The Evolution of Platform Gig Work, 2012-2023*

Andrew Garin†, Emilie Jackson‡, Dmitri Koustas§, and Alicia Miller¶

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Abstract

We document the dynamics of tax-based measures of gig work through 2023, with a special focus on work mediated by online platforms. We compare and contrast the demographic composition, earnings amounts, and tax-filing behavior of the gig economy over time. Updating data through 2023 allows us to provide the most comprehensive estimates of the COVID-19 pandemic on the gig economy. Between 2019 and 2023, the number of platform gig workers nearly tripled, increasingly by over 3 million individuals, and there are approximately 5.8 million individuals receiving information returns from platform gig work by 2023. In contrast, the broader workforce of 1099 freelancers follows a different trend, declining during this period. Self-employment tax filing is largely unchanged over this period.

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†Carnegie Mellon University, NBER, and IZA

‡Michigan State University

§University of Chicago

¶Internal Revenue Service

1 Introduction

Work mediated by online platforms has emerged as a widespread phenomenon over the last decade. An expansion of work that is mediated by platforms rather than by employers has important implications for both tax administration and policy more broadly: As self-employed independent contractors, platform workers are not subject to tax withholding, are responsible for determining their tax liability, and are not subject to labor laws mandating minimum wages, overtime, or sick leave, and do not pay into state unemployment insurance systems. The COVID-19 pandemic has only put further policy and popular attention on the vulnerability of platform workers who fall outside of much of the social safety net.

The first step in understanding the platform economy is having an ability to measure it. Earlier work by Collins, Garin, Jackson, Koustas, and Payne (2019) and Garin, Jackson, and Koustas (2022) documented trends in freelance work reported on 1099 returns from 2000 to 2018 with particular focus on the role of gig work mediated by online platforms.[1] That work found that the prevalence of income from platform-based driving work—typically small annual amounts supplementing other employment—expanded dramatically between 2012 and 2016, but no increase in the prevalence of other types of freelance work. Yet, the platform economy was still growing, and it is possible that platform gig work has continued to rise dramatically since then. More recently, the COVID-19 crisis and subsequent changes in the policy and economic landscape may have led to sweeping changes in the extent and nature of gig work. It is therefore important to extend measurement of platform work and gig work more broadly through present day.

This paper extends on previous analyses of gig work in tax data to document how the platform economy and tax reporting behaviors of gig workers evolved around the

[1] Other recent empirical research drawing on tax return data and other survey or administrative data sources has made strides in measurement of platform work (Jackson, Looney, and Ramnath, 2017; Farrell and Greig, 2016, 2018; Bracha and Burke, 2021; Lim, Miller, Risch, and Wilking, 2019; Greig and Sullivan, 2020), and we now have more research examining how and why workers use the platform economy (Koustas, 2018, 2019; Garin, Jackson, Koustas, and McPherson, 2020; Jackson, 2022).

COVID-19 pandemic. In doing so, we build on previous approaches to deal with issues in the reporting of gig workers in tax data. In particular, the switch by platforms from reporting payments on Form 1099-MISC, which was subject to a $600 reporting threshold, to Form 1099-K, which was subject to a higher $20,000 threshold, resulting in a "1099-K gap" in which nearly 1 million platform workers were no longer covered by 1099 reporting annually after 2016. We also discuss another recent issue with 1099 coverage for the broader freelance workforce—due to pandemic related disruptions, paper 1099 returns returns for tax year 2019 that were filed in early 2020 were never fully processed by the IRS.

We find that the number of workers with platform-based gig work payments grew dramatically around the pandemic, while the composition of platform workers shifted significantly. We document both widespread exit from and entry into platform-mediated work, with a net increase of nearly 4 million workers (approximately 200% growth). While a central challenge in measuring platform work after 2016 is the emergence of the 1099-K gap, we find that the surge in platform work among new entrants after the onset of the pandemic is driven almost entirely by nonemployee compensation payments from platforms on 1099-MISC and its successor, the 1099-NEC—both of which are subject to a $600 threshold—-rather than payments reported on 1099-K. This sudden rise in platform payments reported on 1099-MISC/NEC is consistent with a shift from ride-hailing work to delivery work observed in other data sources.

Platform gig work is only one component of the larger 1099 freelance workforce, and self-employment more broadly. When we examine 1099 freelancing outside of platform gig work, we find a starkly different pattern, with 1099 work *falling* by over 7 percent compared to pre-COVID levels. This decline is across industries, rather than being concentrated in any particular industry, but concentrated among those with lower profits. Overall, after initially declining in 2020, the prevalence of freelance work reported to the IRS has grown by about 1 percentage point of the workforce since then, though the composition shifts dramatically towards platform work. Much of this growth is not captured in self-employment tax filings. Thus, aggregate analyses of

overall freelancing or self-employment rates around the COVID pandemic would fail to capture the significant expansion in platform-mediated work.

This paper is organized as follows: Section 2 discusses the IRS data used in this paper, highlighting opportunities and challenges of these data. Section 3 discusses raw trends in platform gig work over time. Section 4 provides a deep dive on platform work during the COVID pandemic. Section 5 places trends in platform gig work in line with trends in components of the workforce including other 1099-contract work broadly defined and other self-employment. We present overall trends adjusted for reporting anomalies. Section 6 concludes with a discussion of future research directions.

2 Measuring Gig Work in Tax Data: Opportunities and Challenges

2.1 Identifying Gig Work in IRS Tax

Payments by *firms* to self-employed contractors are reported directly to the IRS by those firms on 1099 information returns. Collins, Garin, Jackson, Koustas, and Payne (2019) provides an in-depth discussion of these forms and how they can be used to measure activity in the gig economy, and we only briefly repeat the landscape here. In tax data, we observe payments to gig workers on three different types of information returns. First, firms have been required to report all compensation of $600 or more to self-employed independent contractors in Box 7 of Form 1099-MISC ("nonemployee compensation") through 2019 and on its successor, Form 1099-NEC, beginning in 2020. Prior to 2011, all "freelance" or "gig" work done for firms or for clients through online intermediaries was reported as nonemployee compensation on 1099-MISC. In 2011, a new law went into effect requiring companies that processed credit cards, electronic payments, or other transactions to report each recipient's payments on Form 1099-K. Much or all of this activity would not previously have been reported on a 1099-MISC. Subsequently, several large online platforms switched from reporting Form 1099-

MISC non-employee compensation to issuing Form 1099-K instead. We track the total payments individuals receive from these companies that are reported on either on a 1099-MISC/NEC as non-employee compensation, or on a 1099-K.

We will pay special attention to 1099 workers mediated by online platforms, which we refer to as the Online Platform Economy, or "OPE." In particular, we focus on individuals who supply labor on platforms that primarily mediate labor activity, as opposed to selling or leasing platforms. We measure participation in platform work based on receipt of an information return from a payer known to be an online platform. Updating Collins, Garin, Jackson, Koustas, and Payne (2019) to include platforms operating at any point through 2023, we focus on a list of over 90 different labor platforms that account for the overwhelming majority of payments to gig workers over the period studied.

2.2 Other Tax Data Elements

For tax purposes, 1099 workers are technically self-employed independent contractors. A key advantage of 1099 returns is that they are issued by firms, and therefore do not depend on tax compliance by workers. Of course, we can also examine self-employment tax filing activity, as measured by Schedule C/SE filing, conditional or unconditional on receiving a 1099.

We will also examine whether gig workers received a W-2 for a wage/salary job in the current year or previous years. Following Collins, Garin, Jackson, Koustas, and Payne (2019), we will define the workforce as all individuals appearing on a 1040 return in a year who have labor income reported on a W-2 return, a 1099 return, or on Schedule SE as well as individuals individuals with positive earnings on either a W-2 who do not file Form 1040. In this paper, we use tax data through September 2024. Because this will not include all late filers for tax year 2023, 2023 was still incomplete as of the time of writing. For this reason, we will only plot outcomes that are conditional on filing through 2022 in the main text.[2] We will classify gig workers

[2]Raw counts through tax year 2023, as of September 2024, are still available in the appendix.

as having "Earnings Primarily from Self-Employment" when they have the majority of wage plus Schedule SE earnings coming from Schedule SE, and "Earnings Primarily from Wages" as the complement. W-2 industry can be extracted as the industry from the tax-filings of the firm issuing the information return. Self-employed workers also self-report a NAICS industry when filing Schedule C. While demographics are limited in the tax data, age and gender are available based on a link to records from the Social Security Administration (SSA).

2.3 The 1099-K Gap

A potentially important limitation to studying the Form 1099-K is that platform companies classifying themselves as third party networks are only required to file this form if the total amount of such transactions exceeds $20,000 and the aggregate number of such transactions exceeds 200. In practice, this did not impact previous analysis through 2016, as most of the major platforms voluntarily issued 1099-Ks to all platform participants, regardless of the earnings level, prior to 2016, and/or issued a 1099-MISC. Beginning in 2017, however, some large platforms announced changes in their reporting policies and have moved to only report income on the 1099-K if it met the higher $20,000 reporting threshold legally required for the 1099-K. This problem of platform work no longer being measured due to it being below the reporting threshold is known as the "1099-K gap."

The type of tax form issued by a platform gig company is typically reported on their website. Our surveying of company websites finds that the rideshare companies typically use the 1099-K, whereas most delivery companies use the 1099-MISC (prior to 2019) or 1099-NEC (since 2020), although there are notable exceptions. To our knowledge, there is no legal reason requiring payments to be reported on one form or another, it is a choice made by the companies. We can only speculate that some firms may view it as a convenience to report earnings of $600 or more to its workers on a 1099, while other firms may not view income reporting to workers and the IRS in the same way.

We will deal with the 1099-K gap in two ways. First, as we will show, the 1099-K gap is less of an issue for the trends during COVID, since delivery firms driving growth primarily report on the 1099-NEC and not the 1099-K.

Second, we can make adjustments to the data based on trends observed in state data with lower state 1099-K filing thresholds. Several states have passed laws requiring state-level 1099-K reporting subject to lower thresholds. Garin, Jackson, Koustas, and Miller (2025) examine state-level 1099-K data from Massachusetts and Vermont, states which have entered into data-sharing agreements with the IRS. Starting in 2017, both states require platforms to file state-level 1099-Ks to all payees with $600 or more in revenues. Garin, Jackson, Koustas, and Miller (2025) use these state-level returns to examine how rates of gig platform work changed in those states over time, and then estimate how national platform work rates would have changed from 2016 onwards if the rates grew at the same pace as in these two states (MA/VT). In constructing a harmonized series over the whole period, we can use the multipliers developed in Garin, Jackson, Koustas, and Miller (2025). Unfortunately, our imputation assumptions made in data prior to 2020 are unlikely to hold after 2019, and so we cannot make this adjustment going forward.

Despite these limitations, our take is that the 1099s provide the best estimates of gig work over time. Gig work is difficult to capture in survey data and is sensitive to the precise wording of questions (Katz and Krueger, 2019; Abraham, Haltiwanger, Sandusky, and Spletzer, 2020; Abraham, Hershbein, and Houseman, 2020; Bureau of Labor Statistics, 2018). An alternative to tax data, bank account data, such as that used by JPMC (Farrell and Greig, 2016, 2018), also has new challenges for measuring gig work in recent years, as up to 70 percent of drivers may now use debit cards provided by the platforms, and thus would not appear in banking data (Chen, Feinerman, and Haggag, 2024). This income earned on debit cards would still show up in tax reporting, provided it exceeds the reporting threshold.

We also note that the 1099-K gap is unlikely to be an issue for future measurement of gig work. The American Rescue Plan Act of 2021 lowered the 1099-K reporting

threshold to $600 with no minimum number of transactions, effectively bringing reporting back in line with the 1099-MISC. However, implementation of this new rule has been delayed and is now expected to be phased in slowly over time. As of tax year 2024, the threshold has been lowered to $5,000.

3 Trends in Platform Gig Work Over Time

3.1 Trends Prior to COVID

In this subsection, we briefly summarize trends prior to 2020. Much of this was previously documented in Garin, Jackson, and Koustas (2022), but we discuss key results from that work to put the COVID trends into context.

Outside of the online platform economy, fewer than 10 percent of workers had non-employee compensation reported on a 1099 in each year from 2000 to the start of the COVID pandemic. More broadly, the share of the workforce with 1099 income from non-employee arrangements grew by approximately 2 percentage points from 2000 to 2018. Most of this growth occurred from 2013 to 2018, and was nearly entirely driven by the rise of online platform-mediated gig work.

Many gig workers have other W-2 work and use gig earnings as secondary or supplemental income sources over the course of the year. There has been no significant increase in the likelihood of individuals earning a full-time living solely from 1099-based self-employment. Instead this work often augments other primary W-2 employment over the course of the year. Around 85 percent of OPE workers do that work to supplement their primary earnings from W-2 work; this share is significantly higher form platform workers than for other freelancers with with 1099-reported payments outside the OPE.

Although platform-based work rose dramatically after 2013, the vast majority—around 90 percent—have been engaged in transportation tasks. Younger men were the dominant demographic in the OPE workforce (though women's participation rates in

the OPE, which was dominated by rideshare work during this period, were higher than in the traditional taxi industry).

However, the share of workers who self-report self-employment income on their income tax return has evolved differently than the share with 1099-reported payments for freelance work. On one hand, many 1099 workers do not appear in self-employment tax filings, which may in part be because workers fall below reporting thresholds after accounting for expenses.[3] Yet also important are changes in the propensity of individuals to report their self-report self-employment over time in response to the Earned Income Tax Credit (EITC) and Child Tax Credits (CTC), as documented by Garin, Jackson, and Koustas (2025).

3.2 Firm Reporting of OPE on 1099s Over Time

As discussed above, the primary source of growth in 1099-reported non-employee work in recent years has come from the OPE. We next explore raw trends in how this platform gig work is reported on 1099-MISC/NEC versus 1099-K forms over time. Figure 1(a) shows raw trends in the number of platform gig work from 2012 through 2023. Prior to 2017, there was considerable voluntary reporting of gig work, even under the $600 reporting threshold.

