

Is New Platform Work Different than Other Freelancing?

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The rise of freelance work in the online platform economy (OPE) has received considerable media and policy attention in recent years. However, freelance work is by no means a new phenomenon, and recent analysis indicates little change in the prevalence of freelance work force beyond the OPE.¹ In this paper, we probe whether these new OPE jobs look similar or different from other modes of so-called “gig work” that have been pervasive in the U.S. for many years. We build on prior analysis of I.R.S. tax return data to identify instances when workers begin doing online platform work versus other freelance / independent contractor work for firms and to examine the evolution of workers’ incomes.² Event studies around the start of each type of work provide suggestive evidence on the motivations for entering into each type of work.

I. The Gig Economy in Tax Data

Tax data uniquely allow us to examine more traditional independent contracting and compare it with more recent forms of independent contracting. In addition to reporting payments to employees on W2 forms, U.S. firms are required to report

annual payments to self-employed independent contractors in excess of \$600 on form 1099-MISC. Online platforms must also report income paid to workers on 1099 forms; we identify online platform work as non-employee compensation (NEC) received on a 1099 form issued by a firm identified as an online platform in Collins et al. (2019).³ Our final list includes approximately 50 online platforms, with rideshare work being the most common.

We identify self-employment outside of independent contracting as filing Schedule SE but never receiving 1099 NEC income. (This sub-sample is constructed so as to be fully non-overlapping with independent contracting.) We further restrict other non-OPE 1099 NEC to have the majority of their earnings come from outside the OPE.

Our sample includes the full population of approximately 3 million individuals who ever earn OPE income as well random samples of the same size of other freelancers with 1099-reported income and self-employed workers with only self-reported earnings, respectively. Our key variables of interest include non-employee compensation on 1099 information returns, wage/salary earnings on W2 information returns, adjusted gross income (AGI) on individual 1040 tax filings, reported self-employment earnings on Schedule SE, and unemployment-insurance (UI) benefits reported on 1099Gs.

II. Evolution of Outside Income Around Starting a Gig Job

We employ an event-study framework to examine employment and income around starting a gig job. The event-study provides a non-parametric way to explore the evolution of an outcome of interest around

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¹In Collins et al. (2019), we show that independent contracting outside of the OPE has been largely stable since 2005 at approximately 10% of the workforce.

²Other recent work has also used tax data to study this population (Abraham et al., 2018; Jackson, Looney and Rammath, 2017; Jackson, 2019).

³Several OPE firms report payments on form 1099-K, see Collins et al. (2019) for details.

	OPE	Other NEC	SE No 1099
	Mean (Median)	Mean (Median)	Mean (Median)
Own Wages (W2)	23,285 (16,200)	25,309 (9,700)	22,766 (4,500)
AGI (1040)	33,904 (22,300)	48,713 (22,000)	45,145 (15,700)
Own + Spouse Wages (1040)	30,284 (19,600)	39,371 (16,500)	36,483 (11,800)
SE income (Sched SE)	1,566 (0)	1,341 (0)	0 (0)
Own Wages > 0	0.771	0.703	0.603
Own Wages > 15,000	0.517	0.433	0.360
UI (1099G), Share	0.078	0.072	0.063
SE Income > 0, Share	0.126	0.065	0

TABLE 1—EARNINGS TWO YEARS BEFORE EVENT

Note: Medians are rounded for confidentiality purposes.

