The Current State of the Gig Economy Amidst an Ever-Changing Workplace:

A Consideration of Demographic Variation in Who Gig Workers are and How They are Fairing

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# **Introduction**

Digitization and technological advancement has transformed the landscape of the workplace. In recent years, the rise of gig work has revolutionized how employment is viewed. Gig work has grown remarkably as the increasing penetration of technology has better-enabled organizations to match their needs to independent workers looking for short-term work on digital platforms (Roy & Shrivastava, 2021). From ride-share platforms, food and grocery delivery services, household assistance platforms, and property rental sites the gig economy has taken several forms that offer a slew of new opportunities.

 Gig work has existed in different forms for centuries, but rose to prominence around the time of the Great Recession, which created a mass of workers looking for new employment opportunities. This rise was facilitated by a technological shift, which opened up new possibilities and led to the digitization of trust (Bajwa et al., 2018). The gig economy has exhibited significant growth in light of the recent pandemic due to the increased demand for delivery services, a shift towards remote work, and a need for additional flexibility. Gig work became a popular opportunity for those who were laid off from their traditional jobs and those who needed a more flexible work option to accommodate caring for children or other dependents during the traditional workday (Watson et al., 2021).

Gig work offers the flexibility of setting one’s schedule and choosing from a wide variety of jobs that are often more easily accessible than traditional work. Gig work also offers the opportunity to generate income for those unable to work a traditional full-time job (Donovan et al., 2019). However, this new frontier of labor comes with a number of challenges and difficulties. Gig workers are forced to navigate the unnerving terrain of income volatility, a lack of employer-sponsored benefits, and a seemingly never-ending search for new jobs. This precarious work is often low-paid and temporary, making the reliance on gig work a significant risk (Bajwa et al., 2018). For some, gig work offers the opportunity to make additional income on top of their income from a traditional full-time job, while others rely on gig work as their sole source of income to make ends meet. Many elect to work these alternative work arrangements because they value the flexibility and autonomy that informal work offers, while others are forced to take on gig work because they aren’t able to obtain a traditional job, leaving them with no choice but to deal with the challenges and inequitability of gig work (Oyer, 2020). As the gig economy continues to grow it is essential that there is an awareness of who gig workers are and how they are fairing, to shape policy that addresses the precarious nature and equity issues that gig work brings. The goal of this paper is to address these areas and specifically examine the demographics of gig workers, why they perform gig work, and how they are fairing in terms of their finances, health and general well-being. I will seek to examine whether there are demographic variations in who does gig work, why they do gig work, and their financial status, health coverage, and life satisfaction. In answering these questions, this paper will utilize data from the Federal Reserve Board’s yearly Survey of Household Economics and Decisionmaking (SHED) dataset.

# **Literature Review**

The recent emergence and digitization of the gig economy has opened up a need for research on this increasingly relevant topic. Although this growth is recent, older forms of gig work have been around for centuries, dating back to the 1800s such as direct selling companies and musicians. However, as time has passed, a heavy emphasis on technology-driven gig work has developed as the gig economy has become digitized [(Watson et al., 2021).](https://journals.sagepub.com/doi/pdf/10.1177/1059601121996548?casa_token=IWTNb3n00z0AAAAA:Xcvg_gaVMIWwraBd0l8MeB3-aw-lZjif9-7A_U3TrNA0S0u3D0UkXrKo8PzleWp-yi6Ofz3_YooIRg) As gig work has evolved and changed over time how it is perceived and defined has been similarly in flux.