From 2017, the time series appears to flatten out. There are two reasons for this: As discussed above, the adoption of the 1099-K, which has higher reporting thresholds, resulted in missing activity, particularly in the period since 2017. In Panel (b) we show the number of platform gig workers receiving different forms. (The total unique individuals is the sum of 1099-MISC/NEC and 1099-K, minus the number receiving both.) While the 1099-K was the most common form prior to 2017, there has since been a rise in the use of the 1099-MISC/NEC, which has a lower $600 reporting threshold. Another reason for the flattening of the series, not mutually exclusive, is that real

[3]Not all taxpayers are required to file tax returns. Filing requirements vary by filing status and age. For tax year 2020, a taxpayer under the age of 65 filing as "single" must file a return if gross income is at least $12,400. However, the filing requirement for independent contractors is $400 for anyone with net earnings from self-employment of at least $400.

gig activity is also slowly over this period. This slowing down can be seen in the state returns from Massachusetts and Vermont that are not subject to the 1099-K gap (Garin, Jackson, Koustas, and Miller, 2025), as well as public statistics on the number of rideshare drivers in Chicago.[4]

The time series in Figure 1(a) then shows a massive structural break beginning in 2020 and extending through 2021, the two years when the COVID crisis was most severe. As shown in panel (b), the massive growth observed in 2020 and 2021 is coming from activity reported on the 1099-NEC.

This shift likely reflects a shift from rideshare to delivery work around the onset of the COVID crisis. Given the nature of the COVID crisis, rideshare gig workers saw demand for their services contract sharply, while food and grocery delivery work boomed. While it is difficult to directly separate out delivery from rideshare activities in the federal tax data because some large rideshare platforms are also delivery platforms, we can gain insight from other data. Appendix Figure A.2 compares rideshare activity from publicly available data for the city of Chicago, to IRS data on the number of OPE workers in Illinois. The two series map each closely, including a decline between 2016 and 2017. This is not a surprise given that most of OPE work is ridesharing in this period. Between 2017-2019, the Chicago data show a noticeably higher levels of rideshare drivers than the tax data, likely due to the 1099-K gap. From 2020, the number of rideshare drivers declines dramatically. The number of drivers relative to 2019 was approximately 60% lower in 2020, 55 percent lower in 2021, 40 percent lower in 2022 and still about 20 percent lower as of 2024. At the same time, we see the IRS series explode. Unfortunately, there is few consistently-reported sources of data on delivery workers at this time, so we cannot directly examine any such time-series for delivery workers. However, the surge in platform work among new entrants is driven almost entirely by nonemployee compensation payments from platforms on 1099-NEC rather than payments on 1099-K. Since several delivery-only platforms report exclusively on

[4]Public statistics for Chicago are shown in Appendix Figure A.2. We discuss these data in more detail below.

1099-NEC, this pattern is consistent with an increase in delivery work.

Although there is reason to believe that the observed increase in platform work reported on 1099-NEC after 2020 was driven by delivery activity, it still unclear whether our series fails to capture important dynamics in ridesharing work hidden due to the high 1099-K threshold. Notably, we observe a large decline in ridesharing in the Chicago data, and this decline was likely similarly occurring elsewhere in the country.

We deal with this as follows: Because our 1099-K adjustment prior to 2019 adjusts for the missing activity, we can account for the missing activity prior to 2019. Suppose all these rideshare drivers subject to the K-gap completely exited OPE. Raw data would fail to fully capture the decline in OPE because we were missing this activity beforehand. However, the series with our 1099-K adjustment (through 2018) would be correct, and post 2020 would be correct without any adjustment. Alternatively, suppose many switched to delivery, which is now showing up in the raw data post. Now, looking at the raw data without the 1099-K adjustment pre would overstate growth in OPE between pre/post 2020. In that case, comparing to our series with our K-gap adjustment instead would provide a lower bound on the real growth.[5] [6] This is the approach we take in Section 5 in presenting a harmonized series over time.

4 Platform Work during COVID-19

To study the evolution of the gig economy during COVID, we proceed with examining raw data from the period since 2017. As discussed above, the raw data will likely under-count total platform gig employment due to the 1099-K gap and/or miss some churn in ridesharing. However, the data series should at least be comparable over time in this period, allowing us to examine changes in the composition of recipients of 1099s from platform gig payers.

Figure 2(a) reports overall counts of gig platform work, with separate breakdowns

[5] Taking this difference would imply that they all switched to delivery, which is why it is a lower bound on the actual growth.

[6] Unfortunately, updated state 1099-K data past 2018 were unavailable at the time of our writing to update our assumptions. However, these data could potentially be incorporated in future work.

by major gig industry: transporation and delivery; "creater/influencer," defined as platforms where people are paid for posting original content; and all other platforms, which includes platforms providing online tutoring, tele-health and other professional services. We combine transportation and delivery platforms because some transportation platforms are also delivery platforms, and we cannot separately identify the two.

As discussed above, we follow over 90 platforms by 2023. Prior to 2020, the largest component of platform gig work by far was transportation and delivery. While there are many other platforms, they all have comparatively small numbers of workers. After 2020, transportation and delivery work remained the largest components of gig work, with other platforms continuing to represent only a small share of the overall gig economy. In 2020, we see a jump in gig work by around 1.2 million workers. Over 1 million comes from transportation and delivery, and an additional 150,000 comes from creator/influencer platforms. Platform gig work again expands dramatically by 1.9 million between 2020 and 2021, with 1.8 million having an information return from a transportation or delivery platform. After 2021, there is no pullback in the number of platform gig workers as the economy recovered from COVID. Instead, platform gig work appears to return to the slower growth seen between 2017-2019. Thus, COVID appears to have been a large, permanent structural break increasing the number of gig workers. By 2023, there are approximately 5.8 million platform gig workers, up from 1.9 in 2019.

A second takeaway is that this was a period of record entry as well as exit. Figure 2(b) examines flows of entry and exit from platform work, showing that nearly 2.1 million new workers entered the gig economy in 2020 who did not do have an information return from the platform gig economy in 2019, a 100% increase over 2019. An additional 3.1 million entered in 2021 who were not participating in 2020. At the same time, exits also jumped. 1.2 million who had a platform gig 1099 in 2020 left by 2021.

Figure 3 examines gross earnings by transportation and delivery (Panel a), versus all other platforms (Panel b). In light of the 1099-K gap, we divide those with payments from transportation and delivery app into those with less than $20,000 and those with

$20,000 and above. Since most activity on all other platforms is reported on the 1099-NEC, we include more earnings detail for these platforms. Most workers are earning small amounts on these platforms. Nearly all of the massive growth is for gross receipts less than $20,000. Among all other platforms, most gross less than $5,000. Net earnings, after expenses, will typically be lower.

The age and gender distribution pre-COVID (2019), during COVID (2021), and post-COVID (2023) is shown in Figure 4. We can see the platform economy is disproportionately comprised of prime-age workers ages 30-55. More women have participated in platform work over time. First, looking at platform and delivery work, the distribution became much younger during COVID, possibly reflecting lower perceived COVID risk among younger workers compared to older workers. The transportation and delivery workforce also became more female, with women going from 36 percent to 44 percent of this work by 2021. This has held stable in 2023. Among all other platforms, this workforce was already majority female in 2019 (55 percent) and became even more female in 2021 (66 percent), mainly shifting to women in their early 20s and 30s, before coming down somewhat to 62 percent by 2023.

Previous research has shown that many workers enter gig platform work following an economic shock, such as unemployment (see, for instance Koustas (2018, 2019); Jackson (2022)). We provide suggestive evidence on the economic shock channel in Figure 5, for wage-only workers in 2019. By the nature of the COVID shock, different industries were differentially affected: in some industries, like grocery stores, very few workers had slack demand, whereas demand fell dramatically for hospitality and restaurants industry. One proxy for COVID's impact is the share with UI receipt among the W-2 workforce in 2020. In Figure 5, we plot the W-2 industry share with UI against new entry into platform gig work in 2020 and 2021. We find a positive relationship between UI receipt in the industry and new entry into platform gig work, which is suggestive that entry was related to the size of the shock.[7] Thus the much discussed channel of

[7]Because our data are annual, we cannot determine whether individuals participated in gig work while simultaneously receiving UI.

gig work providing extra income to workers facing income shocks appears to have been operating, even with generous expansions in UI benefits.

One potential contributing factor to increased exits was the Pandemic Unemployment Assistance program (PUA), which extended unemployment insurance (UI) benefits to platform workers excluded from regular UI systems. This channel is explored in Jackson, Koustas, Garin, and Miller (2025), which finds the availability of new PUA benefits resulted in many individuals who were platform workers in 2019 not reporting any self-employment income in 2020 and 2021. The estimates imply exits from gig work due to PUA of about 26,000 primary platform workers, or 1 percent. This disincentive effect was swamped by the millions of new entry entering gig platform work in 2020 and 2021.

We also probe the geographic distribution of gig work.[8] Figure 6(a) plots the percentage growth in OPE gig work between 2019-2022. We can contrast this with the levels of gig work in Panel(b). The OPE grew most in states with the lowest levels of such work, mainly rural areas. In contrast, the early growth in the OPE largely came from rideshare and had the most penetration in large, urban states with considerable density. The higher sustained levels of OPE work through 2023 is in part driven by this geographic spread.

To summarize: the COVID period was characterized by massive new entry and exit. In particular, the platform economy became younger and female, both inside and outside of transportation and delivery. Platform gig work saw a large upward structural break in 2020-2021. These trends in new entry and demographic changes suggest that many new entrants were doing self-employment for the first time, which may have implications for tax administration. Although growth has slowed, the number of workers in platform gig work remained permanently higher through 2023.

[8]Raw counts by state back to 2012 and Metropolitan Statistical Area (MSA) back to 2014 are provided in Appendix Tables C.5-C.7. Appendix Tables C.1-C.4 also show counts and tax filing by state for 2019-2022.

5 Comparison to Other Components of the Workforce During COVID

So far, we have mainly examined raw counts of gig work during COVID. How did contract work evolve as a share of the tax workforce? How does the experience of platform work compare to other measures of self-employment in tax data, in particular, the broader 1099 contract workforce and self-employed tax filers? We explore such trends in this section.

5.1 Other Freelance Work Reported on 1099 Rerturns

A natural comparison for platform gig work are other 1099 freelance workers. Appendix Table B.1 provides raw counts including 2019, and Appendix Figure A.1 shows raw trends as a share of the workforce. An issue that arises measuring non-employee compensation during this period is that that, due to administrative complications related to the pandemic in 2020, paper 1099 MISC returns for tax year 2019 (filed in 2020) were not fully processed.[9] As a result, the number of 1099-MISC returns in 2019 drops precipitously because of the incomplete processing of paper returns. This is readily apparent in Appendix Figure A.3, which shows that although there was a sharp drop in 1099-MISC returns filed, there was no drop whatsoever in electronically-filed returns and thus the drop was entirely due to paper returns (the residual category). As nearly all OPE firms and large employers file electronically, this mainly effects smaller non-platform 1099 firms that issue 100 or fewer 1099s.

We make progress in two ways. One simple solution is to ignore 2019 and compare trends in contract work with 2018. A second approach is to estimate the undercount in 2019 directly. As shown in Appendix Figure A.3, the share of 1099 returns with non-employee compensation that were filed electronically was growing in time before 2019—specifically, the ratio of all returns (paper and electronic) to electronically filed

[9]See "IRS Statement – Information Returns," May 13, 2022. https://www.irs.gov/newsroom/irs-statement-information-returns

returns declined linearly from 2014 to 2018, with 2020 returning exactly to the 2014–2018 trend line. If all electronic returns were processed but not all paper returns, and the true ratio if all returns were processed remained on the trend line, then the true total number of 1099 returns should be given by the observed count of electronic returns in 2019 times the predicted ratio of all returns to electronic returns. This gives a total number of 1099 returns with nonemployee compensation that is approximately 1.3 times the observed total. We therefore estimate 2019 levels by inflating the number of individuals with 1099 nonemployee compensation by a factor of 1.3.

This fix allows us to adjust the overall trend. To examine trends by industry, we take a simple approach of comparing to 2018. Table 1a reports counts by NAICS 2 industries as self-reported on Schedule C.[10] As discussed above, platform gig work grew dramatically. The number of Schedule C filers with platform gig earnings tripled by 2022. Interestingly, we see that other 1099 contract work declined, by 11.2 percent between 2018 and 2020 and was still 7.3 percent lower as of 2022. This declined was not driven solely by any particular industry, but occurred broadly across all NAICS 2 industries. In panels (b) and (c), we examine workers with above and below $15,000 in profits (approximately full-time/full-year at the federal minimum wage), and find that the decline between 2018-2020 was similar for low and high earners. However, the number individuals with Schedule C profits above $15,000 had largely bounced back by 2022, whereas the number with lower earnings has remained permanently lower.

5.2 A New Harmonized Series of the 1099 Economy, 2000-2023

We now combine all our fixes, to provide a new consistent and harmonized series of gig work from 2000-2022. We build off a similar exercise in Garin, Jackson, and Koustas (2022), which adjusted for the K-gap through 2018, now extending the series through 2019. We also apply our fix for missing paper returns in 2019. The resulting harmonized

[10] As discussed above, because tax filing for 2023 was still incomplete due to late filers, we only examine outcomes conditional on filing through 2022.

series is shown in Figure 7.

