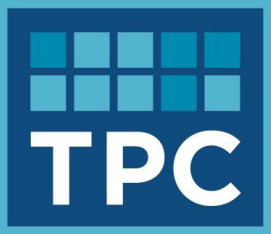

TAX POLICY CENTER
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SELF-EMPLOYMENT PATTERNS FOR MEN AND WOMEN AND IMPLICATIONS FOR TAX COMPLIANCE

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ABSTRACT

The rise of the "gig economy" has increased interest in the self-employment sector and highlighted the benefits and costs of these types of jobs. One understudied issue is that self-employment (which overlaps substantially with the gig economy) concerns a part of the tax code that is difficult for workers to comply with and for the IRS to administer. Using the 1997 cohort of the National Longitudinal Survey of Youth, we analyze the prevalence of self-employment and patterns of hours and earnings in 2014 for workers ages 30 to 34. These data are better than other survey data for tracking self-employment because workers may report information on multiple jobs at any given time and throughout the year; most surveys collect information only about a particular point in time or only about a worker's primary job. We focus on three research questions: (1) What characteristics are associated with being self-employed; (2) What are the patterns of self-employment for a worker within a year (e.g., those working regular employment and self-employment concurrently versus those moving from regular to self-employment) and across years; and (3) What is the variability in earnings and hours for workers, comparing those who only work in regular jobs, those whose who only work in self-employment, and those who combine self-employment and regular employment within a year? We find that men are a little more likely to be self-employed than women, and married women are more likely to be self-employed than nonmarried women. However, regular wage employment is by far the most common type of employment for both men and women. Among workers with both self-employment and regular employment within the year, we find that this happens most often when people are holding multiple jobs at the same time rather than changing jobs from one sector to the other. We also found different patterns in the variability and levels of hours and earnings across different employment types and for men and women. The complexity in the patterns of earnings shown in the data for those who have self-employment, as well as the fact that self-employment earnings are more difficult to document and verify, demonstrates the tax compliance issues inherent in self-employment.

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INTRODUCTION

The rise of the gig economy (Abraham et al. 2019) has increased interest in the self-employment sector and highlighted the benefits and drawbacks of these types of jobs. One understudied issue is that self-employment (which overlaps substantially with the gig economy) concerns a part of the tax code that is difficult for workers to comply with and for the Internal Revenue Service (IRS) to administer. In a traditional employee-employer relationship, both employers and employees hold responsibility for collecting and remitting taxes to the IRS. Typically, the employer collects information from the employee about marital status and number of dependents and then withholds taxes on behalf of the employee based on the information provided. The employer then remits those taxes to the IRS on a regular basis. At the end of the year, employees receive a summary of information, including earnings and taxes withheld, that helps them complete a tax return. The typical employee-employer relationship eases tax administration for both the IRS and the employee. The IRS benefits from receiving information about an employee's earnings and from having taxes on those earnings remitted in regular intervals, which both also aid considerably in tax compliance (IRS 2016; Joint Committee on Taxation 2015). The employee benefits by not having to track this information separately and not having to manage making regular tax payments. If a person is self-employed, it is his or her responsibility to track earnings information and submit the appropriate taxes to the IRS, and the IRS often has very limited information to confirm the accuracy of the submitted taxes. This has led to considerable underreporting of this income and relatively high noncompliance. One estimate suggests that the amount of misreporting of income reported by a third-party and accompanied by withholding of tax (i.e., the traditional employer-employee system) is 1 percent, but over 60 percent of income subject to little or no information oversight is misreported (IRS 2016).

The relatively recent expansion of self-employment facilitated by platforms such as TaskRabbit, Uber, and Lyft has created opportunities and challenges for both workers and tax administrators. For workers, these platforms offer an opportunity to connect with jobs ("gigs") that can prove to be an important source of income (Farrell and Greig 2016). But those gigs often lack employee benefits, labor protections, and tax benefits that operate through the employee-employer relationship (Jackson, Looney, and Ramnath 2017). For tax administrators, the rise of gig work presents an additional challenge in the self-employment sector, where the IRS already struggles with high underreporting of income (Taxpayer Inspector General for Tax Administration 2019). Platforms and apps could provide an opportunity to facilitate improved tax compliance in this sector if the IRS could require them to report information to both the worker and the IRS as regular employers do.

Data from the Current Population Survey (CPS) show that about 9.4 million people (6.4 percent of US workers) reported being self-employed for their primary job in 2015 (rather than being wage and salary workers or unpaid family workers) and would be required to file self-employment tax forms.[1] In contrast, the IRS reports that about 17 million people filed a self-employment tax form and reported a profit (Jackson, Looney, and Ramnath 2017). Neither number likely fully captures how many people have self-employment income that ought to be reported on tax forms.

A better understanding of the determinants and consequences of self-employment can help shed light on the gig economy, which has been growing (Abraham et al. 2019; Katz and Krueger 2019). Knowing more about these will help us understand which groups self-employment may be particularly relevant for, and this in turn could provide guidance to the IRS on the types of people most likely to need assistance in complying with tax laws (e.g., filling out tax forms correctly, keeping appropriate records, and understanding the law).

In this report we analyze a cohort of workers in their thirties using data from the National Longitudinal Survey of Youth 1997 (NLSY97). We focus on three topics, and we assess this information in the context of tax administration, noting important issues that arise with this sector of the economy. First, we examine the characteristics associated with being self-employed to determine who participates in this type of job. Second, we estimate patterns of self-employment within a year (e.g., people with concurrent regular and self-employment compared with those moving from regular to self-employment) and across years. This is important for tax compliance and administration purposes, because if workers consistently have self-employment earnings, tax administrators may be able to better assess who they are over time. Similarly, because workers are required to complete the same tax forms each year, they may be able to use knowledge gained in one tax filing season to ease tax compliance burdens in a subsequent season. Finally, we examine how self-employment affects the level and variability of hours and earnings. Measuring hours and wage variability can help tax administrators better understand the difficulties in accurately reporting self-employment income.

