

# Making Ends Meet: The Role of Informal Work in Supplementing Americans' Income



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*Data from the Survey of Household Economics and Decisionmaking indicate that, over the course of a month, more than one-quarter of adults engage in some informal work outside of a main job. Of these, about two-thirds say that they do informal work to earn money and about one-third say that informal work is an important source of household income. Informal work plays a particularly important role in the household finances of minorities, the less educated, those experiencing financial hardship, those who work part time involuntarily, independent contractors, and the unemployed. Aggregate earnings from informal work are modest but help many households to make ends meet. Informal work cannot compensate, however, for the lack of benefits typical of part-time and contractor work.*

**Keywords:** informal work, gig work, independent contractors, income adequacy

In recent years, widespread media reports have trumpeted the rise of the so-called gig economy, characterized by a workforce increasingly composed of independent contractors, consultants, freelancers, and others in nonemployee arrangements. Workers in these arrangements typically provide services for short durations to clients or customers. The attention focused on the gig economy echoes a similar interest in the temporary or so-called contingent workforce that emerged in the late 1980s and 1990s. Although some may value the flexibility or

other attributes of nonemployee work arrangements, such workers are not eligible to receive employer-provided benefits, are not covered by social insurance programs such as unemployment insurance and workers' compensation, and are not afforded protections under employment and labor laws. Consequently, there has been widespread concern that such arrangements put workers at significant risk relative to those in a more traditional employee relationship.

Given the widely held belief that the tradi-

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tional employee-employer relationship is in decline, many were surprised by the findings from the 2017 Contingent Worker Survey supplement (CWS) to the Current Population Survey (CPS) released in June 2018 by the U.S. Bureau of Labor Statistics (BLS). The BLS developed the CWS, first fielded in 1995 and repeated on several subsequent occasions, to learn more about the arrangements under which Americans work. Earlier findings reported by Lawrence Katz and Alan Krueger (2016) had suggested that the prevalence of alternative work arrangements as measured in the CWS grew significantly between 2005 and 2015, though more recent work by the same authors concludes that any increase was much smaller than they had initially estimated (Katz and Krueger 2019). The new CWS data show no increase between 2005 and 2017 in the prevalence of any of the alternative work arrangements the supplement measures—independent contractors, on-call workers, temporary agency employees, and contract firm employees. In fact, the CWS data show a slight decline over those twelve years in the prevalence of independent contractor arrangements, captured by asking survey respondents whether they worked as an independent contractor, independent consultant, or freelance worker. This finding was especially surprising to many, given evidence from tax data and other financial data suggesting nonemployee work arrangements have become more common (see, for example, Farrell and Greig 2016a, 2016b; Jackson, Looney, and Ramnath 2017; Abraham et al. 2018b; Farrell, Greig, and Hamoudi 2018).

A central reason for the apparent discrepancy between the CWS findings and other evidence is the focus of the CWS on the main jobs held by people categorized as employed in the basic monthly CPS. Studies using tax data and other financial data have found that work done as an independent contractor, consultant, or freelancer often supplements other sources of income rather than represents a primary source of income (for example, Farrell and Greig 2016a, 2016b; Jackson, Looney, and Ramnath 2017; Abraham et al. 2018a, 2018b; Farrell, Greig, and Hamoudi 2018; Koustas 2018; Katz and Krueger 2019). The CWS was not designed to capture information about

nonemployee work activity that supplements a primary job.

Reflecting the perspective that a worker's well-being depends primarily on the characteristics of his or her main job, some have characterized the CWS findings as showing that any changes in the prevalence of gig and other nonemployee work arrangements are of little significance and do not merit the large amount of attention they have received. Lawrence Mishel (2018), for example, describes the new CWS data as providing “the best measure of independent contracting” and throwing “cold water on those hyping the explosion of freelancing and the rapidly changing nature of work.” Other research concludes that the growing prevalence of independent contractor, consultant, and freelancer work has led to only a modest increase in nonemployee earnings as a share of total earnings (see, for example, Mishel and Wolfe 2018).

Arguably, however, growth in the share of people who supplement earnings from a main job or other sources of income with nonemployee work is itself an important development. Such growth, which by design the CWS will not capture, may indicate underlying problems with workers' primary jobs. In addition, even in cases in which informal work is a person's only work activity, if respondents do not think of what they are doing as a job, they may not report it when answering the standard CPS questions and thus may never be asked the CWS questions about their work arrangements (Abraham and Amaya 2018; Bracha and Burke 2019). This is an additional reason the picture painted by the CWS may be incomplete. As documented in ethnographic studies of low-income communities, even a relatively small amount of money from nonemployee work activity can make a critical difference to a low-income household trying to make ends meet (see, for example, Edin and Lein 1997; Seefeldt and Sandstrom 2015). The value of informal work to the households engaging in it could be considerable even if the aggregate amount of income it generates is modest.

The primary contribution of this article is to present new evidence on the role of informal work as a source of income for individuals and households with different characteristics. Our

analysis uses data from the Survey of Household Economics and Decisionmaking (SHED), a large household survey sponsored by the Board of Governors of the Federal Reserve System. In 2016 and 2017, the SHED included a special module with detailed questions about various types of informal work done outside a person's main job (Federal Reserve 2017, 2018). Given the extensive information the survey collects on demographic characteristics, financial situation, and employment status, these data are especially well suited to examining who is involved in informal work and the role that earnings from informal work play in household incomes. We also exploit the limited panel structure of the survey to examine the persistence of informal work from one year to the next.

Although the SHED data do not allow us to make statements about how the prevalence of informal work has changed over time, they imply that more than one-quarter of adults age eighteen and older participated in informal work for pay during the survey reference month. Two-thirds of those reporting informal work say that their motivation is to earn money; more than one-third say that the money earned from informal work over the previous twelve months was a very or somewhat important source of household income; and just under one-third say that it usually accounts for 10 percent or more of their household's monthly income. Although there is reason to suspect that the overall incidence of informal work is higher among respondents to the SHED than in the population as a whole, informal work nonetheless appears to be an important source of income for many who are doing it.

The share of people reporting that they do informal work to earn money varies considerably across groups based on their demographic, financial, and employment characteristics. A disproportionate share of respondents who are less educated, minority, low-income, unemployed, or financially distressed report working in informal jobs to earn money. Informal work to earn money also is more prevalent among workers who are part time, sole proprietors, contractors, or consultants on their main job or who have unpredictable work schedules. Moreover, informal work appears to be more

persistent and important to household income among those with these same characteristics.

## BACKGROUND

Despite a widespread perception that nonemployee work has become more common, data from standard household surveys such as the Current Population Survey and the American Community Survey show no upward trend in self-employment in recent decades. In contrast, substantial growth in the number of people with income from nonemployee work is apparent in tax data (Katz and Krueger 2016; Jackson, Looney, and Ramnath 2017; Abraham et al. 2018b). Based on an analysis of data for a sample of respondents to the Annual Social and Economic (ASEC) supplement to the CPS linked to tax records, one study concludes that roughly one-third of the growth in self-employment between 1996 and 2012 captured in tax data but missing from the CPS-ASEC occurred among people for whom secondary self-employment was not captured in the CPS-ASEC and roughly one-third among people for whom no work-related income was reported in the CPS-ASEC (Abraham et al. 2018b).

