LTHS is “less than high school” and HS is “high school.” Full-time is 35+ hours per week; part-time is less than 35 hours per week.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

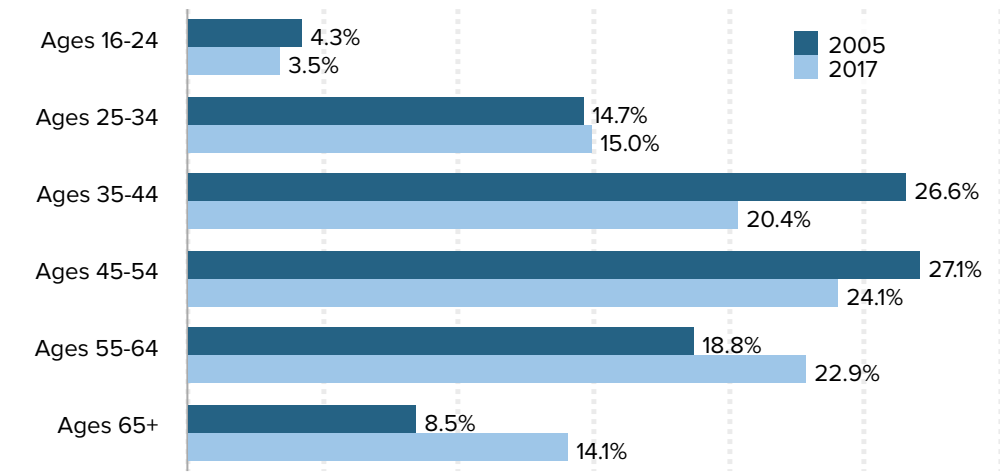
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contractor in the supplement could be either wage and salary workers or self-employed in the basic CPS survey. Nearly nine in 10 independent contractors are self-employed. Conversely, three in every five self-employed workers are independent contractors.⁵

Insights into the limitations of using the CWS to measure independent contractors are provided by Abraham et al. (2017). They compare estimates of independent contractors from household survey data, such as the CPS, with other ways of measuring this group, such as individual surveys (the General Social Surveys or GSS) and administrative records (the Census Bureau’s Detailed Earnings Record or DER).⁶ They show that estimates based

Figure A

Composition of independent contractor workforce, by age, 2005 and 2017



Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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on household survey data indicate smaller percentages and more stable trends than the GSS. Estimates of independent contractors in the 2002, 2006, 2010, and 2014 Quality of Worklife Supplements to the GSS show no consistent pattern of growth in independent contractors, though the levels are about twice that of the CWS. The DER, which also indicates higher levels of independent contractors than the CWS, shows an increasing trend as well.⁷ A likely explanation for some of these differences might be that the GSS asks an individual directly about their own activity, while the CWS answers might be supplied by someone else in the household (and so the GSS respondent might be more aware of the work arrangement). The DER, which is based on income tax returns, picks up individuals who did *any* independent contracting at *any* time in the previous year as compared with the CWS, which asks about independent contracting as the respondent's main job in the last week. As a result, the DER is likely to be measuring those who work as independent contractors as a supplemental activity, or who tried it briefly and decided not to continue. Recent research (Manyika et al. 2016; Farrell and Greig 2016) suggests that many workers with independent contractor income use it to supplement income from a main job as a standard employee. Thus, an explanation for the discrepancy in trends between the CWS and other measures of independent contracting may be that independent contracting as the main job is stable while it is growing among those who do it on a supplemental basis.

The gig economy

Discussions of the future of work abound in the popular press and social media, and these are usually centered on the idea that a large and growing share of jobs does not involve

an employer–employee relationship. “Gig workers,” a type of independent contractor whose work is mediated by technological platforms such as Uber, Upwork, or TaskRabbit, we are told, are the wave of the future. Workers, according to the pundits, face a future characterized by dramatic growth in jobs in which they are likely to be gig economy workers matched to tasks by online platforms. Two recent reports (JPMCI 2018a; BLS 2018) suggest that, despite the ubiquity of Uber and Lyft drivers in our major cities, the gig economy does not currently hold the key to the future of work. This may already have been apparent in our earlier discussion, where we noted that nonstandard work arrangements characterized less than 11 percent of jobs in 2017.

In September 2018, both the JP Morgan Chase Institute (JPMCI) and BLS published data on participation in the gig economy—electronically mediated work in the parlance of BLS. The JPMCI data tracks “supply-side” participation and earnings in the platform economy.⁸ The earnings are directed through 128 different online platforms to 2.3 million distinct Chase accounts out of the 39 million in the database over the period October 2012 to March 2018. The platforms fall into four distinct categories: transportation, non-transport work, selling, and leasing. Transportation and non-transport work are the labor platforms.

In May 2017, BLS added four questions to the Contingent Worker Supplement. The questions were designed to measure electronically mediated work—that is, short jobs or tasks that workers find through websites or apps that connect them with customers and arrange payment for the work. The questions distinguish between jobs that are done in person (for example, driving people, delivering something, doing someone’s household tasks or errands) and those that are done entirely online (for example, data entry, translating text, or graphic design). In contrast to the main body of the CWS, the questions on participation in the gig economy applied to the first job, second job, or other/additional work for pay. Many respondents misunderstood the questions and answered “yes” when it was obvious that the reported work was not through a website or app that arranged for payment for the work.⁹ BLS evaluated all records with affirmative answers and recoded erroneous answers.