LITERATURE AND BACKGROUND

The literature on self-employment has addressed several topics, including changes in self-employment rates over time (Hipple 2010; Katz and Krueger 2019; Neumark, Wall, and Zhang 2011); the composition of self-employed workers by gender, occupation, and industry (Budig 2006; Cristnacht, Smith, and Chenevert 2018; Lim, forthcoming); and how the introduction of the gig economy has contributed to changes in self-employment rates (Abraham et al. 2018, 2019; Katz and Krueger 2019). The literature also looks at the benefits and drawbacks of self-employment, including overall contributions to job growth and the loss of worker protections and benefits for self-employed people, especially those in low-wage jobs (Jackson, Looney, and Ramnath 2017). Several papers focus on how to measure self-employment and the strengths and limitations of different datasets (such as employee data, establishment data, and administrative or tax data) for measuring different aspects of self-employment (Abraham et al. 2018; Christnacht, Smith, and Chenevert 2018; Jackson, Looney, and Ramnath 2017). Fewer studies address the tax compliance issues of these new opportunities for self-employment (Jackson, Looney, and Ramnath 2017; Thomas 2018).

Despite some evidence of recent growth in the gig economy (Abraham et al. 2019; Jackson, Looney, and Ramnath 2017; Katz and Krueger 2019), self-employment rates as measured by the Bureau of Labor Statistics (BLS) have been declining over time.[2] One of the primary reasons for this decline is the fall in agricultural employment, which has high rates of self-employment. Further, the likelihood that an agricultural worker is self-employed has been declining as small farms are replaced by larger corporate farms.[3] The second reason for the decrease in self-employment rates observed in surveys over time is that small businesses are more likely to incorporate to take advantage of limited liability and tax preferences.[4] When a self-employed person incorporates as an S corporation, the business owner pays himself or herself as a regular employee (reporting information on Form W-2) and does not file the special schedule SE that applies for reporting self-employment earnings. In other cases, a person will incorporate as a limited liability company and he or she will likely be compensated with self-employment income. Most studies of self-employment exclude the owners of incorporated businesses in their measure of self-employment, but some studies track that information separately (Hipple 2010).[5]

Some debate persists about whether or how much gig economy jobs have increased over time. The 2017 Contingent Worker Survey performed by the BLS as a supplement to the CPS found a slight decrease in the share of workers who were independent contractors (Katz and Krueger 2019).[6] However, estimates of self-employment using tax data indicate an increase in self-employment over time (Abraham et al. 2018; Jackson, Looney, and Ramnath 2017; Katz and Krueger 2019). The discrepancy in self-employment reported in these sources is because the BLS employment data measure self-employment from a worker's primary job at one point in the year. However, workers can hold several jobs at the same time and can change jobs over time. Thus, the tax data sources are more likely to capture the self-employment from a secondary job or from a change in jobs over time (assuming workers file the appropriate form). In this report, we use survey data on

individuals, but the data explicitly capture the dynamics of employment over the year, so the results are more similar to what is found in administrative tax data. Workers, for example, may report several jobs at any point and may report several jobs over the course of the year.

Another strand of literature looks at differences in self-employment by gender. In general, studies find that men are more likely to be self-employed than are women (Christnacht, Smith, and Chenevert 2018; Pew Research Center 2015). However, studies also find that an important motivation for women to become self-employed is to take advantage of the inherent flexibility in self-employment to help manage work and family roles (Budig 2006; Christnacht, Smith, and Chenevert 2018; Lim, forthcoming).

The literature focused on tax compliance in the gig economy suggests the system can be overly burdensome for gig workers, who are treated essentially the same as an established small business, and this may reduce tax compliance (Thomas 2018). More broadly, people who are self-employed face greater complexity in the tax system than employees face, and this may discourage people from forming businesses or may discourage people from taking all the deductions they may qualify for because of added compliance burdens or an increased risk of audit (Fichtner, Gale, and Trinca 2019). Moreover, tax programs such as the Volunteer Income Tax Assistance program and Low-Income Taxpayer Clinics set up by the IRS to assist low- and middle-income filers are frequently unable to help people complete certain forms associated with self-employment. This may limit the options available for some filers to get free tax assistance, potentially increasing the costs associated with filing they pay (IRS 2017).

DATA DESCRIPTION

We use data from the NLSY97. Respondents were born in 1980–84 and are the oldest millennials. They were surveyed annually from 1997 to 2011 and biannually after that. We analyze employment outcomes, earnings, and income in 2014 (reported in the 2015 survey), when respondents were 30 to 34 years old.

These data include information about the demographic characteristics of respondents, including age, gender, race or ethnicity, education, marital status, and the ages of any children in their households.[7] The economic data we use in the analysis include survey responses for earnings, hours of work, and type of employment (self-employment or regular employment).

The employment data in the NLSY97 cohort are particularly rich and can show changes in employers or jobs both within and across years. The survey collects an event history of all jobs held since the last interview, including the duration of employment, usual hours, rate of pay, and occupation and industry for each job. We also know for each job whether the respondent was working for an employer (regular employment) or was self-employed. Respondents are classified as self-employed if they identify themselves as independent contractors, independent consultants, or freelancers. Respondents are also classified as self-employed if they own at least 50 percent of the business they work in, are the chief executive officer or principal managing partner of the business, and report that they are supposed to file a form SE for federal income taxes.

To capture the heterogeneity and dynamics of self-employment, we define three categories for type of employment: (a) workers who only worked in regular employment during the year; (b) workers who were only self-employed during the year and (c) workers who were employed either simultaneously or sequentially in both regular and self-employment during the year (mixed employment).

The self-employment and mixed employment rates we calculate from the NLSY97 differ in several ways from what is reported by the BLS using data from the CPS. First, the BLS reports the share of workers who are self-employed using data from their primary job at the time of the survey. In contrast, we look at self-employment from all jobs held any time during the year. Thus, our calculation of self-employment and mixed-employment rates will be higher because some workers have more than one job at a given time, and the nonprimary job could be self-employment, which would not be included in the BLS statistics. Moreover, some workers change jobs during the year, and some of those other jobs could be self-employment, which would also not be included in the BLS statistics.

In the next section, we document the frequencies of each type of employment status, the individual characteristics associated with each type of employment status, and differences in the hours and earnings for each type of employment status. We will discuss these results in the context of employment and tax administration.

EMPIRICAL RESULTS

We begin by showing the frequency of different employment types for men and women ages 30 to 34 in 2014. Table 1 shows that shows that more than 85 percent of employed men and women are only in regular employment throughout the year. However, men are more likely to ever be self-employed during the year (mixed plus self-employment only) than women (14.3 percent for men compared with 12.2 percent for women). This gender difference is consistent with other literature (Christnacht, Smith, and Chenevert 2018; Hipple 2010)

TABLE 1

Type of Employment in 2014 by Sex

Type of employment	Men	Women
Regular employment only	85.7%	87.8%
Self-employment only	7.7%	5.6%
Mixed employment	6.6%	6.6%

Note: Authors' calculations from NLSY97 data.