Outside of platform gig work, 1099-reported contract work was very stable between 2000 and 2019. During 2020 and 2021, platform gig work grew dramatically, both as a share of the tax workforce and as a share of contract gig work. As of 2021, platform gig work comprised 3.15 percent of the workforce, and 30 percent of all 1099 contract work. However, other 1099 contract work declined, resulting in the overall decline in gig contract work broadly defined. Putting our trends together, the broader 1099-gig economy, inclusive of platform gig work and other contract work, fell from 10.8 percent of the workforce in 2018 (11.1 percent in 2019, according to our imputation), to 10.3 percent in 2020, rising to around 11 percent in 2021 and 2022.

5.3 Comparison to SE Filing

Finally, we examine trends in self-employment earnings self-reported by individuals on their income tax returns. Figure 8 examines the overall number of self-employment tax filers (defined as filing a Schedule C/SE with their 1040 income tax return) since 2012.[11] As shown in the maroon line, the number of tax filers reporting self-employment remained constant between 2019 and 2021, despite the large disruption in the economy (The number with W-2s declined by 1.5 percent between 2019 and 2020, for instance). We next break down self-employment tax filing into those that received a 1099 (dotted navy line) and those that did not (dotted maroon line). Jointly receiving a 1099 and being a reporting self-employment on an income tax return declines slightly between 2018 and 2020 and is only slightly higher by 2023. At the same time, there is a more substantial increase in individuals reporting self-employment on income tax returns despite not receiving a 1099. While it is beyond the scope of this paper to examine the reason for the rise in self-reported self-employment among those without a 1099 further, one reason may have to due with changes in reporting to become eligible for

[11] The prevalence of self-employment earnings reported on income tax filings grew more dramatically in the 2000s, in part due to changes in reporting documented in Garin, Jackson, and Koustas (2025). We focus on the period from 2012 partly to avoid changes in reporting, and to incorporate Schedule C filing. Moreover, prior to 2012, it is not possible to distinguish whether a primary filer or a spouse had Schedule C income in the data archive.

other benefits administered through the tax system that were contingent on income. For instance, the Earned Income Tax Credit and Child and Dependent Car Tax Credit, both of which were contingent on income, were expanded for childless adults in 2021. This could also reflect real growth in consumer facing self-employment that is not mediated by firms. We leave further examination of these trends in self-employed tax filing with no 1099 for future work.

Why does jointly receiving a 1099 and being a self-employed tax filer remain relatively constant, despite the headline increase in the 1099 workforce in Figure 7 driven by OPE gig work? This is in part because tax filing rates among OPE gig workers are low and the rate is falling over time. Panel (b) presents the rate of self-employment tax filing conditional on an OPE 1099 since 2017. As discussed above, many platform workers do not file Schedule C/SE, or even file a tax return at all. In 2018, just under 70 percent of platform gig 1099 recipients filed a Schedule C. This fell to approximately 60 percent by 2020 and 55 percent by 2022.

6 Conclusion

This paper examines the evolution of gig work through the COVID-19 pandemic. Work in the Online Platform Economy drove growth in the 1099 workforce from 2012-2018. COVID saw another dramatic increase in platform work, increasing the 1099 workforce by around 3.5 million new workers. We presented evidence that these trends are driven primarily by delivery platforms. We also saw growth to a lesser extent among creator and influencer platforms. The pandemic accelerated a shift in platform worker towards young workers and especially women, who have become more represented among platform workers over time. Most workers engage only part-time with platform work, and fewer than 60 percent report self-employment earnings on an income tax return in recent years, even conditional on having such activity reported on a 1099 return.

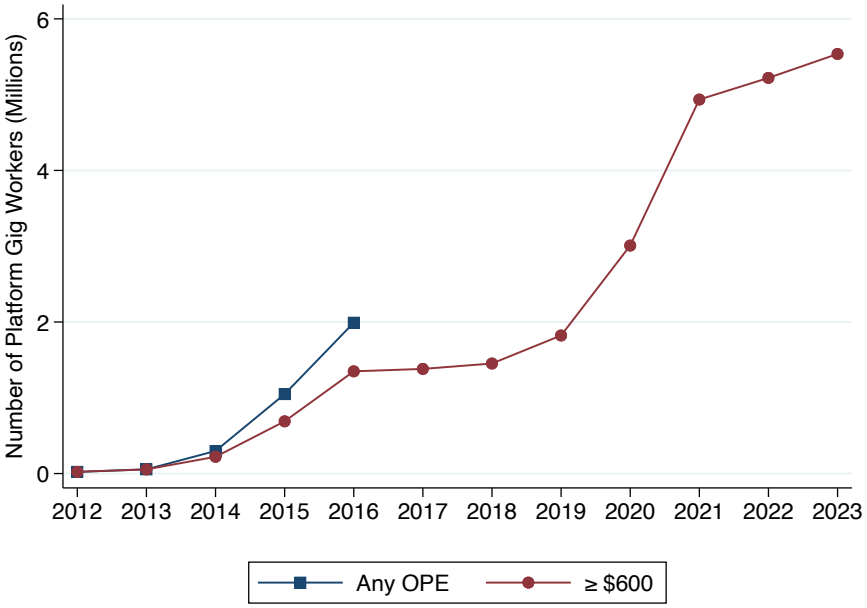
Whether COVID-19 represents a permanent change in platform work beyond 2023 or we will return to previous trends remains to be seen, but trends observed so far

have persisted through 2023, long after the economy recovered from COVID and most people returned to workplaces, grocery stores and restaurants. At the same time, looking at 1099-reported freelance work more broadly, the picture is mixed on whether COVID was a watershed moment. While platform gig work increased, COVID does not appear to have fundamentally shifted the overall prevalence and nature of contract/SE work—and may have decreased it.

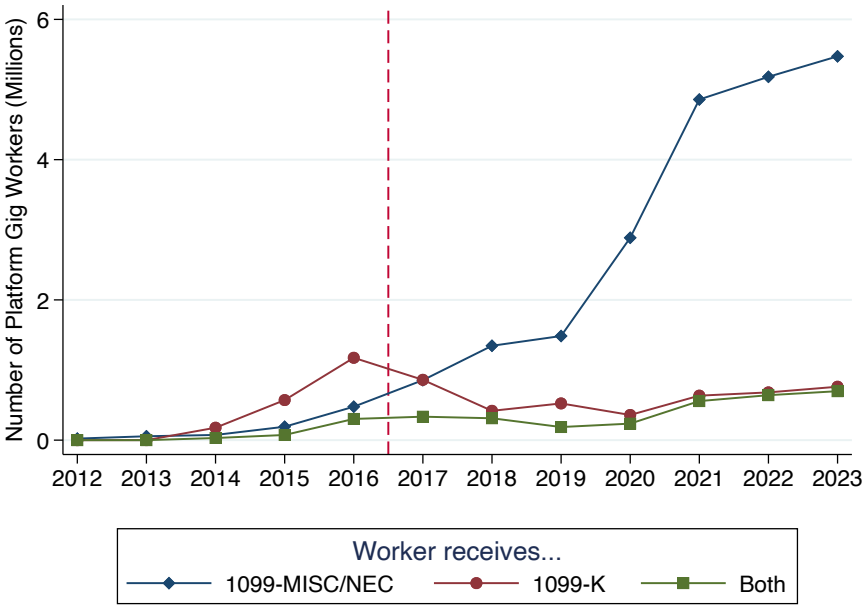
Figures

Figure 1: Raw Trends, Platform Gig Work, 2012-2023

(a) Individuals with Any Payments for Platform Work



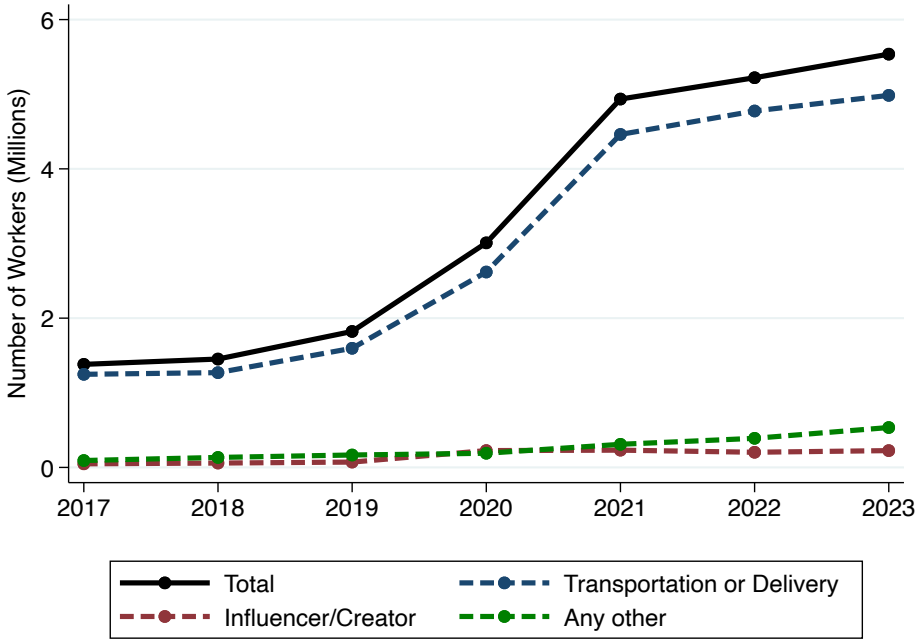
(b) Number of Individuals by Information Return Received



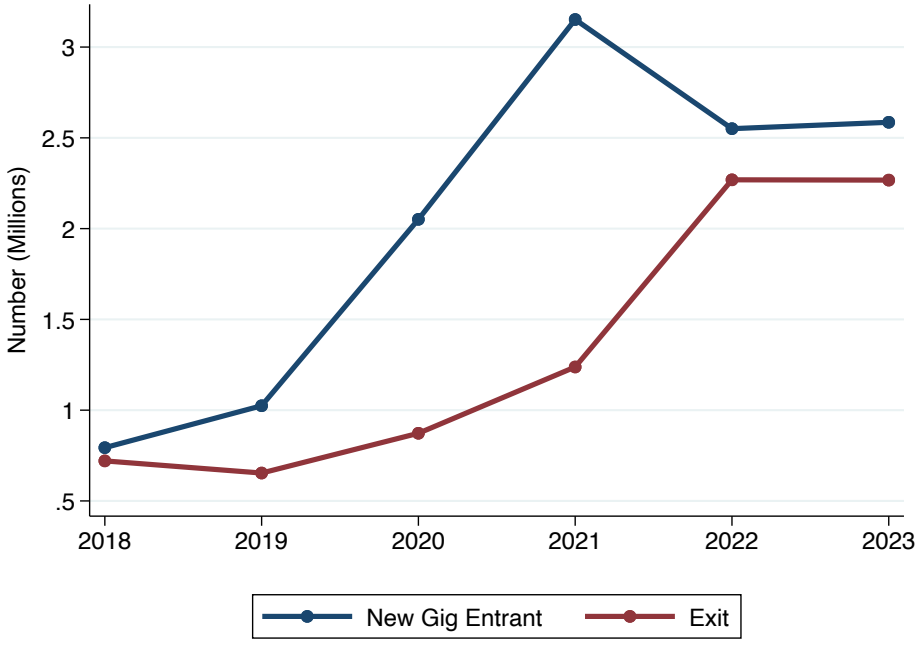
Note: B restricts to $\geq$ \$600 in gross receipts.

Figure 2: Platform Gig Work, 2017-2023

(a) Totals



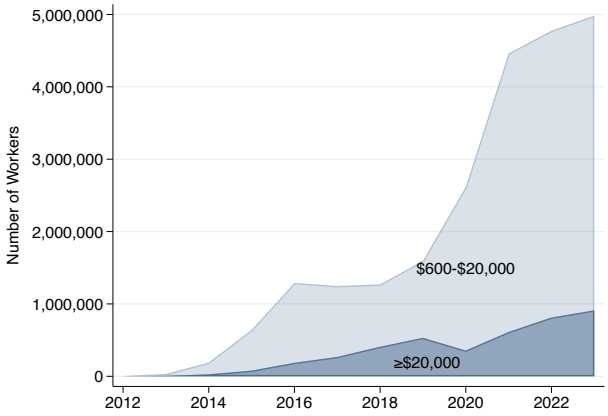
(b) Entry and Exit



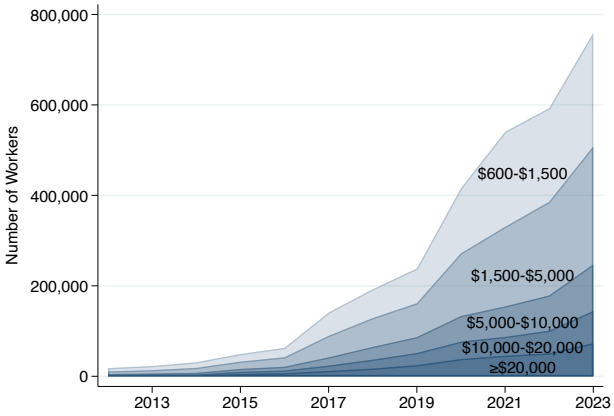
Notes: Left-hand figure shows total number of workers, in millions, active at some point in the year indicated on the x-axis. Right-hand panel shows flows, in millions, of new entry and exit. "New Entrant" is defined as someone with a 1099 from a platform gig company who had no 1099 from a platform gig company in the previous year in the previous year. "Exit" is defined as having a 1099 from a platform gig company in the prior year, but no 1099 in the current year.