## ***Defining Gig Work***

Due to the ever-evolving, diverse nature of gig work, it has proven to be very difficult to define. The current literature tends to focus on the specific types of gig work instead a broader collective definition of gig work that would enable more study-wide comparison. Although there is growing interest in gig work, the current literature is limited by definitional ambiguity. There is a lack of consensus on what types of nonstandard work should be included in the gig economy which plays into the difficulty of agreeing on how gig work should be defined. The various definitions of gig work hinder the accumulation of knowledge on gig work and create a redundancy in the literature, in that numerous studies are asking the same questions with the only real differences being how gig work is defined. The lack of consensus on how gig work should be defined has prevented the current literature from being able to determine the state of gig work, measure the size of the gig economy as a whole, and evaluate how these have changed over time ([Watson et al., 2021](https://journals.sagepub.com/doi/pdf/10.1177/1059601121996548?casa_token=IWTNb3n00z0AAAAA:Xcvg_gaVMIWwraBd0l8MeB3-aw-lZjif9-7A_U3TrNA0S0u3D0UkXrKo8PzleWp-yi6Ofz3_YooIRg); [Kuhn & Galloway, 2019](https://www.emerald.com/insight/content/doi/10.1108/JMP-05-2019-507/full/pdf?title=expanding-perspectives-on-gig-work-and-gig-workers)). To get around this, the majority of studies have focused on specific types or platforms of gig work instead of using a broader definition of gig work, resulting in a lack of comparable studies in the field as a whole [(Watson et al., 2021)](https://journals.sagepub.com/doi/pdf/10.1177/1059601121996548?casa_token=IWTNb3n00z0AAAAA:Xcvg_gaVMIWwraBd0l8MeB3-aw-lZjif9-7A_U3TrNA0S0u3D0UkXrKo8PzleWp-yi6Ofz3_YooIRg).

 The actual term, “gig economy” was coined amidst the height of the great recession and has since been used to hone in on a more novel sort of contingent labor. A study on expanding perspectives on gig work by Kuhn and Galloway (2019) describes this new interpretation of gig work as “electronically mediated employment arrangements in which individuals find short-term tasks or projects via websites or mobile apps that connect them to clients and process payment” (p. 1). This represents one of the many narrow definitions of gig work as the work becomes increasingly digitized. Other studies take on a more encompassing definition that is not so narrowly focused on the more recent popular forms of gig work. Donovan et al. (2019) in a paper evaluating the impact that the gig economy is shaped to have on the workforce describe the gig economy more generally as, “the collection of markets that match providers to consumers on a gig (or job) basis in support of on-demand commerce” (p.1). This is further depicted as being a model in which gig workers enter into formal agreements with companies to provide desired services to that company’s clients. Today this is conducted through internet-based technological platforms that connect gig workers with clients (Donovan et al., 2019).

 Another term that is often used in the same context as gig work is alternative work arrangements. Alternative work arrangements (AWAs) are very much what the name suggests. AWAs are work arrangements that are atypical to standard work. Spreitzer et al. (2017) consider this new world of work in their paper that uses AWAs to describe the various manifestations of work that exist in today’s workplace from high-skill freelancers seeking flexibility to low-wage on-call service workers making just enough to get by.

 To consider the characteristics of gig workers and examine how they are fairing this paper will utilize data from the Federal Reserve Board’s yearly Survey of Household Economics and Decisionmaking (SHED) dataset. It is only fitting that the definition of gig work used in this paper matches that of the SHED dataset. The SHED dataset describes gig work as including online and offline sales and services such as childcare, renting out property, selling items at markets, ride-sharing, or selling goods online among many others (Jenkins, Isom, & Koopman, 2021). This broad definition of gig work highlights the reality that gig work has predated the internet and the current digital era. As society as a whole has transformed in recent history the workplace has followed suit, taking on a variety of forms that differ from the traditional norm. Approaching gig work from this broad perspective enables this study to come to valuable conclusions that can be meaningfully compared to SHED datasets from previous years as well as other broadly defined studies on gig work.

## ***Who Are Gig Workers?***

One essential aspect of an evaluation of the state of gig work is the discussion of who the gig workers are. Understanding who works in the gig economy is vital to grasp why individuals work within the gig economy and can aid in shaping policy to meet their needs and make the workplace more equitable.