The cleaned data from BLS show that only 1.0 percent of workers engaged in electronically mediated work in the survey week in May 2017. Despite the differences in methodology, the share of workers in the labor platform economy in the JPMCI data set in the month of May 2017 was also 1 percent (JPMCI 2018b, 3). This similarity provides support for the view that the gig economy represents a very small (only about 1 percent) portion of workers.

However, while the top-line numbers for participation in the gig economy are the same in both the JPMCI and BLS data sets, there are also key differences (see also Bernhardt and Thomason 2017). The two studies reach different conclusions about whether workers engage in gig economy work as their main job or as a way to supplement income earned on their main job. BLS found that electronically mediated work was the main job for 75 percent of gig workers; only a quarter of them did it as a second job or as additional work for pay (BLS 2018, 19). By contrast, the JPMCI data suggest that gig economy work is primarily a source of supplemental income. About 60 percent of labor platform workers engage in these activities for three months of the year or less, while only 12 percent are

Table 3

Gig economy workforce as a share of total workforce, by age, May 2017

Age group	Share of total age-group workforce
Ages 16–24	0.9%
Ages 25–54	1.2%
Ages 55–64	0.8%
Ages 65+	0.8%

Source: BLS 2018, Table 3

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gig economy workers for 10 months or more. While platform earnings are a little more than half the income of families during the months they participate, they are only 20 percent of annual earnings for those who did any platform work during the year (JPMCI 2018a, 3–4). JPMCI observes that “platforms are not replacing traditional sources of family income” (JPMCI 2018a, 3). A second difference is in the shares of labor platform workers employed in transportation. More than 90 percent of these workers were engaged in transportation in the month of May 2017 in the JPMCI data (JPMCI 2018b, 5). In the BLS data, just under 22 percent of gig economy workers were employed in transportation and utilities in the reference week in May 2017 (BLS 2018, 17). It’s not clear how these differences can be reconciled.

BLS (2018, 20–24) also presents detailed personal information about the respondents’ personal and occupational characteristics that allow us to examine gig economy employment by age. Overall, 1.0 percent of workers do electronically mediated work.

Table 3 shows that a larger share of prime-age workers—1.2 percent of workers 25 to 54—are gig economy workers while 0.9 percent of younger workers and 0.8 percent of older workers engage in electronically mediated work.

Table 4 reports the shares of gig economy workers in each age category. Most gig economy workers are 25 to 54 years old; this is higher than their share of all workers—71.2 percent compared with 64.4 percent. The shares of both younger workers (ages 16 to 24) and older workers (55 and older) that are gig economy workers are smaller than their shares of the overall workforce. Workers 16 to 24 years of age make up 12.4 percent of the overall workforce, compared with 10.3 percent of workers in the gig economy. Workers ages 55 to 64 are 17.1 percent of total employment and 13.6 percent of gig economy workers. Workers 65 years of age or older are 6.0 percent of all employed workers compared with 4.8 percent of those in the gig economy.

Table 4

Composition of total workforce and gig economy workforce, by age, May 2017

Age group	Share of total workforce	Share of gig economy workforce
Ages 16–24	12.4%	10.3%
Ages 25–54	64.4%	71.2%
Ages 55–64	17.1%	13.6%
Ages 65+	6.0%	4.8%

Source: BLS 2018, Table 4

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Contingent workers

As noted earlier, contingent workers are workers who do not expect their job to last or who report that their jobs are temporary. Contingent workers and workers in alternative work arrangements are measured separately. Contingent workers may be in either standard or alternative work arrangements.¹⁰ **Table 5** shows the percentage of employed workers in 2005 and 2017, by demographic and labor market groups, who were classified as contingent workers. The overall share of contingent workers fell between 2005 and 2017 from 4.1 percent of employed workers to 3.8 percent. Among women workers, the decline was from 4.3 to 3.9 percent; while among men, the share of contingent workers fell only slightly, from 3.9 percent in 2005 to 3.8 percent in 2017. Contingent employment fell for older workers as well between 2005 and 2017. It declined from 3.0 to 2.6 percent among workers 55–64 years of age, and more steeply for workers 65+, from 5.2 to 3.7 percent. The biggest change between 2005 and 2017 was among women 65+, whose share of contingent employment fell from 7.2 percent to 4.5 percent. There was less change in the share of older men employed in contingent jobs: the share of contingent employment fell from 2.7 percent to 2.4 percent, and from 3.5 percent to 3.0 percent for men ages 55–64 and 65+, respectively. It is notable, though not surprising, that part-time workers had the highest share of contingent jobs—9.1 percent of part-time workers were contingent workers in 2005, declining to 8.5 percent in 2017.

Table 6 examines the demographic and labor market characteristics of contingent workers. The largest share of contingent workers by age was the youngest (ages 16–24); a little over 27 percent of contingent workers were in this age category in both 2005 and 2017. Older workers make up a much smaller share of contingent workers in both years, but the share of contingent workers ages 55–64 increased from 9.4 to 11.6 percent; for those 65+, the share increased from 4.4 to 5.8 percent (see also **Figure B**).