Figure 3: Gross Earnings in Platform Gig Work

(a) Transportation & Delivery Platforms



(b) All Other Platforms



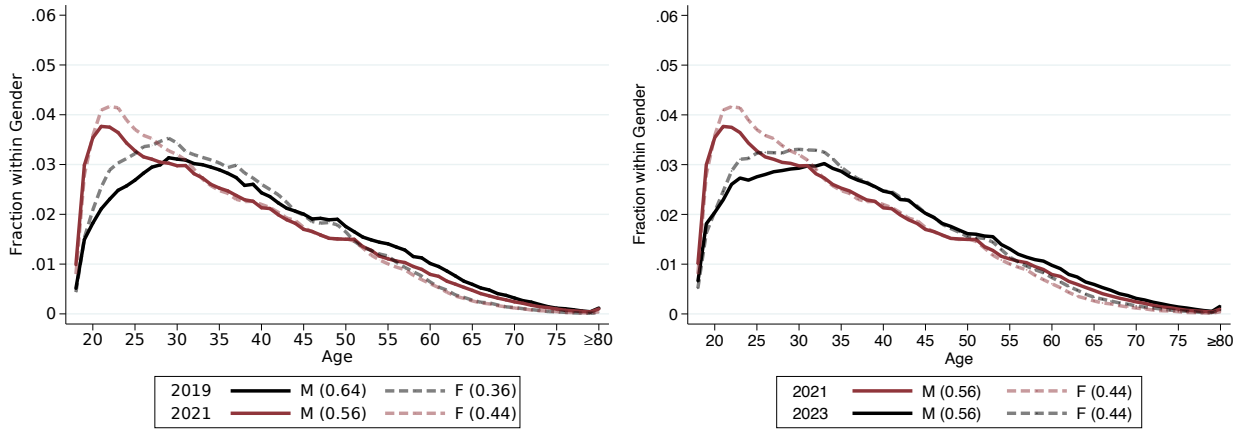
Restricts to $\geq$ \$600 in gross receipts. Not additive. People in both are in each of the other series.

Figure 4: Age Distribution of Platform Gig Work, by Year and Gender

(a) Transportation & Delivery Platforms

(a) 2019 v 2021

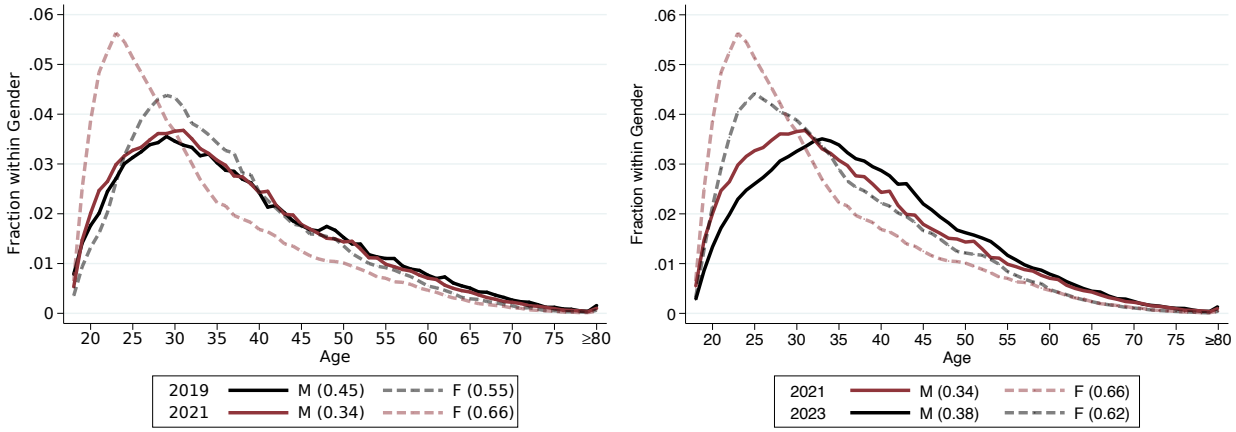
(b) 2021 v 2023



(b) All Other Platforms

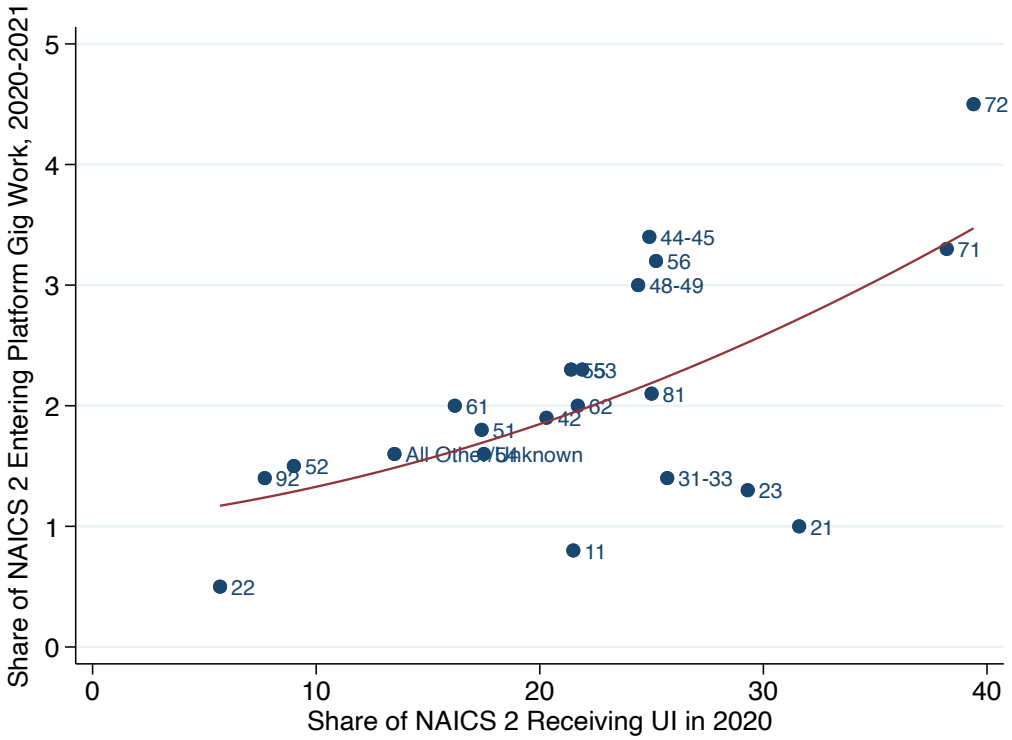
(c) 2019 v 2021

(d) 2021 v 2023



Notes: Figure shows the age distribution of platform gig workers separately by year and gender as recorded in SSA data. The share of the gender share of platform gig workers in each year is reported in parentheses in the legend.

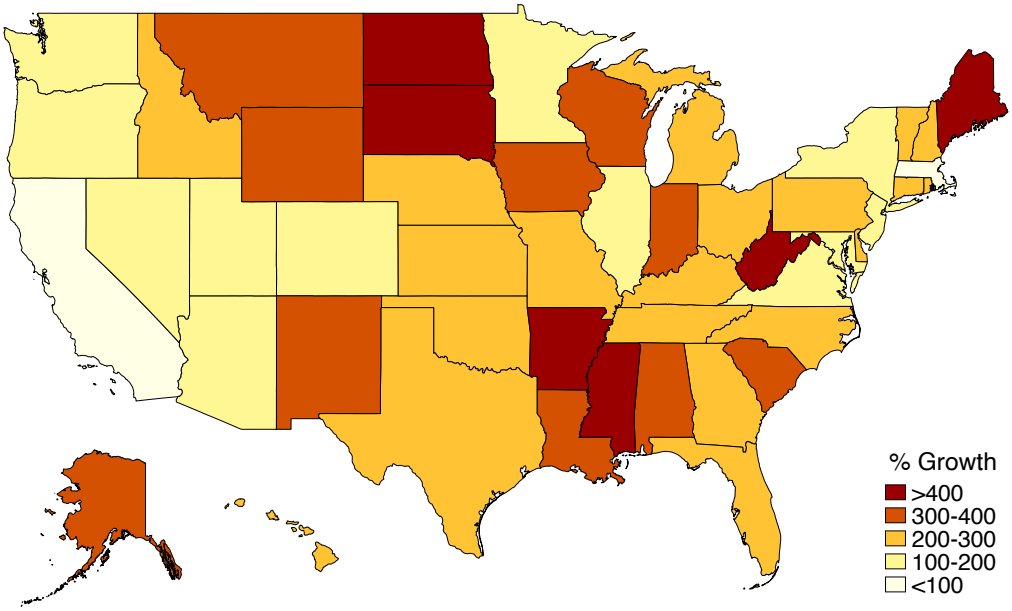
Figure 5: Entry into OPE Gig Work from W2 Work, by NAICS of W2 work



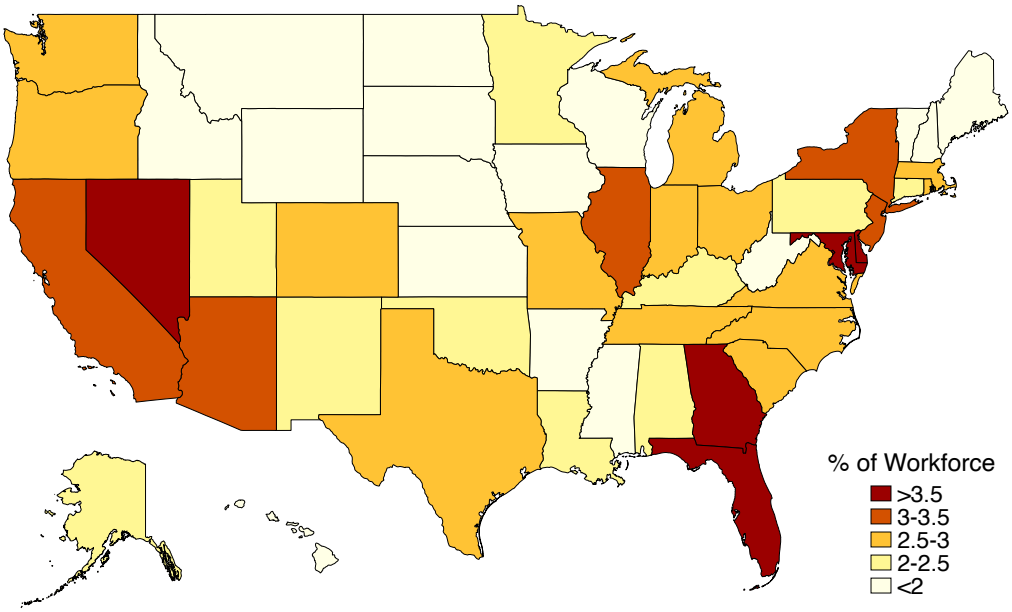
Notes: Figure is restricted to individuals who were W2-only in 2019. X-axis shows the percent of the two-digit NAICS receiving UI in 2020. Y-axis shows the percent of the industry entering platform gig work in 2020 or 2021.

Figure 6: Geographic Distribution of OPE Gig Work

(a) Growth between 2019-2022

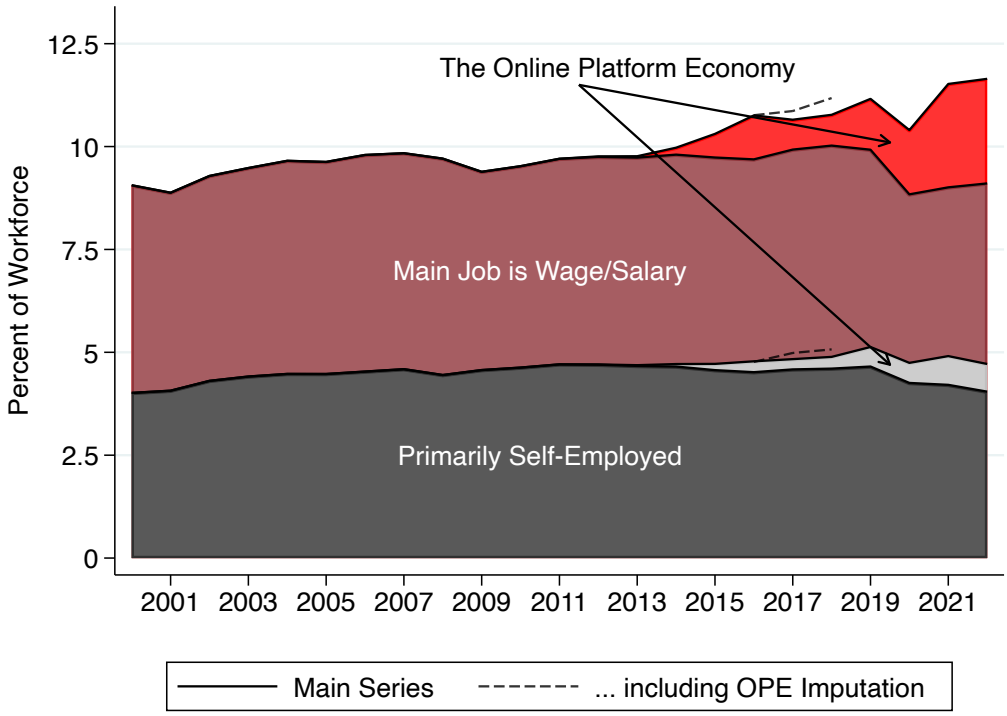


(b) Levels as of 2022



Notes: Figure plots the geographic distribution of platform gig work, as of 2021.