Findings such as these have contributed to fears that the questions asked on standard household surveys may be missing informal work activity. Katz and Krueger (2019) report on responses from a sample of subjects recruited via Amazon's Mechanical Turk. They first asked subjects the standard CPS employment questions and then asked additional questions to probe for whether the subjects had done any work on small paid jobs that they had not included in their previous responses. In their sample, 61 percent of those not categorized as multiple job holders (based on their responses to the CPS questions) acknowledged that they had done so. Katharine Abraham and Ashley Amaya (2018) report similar findings, also based on a sample of respondents recruited via Amazon's Mechanical Turk. In their study, respondents were asked to report for themselves and for others in their households. Both for self-reports and for proxy reports, probing uncovered substantial amounts of informal work activity not reported in response to the standard CPS questions.

The periodic Contingent Worker Survey sup-

plement to the CPS collects information about work arrangements to augment the information collected in the basic monthly CPS. As noted, however, the CWS asks only about the arrangements on individuals' main jobs as reported in the basic monthly CPS. If informal work activity is reported on the monthly CPS but not considered to be a subject's main job or is not reported in response to the standard CPS employment questions, the CWS does not ask about it. Even if people report informal, nonemployee work as their main job in the CPS, they may not consider themselves to be independent contractors, independent consultants, or freelance workers, and thus not be captured by the CWS question used to identify the independent contractor group.

The possibility that informal work is underreported in existing household surveys has generated considerable interest in new approaches to measuring its prevalence. In a series of innovative papers, researchers at the JPMorgan Chase Institute have used data on deposits from online platform companies into the checking accounts of Chase banking customers to measure trends in online platform work. Their latest estimates incorporate payments originating from 128 separate platforms. Diana Farrell, Fiona Greig, and Amar Hamoudi (2018) report that, in March of 2018, 1.6 percent of JPMorgan Chase checking accounts received deposits that originated with an online platform company, up from a little over 1 percent in March of 2016 and less than 0.5 percent in March of 2014.

The JPMorgan Chase data, however, may be missing some online platform payments and thus understating to some unknown extent the share of households with online platform income. First, though lengthy, the list of online platform companies considered in compiling the data is not exhaustive. Second, some online platform payments may not flow through recipients' checking accounts. The largest share of online platform payments is for transportation services. In 2015, Lyft introduced its Express Pay option; Uber followed in 2016 with Instant Pay. Both services allow drivers to transfer money they have earned instantly to a debit card rather than have it deposited at regular intervals into their checking account. Other

platforms' payment arrangements vary, with some offering deposit to a checking account as the only option, others offering multiple payment options that include deposit to a checking account, and still others not having deposit to a checking account as an option.

Although interest in the prevalence and growth of online platform activity has been considerable, work mediated through online platforms represents only a subset—and quite likely a small subset—of all informal work. Other researchers seeking to measure the overall prevalence of informal work activity have carried out household surveys designed specifically for that purpose. The Federal Reserve Bank of Boston's Survey of Informal Work Participation (SIWP) has been fielded several times since 2013 as a supplement to the Survey of Consumer Expectations (SCE). The SCE is a rotating online panel with participants who may remain in the sample up to twelve months. Respondents to the January and December 2015 SIWP were given a list of different types of informal work activity and asked to indicate those in which they were "currently engaged." Based on these responses, using a broad definition of informal work, Anat Bracha and Mary Burke (2019) estimate that 32.5 percent of household heads age twenty-one and older were currently engaged in one or more types of such activity. The estimated share participating in informal work activities exclusive of selling or renting property is 18.5 percent.

The Enterprising and Informal Work Activities (EIWA) Survey sponsored by the Federal Reserve Board was administered online to the GfK KnowledgePanel in October and November of 2015 (Robles and McGee 2016). Like the SIWP, the EIWA contained a battery of items asking respondents about different informal income-generating activities, but with a six-month reference period. The EIWA estimates indicate that about 36 percent of the U.S. population age eighteen and older engaged in at least one of these activities during the six-month reference period. This includes people who earned income by selling new or used goods or renting out property. Focusing more narrowly on labor service activities, the EIWA estimates are that 26.7 percent of the adult population earned income by housecleaning, house sitting, yard

work, or other property maintenance tasks and that 17.1 percent did so by babysitting or providing childcare services.

The 2015 SHED, also administered online via the GfK KnowledgePanel, contained a single question about whether a respondent was currently engaged in informal work activity. This question focused on informal work that was not part of a job the respondent had already reported or, in the case of a respondent with more than one job, not part of their main job. In 2016, the SHED adopted the more detailed set of questions about informal work activity developed for the EIWA and a one-month reference period, again focusing specifically on work that was not part of an already reported job or main job.<sup>1</sup> SHED respondents were told to exclude taking GfK surveys when answering these questions. According to our tabulations of pooled data from the 2016 and 2017 SHED, described more fully later in this article, 28.1 percent of adults age eighteen and older reported participating in informal work outside of a main job during the survey reference month; excluding activities that involved selling or renting property, that figure is 23.1 percent.

The SIWP, the EIWA, and the SHED are consistent in estimating high prevalence rates for informal work activity. All three are based on online panels weighted to match the demographic characteristics of the adult population as a whole. A possible concern is that the type of people who are willing to participate in an online panel also might be more likely than others with similar observable characteristics to participate in informal work activity.<sup>2</sup> In our analysis of the 2016 and 2017 SHED data, we have attempted to assess the extent to which the nature of the sample may have affected the prevalence of informal work activity among SHED respondents, but this is difficult to do, and some uncertainty unavoidably remains.

There is no obvious reason, however, to doubt our findings regarding the correlates of participation in informal work.

Ethnographic research suggests that, at least in certain populations, income from informal work is an important supplement to households' income from other sources. In one early study, for example, Kathryn Edin and Laura Lein (1997) examined the household budgets of low-income mothers in four cities, documenting the multiple sources of income these mothers drew on to make ends meet. Among mothers in their sample who were on welfare, about 40 percent engaged in informal work that was not reported to their caseworkers; about 30 percent who were not on welfare engaged in informal work in addition to their primary job. In a more recent example, Kristin Seefeldt and Heather Sandstrom (2015) studied mothers in Los Angeles and southeastern Michigan who were neither working at a regular job nor receiving cash welfare benefits. They too find evidence of substantial reliance on informal work, though they observe that the amounts of money earned from such work can be quite unstable. Focus groups conducted by one of us in connection with a related project also yielded evidence of substantial reliance on a variety of types of informal work in economically depressed areas of southwestern Michigan.

A limitation of the findings from qualitative research is that they cannot readily be generalized. Research using tax data has established that, in the population as a whole, a considerable share of self-employment activity supplements income from a primary wage and salary job (Jackson, Looney, and Ramnath 2017; Abraham et al. 2018a, 2018b). Farrell and her colleagues find that income from work mediated through online platforms supplements earnings from other sources and compensates for fluctuations in income from individuals' primary jobs (Farrell and Greig 2016a, 2016b; Far-

1. The SHED's focus on informal work outside a main job is different from the focus in the SIWP and EIWA, both of which asked about all informal work activity.

2. Response rates for the EIWA and the 2016 and 2017 SHED are under 5 percent; no response rate is reported for the SIWP, but based on the description of how the survey sample was constructed, it likely is similarly low. Although the relationship between response rates and nonresponse bias is not monotonic (Groves and Peytcheva 2008), very low response rates may exacerbate concerns about sample representativeness.

rell, Greig, and Hamoudi 2018). Similarly, in a study of the earnings of Uber drivers based on data obtained from a large online personal financial management service, Dmitri Koustas (2018) finds that earnings from driving smooth fluctuations in earnings from a main job and thus smooth consumption spending.