Table 6 also shows that contingent workers were more educated and racially diverse in 2017 than in 2005. The share of contingent workers with a college degree or more increased from 29.3 percent to 36.1 percent. The growth was steep for contingent workers ages 65+: an increase of 22.3 percentage points from 29.1 percent to 51.4 percent. Contingent workers ages 55–64 and 65+ experienced an increase in the share of black workers from 8.6 to 14.3 percent and 11.4 to 18.0 percent, respectively. While a significant

Table 5

Contingent workforce as a share of total workforce, by demographic and labor market groups, 2005 and 2017

	2005	2017
By age		
<i>All ages (16+)</i>	4.1%	3.8%
<i>Ages 55–64</i>	3.0%	2.6%
<i>Ages 65+</i>	5.2%	3.7%
By education level		
<i>LTHS</i>	6.6%	6.7%
<i>HS</i>	3.3%	3.5%
<i>Some college</i>	4.2%	3.7%
<i>College</i>	3.9%	3.4%
<i>Advanced degree</i>	4.1%	4.1%
By race/ethnicity		
<i>White</i>	3.5%	3.3%
<i>Black</i>	4.4%	3.9%
<i>Hispanic</i>	6.6%	5.1%
<i>Asian</i>	5.6%	5.0%
By work hours		
<i>Full-time</i>	3.0%	2.8%
<i>Part-time</i>	9.1%	8.5%
By number of jobs held		
<i>Has one job</i>	4.1%	3.8%
<i>Has multiple jobs</i>	4.3%	4.8%
Women, ages 16+		
<i>Ages 55–64</i>	3.2%	2.8%
<i>Ages 65+</i>	7.2%	4.5%
Men, ages 16+		
<i>Ages 55–64</i>	2.7%	2.4%
<i>Ages 65+</i>	3.5%	3.0%

Notes: LTHS is “less than high school” and HS is “high school.” Full-time is 35+ hours per week; part-time is less than 35 hours per week.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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share of contingent workers ages 55–64 worked full time in 2017 (67.4 percent) as opposed to workers ages 65+ (38.0 percent), the percentage of those working full time for both groups increased between 2005 and 2017.

Table 6

Composition of contingent workforce, 2005 and 2017

	All ages		Ages 55–64		Ages 65+	
	2005	2017	2005	2017	2005	2017
By education						
<i>LTHS</i>	16.1%	12.5%	9.4%	11.1%	7.3%	4.6%
<i>HS</i>	24.8%	24.5%	25.3%	24.7%	39.3%	26.3%
<i>Some college</i>	29.9%	26.9%	26.3%	23.7%	24.3%	17.8%
<i>College</i>	18.8%	21.3%	20.2%	24.3%	16.0%	24.5%
<i>Advanced degree</i>	10.5%	14.8%	18.9%	16.3%	13.1%	26.9%
By race/ethnicity						
<i>White</i>	60.2%	55.8%	75.1%	63.1%	75.8%	71.7%
<i>Black</i>	11.2%	12.2%	8.6%	14.3%	11.4%	18.0%
<i>Hispanic</i>	20.8%	22.2%	10.1%	16.5%	8.4%	4.8%
<i>Asian</i>	6.5%	8.5%	4.7%	3.4%	3.0%	5.5%
By work hours						
<i>Full-time</i>	59.8%	59.2%	61.6%	67.4%	31.2%	38.0%
<i>Part-time</i>	40.2%	40.8%	38.4%	32.6%	68.8%	62.0%
By number of jobs held						
<i>Has one job</i>	93.8%	93.6%	92.9%	93.7%	98.6%	94.8%
<i>Has multiple jobs</i>	6.2%	6.4%	7.1%	6.4%	1.5%	5.2%

Notes: LTHS is “less than high school” and HS is “high school.” Full-time is 35+ hours per week; part-time is less than 35 hours per week.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

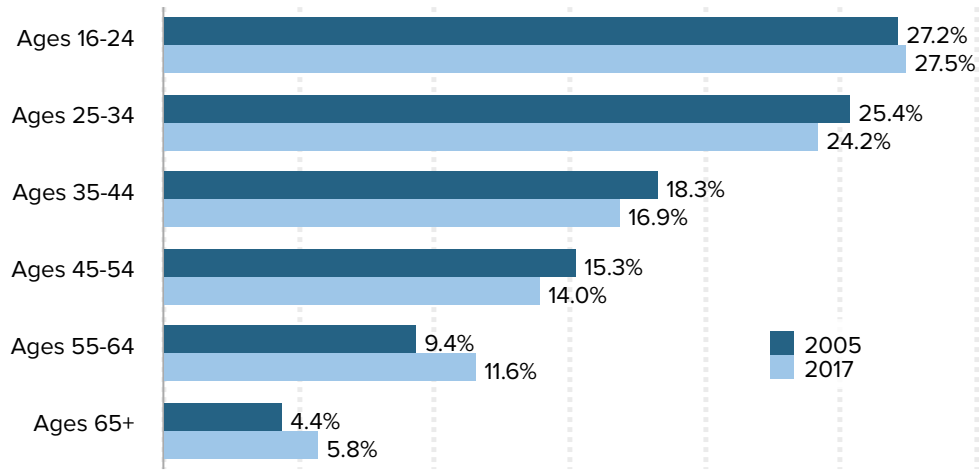
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Are older workers more or less likely to be in nonstandard work arrangements?