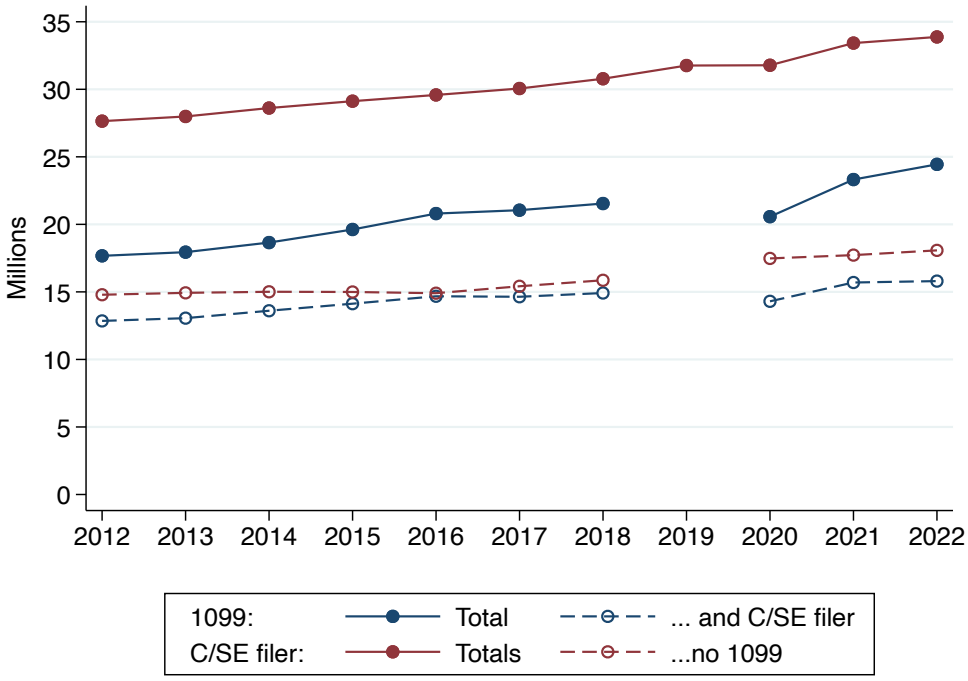
Figure 7: Overall Prevalence of Contract Work, 2000-2022



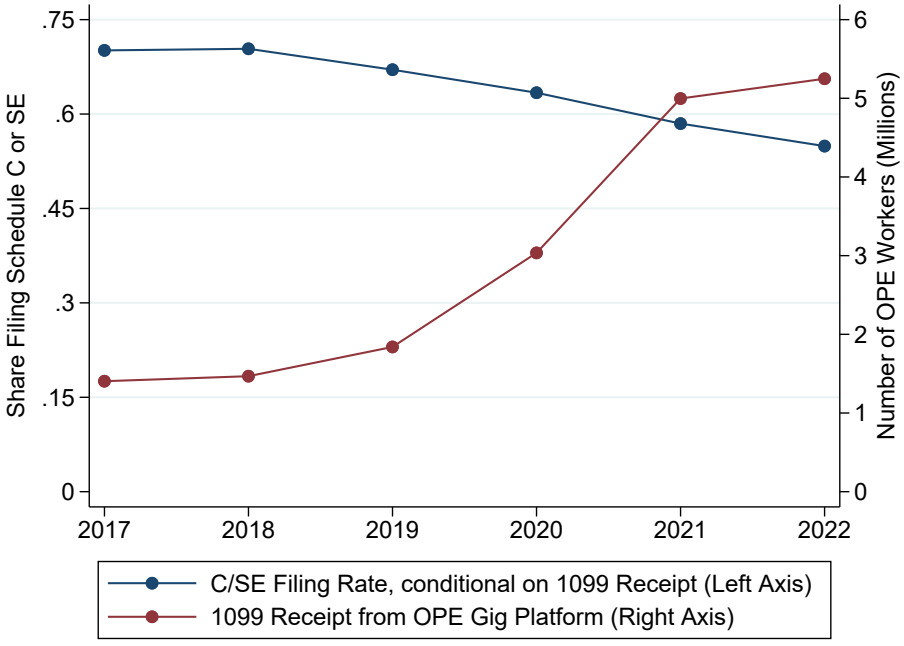
Notes: Figure shows the share of individuals in the workforce with firm-reported payments for contract labor are reported on a 1099 Information Return. The workforce is defined as all individuals appearing on a 1040 return in a year who have labor income reported on a W-2 return, a 1099 return, or on Schedule SE as well as individuals individuals with positive earnings on either a W-2 who do not file Form 1040. Following the method in Collins, Garin, Jackson, Koustas, and Payne (2019), we separately break out the subset of independent contractors with 1099-reported payments from online platform economy firms. "Earnings Primarily from Self-Employment" defined as having the majority of wage plus Schedule SE earnings coming from Schedule SE; "Earnings Primarily from Wages" is defined as the complement. 2017-2018 values for platform gig work are imputed following the methodology from Garin, Jackson, Koustas, and Miller (2025) are shown in the dashed black line on top of the raw levels in the main series. 2019 values for contract work outside of platform gig work are imputed following the methodology described in Section 5. Raw trends without imputations are reported in figure A.1. Tax filings as of September 2024.

Figure 8: Trends in Self-Employment Tax Filing

(a) All Workers



(b) Tax filing in the OPE, 2017-2023



Notes: .

Tables

Table 1: Trends in Platform Gig v. Other Contract Work, 2018, 2020, 2021, 2022

(a) Counts (Thousands) of 1099 Contract Workers who File Schedule C

	(1) 2018	(2) 2020	(3) 2021	(4) 2022	(5) % Change, 2018-2020	(6) % Change, 2018-2021	(7) % Change, 2018-2022
1. Platform Gig	954.7	1,809.2	2,831.5	2,820.5	89.5	196.6	195.4
2. Other (Non-Platform Gig) Contractors	13,678.7	12,143.5	12,527.4	12,685.2	-11.2	-8.4	-7.3
11: Agriculture	119.8	112.7	113.3	112.8	-5.9	-5.4	-5.8
21: Mining	52.4	40.2	39.3	40.5	-23.4	-25.0	-22.7
23: Construction	1,205.1	1,136.9	1,123.1	1,132.5	-5.7	-6.8	-6.0
31-33: Manufacturing	102.4	90.0	90.8	95.7	-12.1	-11.3	-6.5
42: Wholesale Trade	112.4	98.6	93.4	104.1	-12.3	-16.9	-7.4
44-45: Retail Trade	677.6	654.2	627.6	399.3	-3.5	-7.4	-41.1
48-49: Transportation/Warehousing	621.0	570.8	568.8	564.9	-8.1	-8.4	-9.0
51: Information	177.3	154.2	166.1	166.9	-13.0	-6.3	-5.8
52: Finance and Insurance	465.3	457.3	452.7	440.7	-1.7	-2.7	-5.3
53: Real Estate	846.4	837.4	871.4	837.0	-1.1	3.0	-1.1
54: Professional Services	1,858.3	1,702.0	1,743.7	1,816.3	-8.4	-6.2	-2.3
56: Admin Support/Waste Mgmt.	941.3	881.4	905.8	968.8	-6.4	-3.8	2.9
61: Educational Services	426.0	319.4	345.7	394.8	-25.0	-18.8	-7.3
62: Health Care/Social Assist.	813.8	752.8	782.4	853.7	-7.5	-3.9	4.9
71: Arts/Entertainment/Recreation	806.2	599.4	677.8	769.6	-25.6	-15.9	-4.5
72: Accommodation/Food Services	110.9	84.3	100.8	116.2	-23.9	-9.1	4.7
81: Other Services	1,378.8	1,196.6	1,205.0	1,268.7	-13.2	-12.6	-8.0
All other, excluding platform gig	2,963.8	2,455.2	2,619.7	2,602.7	-17.2	-11.6	-12.2

(b) Counts (Thousands) of 1099 Contract Workers with Schedule C Profits < $15,000

	(1) 2018	(2) 2020	(3) 2021	(4) 2022	(5) % Change, 2018-2020	(6) % Change, 2018-2021	(7) % Change, 2018-2022
1. Platform Gig	846.2	1,580.3	2,425.0	2,348.4	86.8	186.6	177.5
2. Other (Non-Platfom Gig) Contractors	8,741.9	7,694.7	7,636.9	7,568.7	-12.0	-12.6	-13.4
11: Agriculture	76.8	71.8	70.9	68.8	-6.5	-7.6	-10.4
21: Mining	30.7	25.4	22.8	21.5	-17.3	-26.0	-30.1
23: Construction	563.4	529.5	489.5	465.5	-6.0	-13.1	-17.4
31-33: Manufacturing	64.0	56.8	54.9	56.1	-11.3	-14.2	-12.3
42: Wholesale Trade	66.8	59.8	54.3	61.3	-10.4	-18.7	-8.2
44-45: Retail Trade	551.8	534.7	500.5	310.8	-3.1	-9.3	-43.7
48-49: Transportation/Warehousing	233.1	217.9	197.0	192.8	-6.5	-15.5	-17.3
51: Information	120.8	107.7	111.4	110.3	-10.9	-7.8	-8.7
52: Finance and Insurance	196.2	194.1	187.5	179.3	-1.0	-4.4	-8.6
53: Real Estate	339.1	321.9	307.4	303.6	-5.1	-9.4	-10.5
54: Professional Services	1,114.6	1,027.0	1,019.2	1,042.4	-7.9	-8.6	-6.5
56: Admin Support/Waste Mgmt.	676.1	632.5	627.0	646.8	-6.4	-7.3	-4.3
61: Educational Services	366.9	271.8	288.7	326.9	-25.9	-21.3	-10.9
62: Health Care/Social Assist.	501.7	459.1	459.0	483.7	-8.5	-8.5	-3.6
71: Arts/Entertainment/Recreation	652.0	498.8	545.2	606.2	-23.5	-16.4	-7.0
72: Accommodation/Food Services	86.9	66.0	76.1	85.5	-24.0	-12.4	-1.5
81: Other Services	944.7	852.9	790.0	802.2	-9.7	-16.4	-15.1
All other, excluding platform gig	2,156.4	1,766.9	1,835.6	1,805.1	-18.1	-14.9	-16.3

(c) Counts (Thousands) of 1099 Contract Workers with Schedule C Profits ≥ $15,000

	(1) 2018	(2) 2020	(3) 2021	(4) 2022	(5) % Change, 2018-2020	(6) % Change, 2018-2021	(7) % Change, 2018-2022
1. Platform Gig	108.5	229.0	406.4	472.1	110.9	274.4	335.0
2. Other (Non-Platfom Gig) Contractors	4,936.9	4,448.8	4,890.4	5,116.4	-9.9	-0.9	3.6
11: Agriculture	42.9	40.9	42.4	44.0	-4.8	-1.3	2.4
21: Mining	21.7	14.7	16.6	19.0	-32.0	-23.5	-12.2
23: Construction	641.7	607.5	633.6	667.0	-5.3	-1.3	3.9
31-33: Manufacturing	38.5	33.2	36.0	39.6	-13.6	-6.5	3.0
42: Wholesale Trade	45.7	38.8	39.1	42.9	-15.1	-14.3	-6.1
44-45: Retail Trade	125.8	119.5	127.0	88.6	-5.0	1.0	-29.6
48-49: Transportation/Warehousing	387.9	352.9	371.7	372.1	-9.0	-4.2	-4.1
51: Information	56.5	46.5	54.6	56.7	-17.6	-3.2	0.4
52: Finance and Insurance	269.1	263.2	265.2	261.4	-2.2	-1.5	-2.9
53: Real Estate	507.3	515.5	564.0	533.4	1.6	11.2	5.2
54: Professional Services	743.7	674.9	724.5	773.9	-9.3	-2.6	4.1
56: Admin Support/Waste Mgmt.	265.2	248.9	278.8	321.9	-6.2	5.1	21.4
61: Educational Services	59.1	47.6	57.0	67.9	-19.4	-3.4	15.0
62: Health Care/Social Assist.	312.1	293.7	323.5	370.0	-5.9	3.6	18.5
71: Arts/Entertainment/Recreation	154.1	100.6	132.6	163.4	-34.7	-14.0	6.0
72: Accommodation/Food Services	24.0	18.3	24.8	30.6	-23.8	3.0	27.4
81: Other Services	434.2	343.7	415.0	466.4	-20.8	-4.4	7.4
All other, excluding platform gig	807.5	688.3	784.1	797.6	-14.8	-2.9	-1.2

Notes: Table reports raw counts (in thousands) of Schedule C filers with non-employee compensation reported on 1099 MISC Box 7 (2018), 1099 NEC (2020-2022), or a 1099-K issued by a gig economy platform. Individuals are assigned the NAICS industry self-reported on Schedule C, with the exception of platform gig workers, who are identified by having at least one 1099 issued by a gig platform. Tax filings as of September 2024.