**How Many Gig Workers are There?** As aforementioned, gig work has exhibited significant growth in prevalence in recent years. A study that evaluated the role of informal work in supplementing Americans’ income that examines SHED data from 2016 and 2017 notes that the data shows that over a month, more than one-fourth of adults engage in informal work outside their job. Of these, two-thirds do it to earn money and it’s an important source of household income for one-third (Abraham & Houseman, 2019). More recent SHED data indicates that this figure has risen. In a more recent paper, the same authors found that “data from the 2018 and 2019 Survey of Household Economic Decisionmaking indicate that about a third of all adults age 18 and over had held some type of informal work arrangement or side job in the prior month.” (Abraham & Houseman, 2021, p. 67). The number of adults participating in gig work is on the rise. Not only this but there are likely a lot of alternative work arrangements that are not being accounted for. Abraham and Houseman note that when you consider the number of informal, “under the table” jobs such as babysitting, housecleaning, among others that have predated the arrival of online platforms, the number of gig workers is actually very likely notably larger than the data signifies, as all those who don’t report their earnings in the CPS as self-employment are missing from recent estimates (2019).

Within the population that participates in the gig economy, there are two groups of workers. On one side you have the majority who are those who work another job because their primary job does not provide sufficient income. On the other side, you have those who do it for flexibility in hours or in tasks (Scott et al., 2020).

**Specific Characteristics Associated with Gig Work.** In terms of the specific characteristics of those who perform gig work, various characteristics are associated with participation in gig work. The 2016 and 2017 SHED data highlight that age is the most notable characteristic associated with participation in the gig economy. Participation of those aged 18–24 is the highest (41.3 percent) and there is a consistent drop off as age rises. Another major characteristic is race, in which minorities participated in gig work at higher rates than whites. In addition to this, there is a notable difference between those who are finding it difficult to get by (38.4 percent) and those who are living comfortably (24.4 percent). As one might expect, part-time employees are significantly more likely to participate in informal work (35.0 percent) than full-time employees (28.3 percent), as part-time employees have more time and possibly greater financial need for additional work (Abraham & Houseman, 2021).

**The Demographics of Gig Work.**The current literature highlights that gig work is especially important to the disadvantaged. It reveals that disadvantaged populations tend to be more likely than others to rely on gig work for the additional income that aids in making ends meet. The 2016 and 2017 SHED data reveals that gig 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” (Abraham & Houseman, 2019, p. 110). The literature also shows that minorities are somewhat more likely to report working in an informal arrangement than whites and seem more reliant on income from informal work. Specifically, African Americans and Hispanics have been found to be much more likely than Whites to engage in multiple forms of informal work activities (Abraham & Houseman, 2019).

## ***How Are Gig Workers Doing?***

To understand the state of gig work in its truest sense it necessitates the consideration of the lived experiences of those within the gig economy. Unfortunately, in the literature, there is a significant gap in the lived experiences of gig workers (Bajwa et al., 2018). The current literature predominately focuses on the changing prevalence of gig work rather than shedding light on the various lived experiences of gig workers. While some gig workers greatly benefit from the freedom and flexibility that gig work offers, many struggle with the vulnerabilities and risks that come with working in the gig economy.

**Weighing up the Costs and Benefits of Gig Work.** There are a number of costs and benefits that are associated with gig work that individuals must weigh up as they decide whether to take part in the gig economy or not. The literature points out that gig work has positive impacts on well-being in that it offers more work schedule flexibility as well as the ability to balance other responsibilities like child or elder care to name a few. On the other hand, gig work has negative impacts on well-being in the form of poorer health outcomes, less family time, a negative effect on family and community involvement, and impacted performance and satisfaction due to the added stress brought about by gig work (Scott et al., 2020). 2016 and 2017 SHED estimates suggest that informal work plays a vital role in helping the economically disadvantaged make ends meet (Abraham & Houseman, 2019). Additionally, a 2020 study on the impact of working an additional job on household poverty found this to be the case as well, concluding that working more than one job helped raise households out of poverty. However, the study notes the limited research on multiple job holding shows that this poverty alleviation came at costs in the form of negatively impacted work-life balance, job stress, and dissatisfaction (Scott et al., 2020).