Thus far, we have presented the percentages of persons of various age and other demographic categories. A more refined analysis is given in **Table 7**, which reports estimates of the probability of persons in each of the two older age groups employed as contingent workers or working in each nonstandard work arrangement (relative to prime-age workers 25–54) in 2005 and 2017, after controlling for characteristics that are associated with work arrangements, such as race/ethnicity, nativity, education, and state, in addition to gender. In 2017, older workers ages 55–64 and 65+ were more likely to be independent contractors than prime-age workers (2.7 percentage points and 9.4 percentage points, respectively). Older workers ages 65+ were also 2.6 percentage points more likely to be on-call workers in 2017. Similar patterns held in 2005 for both independent contractor and on-call work. Workers ages 65+ were 2.2 percentage points

Figure B

Composition of contingent workforce, by age, 2005 and 2017



Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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more likely than workers ages 25–54 to hold contingent jobs in 2005, but there was no significant difference in 2017.

The results of this analysis bolster our previous findings, as they show that older workers (especially those ages 65+, but also those ages 55–64) are more likely to be independent contractors in each year, as well as more likely to be on-call workers. We also see that older workers are generally not more likely than workers in other age groups to be contingent, though workers ages 65+ were more apt to be contingent workers than other age groups in 2005.¹¹ Given the relevance to older workers of independent contracting in particular, as well as on-call work and contingent work, we focus on only these three types of work arrangements in the remainder of the report.

Table 7

Change in marginal probability of having a nonstandard work arrangement, workers ages 25+, 2005 and 2017

	2005						2017					
	Independent contractors	On-call workers	Temp agency workers	Contract company workers	Day laborers	Contingent workers	Independent contractors	On-call workers	Temp agency workers	Contract company workers	Day laborers	Contingent workers
By gender												
Female	-0.040***	0.004*	0.003**	-0.004***	-0.001	0.006**	-0.033***	0.001	0.001	-0.004***	-0.001	0.002
	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
By age (ages 25–54 as reference)												
55–64	0.032***	-0.001	0.000	0.000	0.000	-0.003	0.027***	0.001	-0.001	-0.001	0.001	-0.004
	(0.005)	(0.002)	(0.002)	(0.001)	(0.001)	(0.003)	(0.004)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
65+	0.102***	0.022***	-0.001	-0.002	0.000	0.022***	0.094***	0.026***	0.005	0.006**	0.003	0.007
	(0.010)	(0.005)	(0.003)	(0.002)	(0.002)	(0.007)	(0.007)	(0.005)	(0.002)	(0.002)	(0.004)	(0.004)
By education level (HS as reference)												
LTHS	-0.006	0.006	0.005*	0.003	0.003*	0.012**	0.025***	-0.007	-0.002	-0.002	0.002	0.016**
	(0.007)	(0.004)	(0.003)	(0.002)	(0.002)	(0.005)	(0.008)	(0.004)	(0.003)	(0.002)	(0.002)	(0.005)
Some college	0.007	0.000	0.001	0.002	-0.001	-0.001	0.004	-0.006	-0.004**	-0.000	-0.000	-0.004
	(0.004)	(0.002)	(0.001)	(0.001)	(0.001)	(0.003)	(0.004)	(0.004)	(0.002)	(0.001)	(0.001)	(0.002)
College	0.009	0.001	0.000	0.001	-0.002**	0.007*	0.006	-0.009*	-0.005**	0.001	0.000	0.003
	(0.005)	(0.002)	(0.001)	(0.001)	(0.001)	(0.003)	(0.004)	(0.004)	(0.002)	(0.001)	–	(0.003)
Advanced degree	0.010	-0.004	-0.006***	0.003	-0.002*	0.012**	-0.003	-0.010*	-0.007***	-0.000	0.000	0.012***
	(0.005)	(0.002)	(0.001)	(0.002)	(0.001)	(0.004)	(0.004)	(0.005)	(0.002)	(0.001)	–	(0.003)
By race/ethnicity (white as reference)												
Black	-0.040***	-0.004	0.013***	0.002	0.001	0.016**	-0.026***	-0.001	0.015***	0.003	0.001	0.009*
	(0.005)	(0.003)	(0.003)	(0.002)	(0.001)	(0.005)	(0.005)	(0.003)	(0.003)	(0.002)	(0.001)	(0.004)
Hispanic	-0.028***	0.000	0.003	-0.003*	0.003	0.008*	-0.031***	-0.001	0.008***	0.006*	0.004*	0.011**
	(0.006)	(0.003)	(0.002)	(0.001)	(0.002)	(0.004)	(0.005)	(0.003)	(0.002)	(0.002)	(0.002)	(0.004)
Asian	-0.019*	-0.009**	0.004	-0.001	0.000	0.000	-0.043***	-0.005	0.007*	0.016***	0.002	0.002
	(0.009)	(0.003)	(0.003)	(0.002)	–	(0.005)	(0.005)	(0.003)	(0.003)	(0.004)	(0.002)	(0.004)
Other	-0.006	0.009	0.005	-0.001	0.000	0.015	0.011	0.004	0.003	0.009	0.000	0.014

Table 7 (cont.)