Related to how informal work is being used is whether informal work activity tends to be short term or persistent. Studies of participation in online platforms have found that many participants do not remain on the platforms for long. Cody Cook and his colleagues, for example, analyze records for Uber drivers who started driving between January 2015 and March 2016 (Cook et al. 2018). More than 60 percent of new drivers were no longer active on the platform six months later, they report; a driver was considered active if he or she made at least one trip within twenty-six weeks after a given date. Farrell and Greig (2016b) report that turnover in the online platform economy as a whole is high. In their study, they identify online platform participants from deposits to bank accounts and find that more than half exited within twelve months of entry. Relatively little is known, however, about the persistence of participation in informal work more generally.

#### DATA

The Survey of Household and Economic Decisionmaking is sponsored by the Board of Governors of the Federal Reserve System. It has been conducted annually since 2013, and detailed questions about informal work have been included on the survey since 2016. GfK, a consumer research firm, has administered the survey using its online KnowledgePanel. The cumulative survey response rate—reflecting the response rate to the invitation to join the KnowledgePanel, the response rate to an initial profiling survey carried out as part of the process of developing the sample for the SHED, and the response rate to the SHED itself—was about 4.4 percent in 2016 and 4.2 percent in 2017. These rates are quite low relative to those for the surveys underlying official labor-market

statistics but fairly typical for probability-based online survey panels.<sup>3</sup>

We use information about the demographic characteristics of SHED respondents, their household incomes, and their employment situation. In the employment section of the SHED questionnaire, respondents are asked whether at any point during the prior month they were employed for someone else, self-employed, temporarily laid off from a job, or not employed. An individual may report multiple statuses. Additional employment-related information also is collected, including information about the main job of those who report being employed. Everyone—regardless of whether they report employment during the prior month—then is asked whether they have engaged in any of eleven (2016) or twelve (2017) types of “occasional work activities or side jobs” during the month. Those who previously reported working during the month are instructed not to include activities on their main job. Thus the survey is designed to capture informal work activities that the respondent may not have considered when answering the initial employment questions or that are secondary to a primary job.

The survey groups informal activities into three broad categories: personal services, online activities, and offline sales and other activities. Within each category, respondents are asked about three or four more specific types of work. Personal services include babysitting, childcare services, dog walking, or house sitting; disabled adult or elder care services; house cleaning, house painting, yard work, or other property maintenance work; and providing other personal services such as running errands, helping people move, and so forth. Online activities include completing paid online tasks, such as those on Amazon Services, Mechanical Turk, Fiverr, Task Rabbit, or You Tube; renting out property online, such as a car or residence; selling goods online through eBay, Craigslist, or other websites; driving using a ridesharing app such as Uber or Lyft (2017 survey only); and other online paid activities. Respondents are instructed not to include taking

3. For additional details about the 2016 and 2017 SHEDs, see Federal Reserve 2017, 2018.

GfK surveys in reporting their online activities.<sup>4</sup> The final category includes selling goods or services at flea markets, garage sales, or other temporary locations; selling goods at consignment shops or thrift stores; and any other paid activity that the respondent had not previously mentioned.

Individuals who report having engaged in informal work during the prior month are asked additional questions about their reasons for doing so, allowing us to identify those whose primary motivation is to earn money. In addition, the survey asks questions about the importance of informal work to household income and the amount of time that the respondent usually devotes to informal work activity.

The SHED questionnaires are available for download from the survey website. Several changes were made to the work-related questions between 2016 and 2017. For example, although obtaining essentially the same information, the sequence of questionnaire items used to collect the information for determining a person's employment status was modified; a question was added to allow those working part time voluntarily to be distinguished from those working part time who would have preferred full-time work; and, in the question about informal work activity, driving for Uber, Lyft, or another ridesharing company was added as an explicit response option and minor changes were made to the wording of several other response options. We have created a data set that harmonizes the two years' responses.

Responses to the 2016 SHED, fielded in October, totaled 6,610 and to the 2017 SHED, fielded in November and December, 12,447, for a grand total of 19,057 responses. GfK has created survey weights for use in analysis constructed so that the characteristics of the weighted sample match those of the population age eighteen and older based on the March Current Population Survey with respect to age, gender, race, ethnicity, education, census region, metropolitan area status, and household income. Among those interviewed for the 2016 SHED, 2,995 were reinterviewed in 2017. GfK

also has created weights suitable for use with this smaller panel sample.

Most of the results we report are based on a sample created by pooling the 2016 and 2017 responses, treating the two years' data as independent cross-sections. We drop 497 cases that were missing values for variables needed for our analysis, reducing the usable sample from 19,057 to 18,560 cases, a loss of 2.6 percent. Our analysis of the smaller panel interviewed in both 2016 and 2017 focuses either on the 608 people who reported being engaged in informal work in the 2016 SHED or on the 395 people in that group who said their reason for doing informal work in 2016 was to earn money. We drop ninety-one cases from the first group (15.0 percent of the sample cases) and eighty-one from the second group (20.5 percent of the sample cases) owing to missing values for variables of interest, leaving us with 517 and 314 usable cases, respectively. All reported tabulations of sample distributions make use of the survey weights constructed by GfK.

### **Informal Work: Evidence from the SHED**

The detailed information about informal work collected on the SHED together with the rich set of demographic, financial, and employment variables also available on the survey make it well suited to exploring who performs informal work and their reasons for doing so. The smaller panel subsample allows us also to use these data to examine the persistence of informal work.

#### *Incidence of Informal Work Activities*

Tables 1 and 2 show the incidence of informal work activities by the respondent's demographic characteristics, income and finances, and employment status and job characteristics, based on pooled data from the 2016 and 2017 surveys. The first column of each table shows the percentage of the population with various characteristics. Column 2 shows the percentage engaged in any informal work activity during the last month, while columns 3 through 5 display the percentages engaged in each of the

4. GfK maintains a modest incentive program to encourage panel members to participate in surveys. In addition to the standard GfK incentives, those completing the SHED received the equivalent of \$5 through the GfK rewards system, in the form of points that could be used for online purchases from participating merchants.

**Table 1.** Percent with Informal Work Outcome by Type of Arrangement and Demographic Characteristics

	Percent of Population (1)	Any Informal Work in Past Month (2)	Of Which			Percent with 2+ Informal Arrangements (6)
			Personal Services (3)	Online Tasks (4)	Offline Sales and Misc. Activities (5)	
All	100.0	28.1	13.0	15.0	10.6	11.7
<b>Age (years)</b>						
18–24	7.9	41.3	27.9	20.7	13.1	20.4
25–34	19.8	38.2	18.7	22.8	13.8	17.7
35–44	17.6	32.7	14.0	20.0	12.1	14.6
45–54	15.2	25.7	10.3	13.7	9.6	10.0
55–64	20.0	23.0	9.9	9.8	9.8	8.1
65–74	13.6	16.5	6.2	7.4	6.7	5.1
75 plus	5.9	13.4	4.8	5.0	6.0	3.2
<b>Gender</b>						
Male	48.3	27.5	12.7	15.4	9.5	11.3
Female	51.7	28.7	13.3	14.7	11.6	12.1
<b>Race-ethnicity</b>						
White	65.2	26.9	10.9	14.5	10.7	10.2
Black	11.8	28.6	17.9	14.0	8.6	14.0
Hispanic	15.0	31.7	18.7	15.8	11.2	15.3
Multiracial	1.3	37.1	19.9	19.5	12.7	15.2
Other	6.8	29.4	11.0	19.2	11.1	13.7
<b>Education</b>						
High school or less	39.2	27.2	16.5	12.0	9.8	12.5
Some college	28.9	27.9	13.1	15.3	10.2	11.5
College plus	31.8	29.5	8.7	18.4	11.8	10.9

Source: Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Tabulations based on SHED data pooled for the years 2016 and 2017 and weighted using GfK weights designed to make the sample representative of the U.S. population eighteen and older.