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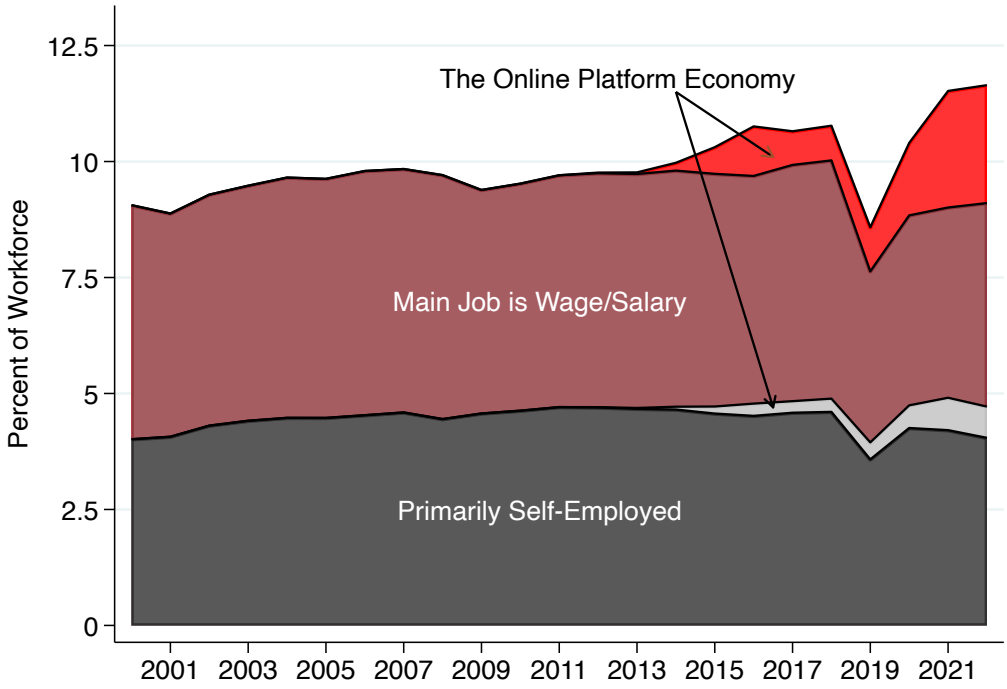
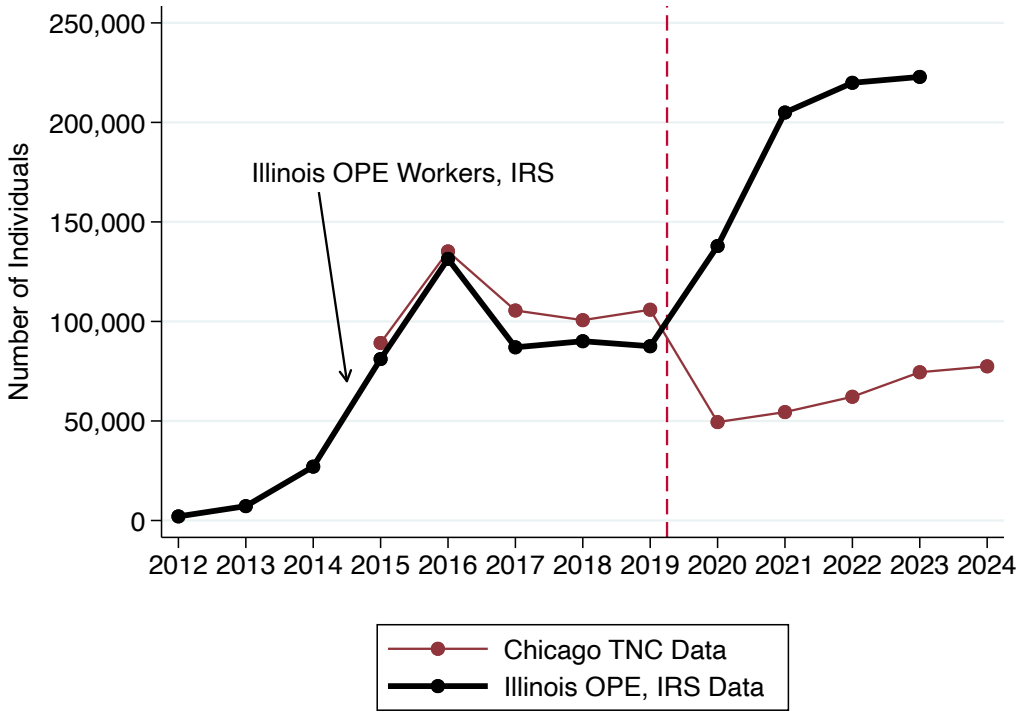
A Appendix Figures

Figure A.1: Raw Trends, 1099 Contract Work, as a Share of Tax Workforce, 2000-2022



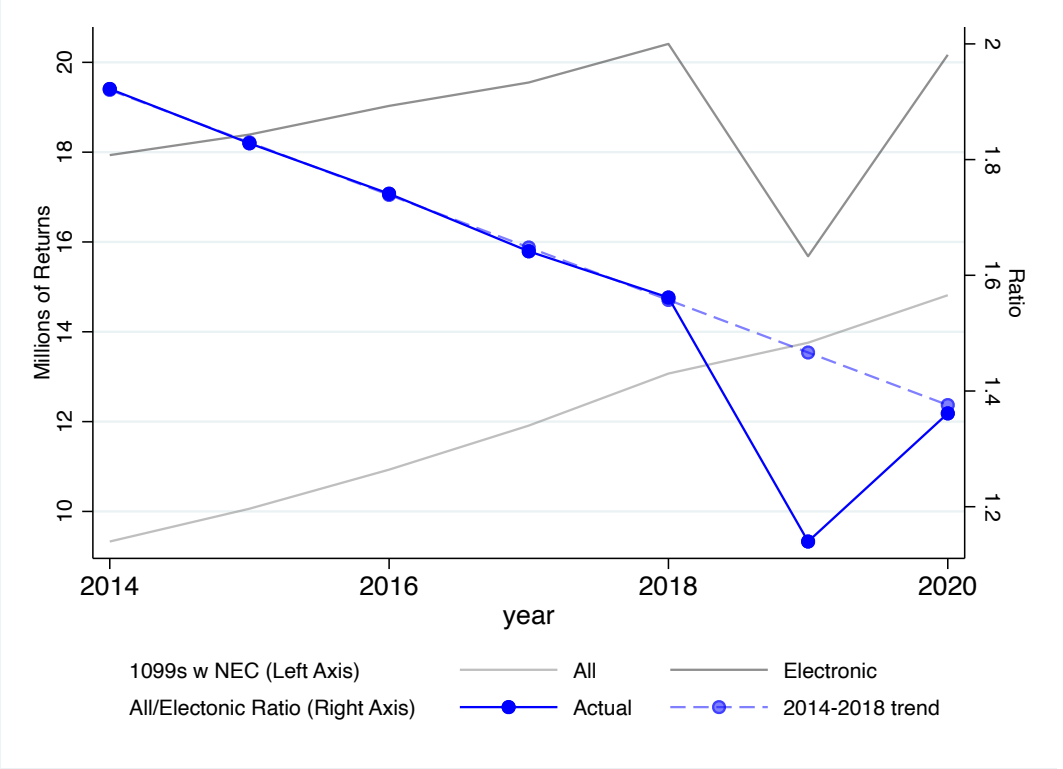
Notes: Figure shows the raw share of individuals in the workforce with firm-reported payments for contract labor are reported on a 1099 Information Return. This presents the raw data behind Figure 7 without correcting for the under-processing of 1099 MISCs in tax year 2019 as described in Section 5. The workforce is defined as all individuals appearing on a 1040 return in a year who have labor income reported on a W-2 return, a 1099 return, or on Schedule SE as well as individuals with positive earnings on either a W-2 who do not file Form 1040. Following the method in Collins, Garin, Jackson, Koustas, and Payne (2019), we separate out the subset of independent contractors with 1099-reported payments from online platform economy firms. "Earnings Primarily from Self-Employment" is defined as having the majority of wage plus Schedule SE earnings coming from Schedule SE; "Earnings Primarily from Wages" is defined as the complement. 2017-2018 are raw values for platform gig work and do not include imputation presented for 7.

Figure A.2: Comparison of IRS Data to Chicago TNC Data



Note: Chicago data from the Chicago Data Portal https://data.cityofchicago.org/Transportation/Transportation-Network-Providers-Drivers/j6wf-834c/about_data. These data include all drivers eligible for trips in Chicago in that month for at least one day, regardless of whether they actually provided any rides. Figure reports the value from December of the indicated year. We restrict to drivers listing an IL address, and compare to OPE 1099s sent to IL addresses.

Figure A.3: 1099 Returns with Nonemployee Compensation, Electronically Filed Versus All



Note: Plot displays counts of all 1099 returns with nonemployee compensation greater than $600 filed in each year (1099-MISC through 2019 and 1099-NEC in 2020) with count of electronically filed returns broken out. Plot also displays ratio of all returns to electronically filed returns, along with 2014-2018 trend line. The predicted ratio in 2019 is 1.3 times the observed ratio; thus, if all electronic returns were processed but not all paper returns, and true ratio if all returns were processed remained on the trend line, the true total count of returns should be 1.3 times the observed count.

B Appendix Tables

Table B.1: Components of the Tax Workforce, 2012-2022 (Thousands)

(a) Platform Gig 1099s

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	1040 Filers								Non-Filers	
	Has SE and C		Has SE, No C		Has C, No SE		No C or SE		-	-
	Has W2	No W2	Has W2	No W2	Has W2	No W2	Has W2	No W2	Has W2	No W2
2012	6,314	6,533	327	125	2,208	814	2,074	534	742	1,263
2013	15,406	20,013	574	253	7,496	2,293	4,474	997	1,704	3,007
2014	73,996	65,813	1,769	743	58,946	11,522	56,232	6,241	13,522	15,131
2015	232,175	151,859	5,150	1,972	232,238	36,581	258,700	21,110	64,308	55,812
2016	431,005	257,608	6,645	3,173	422,853	68,335	498,220	39,612	157,990	120,801
2017	386,703	268,013	5,131	2,551	262,727	59,628	176,449	18,926	118,695	105,682
2018	412,821	321,434	5,432	2,643	229,224	61,545	176,764	19,583	123,427	115,245
2019	486,210	389,893	6,682	3,064	270,249	77,503	346,438	71,053	98,649	90,139
2020	832,646	491,138	13,377	5,335	458,001	123,568	594,629	79,758	239,707	197,339
2021	1,320,830	737,439	18,951	7,261	691,806	146,463	1,069,999	111,090	521,319	372,051
2022	1,198,493	762,140	14,837	7,145	758,039	141,433	1,094,847	80,619	711,071	480,046

(b) All 1099 MISC/K/NEC Contract Work and Other Components of Tax Workforce

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Tax Filers											Non Tax Filers		
		No 1099				Has 1099						No 1099	Has 1099	
	No SE or C	Has SE		Has C, No SE		Has SE		Has C, No SE		No C or SE		-	-	-
	Has W2	Has W2	No W2	Has W2	No W2	Has W2	No W2	Has W2	No W2	Has W2	No W2	Has W2	Has W2	No W2
2012	125,185	3,654	5,973	3,453	1,710	4,970	5,054	1,909	920	2,122	632	12,250	676	1,389
2013	126,336	3,689	5,978	3,537	1,727	5,025	5,125	1,974	932	2,098	614	12,881	726	1,447
2014	127,477	3,783	5,949	3,581	1,697	5,343	5,268	2,061	932	2,102	587	13,670	815	1,545
2015	128,643	3,759	5,876	3,666	1,694	5,548	5,360	2,266	952	2,317	585	14,349	934	1,658
2016	128,318	3,703	5,793	3,697	1,712	5,776	5,485	2,436	981	2,535	599	15,686	1,133	1,855
2017	129,989	3,790	5,813	4,078	1,736	5,756	5,505	2,382	997	2,468	796	16,373	1,171	1,974
2018	130,504	3,827	5,812	4,460	1,763	5,869	5,623	2,412	1,014	2,549	813	17,091	1,224	2,037
2019	136,082	5,226	7,530	5,142	2,083	4,595	4,343	2,008	832	2,331	947	13,514	672	1,200
2020	132,181	3,753	6,403	4,971	2,350	5,424	5,438	2,371	1,070	2,713	736	14,592	1,042	1,777
2021	128,823	4,005	6,733	4,914	2,073	6,307	5,852	2,568	970	3,135	691	17,516	1,572	2,224
2022	127,370	4,103	6,605	5,415	1,953	6,293	5,778	2,752	977	3,241	592	21,603	2,129	2,683

Notes: Tables report individual counts in thousands. 1099 refers to individuals who have any of the following: Non-employee compensation reported on 1099-MISC Box 7 (2012-2019), 1099 NEC (2020-2022), or 1099-K from a gig economy platform. Panel (a) is restricted to individuals receiving at least one 1099 return from the platform gig economy, while panel (b) includes all 1099s. The sum of columns (1)-(13) in Panel (b) corresponds to the "tax workforce" as defined in Collins, Garin, Jackson, Koustas, and Payne (2019). Tax filings as of September 2024.

C State and Metro Area Tabulations

Notes: Tables reflects tax filing status as of September 2024. Counts less than 50 are suppressed.

Table C.1: Platform Gig 1099's, 2019, By State and Tax Filing (Thousands)

	Tax Filers				Non-Filers	
	Has SE		No SE		-	-
	Has W2	No W2	Has W2	No W2	Has W2	No W2
AK	0.6	0.3	0.7	0.1	0.1	0.1
AL	3.1	1.6	4.9	1	0.8	0.5
AR	1.6	0.8	1.9	0.4	0.3	0.2
AZ	10.5	6.4	17.8	4.4	3.4	2.5
CA	89.4	79.2	107.3	30.3	19.6	20.1
CO	13.5	7.9	15	3.3	2.8	2
CT	3.7	2.8	4.9	1.1	0.6	0.7
DC	1.8	1.5	2.9	0.6	0.7	0.6
DE	1.9	0.8	3.4	0.5	0.6	0.3
FL	29.5	28.8	43.3	14.3	4.9	5.8
GA	13	9.3	24.3	5.7	4.5	3.1
HI	1.4	1.2	1.1	0.4	0.2	0.2
IA	1.8	0.7	2	0.3	0.3	0.2
ID	1.6	1	1.7	0.4	0.2	0.2
IL	22.9	21.2	26.6	6.7	4.8	5.4
IN	7.2	3.2	9.9	1.6	1.4	0.9
KS	2.7	1.1	3.3	0.6	0.5	0.3
KY	4.3	1.9	6.1	1	0.9	0.6
LA	3.3	2.4	4.7	1.2	0.9	0.8
MA	21.4	14.1	20	3.4	2.8	3
MD	13	10.7	19.5	4.1	3.3	3.3
ME	0.7	0.4	0.7	0.2	0.1	0.1
MI	13.9	7.1	17.1	3.4	2.6	1.8
MN	10	4	9.3	1.2	1.3	0.7
MO	7.3	3.2	10.9	1.7	1.8	1
MS	1.1	0.5	1.7	0.4	0.2	0.2
MT	0.6	0.3	0.6	0.1	0.1	0.1
NC	10.4	5.9	17.2	3.5	2.5	1.6
ND	0.4	0.1	0.4	0	0.1	0
NE	1.7	0.7	1.9	0.3	0.3	0.2
NH	1.2	0.7	1.3	0.3	0.2	0.1
NJ	15.7	14.3	17.1	3.9	2.6	2.5
NM	1.3	0.7	1.7	0.5	0.3	0.3
NV	6.4	6.6	8.8	3.3	1.5	1.7
NY	35.9	65.2	32.3	9.5	5.2	7.4
OH	15.4	7	23.8	3.9	3.4	2.3
OK	3.5	1.6	5.8	1.2	1	0.7
OR	6.1	3.9	6.5	1.6	1.3	1
PA	16.1	11.3	18.8	3.9	3.2	2.8
RI	1.8	1.2	2	0.4	0.2	0.3
SC	4.5	2.5	6.8	1.4	1	0.8
SD	0.4	0.1	0.4	0.1	0	0
TN	8.3	4.6	11.4	2.1	1.8	1.2
TX	34.7	22.8	53.3	12.8	7.4	6
UT	4.8	2.8	5.7	1.3	0.7	0.5
VA	14.8	11.5	17.4	3.6	2.5	2.2
VT	0.5	0.2	0.4	0.1	0	0
WA	14.4	10.2	14.3	3.3	2.3	2.2
WI	4.8	2.1	5.5	0.8	0.7	0.5
WV	0.9	0.4	1	0.2	0.2	0.1
WY	0.4	0.1	0.4	0.1	0.1	0