	2005						2017					
	Independent contractors	On-call workers	Temp agency workers	Contract company workers	Day laborers	Contingent workers	Independent contractors	On-call workers	Temp agency workers	Contract company workers	Day laborers	Contingent workers
	(0.015)	(0.008)	(0.006)	(0.003)	–	(0.011)	(0.017)	(0.008)	(0.006)	(0.007)	–	(0.011)
By immigrant status (U.S.-born as reference)												
Immigrant	-0.012	0.003	0.003	0.004*	0.003**	0.022***	0.019***	0.005*	0.002	-0.004*	0.001	0.012***
	(0.007)	(0.003)	(0.002)	(0.001)	(0.001)	(0.004)	(0.005)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
N	38,891	38,891	38,891	37,259	25,991	38,891	43,056	43,056	43,056	42,168	9,047	43,056

*** p < 0.001, ** p < 0.01, * p < 0.05

Notes: “N” is the number of workers in the sample. Robust standard errors in parentheses. The coefficients are estimated marginal effects from a probit model. All models control for education, race, immigrant status, and state. LTHS is “less than high school” and HS is “high school.”

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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Older workers: Where they work and job quality

As the labor force in the United States ages, a better understanding of the work experiences of older workers is becoming increasingly important for both policy and academic purposes. Accordingly, we pay particular attention to the job quality of workers ages 55–64 and 65+ in nonstandard work arrangements or in contingent work.

Where independent contractors, on-call workers, and contingent workers work

Independent contractors ages 55–64 were most likely to be in the construction industry, followed by real estate, in both 2005 and 2017. Independent contractors ages 65+ were most likely to be in real estate in 2005 and secondarily in construction. In 2017, those ages 65+ were most likely to be in construction, followed by management, scientific and technical consulting services, and then real estate. In terms of occupations, independent contractors ages 55–64 were most likely to be managers, followed by real estate brokers and sales agents in both 2005 and 2017. The oldest group of independent contractors (ages 65+) was most likely to be first-line supervisors and managers in retail in 2005, followed by real estate brokers and sales agents. In 2017, these independent contractors were most apt to be real estate brokers and sales agents, followed by management analysts.

On-call workers ages 55–64 were overwhelmingly elementary and secondary school teachers in both 2005 and 2017 (this category represents both their industry and occupation). These were mainly substitute teachers. The second-highest group of on-call workers in this age group in 2005 worked in hospitals, many of which have internal pools of nurse aides and nurses, followed by justice, public order, and safety activities. In 2017, the second-highest representation of on-call workers ages 55–64 was in construction. For on-call workers ages 65+, the second most common industry in 2005 was hospitals, whereas in 2017 it was in home health care services. The second most common occupation for on-call workers ages 55–64 in both 2005 and 2017 was delivery truck drivers and driver/sales workers, and truck drivers. For on-call workers ages 65+, the most common occupation in 2005 was registered nurse, while in 2017 it was taxi drivers and chauffeurs.

The most likely industry to employ contingent workers ages 55–64, as well as those ages 65+, was elementary and secondary schools in both 2005 and 2017. The next most common industry for contingent workers ages 55–64 in 2005 was employment services and in 2017 was construction. For workers ages 65+, the second most common industry was in construction in 2005 and in colleges, universities, and professional schools in 2017. Contingent workers ages 55–64 were most likely to be elementary and middle school teachers in both 2005 and 2017, followed by postsecondary teachers in 2005, and by

Table 8

Usual weekly earnings of full-time workers, by wage percentile, 2005 and 2017 (2017 dollars)

	2005			2017		
	10th	50th (median)	90th	10th	50th (median)	90th
All full-time workers (ages 16+)						
<i>Workers in traditional Arrangements</i>	\$290	\$755	\$2,275	\$400	\$865	\$2,111
<i>Independent contractors</i>	\$290	\$881	\$2,517	\$320	\$846	\$2,500
<i>Contingent workers</i>	\$264	\$604	\$1,560	\$350	\$680	\$1,788
Full-time workers ages 55–64						
<i>Workers in traditional arrangements</i>	\$252	\$847	\$2,517	\$438	\$923	\$2,308
<i>Independent contractors</i>	\$169	\$886	\$2,904	\$308	\$920	\$2,885
<i>Contingent workers</i>	\$123	\$604	\$2,391	\$387	\$800	\$1,923
Full-time workers ages 65+						
<i>Workers in traditional arrangements</i>	\$352	\$805	\$2,064	\$385	\$923	\$2,115
<i>Independent contractors</i>	\$87	\$895	\$2,420	\$250	\$960	\$2,750
<i>Contingent workers</i>	\$151	\$861	\$1,762	\$300	\$600	\$2,019

Note: Full-time is 35+ hours per week.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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laborers and freight, stock, and material handlers in 2017. The most common occupation for contingent workers ages 65+ in 2005 was personal care aides, followed by secretaries and administrative assistants. In 2017, the most common occupation for contingent workers ages 65+ was elementary and middle school teachers, followed by personal care aides and secretaries and administrative assistants.