N = 18,560.

three categories of informal work. Column 6 shows the percentage who report being engaged in two or more informal work activities during the month.<sup>5</sup>

Overall, 28.1 percent of respondents report being engaged in some type of informal work activity during the previous month: 13.0 percent engaged in personal services, 15.0 percent

in online activities, and 10.6 percent in offline sales or other activity. Among all respondents, 11.7 percent—or about 42 percent of those reporting any informal work activity—report being engaged in at least two types of informal activities during the month. As noted earlier, our definition of informal work includes those who rent property or sell goods online—catego-

5. Each measure of informal work shown in tables 1 and 2 differs by demographic group (age, gender, race and ethnicity, and education) and by financial and job characteristics (household income, financial well-being, monthly income changes, employment status, and work schedule status) at the .001 level of significance.

**Table 2.** Percent with Informal Work Outcome by Type of Arrangement and Financial and Job Characteristics

	Percent of Population (1)	Any Informal Work in Past Month (2)	Of Which			Percent with 2+ Informal Arrangements (6)
			Personal Services (3)	Online Tasks (4)	Offline Sales and Misc. Activities (5)	
<b>Household income</b>						
Less than \$50,000	35.1	28.6	16.8	14.0	9.9	13.8
\$50,000 to \$99,999	31.3	28.0	12.2	14.8	10.3	10.7
\$100,000 or more	33.5	27.7	9.9	16.3	11.5	10.5
<b>Financial well-being</b>						
Difficult to get by	7.3	38.4	21.2	19.5	14.5	19.0
Just getting by	20.6	29.9	15.9	15.6	10.8	13.4
Doing okay	40.5	28.3	13.4	14.7	10.2	11.3
Living comfortably	31.6	24.4	8.8	14.0	10.0	9.4
<b>Monthly income changes</b>						
Often varies	9.2	36.6	21.9	20.2	10.9	18.4
Sometimes varies	21.0	35.4	18.6	19.6	14.1	16.8
Roughly the same	69.8	24.8	10.2	12.9	9.5	9.3
<b>Employment status</b>						
Full-time employee	42.9	28.3	10.7	16.5	11.1	11.2
Part-time employee	9.7	35.0	18.7	17.9	12.9	15.2
Self-employed or partner	7.4	44.8	26.4	23.3	17.4	23.5
Consultant or contractor	1.6	44.3	23.8	30.1	16.2	24.6
Not employed, looking	4.3	41.7	26.8	19.6	12.5	20.6
Not employed, not looking	34.2	19.9	9.2	9.2	7.2	7.1
<b>Part-time preference (2017, N = 12,115)</b>						
Voluntary part time	6.4	31.6	16.0	15.3	11.8	14.3
Involuntary part time	3.3	44.8	26.7	21.7	12.9	18.9
<b>Work schedule status (employees, consultants, contractors, N = 8,682)</b>						
Varies at own request	8.3	36.9	16.4	23.1	15.5	18.9
Employer determines						
Less than 1 week's notice	10.6	37.9	20.9	20.9	11.9	20.7
1 to 2 weeks' notice	3.5	36.4	20.5	20.1	12.3	16.2
3 plus weeks' notice	2.5	32.0	12.0	21.3	13.6	11.8
Normally the same hours	75.2	27.7	10.6	15.7	11.0	10.2

Source; Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Tabulations based on SHED data pooled for 2016 and 2017 and weighted to represent the U.S.

population age eighteen and older. Information to distinguish voluntary and involuntary part time available only for 2017; results for just those two employment statuses shown for that restricted sample. Questions on work scheduling asked only of those identifying themselves as employees, consultants, or contractors. N = 18,050 unless otherwise noted.

ries that are sometimes excluded because they may largely reflect returns to capital. The share of those doing any informal work in the SHED, however, remains high if these categories are dropped. Excluding those whose only informal work activities in the prior month involve renting property or selling goods online, the estimated incidence of any informal work is 23.1 percent and of online informal work is 10.0 percent.

Table 1 shows the incidence of informal work by demographic characteristic. Informal work declines monotonically with age, though a sizable minority of older adults report some type of informal work activity in the preceding month (16.5 percent among those age sixty-five to seventy-four and 13.4 percent among those seventy-five and older). The relative importance of various types of informal work activities also varies systematically by age. The most common form of informal work among the youngest age group, eighteen through twenty-four, perhaps not surprisingly, is personal services, which includes childcare, elder care, and home maintenance work. Among prime-age working adults—those age twenty-five to fifty-four—online tasks are the most common form of informal work; among those age fifty-five and older, the incidence of informal work is relatively evenly distributed across the three categories. The percentage of those engaged in two or more types of informal work activities also declines with age: 20.4 percent of respondents age eighteen to twenty-four but only 3.2 percent of those age seventy-five and older report more than one type of informal work activity.

The incidence of informal work activity varies little by gender. Minority groups generally are only somewhat more likely to report working in an informal arrangement than whites, but the mix of types of work activities varies considerably more by race and ethnicity than the overall incidence. African Americans and Hispanics are much more likely than whites to provide personal services and to have engaged in two or more types of informal work activity.

Interestingly, the incidence of informal work activity is, if anything, slightly higher among those who are more educated. Those with a bachelor's degree are about 2 percentage points more likely than those with a high school edu-

cation or less to report doing informal work in the last month (29.5 versus 27.2 percent). The patterns for the overall incidence of informal work, however, mask considerable heterogeneity in the patterns by type of activity. The share of people providing personal services declines sharply with education level; among those with a four-year college degree, the proportion providing personal services is only about half (8.7 percent) that among those with a high school education or less (16.5 percent). In contrast, the proportion engaging in online work activities rises sharply with education, with college-educated individuals about 50 percent more likely to engage in online activities (18.4 percent) than those with a high school education or less (12.0 percent). College-educated respondents also are somewhat less likely than less-educated respondents to report having engaged in two or more informal work activities in the last month.

Table 2 reports the incidence of informal work activities by three measures of the household's or respondent's finances—household income, a subjective assessment of financial well-being, and variability of the respondent's income. Annual household income is reported in categories, and in table 2 we report three aggregated groupings that correspond roughly to household income terciles—less than \$50,000, \$50,000 or more but less than \$100,000, and \$100,000 or more. The overall incidence of informal work is similar across the household income terciles, but as with race and education, the composition of that informal work varies greatly across the categories. Most striking, those in the bottom tercile are more likely to provide personal services (16.8 percent) than those in the middle (12.2 percent) and top terciles (9.9 percent). Those in the bottom tercile also are somewhat more likely to report working in more than one informal arrangement (13.8 percent) than those in the second (10.7 percent) or third terciles (10.5 percent).

In addition to reporting their household income, respondents provide a subjective assessment of their financial well-being, answering that they find it “difficult to get by,” that they are “just getting by,” that they are “doing okay,” or that they are “living comfortably.” Compared with those who report living comfortably, those

who report finding it difficult to get by are 14 percentage points more likely to have worked in an informal arrangement (38.4 versus 24.4 percent) and almost 10 percentage points more likely to have worked in two or more arrangements (19.0 versus 9.4 percent).