**Lack of Benefits for Gig Workers.** One of the most prominent detriments of gig work is the lack of benefits that are provided compared to traditional full-time work. Recent literature notes that gig workers are not afforded protections under U.S. employment and labor laws and they are not eligible for workers compensation or unemployment insurance (Abraham & Houseman, 2021). In addition to this, gig workers are ineligible to receive employer-provided benefits, such as health insurance, retirement benefits, and paid leave that full-time employers traditionally provide. BLS reports that full-time employees have much greater access to these crucial benefits. They report that 88 percent of full-time employees have access to employer-provided health care benefits while only 40 percent of part-time employees do. In terms of employer-provided-retirement benefits, 81 percent of full-time employees have access compared to only 22 percent of part-time employees. 88 percent of full-time employees have access to paid leave compared to 43 percent for part-time employees (Abraham & Houseman, 2019). This noteworthy gap between the benefits of full and part-time workers has led to widespread concern about the significant risk that gig workers take on compared to those with traditional work. The global pandemic has stressed the need for a raised awareness of these economic vulnerabilities that exist for gig workers as the gig economy continues to change and grow (National Academies Press, 2020).

**Vulnerabilities of Gig Workers.**The current literature highlights the number of vulnerabilities that gig workers take on. In addition to the lack of a safety net in the form of employer-sponsored health or retirement benefits, gig work often does not offer the same training as traditional work, if any training at all. This leaves gig workers in an extremely vulnerable position as they are more apt to make severe mistakes and lose their source of income without having the benefits of traditional work to fall back on. In addition to this, there is often a greater risk in safety, such as ride sharing for example. This is especially the case if there is no health insurance provided which, as mentioned, is often the case. Gig workers are also faced with the reality that they face the objective risk of a lack of income predictability. In the gig economy when work availability and demand is unpredictable, so is the pay, which can make it very difficult for gig workers to make ends meet, as many rely heavily on their income from gig work (Kaine & Josserand, 2019).

A study that provides a systematic evaluation of the standards of gig work notes that the current research sheds light on poor pay levels or even nonpayment, over-long work hours, lack of social protection benefits, and disintegration of the workforce that prevents collective voice, among other vulnerabilities. There are amplifying concerns that the gig economy may spur a deterioration of work standards and worsen inequalities going forward (Heeks et al., 2021).

Not only are the conditions of gig work full of vulnerabilities, but their wages are also considerably less than regular employees with similar characteristics and similar occupations. While this earnings gap is derived more from gig workers working fewer hours rather than from a gap in hourly earnings, the supply of workers in the gig economy often outstrips demand resulting in a lack of hours available to work, while simultaneously leading to lowered wages (Katz & Krueger, 2019; Spreitzer et al., 2017). These relentless vulnerabilities have a severe impact on those who perform gig work out of necessity as they are forced to take on these vulnerabilities to make ends meet.

**Significance: The Importance of Directing Policy.** The state of gig workers relies on the policies surrounding gig work and alternative work arrangements. Scott et al.’s study on the relationship between working an extra job and poverty spotlights the reality that an individual’s ability to benefit from gig work relies on the design of policies that shape the work lives of low and middle-skilled workers. Policy change in the form of child care subsidies, regulations on work hours, regulated work conditions, overtime and minimum wage, unemployment insurance, and minimum benefit requirements would make a groundbreaking impact in vastly improving the state of gig workers (Scott et al., 2020).

 To direct policy change in the realm of gig work, it is imperative that the current state of gig work is known. There have been previous papers in the literature that discuss the state of informal work, but that research has grown outdated and does not account for the ever-changing nature of gig work. As gig work has grown and changed amidst the global pandemic it is vital that an updated assessment of the state of gig work is conducted to direct policy and increase equity in the ever-changing workplace.