Earnings

Table 8 presents the median weekly earnings (and earnings at the 10th and 90th percentiles) in 2005 and 2017 (in 2017 dollars) for three categories of workers—full-time workers in standard employment relations, independent contractors, and contingent workers—among all full-time workers and among the older workers—ages 55–64 and 65+—in these categories.¹² Among all full-time workers, independent contractors had the highest median weekly earnings in 2005, although those in traditional work arrangements had the highest median weekly earnings in 2017. This was also the case for workers ages 55–64. For workers ages 65+, however, independent contractors had the highest median weekly earnings in both 2005 and 2017. Contingent workers had the lowest median weekly earnings in all cases, except for those ages 65+ in 2005, while those in traditional work arrangements had the lowest earnings. These statistics for earnings indicate the economic advantages for the oldest workers of being independent contractors.

Table 9

Job-related benefits by work arrangements, 2005 and 2017

Share of workers with each benefit, by age group and work arrangement

	Standard work arrangements		Nonstandard work arrangements				Contingent workers	
			Independent contractors		On-call workers			
	2005	2017	2005	2017	2005	2017	2005	2017
Health insurance								
All (ages 16+)	80.0%	84.0%	69.4%	75.4%	66.9%	77.0%	59.1%	73.4%
Ages 55–64	87.1%	89.2%	77.0%	81.3%	75.6%	84.1%	71.0%	79.8%
Ages 65+	87.4%	90.4%	88.4%	90.4%	96.1%	85.3%	87.4%	85.2%
Retirement plan								
All (ages 16+)	47.7%	46.3%	1.9%	2.3%	27.8%	30.1%	12.4%	18.4%
Ages 55–64	56.4%	53.4%	2.1%	1.3%	33.6%	38.2%	22.8%	34.8%
Ages 65+	28.5%	35.4%	3.3%	2.4%	32.6%	24.6%	17.8%	24.0%
Unionization rate								
All (ages 16+)	10.7%	12.1%	2.7%	3.2%	16.4%	12.2%	9.6%	9.2%
Ages 55–64	16.2%	14.1%	2.3%	2.3%	18.8%	24.9%	12.0%	13.5%
Ages 65+	7.3%	10.6%	3.0%	2.1%	16.4%	9.2%	10.3%	5.5%

Notes: Health insurance refers to insurance from any source. Retirement plan refers to participation in an employer-sponsored plan.

Source: CEPR analysis of Contingent Worker Supplement to Current Population Survey microdata from the U.S. Census Bureau

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Benefits

Table 9 looks at differences in job-related benefits (health insurance and pension benefits) for all workers, those ages 55–64 and 65+, for persons in standard work arrangements, independent contractors, on-call workers, and contingent workers. A higher percentage of workers had health insurance in 2017 than in 2005 (likely as a result of the Affordable Care Act). Workers overall and those ages 55–64 in standard work arrangements were more apt to have health insurance in each year than independent contractors, on-call workers, and contingent workers. However, among workers ages 65+, independent contractors and on-call workers were more apt than standard workers to have health insurance in 2005; in 2017, independent contractors in this age group were just as likely as standard workers to have health insurance, and both were more likely to have this than on-call or contingent workers.

Table 9 also provides information on whether workers overall and in the two oldest age groups (and in the various types of work arrangements) participated in employer-related pension plans. Not surprisingly, workers in standard employment relations were much more likely than workers in the other groups to have employer-provided pension plans, and independent contractors (who are not employees) were by far the least. Workers ages 65+ were more likely to participate in employer-provided pension plans in 2017 relative to

2005. On-call workers (most of whom were elementary/middle school teachers, drivers, laborers, and registered nurses) had the second-highest percentages of workers with employer-provided pension benefits; these increased for workers overall and for those ages 55–64 but declined among workers ages 65+. Workers ages 65+ were less likely than those ages 55–64 to participate in pension plans, which may reflect their having retired from their main jobs and continuing to work (this group also had the lowest rate of working part time for economic reasons, especially in 2017).

Finally, Table 9 includes information on union membership for workers overall and in the two oldest age groups (and in the various types of work arrangements). Unionization is also a dimension of job quality in the sense that union members have better protections and a greater voice in their working lives. The percentage of union members increased somewhat among standard employees from 2005 to 2017 for workers overall and for the oldest group, but declined for workers ages 55–64; in both years, workers ages 65+ had the lowest rates of unionization. On-call workers generally had the highest union rates, which is reasonable given the occupational composition of this group, which includes a large number of elementary school teachers and registered nurses, occupations that are more highly unionized than most, and in which workers are likely to work in the public sector.

Policy implications

A steady drumbeat of pronouncements by prognosticators—pundits, policymakers, and economists—have raised the specter of a future of workers not tethered to a business and lacking the protections of employment laws written for a bygone era when most workers had an employer. Numerous conferences in the past few years have been devoted to “The Future of Work,” a future in which traditional jobs would largely disappear. There has been much discussion and often concern that most of us will become independent contractors and an increasing share of independent contractors would be gig economy workers. This narrative has developed in a largely fact-free environment in which a lack of solid data has led to conclusions based on anecdotes.