Whether people hold regular and self-employment jobs separately or simultaneously may influence how they perceive their tax compliance obligations. Workers who hold regular and self-employment jobs separately may view them as equally relevant to tax compliance obligations. Holding the two types of employment simultaneously may contribute to a person overlooking the job that does not have automatically reported information when filing a tax return. Table 2 looks more closely at the mixed-employment category to identify whether workers were mainly holding more than one job at the same time or whether they changed jobs over the year. The table restricts the sample to those who reported mixed employment during the year (6.6 percent of respondents, as shown in table 1). We calculate the share of weeks during the year where workers (a) had two or more jobs at the same time, (b) were only self-employed, and (c) were only working as a regular employee (note that by definition, these workers also worked some self-employment weeks during the year). We find that most workers who have more than one job during the year are working those jobs simultaneously. The data show that most weeks for people with mixed employment in 2014 (52 percent for men and 58 percent for women) were weeks where the worker had more than one job, including self-employment. About a quarter of the weeks were spent only in regular employment, and less than 20 percent (19 percent for men and 13 percent for women) were spent only in self-employment.

TABLE 2

Type of Employment among Mixed-Employment Workers

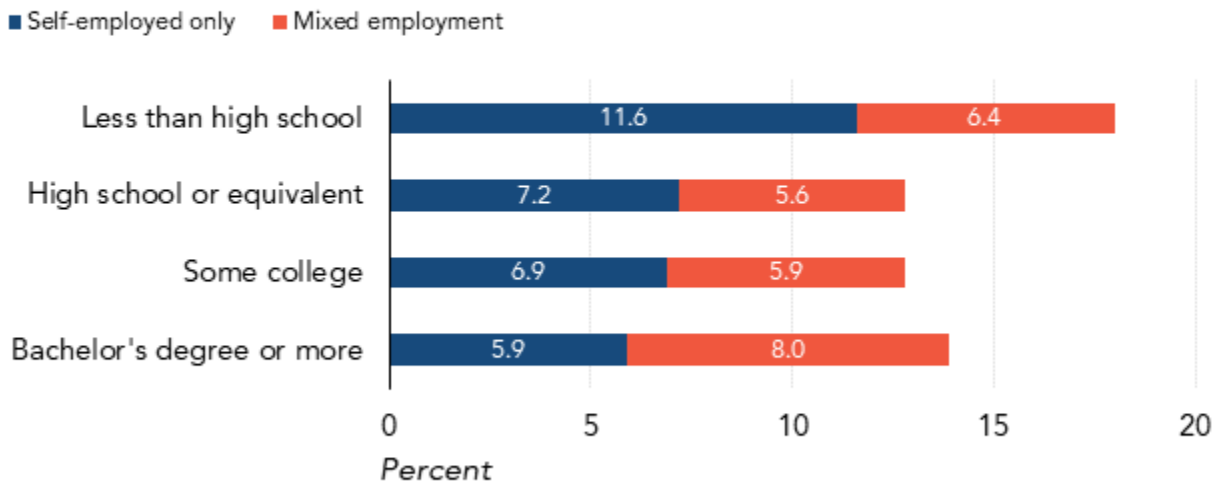
Share of weeks spent in different employment types in 2014	Male	Female
Only regular employment	26%	24%
Only self-employment	19%	13%
Only mixed employment	52%	58%
Only jobless	3%	5%

Note: Authors' calculations from NLSY97 data.

National data from the CPS show that self-employment is more likely for both male and female workers in specific occupations such as management, business and financial operations, and construction; it is also more likely in specific industries such as agriculture, construction, business and professional services, and other services (Hipple 2010). These represent jobs from both the high- and low-wage sectors. Similarly, in figure 1a, we find that the likelihood of having any self-employment is highest for men with less than a high-school education (18 percent) and for those with bachelor's degree or more (13.9 percent). For women, (figure 1b) the likelihood of having any self-employment is highest for those with only a high school education (13.6 percent) and is high for those with a bachelor's degree or more (11.6 percent). Taxpayers with relatively low education may have fewer resources to deal with the complexities of tax compliance associated with self-employment.

FIGURE 1a

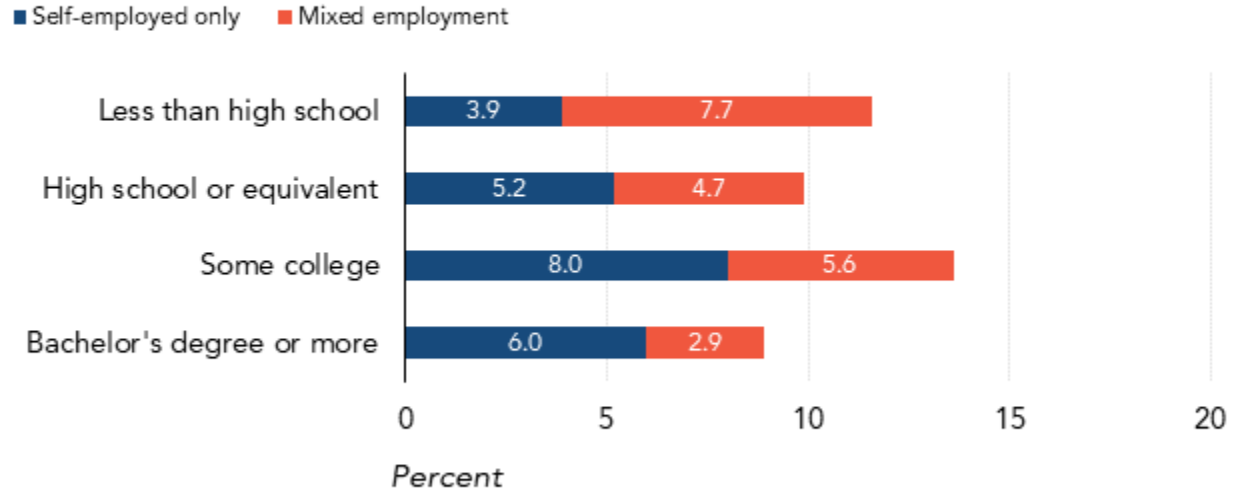
Share of Men in Mixed and Self-Employment in 2014, by Education