Respondents also are asked about the stability of their monthly income. About 9 percent indicate that it often varies from month to month, 21 percent that it is mostly the same but sometimes varies, and about 70 percent that it varies little. Those who report that their monthly income often varies are more than 10 percentage points more likely to report having engaged in informal work activities in the last month (36.6 percent) than those whose income varies little (24.8 percent). They also are nearly twice as likely to have worked two or more side jobs than those with stable incomes (18.4 versus 9.3 percent). These statistics of course are descriptive; the higher incidence of informal work could be a response to unstable income from a main job or periodic spells of unemployment, or the higher variability of income could be a consequence of periodically having side jobs.

Table 2 also shows the incidence of informal work arrangements by employment status and, among employees, contractors, and consultants, by how the individual's work schedule is determined and by its variability. The prevalence of informal work exceeds 40 percent among those who are self-employed, sole proprietors or partners, those who are consultants or contractors, and those who are not employed but looking for work. These numbers are 13 to 15 percentage points higher than among full-time employees. In 2017, part-time employees were asked whether they preferred part-time or full-time hours; we find a similarly high prevalence of informal work among those stating they would have preferred full-time work, a

group we call involuntary part time.<sup>6</sup> The incidence of working multiple side jobs also is quite high in each of these groups, ranging from about 19 to 25 percent. The prevalence of informal work is lowest among those who are not employed and not looking for work, but even in this group, about one in five reports having engaged in some informal work activity in the prior month.

The relatively high reported prevalence of informal work during the past month among those who report not being employed at any point during the month is notable. Some researchers have suggested that those engaged in informal work for pay may not think of these activities as regular jobs and so may fail to report them in response to the questions about employment on government household surveys. To the extent this occurs, it will lead to an understatement of the employment to population ratio and potentially to an understatement of the labor-force participation rate and an overstatement of the unemployment rate (see, for example, Bracha and Burke 2019; Abraham and Amaya 2018).<sup>7</sup> Although not the focus of this article, the descriptive statistics reported in table 2 suggest that underreporting of employment that consists of informal work may indeed be a significant problem in official statistics.

The final variable in table 2 describes work scheduling among full-time employees, part-time employees, and consultants or contractors.<sup>8</sup> Three-fourths of employees normally work the same hours each week. For about one in six (16.6 percent), the schedule varies at the employer's request; within this group, about two-thirds (10.6 percent of all employees) usually receive less than one week's notice from their employer about their upcoming work schedule, and another 20 percent (3.5 percent

6. Although we label part-time workers who say they would have preferred full-time work as involuntary part time, this measure does not correspond exactly to the measure of involuntary part-time employment in the Current Population Survey. The CPS measure requires not only that individuals working part time prefer full-time work but that they were available during the survey reference week to work longer hours.

7. How taking into account previously unmeasured informal work activity affects the labor-force participation rate and unemployment rate will depend on whether those participating in such activity had previously been categorized as unemployed or as out of the labor force.

8. Employees accounted for 97 percent of the respondents who were asked the survey's work scheduling questions, and for simplicity we refer to the whole group as employees.

of all employees) usually receive only one to two weeks' notice. Work schedules vary at the employee's request for 8 percent of employees. Relative to that among employees with a fixed schedule, the incidence of informal work is 9 to 10 percentage points higher among employees who receive short notice about their schedules from their employer (two weeks or less) or whose schedule varies at their own request. For the former, the high rate is consistent with individuals using informal work to supplement hours and income. For the latter, however, the direction of causality may be reversed, with employees choosing variable hours to accommodate informal work activities.

### *Importance of Informal Work to Income*

For policy analysis, what matters is not simply who has informal work arrangements but their reasons for engaging in these casual work activities. Some may engage in these activities as a hobby or a way of making social connections, but the tabulations reported in tables 1 and 2 show that informal work is especially prevalent among those who are economically disadvantaged or work in nonstandard arrangements. This suggests that economic motivations also are likely to play an important role.

Tables 3 and 4 provide descriptive evidence that bears more directly on this issue. The SHED asks respondents who had done informal work in the previous month their main reason for this activity. Column 1 of tables 3 and 4 repeats information from tables 1 and 2 on the percentage of respondents reporting any informal work activity during the previous month. Column 2 reports the percentage indicating that their goal is primarily to earn income, and columns 3 and 4 the percentages for whom informal work either is their primary source of income or supplements their income or their family's income.

Although the questions about participation in informal work pertain only to activities in the preceding month, those who report such work also are asked about its importance to

their income and the intensity of such work over a longer period. Column 5 shows the percentage indicating that the work was an important source of household income over the previous year. Column 6 reports the percentage indicating that such activities usually account for at least 10 percent of their household income. Column 7 shows the percentage indicating that they usually spend at least twenty hours per month on informal work activities.<sup>9</sup>

As in table 1, the top row of table 3 reports statistics for all respondents and subsequent rows report breakouts by demographic characteristics. Table 4 reports on financial and job characteristics. Eighteen percent of all respondents, or about 65 percent of those who reported working in an informal arrangement in the preceding month, say they did so primarily to earn money. Of those who give earning money as the main reason, 75 percent (13.5 percent of all respondents) say that they work side jobs to supplement their income or assist family members; the other 25 percent (4.5 percent of all respondents) say that informal work activities are their primary source of income. Among all respondents, 10.7 percent say that informal work activities were an important source of household income during the previous twelve months, 9.6 percent that such earnings usually constitute at least 10 percent of their household income, and 7.1 percent that they usually spend at least twenty hours per month on informal work activities.

Large differences in the importance of income from informal work and the hours spent in these activities are apparent across some demographic groups. The importance of informal work as an income source declines sharply with age. Nonetheless, 15.8 percent of respondents age twenty-five to thirty-four and 12.5 percent of those age thirty-five to forty-four regarded income from informal work as an important source of household income over the previous year. Minorities generally appear more reliant than whites on income from informal work. Among blacks, for example, 8.2

9. For each measure of informal work incidence and importance shown in tables 3 and 4, differences by demographic characteristics (age, gender, race and ethnicity, and education) and by financial and job characteristics (household income, financial well-being, monthly income changes, employment status, and work schedule status) are statistically significant at the .001 level.

**Table 3.** Percent with Informal Work by Reason and Intensity of Use and Demographic Characteristics

	Any Informal Work in Past Month (1)	Any Informal Work to Earn Money in Last Month (2)	Of Which		Important Source of Household Income (5)	Usually 10 Percent or More of Household Income (6)	Usually Do 20 or More Hours per Month (7)
			Primary Source of Income (3)	Supplements Income (4)			
All	28.1	18.0	4.5	13.5	10.7	9.6	7.1
<b>Age (years)</b>							
18–24	41.3	31.2	10.5	20.7	20.2	21.3	10.1
25–34	38.2	27.5	7.3	20.2	15.8	14.2	10.8
35–44	32.7	21.2	5.2	16.0	12.5	11.0	8.0
45–54	25.7	15.7	4.0	11.7	9.3	7.3	6.2
55–64	23.0	13.5	2.8	10.7	7.8	6.7	5.7
65–74	16.5	7.3	0.9	6.4	4.7	4.1	4.3
75 plus	13.4	4.5	0.4	4.1	3.0	2.9	2.4
<b>Gender</b>							
Male	27.5	17.9	4.8	13.1	11.7	10.2	7.6
Female	28.7	18.1	4.3	13.8	9.8	9.1	6.7
<b>Race-ethnicity</b>							
White	26.9	17.2	3.9	13.4	9.5	8.1	6.5
Black	28.6	20.5	8.2	12.3	15.7	16.5	10.6
Hispanic	29.4	18.5	4.1	14.4	8.2	6.7	6.0
Multiracial	37.1	26.9	6.3	20.6	20.2	15.5	15.6
Other	31.7	18.2	4.4	13.7	12.6	11.6	7.1
<b>Education</b>							
High school or less	27.2	17.7	6.1	11.7	12.4	11.1	7.2
Some college	27.9	17.9	4.3	13.6	10.7	10.0	7.6
College plus	29.5	18.3	2.7	15.6	8.7	7.4	6.6

Source: Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Tabulations based on SHED data pooled for years 2016 and 2017 and weighted using GfK weights designed to make sample representative of the U.S. population eighteen and older. N = 18,560.

percent indicate that informal work arrangements are their primary source of income, 15.7 percent that they were an important source of household income during the previous twelve months, and 16.5 percent that they usually account for at least 10 percent of their income. These rates are 65 to 110 percent larger than those for whites. Table 3 also shows that less-educated individuals are considerably more likely than those with a bachelor's degree to say that informal work is their primary source of income and to consider it an important

component of their household income over the previous year.