Table C.2: Platform Gig 1099's, 2020, By State and Tax Filing (Thousands)

	Tax Filers				Non-Filers	
	Has SE		No SE		-	-
	Has W2	No W2	Has W2	No W2	Has W2	No W2
AK	1.5	0.6	1.7	0.3	0.4	0.2
AL	7.4	3	11.8	1.6	3.2	1.8
AR	3.9	1.5	5.6	0.8	1.4	0.8
AZ	21	9.7	30.8	5.4	8.9	6.1
CA	121.8	84.7	141.6	35.5	33.4	34.1
CO	21.2	9.9	21.7	4.1	5.7	4.3
CT	7.8	4	9.9	1.7	1.7	1.6
DC	2.2	1.6	3.5	0.7	1.1	1.2
DE	3.7	1.4	6.5	0.7	1.5	0.8
FL	53.6	42	75.8	18	13.5	13.1
GA	23.7	14	44.8	7.9	12.8	8.2
HI	2.3	1.3	2.5	0.6	0.7	0.6
IA	4.7	1.3	4.9	0.5	1.1	0.6
ID	3.6	1.6	3.5	0.6	0.8	0.5
IL	36.8	26.5	43	9.4	11.2	11
IN	15.8	5.4	19.2	2.5	3.9	2.3
KS	5.3	1.8	6.2	0.8	1.5	0.9
KY	8.3	3.1	11.4	1.5	2.3	1.4
LA	7.4	3.4	12.9	2	3.2	2.2
MA	21.4	13.4	22.1	4.9	4.2	4.4
MD	21.8	14.4	34.3	6.3	8.1	6.8
ME	1.6	0.6	1.8	0.3	0.4	0.2
MI	30.8	11.9	32.2	5.2	7.6	4.5
MN	17.7	5.6	15.6	2	3.1	1.8
MO	14.1	4.9	18.4	2.3	4.9	2.5
MS	2.9	1.2	5.4	0.7	1.3	0.7
MT	1.7	0.6	1.5	0.2	0.4	0.2
NC	21.3	10	32.4	5.1	7.9	5
ND	1.2	0.3	1.2	0.1	0.2	0.1
NE	3.6	1.1	3.9	0.5	0.7	0.4
NH	2.2	0.9	2.4	0.4	0.5	0.3
NJ	26.8	16.8	29.9	5.7	6.3	5.7
NM	3.1	1.5	4	0.8	1	0.7
NV	9.1	6.7	13.3	3.5	3.3	3.5
NY	56.5	62	58.8	14.5	11.9	15.3
OH	32.8	12.1	43.6	5.8	9	5.7
OK	7.3	3.1	10.5	1.9	2.7	1.9
OR	12.3	5.8	11.9	2.2	3.3	2.8
PA	32.2	16.6	36.9	6.2	8.5	6.8
RI	2.9	1.5	3.2	0.6	0.5	0.5
SC	9.9	4.6	14.9	2.4	3.4	2.2
SD	1	0.3	1	0.1	0.2	0.1
TN	15.2	7	21.4	3.2	4.7	2.9
TX	59.8	33.6	93.2	17.7	18.7	14.6
UT	8.1	3.5	8.7	1.6	1.7	1.1
VA	26.8	15.9	34.6	6.6	7.7	5.7
VT	0.7	0.3	0.7	0.1	0.2	0.1
WA	22.5	12.7	23.3	4.9	5.1	4.8
WI	9.7	3.2	10.4	1.2	2	1.2
WV	2.4	0.9	2.7	0.4	0.6	0.5
WY	0.8	0.3	0.8	0.1	0.2	0.1

Table C.3: Platform Gig 1099's, 2021, By State and Tax Filing (Thousands)

	Tax Filers				Non-Filers	
	Has SE		No SE		-	-
	Has W2	No W2	Has W2	No W2	Has W2	No W2
AK	2.7	1	3	0.4	0.9	0.5
AL	11.7	4.5	21.6	2.3	7.2	3.5
AR	5.9	2.4	9.4	1.2	2.9	1.6
AZ	29.8	14.3	44.8	6.2	17.4	10.3
CA	193.4	124.2	204.6	38.7	70.2	57.3
CO	29.1	14	31.6	4.8	9.4	6.6
CT	12.9	6.5	19.1	2.5	4.1	3.2
DC	2.9	2	4.9	0.7	1.8	1.5
DE	5.5	2.1	10	0.9	3.1	1.7
FL	97.2	76.4	149.4	25.4	34.4	26.6
GA	49.5	23.5	100.6	10.4	31.8	15.5
HI	4	2.4	4.2	0.8	1.2	1.1
IA	7.7	2.1	8.8	0.8	2.6	1.1
ID	6	2.3	6.5	1	2.1	1
IL	54.7	34.3	67.8	10.5	21.2	16.4
IN	26.2	9	36.9	4	9.6	4.8
KS	8.2	2.9	10.4	1.2	3.4	1.6
KY	13.6	4.9	19.8	2.2	5.5	2.9
LA	10.4	5.6	19.5	2.6	6.3	4
MA	32.3	17.5	32.1	5.1	8.1	7
MD	32.6	19.3	48.9	5.8	15.3	10.4
ME	3	1.1	3.7	0.5	0.8	0.5
MI	42.1	17.3	52.1	7.3	16.8	9
MN	24.8	8.1	22.6	2.5	6.3	3
MO	22.6	8.3	31.6	3.3	11.1	4.9
MS	5	1.9	10.6	1.1	2.9	1.6
MT	2.7	0.9	2.5	0.3	0.9	0.5
NC	35.9	15.7	58.6	7	18.5	9.6
ND	2	0.5	2.2	0.2	0.6	0.2
NE	5.5	1.7	6.7	0.6	1.6	0.8
NH	4.1	1.4	4.4	0.5	1.3	0.8
NJ	44.6	26.9	55	8.4	14.6	11.1
NM	5.6	2.3	7.8	1.3	2.1	1.5
NV	15	11.1	20.6	4.2	7	5.3
NY	83	85.3	93.1	19.5	24	25.5
OH	51.4	18.7	72	8.2	19.2	10.7
OK	10.4	4.6	15.9	2.4	5.4	3.5
OR	18.3	8.3	17.7	2.8	6.5	4.7
PA	48.2	23.8	63.3	9.5	17.6	12.3
RI	5	2.4	5.9	0.8	1.2	0.9
SC	16.8	7.2	28.8	3.3	8	4.4
SD	1.9	0.5	2	0.2	0.5	0.2
TN	25.8	11.2	38.3	4.2	11.2	5.9
TX	100.2	55.1	165.4	23.7	44.9	27.1
UT	12	4.7	13.3	1.8	3.7	2.1
VA	39.5	20.5	50.1	6.6	14.9	8.9
VT	1.3	0.4	1.2	0.1	0.4	0.2
WA	33.9	17.8	35.2	5.9	11.3	8.1
WI	17.4	5.3	19.3	2	5.2	2.6
WV	4.2	1.5	5.4	0.7	1.4	0.9
WY	1.4	0.5	1.5	0.2	0.4	0.2

Table C.4: Platform Gig 1099's, 2022, By State and Tax Filing (Thousands)

	Tax Filers				Non-Filers	
	Has SE		No SE		-	-
	Has W2	No W2	Has W2	No W2	Has W2	No W2
AK	2.6	1.1	3.2	0.3	1.4	0.8
AL	11	4.4	24.3	2.3	10.4	5.2
AR	6.1	2.6	11	1.2	4.2	2.4
AZ	26.3	13.6	44.4	5.6	22.9	13.4
CA	169	125.8	189.6	29	90.9	74
CO	26.6	14.3	34	4.7	12.8	9
CT	11.9	6.7	19.7	1.9	5.6	4.4
DC	3	2.1	5.7	0.4	2.4	2
DE	4.8	2.1	10	0.8	4.1	2.1
FL	86.6	77.4	163.9	28	48	38.9
GA	37.7	21.4	86.2	8.9	39.8	20.7
HI	3.7	2.8	4.2	0.7	1.6	1.5
IA	7.3	2.1	9.9	0.8	3.6	1.7
ID	5.4	2.4	7.1	1.1	3	1.6
IL	51.1	35.6	74.1	7.9	29.9	21.3
IN	23.8	8.9	41.2	3.7	13.9	7.2
KS	7.7	2.8	11.2	1.2	4.7	2.2
KY	12.4	5	22	2.1	7.4	4.5
LA	10.2	5.9	21.9	2.6	8.7	5.7
MA	34.8	20.7	38	3.7	12.3	10.7
MD	30.2	20	51.3	4.9	19.9	13.1
ME	2.9	1.2	4.3	0.5	1.3	1
MI	35.3	16.6	54.7	5.6	21.9	11.9
MN	22.5	8.7	24.7	1.9	8.6	4.2
MO	20.5	8.3	33.4	3	15.8	7
MS	5.1	2	12	1	4.4	2.3
MT	2.4	0.9	2.8	0.3	1.3	0.7
NC	34.4	16.6	65.9	7	27.1	13.6
ND	2	0.5	2.6	0.2	0.9	0.4
NE	5.2	1.8	7.6	0.6	2.4	1.2
NH	3.5	1.5	4.9	0.5	1.8	1.1
NJ	41.9	29.1	58.6	6.4	18.3	14.2
NM	5.1	2.3	8.7	1.2	2.9	2.2
NV	13.9	11.7	21.2	3.6	9.5	7.9
NY	78.8	93.8	92.6	11	31.4	34.1
OH	44.7	18.9	77.4	6.9	26.3	15.4
OK	9.6	4.5	16.5	2.3	7.2	4.6
OR	15.6	8	18	2.3	8.7	6.5
PA	40.9	23.9	65.2	6.2	24.1	16.6
RI	5.1	2.9	6.7	0.6	1.7	1.5
SC	15.8	7.3	31.9	3.2	11.1	6.2
SD	1.9	0.6	2.5	0.2	0.8	0.3
TN	24.3	11.5	43.6	4.4	16.5	8.4
TX	91.2	56.4	183.6	25.3	63.9	39.4
UT	11.8	4.9	15.3	2	5.2	3
VA	35.7	21.5	53.2	5.7	19.7	11.9
VT	1.2	0.4	1.4	0.1	0.5	0.3
WA	30.8	18.9	37.4	4.9	15.4	11.3
WI	17.5	6	24.4	2	8.1	3.9
WV	3.7	1.5	5.8	0.7	1.9	1.5
WY	1.4	0.5	1.7	0.2	0.7	0.4