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 1b

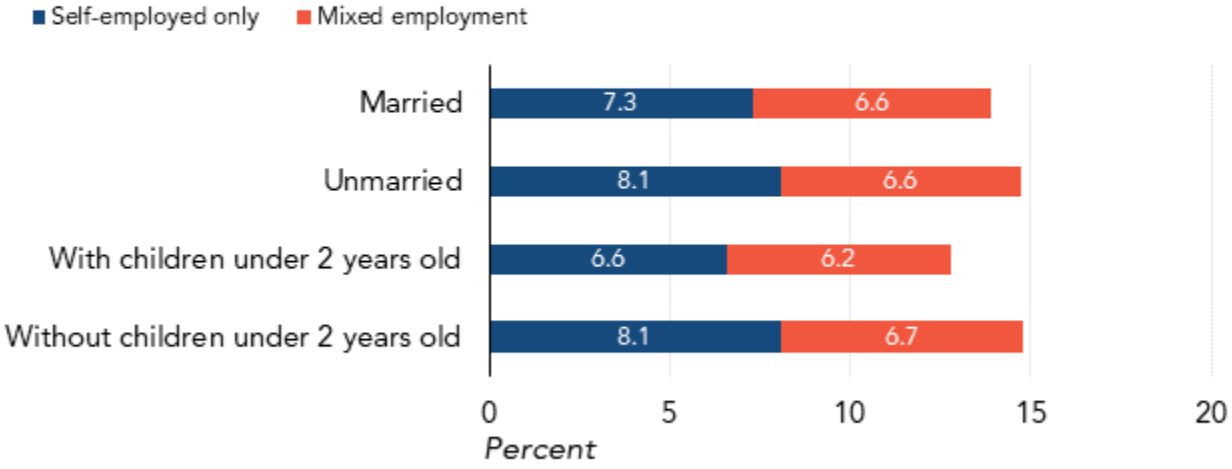
Share of Women in Mixed and Self-Employment in 2014, by Education



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 2a

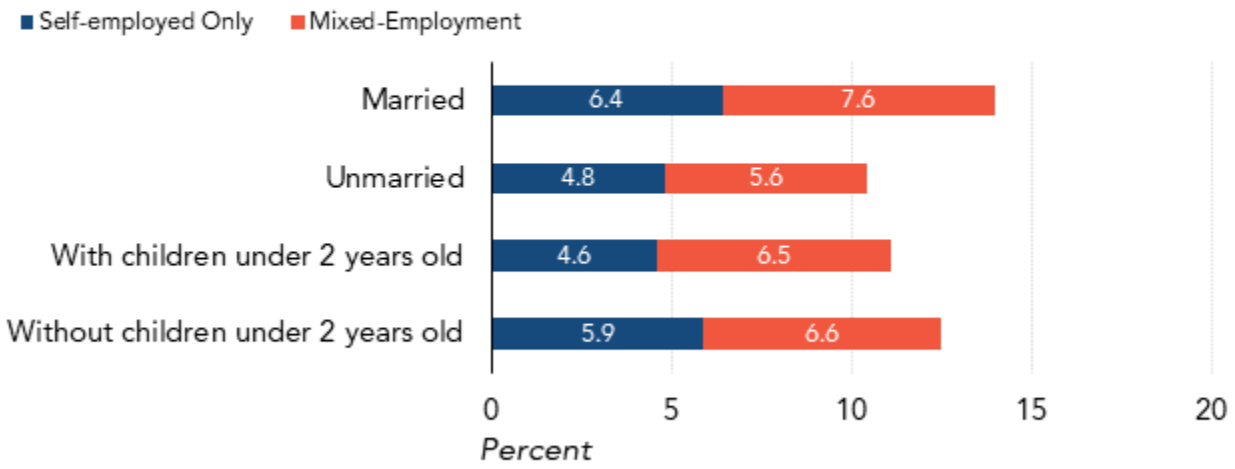
Share of Men in Mixed and Self-Employment in 2014, by Marital and Family Status



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 2b

Share of Women in Mixed and Self-Employment in 2014, by Marital and Family Status



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

Earlier, we discussed the literature that finds that family structure is an important factor in women becoming self-employed. We find that married women are much more likely than unmarried women to have any self-employment (14 and 10.4 percent, respectively). This could suggest that women are more willing to incur the greater risk of self-employment and potentially lower hours and earnings if the household has another earner. If gig work extends these opportunities by providing short-term, supplementary household income, the IRS may need to come up with new, less onerous ways to improve compliance and tax this income. Some proposals include allowing companies to create a system of nonemployee withholding and a standard deduction that applies to businesses (Thomas 2018).

For men, differences by marital status are smaller, but married men are slightly less likely to be self-employed than are unmarried men (13.9 and 14.7 percent, respectively). Because men are more likely to be the primary earner in married households (Pew Research Center 2017), married men might be less willing to incur the risk of self-employment. To shed more light on these possible explanations, we explore the gender differences in the outcomes of self-employment (i.e., variability and levels of earnings and hours) in a later section.

In contrast with some of the literature showing higher self-employment for women with young children (Lim, forthcoming), we find that having any self-employment for those ages 30 to 34 in the NLSY97 is lower for both women with young children (by 1.4 percentage points) and men with young children (by 3.7 percentage points) than for those who do not have young children.

MULTINOMIAL LOGIT REGRESSION RESULTS

As discussed, most of the literature focuses on self-employment at a point in time and ignores multiple jobs whether they are sequential or concurrent. Workers who are only self-employed may be doing so for very different reasons than people who are combining self-employment and regular employment (mixed employment status). We use a multinomial logit regression to analyze separately the factors associated with the likelihood of regular employment, mixed employment, and self-employment (tables 3a and 3b). We report average marginal effects.[8]

We estimate that Hispanic and more-educated men are less likely to be only self-employed. In fact, Hispanic men are 2.7 percentage points less likely to be self-employed than white non-Hispanic men (but they are no less likely to be in mixed employment). We find that men with a bachelor's degree or more education are 4.8 percentage points less likely to be self-employed than those without a high school education. We also estimate that men who were unemployed in 2013 are 4.6 percentage points less likely to be self-employed in 2014 and 7.2 percentage points more likely to be in regular employment. None of the family structure variables were significantly associated with a particular employment status for men. Further, none of variables significantly predicted the likelihood of mixed-employment for men.