The release by the Bureau of Labor Statistics (BLS) of the 2017 Contingent Worker Supplement provided the first consistent and reliable look at nontraditional work since 2005. BLS found that in May 2017, 89.9 percent of the workforce was employed in a standard work arrangement in their main job, compared with 89.1 percent in 2005. Most workers’ main jobs were characterized by standard employment relations—and this proportion has been relatively stable since 1995. Just 10.0 percent of workers in 2017 were employed in an alternative work arrangement for their main job. Independent contractors, at 6.9 percent of employment, were the largest category, followed by on-call workers at 1.7 percent. Just 1.0 percent of workers were gig economy workers whose tasks were electronically mediated in 2017. This includes workers for whom this is a main job, a second job, or something they do to make extra money. A separate report from the JP Morgan Chase Institute (JPMCI), using an entirely different type of data and methodology, also found that gig economy workers made up just 1.0 percent of employment in May 2017.

The JPMCI found that employment in the gig economy was negligible in 2013, so the rise to 1.0 percent, starting from such a low base, represents a very fast rate of growth and that may be what misled observers. But that report also found that most workers engaged in electronically mediated work do it for three months or less and usually as a second job.

Workers do face an array of problems that have worsened since 1995, including less job and economic security, fewer opportunities for upward mobility, and the possibility that they and their job will be outsourced to a company that pays low wages and provides few benefits. There is certainly much room for improvements in employment law that will enhance outcomes for the vast majority of workers who currently, and for the foreseeable future, will be employed in (much diminished) standard employer–employee relationships.

Remaking labor law, as has been proposed, to accommodate work relationships in the online gig economy, however, seems both unnecessary and unwise. Harris and Krueger (2015) propose modernizing labor laws for the twenty-first century by introducing a new legal category of worker, the “independent worker.” They propose Lyft and Uber drivers as archetypal examples of independent workers. They are particularly interested in the “online gig economy,” because this sector is growing rapidly” (Harris and Krueger 2015, 10), although their ballpark estimate for the number was also 1 percent (Harris and Krueger 2015, 12).¹³ But JPMCI, whose data tracks payments to the bank accounts of gig economy workers by the platform intermediaries that employ them, concludes that for most workers, gig jobs are mostly sporadic and represent second jobs done by a worker in a household in which the worker or another family member has a standard employment relationship.

Rejecting the Harris and Krueger approach does not mean that independent contractors, including gig workers, do not need policies that address the loss of legal employment protections these workers face. The relatively high representation of older workers as independent contractors raises important questions for work-related policies and labor laws. Existing labor laws and social protections are often linked to people who work for an employer, often on a full-time and relatively continuous basis. Labor and other laws provide fewer protections for independent contractors, and the fact that so many older people are classified as independent contractors means that policies must address their concerns for social protections as they contemplate retirement.

One fruitful approach is to address the deliberate or inadvertent misclassification of many workers as independent contractors who should rightfully be viewed as employees. One of the challenges is that the definition of “employee” varies in different federal laws—the Fair Labor Standards Act, the Internal Revenue code, and ERISA (which governs retirement accounts). California addressed this by adopting the “ABC” test and putting the burden on the entity that wishes to classify a worker as an independent contractor. A worker can be classified as an independent contractor only if the hiring entity establishes all of the following (Marks 2018):

- A. that the worker is free from the control and direction of the hirer in connection to the work, both under the contract for the performance of such work and in fact;
- B. that the worker performs work that is outside the usual course of the hiring entity’s business; and

- C. that the worker is customarily engaged in an independently established trade, occupation, or business of the same nature as the work performed for the hiring entity.

Anyone who meets the ABC test will meet the criteria in all of the existing laws where the distinction between an employee and an independent contractor is relevant.

The ABC test was upheld by the California Supreme Court in a landmark unanimous ruling (Eaton 2018). The case involved a same-day delivery service that had converted drivers from employees to independent contractors in order to save money. The court's decision means that not meeting all three parts of the test will preclude the hiring entity from treating a worker as an independent contractor. Companies like Lyft and Uber may not be able to meet the criteria in parts B and C.

Nevertheless, we have shown in this report that working as independent contractors may actually benefit older workers. Workers ages 65+ who were independent contractors had the highest weekly earnings of any work arrangement in both 2005 and 2017 and were among the highest group receiving health insurance. In the case of older workers in particular, the issue might not be what they are classified as (independent contractors or standard workers), but whether they have the social and economic protections to live a comfortable and productive life. Here, the focus would not be so much on the nature of the work arrangement but on the protections associated with it. This points to the importance of expanding the Affordable Care Act to cover workers not covered by employer or current Medicare and Medicaid policies and providing state-sponsored IRAs for workers who do not have other access to retirement savings (something that several states have done).

Workers in all industrial countries have experienced a deterioration of the standard employment relationship in the past several decades, driven by globalization, technological changes, and pressures to reconfigure welfare states to cope with decreased economic growth. In some countries (such as Japan or Spain), there has been a marked growth in nonstandard work arrangements due to employer and government responses that have sought to protect standard workers at the expense of an increasingly insecure group of nonstandard workers. In other countries (such as the United States), weak employment protections for all workers made it less imperative to create a large group of nonstandard workers. The challenge for the United States is to provide protections for all workers that are not tied to whether they work in a standard or nonstandard work arrangement.