# **Data**

## ***SHED Dataset Overview***

In this paper I use data from the Federal Reserve Board’s yearly Survey of Household Economics and Decisionmaking (SHED) dataset fielded in November 2021. This survey sheds light on the economic well-being and financial lives of U.S. households, including a range of topics spanning from education to economic fragility. The most recent 2021 survey is the ninth annual survey that has been conducted annually each fall since 2013. The survey of 11,874 adults aged 18 and older across the U.S. was conducted in October and November of 2021 and provides a glimpse of the economic well-being of U.S. households at that time (Board of Governors of the Federal Reserve System, 2022).

 The SHED dataset is especially useful to examine the state of gig work because along with the vast amount of demographic, financial, and employment variables, it contains information on gig work and alternative work arrangements as well. This makes it well suited to investigate who performs gig work, their reasons for doing so, and how they are fairing (Abraham & Houseman, 2019).

## ***Descriptive Statistics***

**Key Variables Incorporated.** The SHED dataset has several key variables that are useful in understanding the demographics of gig workers, why they perform gig work, and how they are fairing, rendering this research very relevant.

***Gig Work?*** The foundational variable in this dataset as it relates to this paper is variable GE1A. This variable simply addresses whether someone performs gig work or not. GE1A asks the question, “In the past month, have you done any freelance or gig work, either to supplement your income or as your main job?” (Board of Governors of the Federal Reserve System, 2022). This variable will be key to determining the state of gig work and determining who is more and less likely to perform gig work. As shown below in Figure 1 out of the 11,874 survey respondents, nearly 6% of the respondents had performed gig work in the past month as a source of income. That is a strikingly large proportion of the population and is a figure that is seemingly only going to rise.

**Figure 1: Summary of GE1A**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  Variable |  Obs |  Mean |  Std. Dev. |  Min |  Max |
|  GE1A | 11874 | .0598787  | .237272  | 0 | 1 |

***Choice or Necessity?*** Another interesting aspect in evaluating the state of gig work is the question of ‘why are they doing it?’ This question is addressed in the dataset with variable GE13, which asks, “which of the following best describes why you are doing freelance or gig work?” (Board of Governors of the Federal Reserve System, 2022). I have created a new variable (GE13GE1A) that only includes GE1A as the base. This will shed light on why the individuals are performing gig work and will allow for the consideration of the relationships between the various characteristics of those who perform gig work for either reason. As shown in Figure 2a in the Appendix, out of all those who were surveyed, 3.87% of respondents performed gig work out of choice and 2.12% out of necessity. Figure 2b shown below more clearly highlights this, revealing that out of the 711 people who performed gig or freelance work in the past month 459 (64.56%) did it out of choice and 252 (35.44%) did it out of necessity.
**Figure 2b: Tabulation of GE1A GE13GE1A**

|  |  |
| --- | --- |
| In the past month, have you done any freelance or gig work? | GE13GE1A |
|  No Gig |  Choice |  Necessity | Total |
| No | 11163 | 0 | 0 | 11163 |
| Yes | 0 | 459 | 252 | 711 |
| Total | 11163 | 459 | 252 | 11874 |

***Making More, Less, or the Same?*** An additional variable (GE24) that I will include in my analysis concerns the income expectations of those who perform gig work. This survey question asks, “Do you think that you generally make more, about the same, or less per hour doing freelance or gig work as you could make at a traditional job?” (Board of Governors of the Federal Reserve System, 2022). Figure 3a in the Appendix displays that gig workers are relatively split on whether they would make more or less money doing gig work compared to what they could be making if they were working a traditional job. Additionally, when you look at who from each category is doing it out of choice or necessity (in Figure 3b in the Appendix) you find that more of those who think they are making more doing gig work are doing gig work out of choice (68.35%) than those who think they are making less (62.14%) This makes sense as one would likely be more apt to choose to do gig work by choice if they think they make more doing gig work than working a traditional job.