The pattern of results is somewhat different for women. Hispanic women in 2014 are more likely to only have a regular job and less likely to have mixed employment than non-Hispanic white women. Black women are also significantly more likely to be in only regular employment. Like men, women with a bachelor's degree are less likely to be self-employed than women with less than a high school education. But in contrast to the results for men, we find that women with a bachelor's degree or more were more likely to have mixed employment.

Marriage is negatively associated with regular employment for women and positively associated with self-employment. Similar to the univariate results, the presence of young children continues to be negatively associated with both mixed employment and self-employment but is not significant for either.

TABLE 3a

Average Marginal Effects from Multinomial Logit Regressions of Men's Likelihood of Mixed Employment, Self-Employment, and Regular Employment

Outcome	Regular employment	Mixed employment	Only self-employed
Race or ethnicity (white, non-Hispanic omitted)			
Black	0.008	0.008	-0.016
	(0.019)	(0.013)	(0.014)
Hispanic	0.031	-0.003	-0.027*
	(0.019)	(0.014)	(0.015)
Other (non-Hispanic)	0.029	-0.006	-0.023
	(0.038)	(0.025)	(0.031)
Education (Less than high school omitted)			
High school or equivalent	0.046**	-0.009	-0.037**
	(0.022)	(0.017)	(0.016)
Some college	0.030	0.004	-0.034**
	(0.021)	(0.016)	(0.016)
Bachelor's degree or more	0.034	0.014	-0.048***
	(0.021)	(0.015)	(0.016)
Family structure (Unmarried without children omitted)			
Married	0.010	-0.004	-0.006
	(0.016)	(0.011)	(0.012)
Presence of children under age 2	0.010	-0.003	-0.007
	(0.019)	(0.013)	(0.015)
Unemployment			
Unemployed in 2013	0.072***	-0.026	-0.046**
	(0.024)	(0.016)	(0.019)
Observations	2,871	2,871	2,871

Source: Authors' calculations from NLSY97 data.
Notes: Census region dummies are included as controls. Sample is restricted to those who were employed in 2014. Coefficients across each row sum to zero because, on net, an increase in the likelihood of one employment type will reduce the likelihood of the sum of the other two employment types.
*/**/*** Coefficient differs significantly from zero at the 0.05/0.01/0.001 levels, respectively.

TABLE 3b

Average Marginal Effects from Multinomial Logit Regressions of Women's Likelihood of Mixed Employment, Self-Employment and Regular Employment

Outcome	Regular employment	Mixed employment	Only self-employed
Race or ethnicity (white, non-Hispanic omitted)			
Black	0.034*	-0.024	-0.010
	(0.019)	(0.015)	(0.013)
Hispanic	0.044**	-0.044**	-0.000
	(0.022)	(0.018)	(0.014)
Other (non-Hispanic)	0.062	-0.060	-0.002
	(0.042)	(0.037)	(0.024)
Education (Less than high school omitted)			
High school or equivalent	-0.036	0.031	0.005
	(0.030)	(0.026)	(0.017)
Some college	-0.005	0.026	-0.021
	(0.029)	(0.025)	(0.017)
Bachelor's degree or more	-0.014	0.048**	-0.034**
	(0.028)	(0.024)	(0.017)
Family structure (Unmarried without children omitted)			
Married	-0.034**	0.016	0.018*
	(0.015)	(0.012)	(0.010)
Presence of children under age 2	0.030	-0.017	-0.013
	(0.019)	(0.014)	(0.014)
Unemployment			
Unemployed in 2013	0.019	0.004	-0.023
	(0.023)	(0.018)	(0.017)
Observations	2,716	2,716	2,716

Source: Authors' calculations from NLSY97 data.
Notes: Census region dummies are included as controls. Sample is restricted to those who were employed in 2014. Coefficients across each row sum to zero because, on net, an increase in the likelihood of one employment type will reduce the likelihood of the sum of the other two employment types.
*/**/*** Coefficient differs significantly from zero at the 0.05/0.01/0.001 levels, respectively.

PERSISTENCE

We have discussed some evidence that employment status is dynamic: changes in jobs within a year lead some workers to have both regular employment and self-employment in the same year. In this section, we look at persistence in employment status across years.

Tables 4a and 4b show the share of people in a given employment status category who were in the same employment category in the previous year and the share who were in a different employment status category in the previous year. Looking at men, for example, we see that 98 percent of those workers who were in regular employment in 2014 were also in regular employment in 2013—a very high rate of persistence. However, only two-thirds of men who were in mixed employment in 2014 were also in that same category in 2013. This result makes sense, because some men who were in mixed employment changed jobs within the year, so this category is likely to be inherently less stable. For men with mixed employment in 2014 who switched employment categories, twice as many workers were likely to have been in only regular employment in the previous year than were workers with only self-employment (22 percent versus 11 percent).

Finally, we see that 85 percent of those who were only self-employed in 2014 were also only self-employed in 2013, so the self-employment-only category is less stable than the only-regular-employment category but more stable than the mixed-employment category. For workers in the self-employment category who were in a different category in the previous year, three times as many were likely to have been in mixed-employment than in regular employment (11.2 percent compared with 3.5 percent).

The results for women are very similar, although the category of self-employment is less stable for women than for men, with only 74 percent in the same category in the previous year compared with 85 percent for men.

TABLE 4a

Men's Employment Status in 2014 Compared with Employment Status in 2013

Employment status	Only regular employment in 2013	Mixed employment in 2013	Only self-employment in 2013	Total
Only regular employment in 2014	98.0%	21.7%	3.5%	85.6%
Mixed employment in 2014	1.6%	66.2%	11.2%	6.7%
Only self-employment in 2014	0.2%	11.4%	85.4%	7.5%
Jobless in 2014	0.2%	0.7%	0.0%	0.2%
Total	100%	100%	100%	100%

Source: Authors' calculations from NLSY97 data.

If people persist in self-employment once engaged, IRS enforcement efforts could be aided if data from any year were made available by one of the gig platforms they use. Reporting of income from various platforms has varied. If the IRS were able to get information about who is participating in a particular platform in one year, that information might be useful to the IRS as they develop education and outreach efforts that would help taxpayers comply with reporting and payment requirements in future years.