With respect to the respondent's financial situation, the various indicators of reliance on informal work for income decrease with household income, decrease as respondents' subjective assessment of their financial well-being improves, and decrease as monthly income becomes less volatile (table 4). Notably, among those who report finding it difficult to get by, 31.8 percent report being engaged in informal work to earn money, 14.0 percent that such

**Table 4** Percent with Informal Work by Reason and Intensity of Use and Financial and Job Characteristics

	Any Informal Work in Past Month (1)	Any Informal Work to Earn Money in Last Month (2)	Of Which		Important Source of Household Income (5)	Usually 10 Percent or More of Household Income (6)	Usually Do 20 or More Hours per Month (7)
			Primary Source of Income (3)	Supplements Income (4)			
<b>Household income</b>							
Less than \$50,000	28.6	19.8	6.5	13.3	13.7	12.3	8.5
\$50,000 to \$99,999	28.0	17.6	3.9	13.7	10.7	8.5	7.0
\$100,000 or more	27.7	16.4	3.0	13.4	7.6	7.8	5.8
<b>Financial well-being</b>							
Difficult to get by	38.4	31.8	14.0	17.8	21.5	17.3	11.6
Just getting by	29.9	22.5	5.9	16.7	14.0	12.4	9.0
Doing okay	28.3	18.1	3.7	14.4	10.5	9.3	6.9
Living comfortably	24.4	11.7	2.5	9.2	6.3	6.4	5.3
<b>Monthly income changes</b>							
Often varies	36.6	26.8	11.6	15.2	20.1	20.3	12.4
Sometimes varies	35.4	24.6	6.6	18.0	16.0	14.3	9.9
Roughly the same	24.8	14.8	3.0	11.9	7.9	6.8	5.6
<b>Employment status</b>							
Full-time employee	28.3	18.7	3.0	15.8	9.8	7.4	6.2
Part-time employee	35.0	25.9	7.1	18.8	15.5	16.1	11.4
Self-employed or partner	44.8	30.4	11.2	19.2	22.0	22.4	15.8
Consultant or contractor	44.3	34.6	9.1	25.5	21.4	23.7	17.3
Not employed, looking	41.7	32.0	18.8	13.2	24.2	25.0	14.4
Not employed, not looking	19.9	9.6	2.2	7.3	5.8	5.2	3.9
<b>Part-time preference (2017, N = 12,115)</b>							
Voluntary part time	31.6	21.9	3.8	18.1	15.1	13.2	10.5
Involuntary part time	44.8	31.1	10.7	20.4	20.9	19.3	14.4
<b>Work schedule status (employees, consultants, contractors, N = 8,692)</b>							
Varies at own request	36.9	26.9	5.8	21.1	17.6	14.3	13.4
Employer determines							
Less than 1 week's notice	37.9	27.8	6.5	21.3	15.6	13.3	10.5
1 to 2 weeks' notice	36.4	26.5	4.8	21.7	15.6	14.5	11.3
3 plus weeks' notice	32.0	18.4	4.1	14.3	10.0	6.0	6.1
Normally the same hours	27.7	18.5	3.3	15.3	9.7	8.2	6.2

Source: Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Tabulations based on SHED data pooled for 2016 and 2017 and weighted to represent the U.S. population age eighteen and older. Information to distinguish voluntary and involuntary part time available only for 2017; results for just those two employment statuses shown for that restricted sample. Questions on work scheduling asked only of those identifying themselves as employees, consultants, or contractors. N = 18,050 unless otherwise noted.

work is their primary source of income, 21.5 percent that informal work had been an important income source during the prior year, 17.3 percent that they usually earn at least 10 percent of their income from informal work, and 11.6 percent that they usually work at least twenty hours per month on informal jobs.

A strong correlation also exists between an individual's employment status and working in informal jobs to earn money. The data in table 4 show that sizable minorities of part-time employees, particularly those who would prefer full-time work, and of those who are not employed but are looking for work rely significantly on income from informal work arrangements to supplement their income. Use of informal work arrangements to earn money is strikingly high among those in nonemployee arrangements as well. More than 30 percent of those who say that they are self-employed, a sole proprietor, a partner, or a consultant or contractor report doing informal work outside their main job to earn income in the last month. More than 20 percent of those in these groups report that this income was an important source of their household's income during the preceding year; and more than 20 percent also indicate that at least 10 percent of their household's income usually comes from such side jobs. Among those working under the same set of employment arrangements, more than 15 percent report usually spending at least twenty hours a month on informal work activities. Similarly, the data indicate that a large minority of those with unpredictable work schedules—employees, contractors, or consultants who are given two weeks or less notice regarding their schedule—rely on income from informal work.

Many of the variables measuring demographic characteristics, financial well-being, and job characteristics are highly correlated with each other. This makes it difficult to know from the descriptive statistics presented in tables 1 through 4 whether these variables have any independent relationship with individuals' propensity to work in informal jobs and rely on income from these jobs over the short and me-

dium term. To partially address this issue, we estimate five linear probability models in which the dependent variables alternately indicate

1. the respondent had informal work in the past month,
2. the respondent had informal work to earn money in the past month,
3. informal work was an important source of household income in the last twelve months,
4. informal work usually accounts for 10 percent or more of the respondent's household income, and
5. the respondent usually spends twenty hours or more per month on informal work activities.

We include all of the demographic, financial, and job characteristic variables from tables 1 through 4 that are available for both 2016 and 2017 as explanatory variables.<sup>10</sup> Table 5 reports selected coefficient estimates from these descriptive regressions.

Controlling for other factors, those in the lower- and middle-income terciles, those who report being under some level of financial stress, and those with variable monthly incomes are significantly more likely to indicate not only that they worked in side jobs to earn income in the last month but also that such jobs have been an important source of income over a longer period and that they spend significant time working in side jobs. For example, relative to those who report being financially comfortable, those who are finding it difficult to get by are 14 percentage points more likely to have worked a side job in the last month to earn money, 10 percentage points more likely to report that income from side jobs has been important to household income, and 4 percentage points more likely to report both that income from these jobs usually accounts for at least 10 percent of their household income and that they usually spend at least twenty hours per month in informal work activities.

10. Breakouts for part-time workers who want and do not want full-time work are only available in the 2017 data and therefore are not included in the regressions.