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Endnotes

1. We refer to nonstandard employment relations (which involve an employer and employee) and independent contracting collectively as nonstandard work arrangements in this report. These work arrangements have also been referred to as alternative work arrangements (Polivka 1996); market-mediated arrangements (Abraham 1990); flexible staffing arrangements (Houseman 1997); atypical employment (Córdova 1986); and contingent work (Polivka and Nardone 1989; Barker and Christensen 1998). Nonstandard work arrangements depart from standard work arrangements in which it was generally expected that work would continue indefinitely and would be performed at the employer's place of business under the employer's direction. Standard work arrangements were the norm in the United States and many industrial nations for much of the twentieth century and were the basis of the framework within which labor law, collective bargaining, and social security systems developed. Macro and mezzo structural forces such as globalization, technological change, financialization, deregulation, union decline, and neoliberal political-economic policies emerging in the United States in the 1970s and 1980s led to a shift in employment norms from standard to nonstandard work arrangements (e.g., Kalleberg 2000; 2011). Since then, there has been a rise in both nonstandard work arrangements and concerns about their impacts on individuals, families, organizations, and the broader society.
2. BLS does not include day laborers in this total. Total employment in nonstandard work arrangements, including day laborers, was 10.9 percent in 2005.
3. The trends in these nonstandard work arrangements thus appear to be relatively flat, except perhaps for independent contractors. This conclusion is somewhat misleading, however, as the main increases in temporary help agency employment and the other forms of nonstandard work

are likely to have occurred before 1995. We should also keep in mind that the CWS links to the CPS and is a household survey of workers and thus almost certainly undercounts nonstandard work because it does not count a worker's second or third job (Mishel, Bernstein, and Allegretto 2007, 239).

4. In 2015, Katz and Krueger (2016) tried to replicate the study of alternative work arrangements in the CWS by conducting a survey in the summer of 2015 using the RAND Institute's American Life Panel (ALP); the core of their questionnaire was based on the BLS's CWS. They made their survey as comparable as possible, asking about alternative work arrangements for each individual's main job. While they did not follow some of BLS's protocols (e.g., not asking temporary help workers if they were also freelancers), they did impose the BLS's classification scheme in their analysis. They used a variety of weighting procedures in an attempt to align their sample to the CPS according to key demographic characteristics and to account for the over-representation of self-employed workers in the ALP survey. Their ALP survey was conducted in October and November, compared with the CPS, which was conducted in February; they conclude that seasonality was unlikely to distort their comparisons. They show that the two samples are broadly similar in terms of their representation of the United States labor force (as represented by the October CPS), although the samples differ in some important respects. Respondents in the APL sample were about 8 percent more likely to hold more than one job and reported considerably higher earnings than the CPS respondents. Despite their efforts at achieving comparability with earlier BLS surveys of contingent workers, Katz and Krueger's (2016) study only approximately replicated the CWS. Importantly, their survey was conducted online, reaching a population narrower than the overall workforce and more likely to have some employment as an independent contractor.
5. To distinguish independent contractors from business operators such as a restaurant owner, the supplement includes a question for workers who identified as self-employed (incorporated and unincorporated) in the basic CPS that asks, "Are you self-employed as an independent contractor, independent consultant, freelance worker, or something else (such as a shop or restaurant owner)?" Those identified as wage and salary workers in the basic CPS are asked, "Last week, were you working as an independent contractor, an independent consultant, or a freelance worker? That is, someone who obtains customers on their own to provide a product or service."
6. The U.S. Census Bureau receives an extract (called the Detailed Earnings Record, or DER) that can be used to produce an estimate of the *number of Schedule SE* recipients as well as those who file a *Schedule C*. The recipients of self-employment income file both Schedule SE and Schedule C.
7. See also research conducted by the U.S. Treasury (Jackson, Looney, and Ramnath 2017).
8. The JPMCI sample is composed of 39 million unique Chase checking accounts (JPMCI 2018a, 25). The sample over-represents families headed by a younger person, headed by a man, or located in the West. It under-represents families headed by a younger person, headed by a woman, or located in the South.
9. The questions on electronically mediated work in the CWS yielded a large number of "false positives." Some respondents answered "yes" to the questions if any of their job duties resembled the examples—"yes, I drive my car to work" or "yes, I sometimes use a computer at work." Some also answered "yes" if they used websites or mobile apps in their work.
10. BLS determines whether a job is contingent based on three definitions. We present information on the broadest definition, which includes wage and salary workers who have been in their jobs for a year or more and expect to continue for a year or more, but not the self-employed or independent contractors who have been in their jobs for more than a year or expect to continue for more than a year.

11. We also report in Table 7 the probabilities of workers in each of the other demographic categories being in the various work arrangements. For example, the column for independent contractors shows that white workers are more apt to be independent contractors than black, Hispanic, or Asian workers, while the column on contingent workers finds the reverse—black, Hispanic, or Asian workers are more likely than white workers to be contingent workers.
12. We do not calculate weekly earnings for on-call workers due to a small sample size.
13. For starters, these workers would not be paid for waiting time between gigs and would not be eligible for hour-based benefits such as overtime pay or the minimum wage. They would be allowed to organize, have access to nondiscrimination protections, and tax withholding by platform intermediaries who could also voluntarily pool their independent workers to provide health insurance. Many gig economy workers appear to be doing gig work for the money to supplement their earnings on their main job. Recent events in New York City, where Uber and Lyft drivers recently won the right to the minimum wage, suggests that gig workers would value this employment protection.

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