TABLE 4b

Women's Employment Status in 2014 Compared with Employment Status in 2013

Employment status	Only regular employment in 2013	Mixed employment in 2013	Only self-employment in 2013	Total
Only regular employment in 2014	98.2%	21.3%	5.1%	87.9%
Mixed employment in 2014	1.6%	68.4%	18.1%	7.0%
Only self-employment in 2014	0.1%	10.4%	74.5%	4.9%
Jobless in 2014	0.1%	0.0%	2.3%	0.2%
Total	100%	100%	100%	100%

Source: Authors' calculations from NLSY97 data.

HOURS AND EARNINGS

In this section, we look at how earnings, hours, and variability in these outcomes vary for men and women with different employment statuses (table 5). Understanding the consequences of these different employment strategies is important, but these outcomes may also shed some light on the motivations for choosing a particular work arrangement.

Hours are the highest for both men and women in mixed employment, with men working just over 50 hours a week on average and women working 43 hours a week. This is likely because, as we discussed, the majority of workers with mixed employment are working two jobs simultaneously. In contrast, men working in mixed employment have the lowest median earnings of the three employment categories ($796 a week compared with $865 a week for those who are only self-employed and $808 a week for those in regular employment). Women in mixed employment have median earnings that are lower than for those in regular employment but higher than for those who are only self-employed.

Hours and earnings are most similar for men and women who are working in regular employment. Men and women in regular employment both have higher median earnings than those working in the other two

employment categories ($864 and $692 for men and women, respectively). The average weekly hours were also similar, with men working 46 hours a week and women working 40 hours a week.

TABLE 5

Income, Employment, and Hours Outcomes, 2014

Employment status	Men	Women
Regular employment		
Median earnings ($)	865.4	692.3
Earnings coefficient of variation	51.6	57.5
Mean hours worked	46.4	39.9
Hours coefficient of variation	33.0	32.1
Share with less than 35 hours worked	8.4%	20. 2%
Share with more than 42 hours worked	51.2%	30.1%
Self-employment		
Median earnings ($)	807.7	461.5
Earnings coefficient of variation	58.9	88.3
Mean hours worked	42.8	27.9
Hours coefficient of variation	49.6	74.9
Share with less than 35 hours worked	25.1%	56.9%
Share with more than 42 hours worked	36.9%	16.6%
Mixed employment		
Median earnings ($)	796.2	673.1
Earnings coefficient of variation	53.7	61.9
Mean hours worked	50.7	42.9
Hours coefficient of variation	43.1	47.6
Share with less than 35 hours worked	14.8%	30.7%
Share with more than 42 hours worked	57.9%	44.0%

Source: Authors' calculations from NLSY97 data.
Note: Sample is restricted to those who were employed in 2014.

Hours and earnings are most different for men and women who are only self-employed. In contrast to the two other employment categories, men who are only self-employed work many more hours than women work (43 versus 28 hours, respectively), and women are much more likely to be classified as part time (less than 35 hours a week) than are men. More than 57 percent of women who are only self-employed work part time compared with 25 percent of men. For those in regular employment, 20.2 percent of women work part time compared with 8.4 percent of men.

Although women with young children are not more likely to be self-employed, this evidence of the high prevalence of part-time work for self-employed women is consistent with other literature that finds that women may be able to take advantage of the greater flexibility and control inherent in self-employment to help manage work and family responsibilities (Budig 2006; Lim, forthcoming). This is not as true for men, whose mean hours do not vary much across the three employment statuses (varying from 42.8 for those in only self-employment to 50.7 for those in mixed employment). However, some evidence suggests that a subset of men may also use self-employment as a way to reduce hours. About 25 percent of self-employed men work part time (less than 35 hours a week) compared with only 8 and 15 percent of regular employees and mixed-employment workers).

Variability in hours and earnings is also an important difference across the three employment categories. The coefficient of variation shows how much hours and earnings vary across individuals (table 5). For both men and women, hours and earnings are the least variable (most similar) for those working only in regular employment and most variable for those in self-employment only, with mixed employment being in the middle. Figures 3 and 4 show similar results.

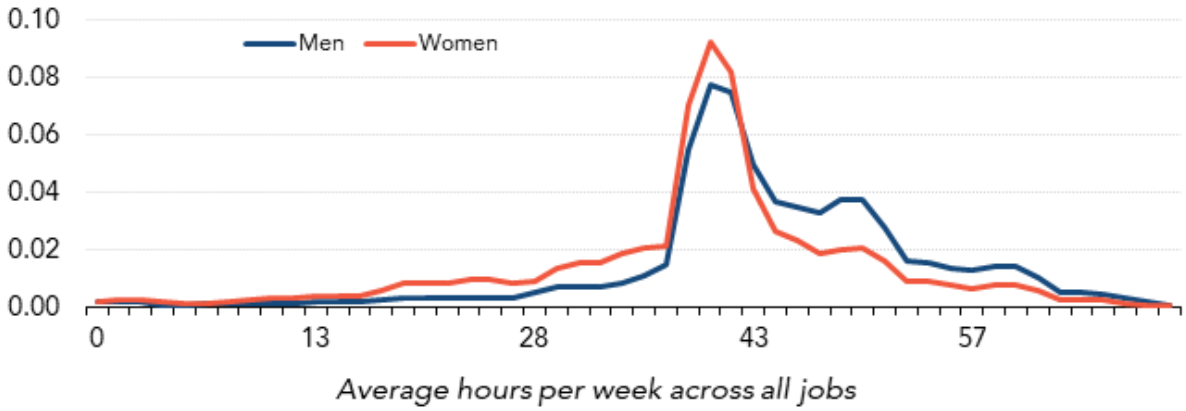
These results are consistent with the idea that employers generally bear more of the risk from instability in the market for those in regular employment, and workers generally bear more of the risk when they are self-employed. Those in mixed employment are a more heterogeneous group. As we discussed, most people in mixed employment are working two or more jobs at the same time, and this could help stabilize income if it allows a worker to increase self-employment hours or earnings in response to any instability from regular employment. Alternatively, if regular employment is stable, then the self-employment could just be contributing to increased variability in hours and earnings. Similarly, for mixed-employment workers whose two or more jobs are sequential, the possibility of being self-employed in response to a job loss could reduce instability. But on the other hand, losing a job can increase instability in the first place.