**Table 5.** Selected Coefficient Estimates from Linear Probability Models of Informal Work Outcomes on Demographic, Financial, and Job Characteristics

	Any Informal Work (1)	To Earn Money (2)	Important Source of Household Income (3)	Usually 10+ Percent of Household Income (4)	Usually 20+ Hours per Month (5)
<b>Household income</b>					
Less than \$50,000	0.03** (0.01)	0.04** (0.01)	0.05** (0.01)	0.04** (0.01)	0.02** (0.01)
\$50,000 to \$99,999	0.03** (0.01)	0.02** (0.01)	0.03** (0.01)	0.01~ (0.01)	0.02** (0.00)
<b>Financial well-being</b>					
Difficult to get by	0.08** (0.01)	0.14** (0.01)	0.10** (0.01)	0.04** (0.01)	0.04** (0.01)
Just getting by	0.03** (0.01)	0.09** (0.01)	0.05** (0.01)	0.02* (0.01)	0.02** (0.01)
Doing okay	0.03** (0.01)	0.05** (0.01)	0.03** (0.00)	0.01~ (0.00)	0.01 (0.00)
<b>Monthly income changes</b>					
Often varies	0.04** (0.01)	0.04** (0.01)	0.06** (0.01)	0.06** (0.01)	0.04** (0.01)
Sometimes varies	0.05** (0.01)	0.04** (0.01)	0.04** (0.01)	0.03** (0.00)	0.02** (0.01)
<b>Employment status</b>					
Part-time employee	0.04** (0.01)	0.04** (0.01)	0.04** (0.01)	0.06** (0.01)	0.03** (0.01)
Self-employed or partner	0.19** (0.01)	0.13** (0.01)	0.11** (0.01)	0.14** (0.01)	0.10** (0.01)
Consultant or contractor	0.15** (0.03)	0.11** (0.03)	0.09** (0.02)	0.13** (0.02)	0.09** (0.02)
Not employed, looking	0.11** (0.02)	0.09** (0.02)	0.09** (0.02)	0.12** (0.02)	0.05** (0.01)
Not employed, not looking	-0.01 (0.01)	-0.04** (0.01)	-0.02** (0.01)	-0.01 (0.01)	-0.01 (0.00)
<b>Work schedule status</b>					
Varies at own request	0.05** (0.02)	0.05** (0.02)	0.04** (0.01)	0.03* (0.01)	0.04** (0.01)
Less than two weeks' notice	0.03* (0.01)	0.03* (0.01)	0.01 (0.01)	0.00 (0.01)	0.02~ (0.01)
<i>R</i> <sup>2</sup>	0.062	0.087	0.076	0.079	0.041

Source: Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Each column represents a separate regression with the indicated dependent variable. Standard errors clustered on individual and reported in parentheses. Controls for demographic characteristics (age, gender, race-ethnicity, education) included but not reported. Reference categories for each set of variables as follows: household income \$100,000 or more; living comfortably; monthly income generally the same; full-time employee; and work schedule mostly the same or three plus weeks' notice. N = 18,560.

\*\**p*<.01; \**p*<.05; ~ *p*<.10 level

Even after controlling for other factors, an individual's employment status on their main job continues to be an especially strong predictor of working in informal activities to earn income and of the intensity and economic importance of that work. Relative to full-time employees, those who are self-employed, a sole proprietor, a partner, or a consultant or contractor are 11 to 13 percentage points more likely to have worked in one or more informal activities in the last month to earn money, 9 to 11 percentage points more likely to view income from these side jobs as having been important to household income in the last year, and 13 to 14 percentage points more likely to report that side jobs usually account for at least 10 percent of their household income. They also are 9 to 10 percentage points more likely to report that they usually spend at least twenty hours per month working in such jobs. Although the heterogeneity in self-employment arrangements is considerable, for a sizable minority of the self-employed, informal work appears to be an important supplement to income from the primary job. In all models, the coefficient estimates for those who are not employed but are looking for work are generally similar in magnitude to estimates for those in nonemployee arrangements, indicating heavy reliance on income from informal work during unemployment spells. As noted, these findings suggest that government surveys may not fully capture casual work, raising the possibility that employment, labor force, and unemployment statistics are biased.

Among employees, contractors, and consultants, having a variable or unpredictable work schedule also is associated with a higher incidence of working informal jobs to earn income and with various measures of the importance of those earnings to income and the intensity of that work. For example, compared with those with stable work schedules or considerable advance notice of their work schedules, those whose hours vary mainly at their own request and those who typically receive two weeks or less notice about their schedule from their employer are 5 and 3 percentage points more likely, respectively, to work an informal job to earn income. Particularly for the latter group, informal work may be a way to supplement in-

come from a job characterized by unpredictable and variable hours and earnings.

### *Persistence of Informal Work*

Although people participate in informal work activities or side jobs for a variety of reasons, the evidence presented in the preceding section indicates that individuals who have relatively low earnings, are in precarious or nonstandard work arrangements, or are unemployed frequently use casual work arrangements to help make ends meet. The policy implications of these findings depend in part on whether casual work is typically a short-term fix for individuals who are temporarily in financial difficulty, or something that people rely on over a longer period, whether because they experience frequent spells of nonemployment or because their main job provides inadequate or unreliable income.

Here we present evidence regarding the persistence of informal work based on the subsample of SHED respondents who were interviewed in both 2016 and 2017. The first column of table 6 shows, conditional on reporting informal work during the prior month in the 2016 survey, the percent who reported informal work during the prior month in the 2017 survey. Column 2 indicates the percentage of those who reported doing informal work to earn money in the 2016 survey who gave the same response in the 2017 survey. As in previous tables, we report these statistics for all respondents and by selected demographic, financial, and employment or job characteristics. Because the sample sizes for these tabulations are considerably smaller than those underlying earlier tabulations—521 for the column 1 percentages and 316 for column 2 percentages—we have aggregated categories for some variables. The weights developed by GfK for the 2016–2017 panel sample were used in preparing these tabulations.

Among those who reported informal work during the prior month in 2016, exactly half did so for the prior month in 2017, just over a year later. Among those reporting in 2016 that they worked a side job primarily to earn money, 42.7 percent gave the same response in 2017. Although some of the cell sizes are quite small once the data are broken out by demographic, financial, and employment characteristics, the

**Table 6.** The Persistence of Informal Work

	Informal Work in 2017/ Informal Work in 2016 (Percent) (1)	Informal Work to Earn Money in 2017/Informal Work to Earn Money in 2016 (Percent) (2)
All	50.0	42.7
<b>Age (years)</b>		
18–24	39.1	31.4
25–54	54.4	46.4
55–64	36.2	25.7
65 plus	56.5	57.0
<b>Gender</b>		
Male	51.8	38.2
Female	48.1	46.5
<b>Race-ethnicity</b>		
White	46.8	38.8
Hispanic	61.6	56.5
Other	50.0	42.7
<b>Education (2016)</b>		
High school or less	50.1	49.5
Some college	48.5	42.4
College plus	50.8	34.7
<b>Household income (2016)</b>		
Less than \$50,000	55.9	50.4
\$50,000 to \$99,999	49.9	46.7
\$100,000 or more	43.6	30.4
<b>Financial well-being (2016)</b>		
Difficult to get by	41.0	47.4
Just getting by	56.8	46.8
Doing okay	49.7	41.5
Living comfortably	49.1	36.4
<b>Monthly income changes (2016)</b>		
Often varies	50.3	44.9
Mostly same, sometimes varies	49.1	43.1
Roughly the same	50.1	42.0
<b>Employment status (2016)</b>		
Full-time employee	51.2	43.4
Part-time employee	47.8	47.4
Self-employed/contractor	53.5	45.1
Not employed	47.6	38.1
<b>Work schedule status (2016) (employees, consultants, contractors, N = 271 and 187)</b>		
Varies at own request	46.9	45.8
2 or fewer weeks' notice	46.7	34.9
3 plus weeks' notice	49.6	45.6

Source: Authors' calculations based on SHED data (Federal Reserve 2017, 2018).