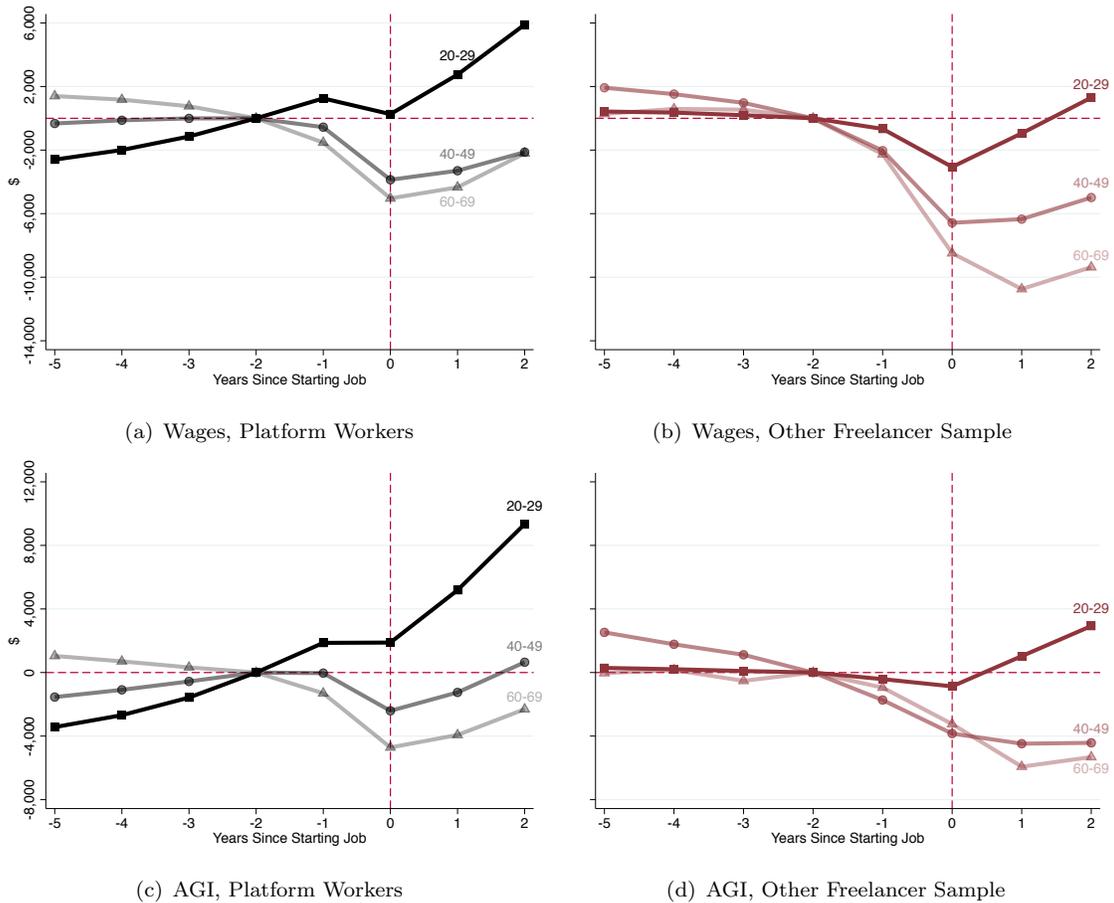


FIGURE 1. EVENT STUDIES BY TYPE OF WORK AND AGE GROUP

Note: Figure plots the event-study coefficients from Equation 1, for different outcomes of interest, see text. Effects are relative to two years before starting either platform work or freelance work depending on the sample. The x-axis shows “years since first paid” in a particular role, “0” indicates the first year any pay is observed. Negative values indicate year before first pay is received, and positive values indicate year after first income is received. Standard errors are clustered at the individual level. 95% confidence intervals are shaded around the estimates.

an event, controlling for individual heterogeneity in baseline levels of an outcome, as well as national trends. It is important to note that the point of our exercise is to examine the trends relative to starting a new job, and *not* to estimate causal effects of starting gig work.

Our event of interest is the first time a worker does gig work or self-employment. By focusing on the first such event, we are comparing workers with the same experience in such work. This is important because OPE work is relatively new. Naive population comparisons of the OPE with other independent contractors or the self-employed will compare OPE workers with a pool of more experienced workers, which can confound the interpretation of results like earnings or tax filing behavior if these vary based on experience.

The event-study specification we use is standard and given as follows:

$$(1) \quad y_{it}^{a,g} = \sum_{k \in K} \beta_k^{a,g} \mathbb{1}\{E_i^{a,g} = t + k^{a,g}\} \\ + \mathbf{X}_{it}^{a,g'} \gamma^{a,g} + \alpha_i^{a,g} + \alpha_t^{a,g} + \epsilon_{it}^{a,g}$$

where y_{it} is an outcome variable of interest for individual i , in year t , and $g \in \{\text{OPE, Other freelance/contract work, Self-reported self-employment}\}$. To explore the possibility of different trends over the life-cycle, we run separate regressions for three age groups, $a \in \{20 - 29, 40 - 49, 60 - 69\}$, representing young workers, middle-aged workers, and older workers, respectfully. $\mathbb{1}\{E_i^g = t + k^g\}$ is an indicator for a new gig occurring k periods from t , with negative k indicating a future event date, and positive k indicating the event occurred k years in the past. We omit $k = -2$ so that the β coefficients are relative to 2 years before first starting gig work. a_i is an individual fixed effect, α_t is a time period fixed effect, and \mathbf{X}_{it} includes a quintic in age interacted with gender. For comparability with the OPE, which appears only from 2012, we restrict events to 2012-2017.