In this analysis we have highlighted differences across men and women and across employment categories and the heterogeneity (i.e., differences within categories) of earnings and hours. Figures 3 and 4 show these differences visually. Figure 3a shows a very similar distribution of hours for men and women who work only in regular employment. Although there is a somewhat higher density of women working fewer hours and men working more hours, most by far are working about 40 hours (as seen by the dramatic spike). For both men and women, hours are more variable for those in mixed employment (figure 3b) than for those in regular employment. However, the distribution for men is shifted to the right (i.e., they work slightly more hours per

week) and has somewhat less variability than the women's distribution. Finally, figure 3c, showing those with only self-employment, depicts a distinct peak for men at about 40 hours. In contrast, the distribution for women is fairly flat before beginning to taper off at just under 40 hours.

FIGURE 3a

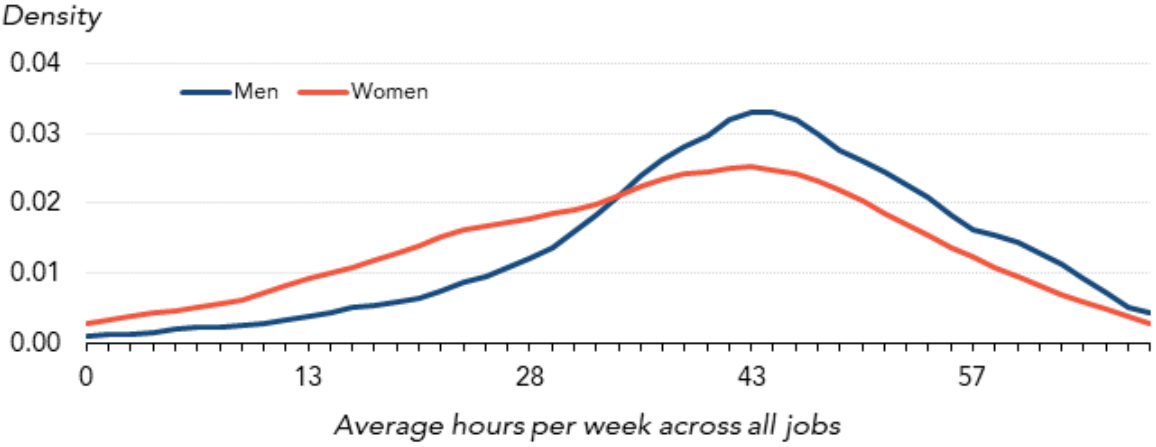
Variation in Hours for Men and Women in Regular Employment, 2014



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 3b

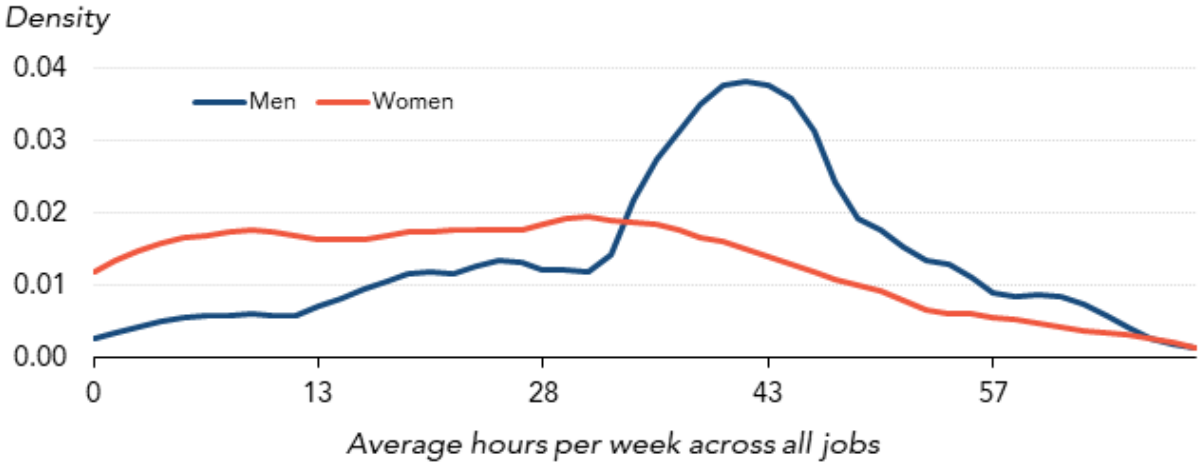
Variation in Hours for Men and Women in Mixed Employment, 2014



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 3c

Variation in Hours for Men and Women in Self-Employment, 2014



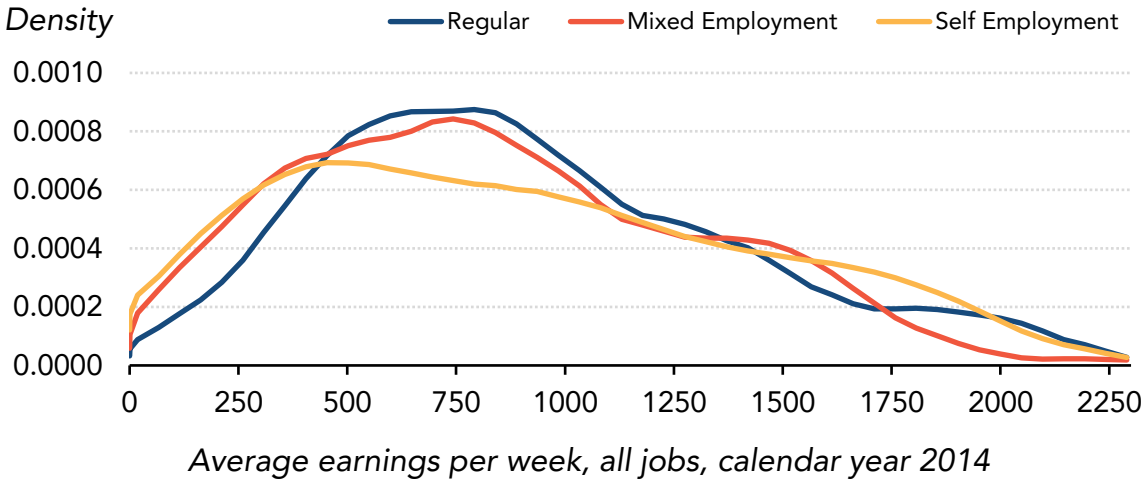
Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

Figure 4 shows the variation in earnings by employment type. We first see that for men, the distribution of earnings is similar for those in regular employment and mixed employment. The variability of earnings is a little greater for those in mixed employment, and the left tail of the distribution for those with mixed employment has a higher density of workers with lower earnings. The distribution of earnings for the self-employed-only group looks somewhat different than the other two groups, with a higher density of both high-earning and low-earning workers.