Table C.5: Platform Gig 1099's, By State and Year (Thousands)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AK	0.0	0.0	0.1	0.2	0.4	0.8	0.6	1.9	4.6	8.5	9.4	9.9
AL	0.2	0.2	0.3	1.4	7.9	4.1	5.7	11.9	28.9	51.0	57.7	68.9
AR	0.1	0.1	0.3	1.5	4.2	1.5	2.4	5.2	14.0	23.4	27.5	33.5
AZ	0.6	1.2	6.6	20.7	46.5	36.4	32.6	45.1	82.0	122.9	126.3	134.7
CA	3.7	14.7	80.7	248.5	408.4	343.5	328.7	346.0	451.2	688.6	678.5	657.9
CO	0.4	1.0	5.5	18.7	37.9	31.2	33.9	44.6	66.9	95.5	101.3	103.8
CT	0.2	0.3	1.4	8.1	17.4	8.3	9.5	13.8	26.7	48.2	50.1	52.7
DC	0.1	0.6	2.9	9.3	13.7	9.9	8.8	8.2	10.1	13.9	15.5	14.9
DE	0.1	0.1	0.2	1.9	5.0	2.5	2.6	7.3	14.6	23.2	23.9	25.4
FL	1.8	2.2	18.6	94.6	202.7	101.9	92.2	126.7	216.1	409.4	443.0	457.8
GA	1.5	2.8	11.1	42.6	89.2	50.1	45.1	60.1	111.4	231.4	214.9	227.6
HI	0.0	0.0	0.6	2.8	6.8	4.2	3.5	4.5	8.0	13.7	14.6	14.9
IA	0.1	0.1	0.4	2.6	6.4	2.4	2.5	5.3	13.1	23.0	25.4	29.4
ID	0.0	0.1	0.2	1.1	3.1	2.3	3.0	5.1	10.7	19.0	20.6	21.8
IL	2.1	7.2	27.1	81.1	131.4	87.0	90.1	87.6	137.9	205.0	219.9	222.9
IN	0.3	0.6	2.8	12.3	23.1	13.2	14.8	24.2	49.1	90.6	98.8	104.3
KS	0.1	0.2	0.8	3.3	7.5	3.0	4.7	8.5	16.5	27.6	29.9	34.7
KY	0.2	0.2	1.0	5.5	10.8	6.9	8.3	14.7	28.0	49.0	53.5	60.4
LA	0.2	0.2	0.6	7.5	20.3	9.3	10.3	13.3	31.2	48.6	55.1	66.8
MA	1.0	3.0	16.9	39.7	61.0	44.7	57.9	64.8	70.4	102.1	120.2	133.0
MD	0.7	2.1	11.6	43.4	68.0	51.2	47.0	54.0	91.7	132.3	139.4	146.6
ME	0.0	0.1	0.3	1.2	2.6	1.1	1.2	2.1	4.9	9.6	11.2	12.4
MI	0.5	0.8	3.9	18.2	31.9	22.5	29.9	46.0	92.4	144.7	146.2	155.0
MN	0.3	0.7	2.9	8.1	16.9	15.6	18.0	26.5	45.8	67.4	70.6	76.6
MO	0.4	0.5	1.1	5.7	15.9	8.9	14.6	26.0	47.1	81.9	88.0	101.5
MS	0.1	0.1	0.2	0.9	3.3	1.6	1.9	4.1	12.3	23.0	26.7	33.3
MT	0.0	0.0	0.0	0.2	1.1	0.6	0.9	1.8	4.7	7.8	8.4	10.2
NC	0.7	1.0	5.7	22.8	48.9	22.5	25.4	41.3	81.8	145.2	164.5	187.2
ND	0.0	0.0	0.0	0.4	1.0	0.6	0.5	1.1	3.1	5.6	6.6	7.9
NE	0.0	0.1	0.3	2.1	4.2	2.3	2.6	5.1	10.2	17.0	18.9	22.2
NH	0.1	0.1	0.3	1.6	3.4	1.8	2.1	3.7	6.6	12.6	13.2	14.5
NJ	0.6	1.5	8.9	37.5	74.0	50.2	47.4	56.1	91.2	160.8	168.6	173.8
NM	0.1	0.1	0.5	1.7	4.5	2.4	2.8	4.7	11.2	20.6	22.3	25.0
NV	0.2	0.2	1.4	9.5	34.2	25.7	25.0	28.3	39.4	63.1	67.8	73.7
NY	1.4	5.4	25.6	53.3	93.9	115.8	137.8	155.5	219.1	330.5	341.6	336.5
OH	0.6	0.8	3.8	21.2	46.2	25.3	34.4	55.8	109.1	180.2	189.7	200.4
OK	0.1	0.2	1.2	5.6	12.4	5.5	8.1	13.9	27.5	42.2	44.6	51.6
OR	0.2	0.3	0.9	6.6	14.9	15.0	14.7	20.5	38.3	58.4	59.1	62.9
PA	0.6	1.0	4.8	32.6	74.5	44.5	43.2	56.2	107.4	174.8	176.9	184.4
RI	0.1	0.1	0.9	4.0	7.2	3.5	4.3	5.9	9.2	16.1	18.5	21.1
SC	0.2	0.3	1.5	7.1	19.0	7.1	9.0	17.0	37.4	68.5	75.5	87.7
SD	0.0	0.0	0.0	0.1	0.2	0.5	0.5	1.1	2.8	5.3	6.4	7.7
TN	0.3	0.4	3.6	16.3	32.7	18.3	20.1	29.5	54.4	96.7	108.7	118.9
TX	1.9	3.4	24.4	89.7	164.9	99.9	100.5	137.1	237.7	416.6	459.9	496.9
UT	0.1	0.1	0.7	3.5	10.3	9.0	11.1	15.7	24.6	37.6	42.3	43.6
VA	1.0	3.1	11.9	30.9	56.5	42.2	41.8	52.0	97.2	140.4	147.8	163.2
VT	0.0	0.0	0.1	0.4	0.9	0.4	0.7	1.2	2.0	3.7	3.9	4.3
WA	0.8	2.0	6.6	18.2	34.9	35.5	41.0	46.6	73.2	112.1	118.8	119.1
WI	0.2	0.3	1.5	7.9	15.2	8.4	8.9	14.4	27.7	51.6	61.9	69.9
WV	0.1	0.1	0.1	0.3	1.6	1.0	1.1	2.9	7.4	14.2	15.1	17.6
WY	0.0	0.0	0.0	0.1	0.2	0.3	0.4	1.1	2.3	4.3	4.9	5.8

Table C.6: Platform Gig 1099's, By State and Year (Percent of Tax Workforce)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AK	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.5	1.2	2.1	2.3
AL	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.5	1.1	2.0	2.2
AR	0.0	0.0	0.0	0.1	0.3	0.1	0.2	0.3	0.9	1.5	1.7
AZ	0.0	0.0	0.2	0.6	1.4	1.0	0.9	1.2	2.2	3.2	3.2
CA	0.0	0.1	0.4	1.2	2.0	1.6	1.6	1.6	2.2	3.3	3.2
CO	0.0	0.0	0.2	0.6	1.2	1.0	1.0	1.3	2.0	2.8	2.9
CT	0.0	0.0	0.1	0.4	0.9	0.4	0.5	0.7	1.3	2.4	2.4
DC	0.0	0.2	0.8	2.4	3.5	2.5	2.2	2.1	2.7	3.6	3.9
DE	0.0	0.0	0.0	0.4	0.9	0.5	0.5	1.3	2.6	4.1	4.1
FL	0.0	0.0	0.2	0.9	1.9	0.9	0.8	1.1	1.9	3.4	3.6
GA	0.0	0.1	0.2	0.8	1.6	0.9	0.8	1.0	1.9	3.9	3.5
HI	0.0	0.0	0.1	0.4	0.9	0.5	0.4	0.6	1.1	1.8	1.9
IA	0.0	0.0	0.0	0.1	0.4	0.1	0.1	0.3	0.7	1.3	1.4
ID	0.0	0.0	0.0	0.1	0.3	0.2	0.3	0.5	1.1	1.8	1.9
IL	0.0	0.1	0.4	1.1	1.9	1.2	1.3	1.2	2.0	2.9	3.1
IN	0.0	0.0	0.1	0.3	0.6	0.4	0.4	0.6	1.3	2.4	2.6
KS	0.0	0.0	0.0	0.2	0.5	0.2	0.3	0.5	1.0	1.7	1.8
KY	0.0	0.0	0.0	0.2	0.5	0.3	0.4	0.6	1.2	2.1	2.3
LA	0.0	0.0	0.0	0.3	0.9	0.4	0.4	0.6	1.3	2.1	2.3
MA	0.0	0.1	0.4	1.0	1.5	1.1	1.4	1.6	1.8	2.6	2.9
MD	0.0	0.1	0.3	1.3	2.0	1.5	1.3	1.5	2.7	3.8	3.9
ME	0.0	0.0	0.0	0.2	0.3	0.1	0.2	0.3	0.6	1.2	1.4
MI	0.0	0.0	0.1	0.3	0.6	0.4	0.5	0.8	1.7	2.7	2.7
MN	0.0	0.0	0.1	0.2	0.5	0.5	0.5	0.8	1.4	2.0	2.1
MO	0.0	0.0	0.0	0.2	0.5	0.3	0.4	0.8	1.4	2.4	2.6
MS	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.8	1.5	1.7
MT	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	0.8	1.2	1.3
NC	0.0	0.0	0.1	0.4	0.9	0.4	0.5	0.7	1.4	2.5	2.8
ND	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.7	1.2	1.4
NE	0.0	0.0	0.0	0.2	0.4	0.2	0.2	0.5	0.9	1.5	1.6
NH	0.0	0.0	0.0	0.2	0.4	0.2	0.2	0.4	0.8	1.5	1.5
NJ	0.0	0.0	0.2	0.7	1.5	1.0	0.9	1.1	1.8	3.1	3.2
NM	0.0	0.0	0.0	0.2	0.4	0.2	0.3	0.4	1.1	2.0	2.1
NV	0.0	0.0	0.1	0.6	2.2	1.6	1.5	1.7	2.3	3.6	3.8
NY	0.0	0.1	0.2	0.5	0.9	1.0	1.2	1.4	2.1	3.1	3.1
OH	0.0	0.0	0.1	0.3	0.7	0.4	0.5	0.9	1.7	2.8	2.9
OK	0.0	0.0	0.1	0.3	0.6	0.3	0.4	0.7	1.3	2.0	2.1
OR	0.0	0.0	0.0	0.3	0.7	0.7	0.6	0.9	1.7	2.6	2.6
PA	0.0	0.0	0.1	0.5	1.1	0.6	0.6	0.8	1.5	2.5	2.5
RI	0.0	0.0	0.1	0.7	1.2	0.6	0.7	1.0	1.5	2.6	2.9
SC	0.0	0.0	0.1	0.3	0.7	0.3	0.3	0.6	1.4	2.4	2.6
SD	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.5	1.0	1.2
TN	0.0	0.0	0.1	0.5	0.9	0.5	0.5	0.8	1.4	2.5	2.8
TX	0.0	0.0	0.2	0.6	1.1	0.7	0.7	0.9	1.5	2.6	2.8
UT	0.0	0.0	0.0	0.2	0.6	0.5	0.6	0.9	1.4	2.0	2.2
VA	0.0	0.1	0.3	0.7	1.2	0.9	0.9	1.1	2.0	2.9	3.0
VT	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.3	0.5	1.0	1.0
WA	0.0	0.1	0.2	0.5	0.9	0.9	1.0	1.1	1.7	2.6	2.7
WI	0.0	0.0	0.0	0.2	0.4	0.2	0.3	0.4	0.8	1.5	1.8
WV	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.3	0.9	1.7	1.7
WY	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.7	1.3	1.5

Table C.7: Platform Gig 1099's, By MSA and Year (Percent of Tax Workforce)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Atlanta, GA	0.4	1.3	2.4	1.4	1.2	1.5	2.5	4.8	4.4
Austin, TX	0.5	1.9	1.9	1.4	1.3	1.5	2.0	3.2	3.6
Baltimore, MD	0.3	1.1	1.7	1.2	1.0	1.4	2.6	3.8	4.0
Boston, MA	0.7	1.4	2.0	1.5	1.8	1.8	2.0	2.6	3.0
Charlotte, NC	0.2	0.7	1.4	0.7	0.9	1.2	2.1	3.4	3.8
Chicago, IL	0.6	1.6	2.6	1.7	1.7	1.6	2.5	3.5	3.7
Cincinnati, OH	0.1	0.5	0.9	0.6	0.9	1.2	1.9	3.0	3.2
Cleveland, OH	0.1	0.5	1.1	0.6	0.6	1.0	2.0	3.3	3.5
Columbus, OH	0.1	0.6	1.3	0.6	0.8	1.2	2.2	3.4	3.7
Dallas-Fort Worth, TX	0.3	0.9	1.6	1.0	0.9	1.1	1.9	3.2	3.2
Denver-Boulder, CO	0.3	0.9	1.7	1.4	1.5	1.8	2.5	3.4	3.6
Detroit, MI	0.1	0.5	0.8	0.6	0.7	1.2	2.2	3.6	3.7
Houston, TX	0.2	0.6	1.2	0.7	0.8	1.0	1.6	2.7	3.1
Indianapolis, IN	0.2	0.7	1.2	0.7	0.7	1.0	1.9	3.3	3.6
Jacksonville, FL	0.1	0.5	1.3	0.6	0.7	1.0	1.9	3.4	3.6
Kansas City, MO/KS	0.1	0.4	0.7	0.3	0.6	1.0	1.8	2.8	2.9
Las Vegas, NV	0.1	0.8	2.6	1.9	1.8	1.9	2.5	3.9	4.1
Los Angeles, CA	0.6	1.8	2.9	2.4	2.3	2.2	2.7	3.9	3.8
Memphis, TN	0.1	0.3	0.9	0.4	0.5	0.7	1.7	3.1	3.4
Miami, FL	0.4	2.1	3.8	2.0	1.6	1.9	2.5	4.6	4.8
Milwaukee, WI	0.1	0.5	0.9	0.5	0.6	0.8	1.4	2.5	3.0
Minneapolis-St. Paul, MN	0.1	0.4	0.7	0.7	0.8	1.1	1.9	2.6	2.7
New York, NY	0.3	0.7	1.3	1.4	1.6	1.7	2.3	3.5	3.4
Orlando, FL	0.2	1.1	2.4	1.1	1.0	1.3	2.2	3.8	3.8
Philadelphia, PA	0.1	0.8	1.8	1.2	1.1	1.2	2.1	3.5	3.5
Phoenix-Mesa, AZ	0.3	0.8	1.7	1.3	1.1	1.4	2.5	3.7	3.7
Pittsburgh, PA	0.1	0.6	1.1	0.6	0.6	0.8	1.5	2.3	2.4
Portland, OR	0.1	0.5	1.2	1.1	1.0	1.3	2.3	3.3	3.2
Providence, RI	0.1	0.6	1.2	0.6	0.7	1.0	1.5	2.6	3.0
Riverside, CA	0.1	0.6	1.1	1.0	0.9	1.2	2.0	3.4	3.3
Sacramento, CA	0.2	0.7	1.8	1.6	1.4	1.8	2.6	4.2	3.9
Salt Lake City, UT	0.1	0.3	0.8	0.6	0.7	1.0	1.5	2.3	2.6
San Antonio, TX	0.1	0.4	1.4	0.8	0.7	1.0	1.8	2.9	3.3
San Diego, CA	0.4	1.3	2.2	1.6	1.5	1.6	2.2	3.4	3.3
San Francisco, CA	1.1	2.3	3.0	2.6	2.4	2.1	2.1	3.1	3.0
San Jose, CA	0.5	1.4	2.2	2.0	2.0	1.9	2.0	2.9	2.7
Seattle, WA	0.3	0.8	1.4	1.4	1.6	1.6	2.2	3.1	3.2
St. Louis, MO	0.0	0.2	0.6	0.4	0.6	0.9	1.7	3.0	3.3
Tampa-St. Petersburg, FL	0.2	0.8	1.9	0.9	0.8	1.0	1.9	3.5	3.9
Virginia Beach, VA	0.1	0.5	1.3	0.8	0.8	1.1	2.7	3.8	3.6
Washington, DC	0.6	1.5	2.3	1.8	1.7	1.8	2.7	3.6	3.7