Table 1 characterizes the baseline earnings of workers in our sample two years prior to their first work in the relevant category. Most entrants into both OPE-based

and other forms of freelance work have wage income two years prior. Both groups have similar average wage and salary earnings, though entrants into platform-based work have higher median earnings and lower additional household income.

A. Results

We present results graphically, plotting coefficients up to 5 years prior to and 2 years after starting a gig job.⁴ Figure 1 shows how wages and adjusted gross income (AGI) evolve around entry into freelance “gig” work for the OPE (left hand panels) and other contract work reported on 1099s (right hand panels). We plot results separately for each of the three age groups. The top panels show the results where the outcome is wage/salary earnings, and the bottom panel show the results for AGI.

For the youngest workers, both OPE and contract work appear to be associated with only transitory fluctuations in earnings in traditional (W2) jobs. Earnings for these workers decline by about \$2,000 in the year they start a gig job of either type, before returning to trend. Even restricting the focus to younger workers, we find those starting OPE work and other freelance work tend to be on different trends. Young workers who participate in the OPE have wages and AGI on an upward trajectory relative to starting an OPE job, whereas there is no such upward trajectory in wages for other independent contractors. Comparing wages to AGI, it appears that either form of gig work completely substitutes the outside decline in earnings.⁵

Among middle-aged and older workers, entry into platform-based work is also associated with a transitory decline in other

⁴We choose 2 years post because coefficients further out for the OPE will only be identified off of a small group of people who started in the early years of gig availability (2012-2014), who differ from later entrants in ways that complicate interpretation of these coefficients.

⁵Note: total compensation, i.e. benefits, may be different, but in many cases we cannot observe these benefits in the data. We have also examined spousal earnings, but any “added” worker effect is second order for AGI compared with own-earnings from gig work.

income. Platform workers see their gross earnings largely recover within two years of initial entry. Older workers are slightly more likely to still be doing platform work two years out.⁶ By contrast, entry into other types of freelance and independent contract work among the same age groups is associated with permanent declines in earnings, driven in large part by steep declines in wage and salary earnings. These declines could reflect either more severe shocks to outside earnings or permanent shifts in labor supply. Despite this larger decline in employment earnings among older workers, their participation in freelance work is no more persistent than that of younger workers.

To provide further insight on the nature of these changes in wage and salary earnings, we examine how the propensity to receive UI benefits evolves around each event. Both types of work appear to be associated with higher prevalence of unemployment shocks in the years before entry, similar to findings in Katz and Krueger (2017). Figure 2(a), shows that workers beginning both OPE and other freelance work experience 1 and 1.5 p.p. higher likelihoods of receiving UI payments one year prior to starting gig work and in the year of starting gig work, respectively. However, whereas platform workers appear to experience an unemployment shock only in the two years prior to entry, other freelancers display a rising propensity to have been unemployed over a much longer horizon beforehand. This finding suggests that many begin doing freelance work after disruptive shocks that occurred further in the past. Among older workers, such shifts to contract-based work may represent a permanent shift towards retirement after a career interruption.⁷

For comparison, we also run the same specification for events in which individuals earn self-reported self-employment income for the first time.⁸ We find

that workers' wage and salary decreases around entry into self-employment are larger than those beginning 1099-reported work—exceeding \$7,000 in the year of starting self-employment on average, compared with \$2,000 for OPE and \$6,000 for other independent contractors. AGI for self-employed and other independent contracting show a similar negative pretrend. Self-employment earnings appear to provide a higher replacement rate for wage/salary declines than independent contracting in the first year, but decline in subsequent years.