For women who are only self-employed, the density of earnings is shifted to the left (i.e., more workers have lower earnings) compared with the other two categories. Similar to men, women in mixed employment have a greater variability with more workers having lower earnings, but the distribution for those with higher earnings is very similar for those in regular and mixed employment.

FIGURE 4a

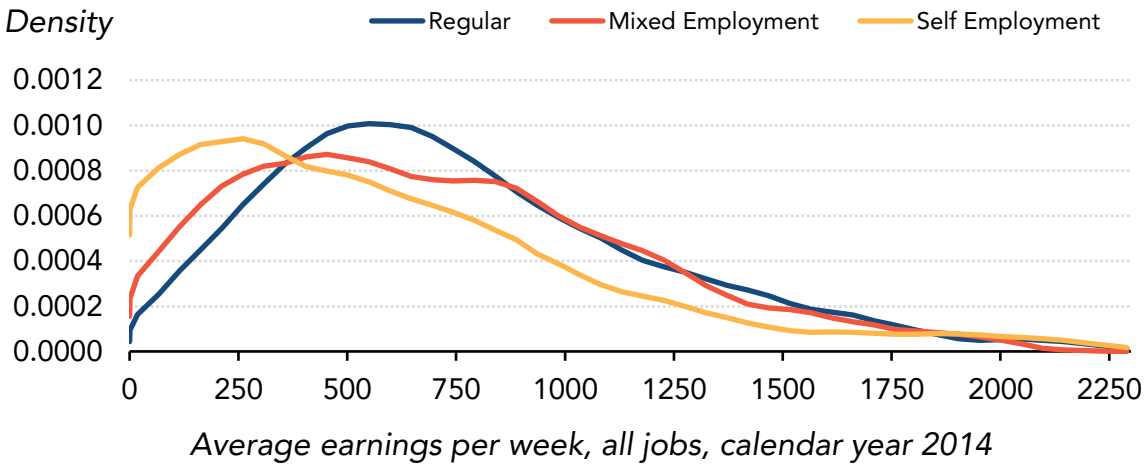
Variation in Men's Weekly Earnings by Employment Type



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

FIGURE 4b

Variation in Women's Weekly Earnings by Employment Type



Note: Authors' calculations from NLSY97 data. Sample is restricted to those who were employed in 2014.

CONCLUSIONS

Using the NLSY97, we analyze the prevalence of self-employment and patterns of hours and earnings for workers ages 30 to 34. These data are better than other survey data for tracking self-employment because workers can report information on several jobs at any given time and throughout the year; other surveys collect information only about a particular point in time or only about a worker's primary job.

Looking at a cohort of workers ages 30 to 34 in 2014, we find that men are more likely to be self-employed than women. However, regular wage employment is by far the most common type of employment for both men and women.

Controlling for other characteristics, we find that men with the least education are more likely to be self-employed than those with more education. This may provide information to tax administrators about the types of jobs where outreach on tax compliance may be most useful. The education pattern for women is less straightforward.

Married women are more likely to be self-employed than single women, which may indicate some propensity to seek out self-employment when a household has a second earner whose job mitigates the income volatility associated with being self-employed. Though other studies have found that women with young children are more likely to be self-employed than women without younger children, we do not find this pattern in the NLSY97.

Some workers have both self-employment and regular employment through the year, and we find that this happens most often when people are holding multiple jobs at the same time rather than changing jobs from one form of work to another.

We also find different patterns in the variability and number of hours and earnings across different employment types and for men and women. For both men and women, the variation in hours and earnings is highest for those who are only self-employed. Most women who are self-employed work part-time (57 percent), but this is much less true for men (25 percent). In contrast, the number and variability in hours of work for those who are only in regular employment are very similar for men and women.

The complexity in the patterns of earnings shown in the data for those who are self-employed, as well as the fact that self-employment earnings are more difficult to document and verify, demonstrates some of the tax compliance issues inherent in self-employment. Having self-employment income, whether as a sole source of earnings or as a supplement to traditional earnings, creates difficult tax compliance issues for both tax administrators and self-employed workers. Unlike regular employment income, which is typically tracked and reported both to the IRS and the worker, earnings from self-employment must be tracked and reported by the worker to the IRS. This can be difficult for workers and leaves the IRS with little or no third-party verification.

The platforms and apps offer an opportunity to ease compliance in the gig economy by providing a mechanism for reporting income and potentially to help record expenses. Currently, reporting is uneven across various platforms. Knowing who is likely to be self-employed could help tax administrators with outreach and education efforts.

NOTES

[1] Self-employed workers who are required to file self-employment tax forms are classified as unincorporated self-employed. Another 5.5 million workers in 2015 reported owning a business that was incorporated and, for tax purposes, they are generally treated as wage and salary workers (i.e., they are employees of their own business). See Steven F. Hipple and Laurel A. Hammond, "Self-Employment in the United States," *Spotlight on Statistics*, US Bureau of Labor Statistics, March 2016, https://www.bls.gov/spotlight/2016/self-employment-in-the-united-states/home.htm. However, it is possible that respondents who own a limited liability company may report this as a corporation with limited liability, but they may report their income to the IRS as self-employment income from a partnership. Thus, the tax treatment of income from business may not always be clear from survey data.

[2] Hipple and Hammond, "Self-Employment in the United States."

[3] Hipple and Hammond, "Self-Employment in the United States."

[4] Hipple and Hammond, "Self-Employment in the United States."

[5] Hipple and Hammond, "Self-Employment in the United States."

[6] "Contingent and Alternative Employment Arrangements—May 2017," news release, Bureau of Labor Statistics, June 7, 2018, https://www.bls.gov/news.release/pdf/conemp.pdf.

[7] Because education questions are not asked retrospectively, we impute years of education in 2014 by taking the average education between 2013 and 2015.

[8] Marginal effects in the context of a multinomial logit measure the change in the likelihood of a particular outcome given a change in the independent variable. Note that the parameters for each characteristic are constrained to add to 1 across each outcome.

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