Note: Sample includes individuals interviewed in both 2016 and 2017 SHED. Unless otherwise indicated, N = 517 for first column and N = 314.

data in table 6 are generally consistent with the findings reported earlier. For example, despite no clear pattern in the persistence of informal work activity by level of education overall, conditional on having done informal work to earn money in 2016, those with a high school education or less were 15 percentage points more likely to be doing informal work to earn money in 2017 (49.5 percent) than those with a bachelor's degree (34.7 percent). Similarly, conditional on having a side job to earn money in 2016, those whose household income fell below \$50,000 in that year were 20 percentage points more likely to still be working a side job to earn money in 2017 (50.4 percent) than those with household incomes of \$100,000 or more (30.4 percent). Those who reported finding it difficult to get by or said they were just getting by in 2016 were more than 10 percentage points more likely to report still having a side job to earn money in 2017 (47.4 and 46.8 percent, respectively) than those who in 2016 reported living comfortably (36.4 percent). The year-over-year persistence rate in working a side job to earn income is also somewhat higher for those who worked in part-time jobs or who were not employees in 2016 (47.4 and 45.1 percent, respectively) than for full-time employees (43.4 percent).

### *Are the SHED Estimates Biased?*

A natural concern about these findings is whether the SHED respondents are typical of the overall population in regard to their participation in informal work activities. A possible concern is that, even among those with similar observable characteristics, someone who is willing to participate in an online panel also might be more likely to participate in other informal work activity.

One strategy for assessing the potential for this sort of bias is to compare estimates of informal work activity from the SHED to estimates from other sources. The SHED estimates of the overall prevalence of informal work activity are quite similar to those from the SIWP and EIWA, but because the data for all three of these surveys are collected in a similar fashion, this finding is unsurprising.

We also can compare the 2017 SHED esti-

mate of the share of people who had been paid within the past month for “driving using a ride-sharing app such as Uber or Lyft” and the JPMorgan Chase estimate of the share of households with income in a given month from a transportation platform. The estimate based on the 2017 SHED, for which data were collected in November and December, is that 1.5 percent of individuals had driving income during the prior month; the JPMorgan Chase estimate is that, in March 2018, deposits from online transportation platforms were recorded for 1.0 percent of checking accounts. Although not an apples-to-apples comparison, the order of magnitude of the two estimates is similar. Moreover, the JPMorgan Chase estimate, which is lower than the SHED estimate, does not capture certain payments, including transfers directly to debit cards, and thus may understate the prevalence of participation in online driving platforms.

Another approach to assessing the sensitivity of our results to possible selection bias is to exclude online activity from our measures of participation. The rationale for doing this is that participants in the online GfK panel may be more likely than is typical to take on other online work and, if so, estimates that exclude online work may more closely approximate the prevalence of informal activity in the population. In the same spirit, we also go further and construct estimates that exclude all informal activity carried out by anyone in the SHED sample who reports any online activity. Not surprisingly, restricting the set of informal work activities considered in this way substantially reduces the estimated prevalence of informal work activity. Our baseline estimate is that 28.1 percent of adults age eighteen and older engaged in informal work activity over the prior month; excluding those who were involved only in online activities reduces this to 20.1 percent; and dropping anyone who did any online work, even if they also were involved in other types of informal work, reduces it to 13.1 percent. Although clearly lower—indeed, perhaps too low—these numbers still imply a substantial level of participation in informal work activities. The online tables mirror the information provided in tables 3 and 4 for these two other

definitions of informal work.<sup>11</sup> As can be seen in these tables, the basic patterns apparent in our baseline estimates hold up after excluding, first, all online work and, second, all informal work done by anyone who participated in any online work. Groups that are relatively disadvantaged (by race, by education, by financial circumstances, or by employment status) are far more likely to rely on informal work to earn money and, moreover, to report that informal work is an important source of income. Although members of the SHED sample may be more likely than those in the population at large to participate in informal work, the patterns of reliance on informal work we have documented seem unlikely to be an artifact of issues with the representativeness of the SHED sample.

### DISCUSSION AND POLICY CHALLENGES

According to the SHED estimates for 2016 and 2017 presented in this paper, as many as 28 percent of adult Americans engaged in informal work activities outside their main job during the survey reference months. Although informal work is common regardless of race, ethnicity, education, and household income, the reasons individuals hold side jobs and the extent to which they rely on them for income differ systematically across groups. Minorities, the less educated, those with lower incomes or experiencing financial stress, those in nonstandard work arrangements, and the unemployed are far more likely to work side jobs to earn money. They also are more likely to report that earnings from these jobs were important to household income over the prior year, that these earnings usually make up at least 10 percent of their income, and that they usually spend at least twenty hours or more per month in these activities.

Reliance on informal work for income also varies strikingly by work arrangement. Relative to full-time employees, part-time employees—particularly those who would prefer full-time work—and those who are sole proprietors or partners, are contractors or consultants, or are in some other self-employment arrangement

are considerably more likely to hold side jobs to earn money and to indicate that informal work is an important source of income over short and longer time horizons. Among employees, contractors, and consultants, those with unstable or unpredictable schedules are considerably more likely to have informal jobs to earn money. The relative importance of informal work to supplement income among those in part-time or other alternative work arrangements may be a symptom of the inadequate or unstable hours and earnings often associated with these forms of work.

For most people, informal work accounts for a relatively small share of income. Yet, consistent with evidence from ethnographic studies, the SHED estimates suggest that informal work plays an important role in helping the economically vulnerable and those in alternative work arrangements make ends meet.

Informal work is not, however, a panacea. Those most likely to hold informal jobs to supplement income are the least likely to work in arrangements that provide critical benefits such as sick pay, health insurance, and retirement plans. According to data from the U.S. Bureau of Labor Statistics (2018), whereas 88 percent of full-time employees were offered employer-provided health-care benefits, 81 percent were offered employer-provided retirement benefits, and 88 percent were offered paid leave, the corresponding figures for part-time employees were just 40 percent, 22 percent, and 43 percent. Workers in contract and consultant arrangements generally are treated as self-employed and so, like sole proprietors and others in nonemployee arrangements, are not eligible for employer-provided benefits. Because informal work generally is treated as self-employment as well, it rarely comes with employee benefits. Thus, while informal jobs may boost earnings, they do not help workers access benefits, which are an important component of the compensation package for most full-time employees. Lacking benefits such as health insurance or a pension during retirement is a common source of financial hardship.

11. The online appendix is available at <https://www.rsfjournal.org/content/5/5/110/tab-supplemental>.

The perceived growth in independent contractor and other nonemployee arrangements has focused considerable policy attention on increasing access to benefits among these so-called gig workers. Recent proposals at the federal and state levels primarily target large platform companies, such as Uber and Lyft, that help connect workers providing services with customers. Although the specifics vary, the proposed legislation typically would enable or require such companies to provide workers' compensation or to contribute to benefit plans that are portable across jobs (Fitzpayne and Greenberg 2018; Maxim and Muro 2018). Yet available evidence suggests that workers in these arrangements typically use them to supplement income from a main job. Moreover, the evidence presented shows that, although work done online or through mobile apps accounts for a significant share of informal work, traditional types of informal work are more common among the economically vulnerable populations most dependent on this work for income. A more comprehensive approach for addressing the lack of benefits among workers in part-time and nonemployee arrangements is therefore needed.

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