III. Implications for Tax Filing

Gig economy workers with platform or other freelance and independent contracting income are self-employed for tax purposes. Yet many individuals who receive such payments do not report them as self-employment, particularly in the OPE (see Collins et al., 2019; Treasury Inspector General for Tax Administration, 2019). Low tax filing rates are partly due to the low profits, as well as non-compliance and incorrect reporting.

In Figure 2(b), we examine how reported self-employment income changes when individuals begin receiving OPE or other freelance income. Consistent with cross-sectional evidence, only a limited fraction of first-time freelancers begin reporting self-employment earnings on their tax returns. Platform workers have even lower increases in SE reporting the first year—about 20%—compared with 35% of other 1099 recipients. (The decline thereafter mainly comes from declining rates of participation).

One major difference between 1099-reported self-employment and self-reported self-employment can be seen in take-up of the Earned Income Tax Credit (EITC). In Appendix Figure A4, we show for self-reported self-employed workers, EITC claiming rates increase by over 20 percentage points in the event year. For those starting platform work or other freelancing reported on a 1099, the correspond-

be found in Appendix Figure A3 of the Online Appendix.

⁶Event study results for persistence of gig work can be found in Appendix Figure A1 of the Online Appendix.

⁷See Appendix Figure A2 for any UI payment event study results by age.

⁸Event study results for other self-employment can

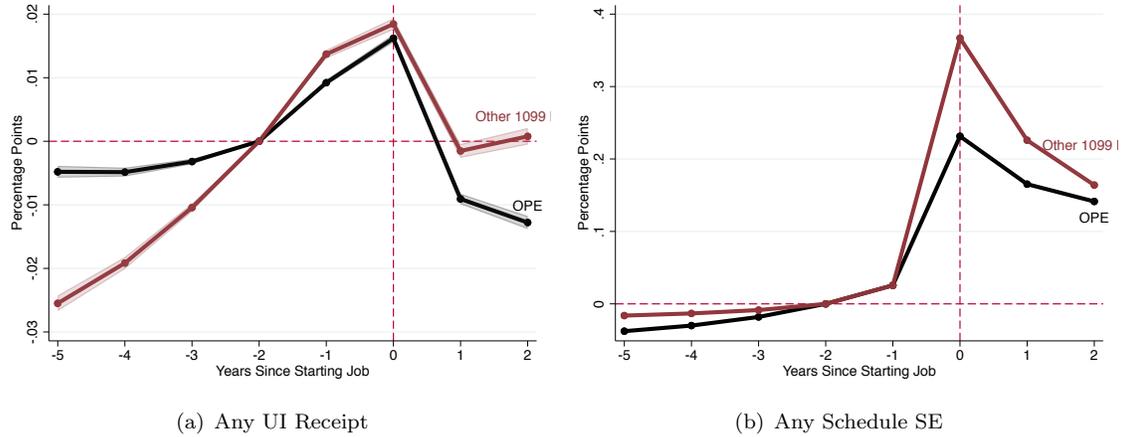


FIGURE 2. ADDITIONAL OUTCOMES

Note: Sample include all first-time participants over age 18. See Notes for Figure 1 for additional details.

ing number is only about 5 percentage points. The reasons for these differences are not immediately clear. One hypothesis for these differences is that self-reported self-employment income is more subject to EITC-incentivized reporting manipulation compared with third-party-reported 1099 income.

IV. Conclusion

In some ways, new and old forms of freelance work appear surprisingly similar. Both types of gig work occur around major reductions in outside income and are used by younger workers to smooth temporary shocks. There are also some differences. Platform work for younger workers is associated with upward long-term trend in earnings while other freelance work is not. Platform work tends to occur around smaller and more transient reductions in wage/salary earnings for other prime-aged workers, while other freelance work tends to be associated with more persistent declines.

This paper was primarily a descriptive exercise. While a useful first step to documenting how workers use gig work, we hope future work will further unpack the extent to which these findings reflect changes in labor supply and responses to shocks. Moreover, one must determine what the counterfactual would be to fully assess the welfare impacts of new platforms. Recent work

provides a useful guide. Koustas (2018) finds rideshare availability causally leads to more high-frequency income/consumption smoothing. On the other hand, Jackson (2019) finds rideshare availability may decrease long-run earnings for (far-sighted) younger workers, and increase earnings for older workers.

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