***Financial Well-Being.*** In terms of evaluating the well-being of gig workers, I will consider a variable (B2) that addresses financial well-being. The survey question asks, “Overall, which one of the following best describes how well you are managing financially these days?” The response options are “1. Finding it difficult to get by 2. Just getting by 3. Doing okay 4. Living comfortably” (Board of Governors of the Federal Reserve System, 2022). Figure 4a in the Appendix reveals that most respondents are either living comfortably (41.09%) or doing okay (38.23%). However, there are a notable amount of those who are just getting by (15.31%) and those who are finding it difficult to get by. Figure 4b in the Appendix reveals there is a trend that the worse the state of financial well being the higher the proportion of those performing gig work. 13.17% of those who are finding it difficult to manage their finances performed gig work in the month prior compared to only 4.41% of those who are living comfortably. Although this is the case, Figure 4c shows that only 11.81% of those who performed gig work are finding it difficult to get by. The majority are living comfortably (30.24%) or doing okay (30.24%).

***Life Satisfaction.*** I will also consider overall well-being by including a variable (B10) that prompts survey respondents to choose, “Overall, on a scale from zero to ten, where zero is not at all satisfied and ten is completely satisfied, how satisfied are you with life as a whole these days?” (Board of Governors of the Federal Reserve System, 2022). Figure 5a in the Appendix highlights that most respondents are reasonably satisfied with life as 67.45% chose between 5 and 8. Figure 5b does not show any clear trends, but interestingly enough the highest proportion of those who have performed gig work was for those who chose 3 on the scale of life satisfaction (11.09%). Figure 5c shows that most of those who perform gig work are similarly satisfied as the general respondents, as 65.4% chose between 5 and 8.

***On Track Financially?*** Another variable (K0) that I will consider in regard to the financial well-being of gig workers is one that concerns their self-perception of whether they are on track financially or not. The survey question asks, “Do you think that your retirement savings plan is currently on track?” and the response options include “yes”, “no”, and “don’t know” (Board of Governors of the Federal Reserve System, 2022). I elected to remove those who responded “don’t know” to make the results more meaningful. Figure 6a in the Appendix shows that the respondents as a whole are very evenly split. However when you consider those who perform gig work these figures differ notably. Figure 6b highlights that only 38.57% of those who perform gig work think that their retirement savings plan is currently on track compared to 50.99% of the respondents as a whole.

***Retirement Accounts.*** An additional financial variable (K2) that I will consider examines the type of retirement accounts that unretired espondents hold. This question asks, “Do you currently have each of the following types of retirement savings?” and proceeds to list six different classifications of retirement accounts including “401(k), 403(b), Keogh, or other defined contribution plan through an employer, pension with a defined benefit through an employer that will pay a fixed monthly amount in retirement, IRA or Roth IRA, savings outside a retirement account, own a business or real estate that will provide income in retirement, or other retirement savings” (Board of Governors of the Federal Reserve System, 2022). To make this variable more comprehensible and usable I created a new variable (retirementtype) that splits the variable K2 into those who have no retirement account and those who have at least one retirement account. This will make the results to come more interpretable and meaningful as it will improve their clarity. Figure 7 in the Appendix highlights that the majority of those who are unretired and perform gig work have at least one type of retirement account (63.29%). One limitation to this figure is that many of those who perform gig work might only be doing it very sporadically for small amounts of money in additionn to a traditional full time role that might provide a 401k or other type retirement account.

***Retirement Savings.*** One final financial variable (K20) that I will include in my models considers the amount of money currently saved for retirement. This variable includes all those who are retired or who are not retires and have self-directed retirement savings. The variable breaks down into eight categories of different amounts ranging from “less than $10,000” to “$500,000 to $999,999”. The variable also includes “don’t know” as a response option, which I elected to remove, for clearer estimations. Figure 8 reveals that there seems to be a clear trend that a higher proportion of those who do perform gig work have less saved for retirement compared to those who do not. Saving for retirement is hugely important to generational wealth and financial well-being and security as individuals age. For this reason, this variable in addition to the other financial variables will be very interesting to consider in the estimated models.

***Health Insurance.*** Having access to health insurance is vitally important to ones well-being and health as well as that of ones family. The health insurance variable (E4) that I consider looks at the different types of health insurance or health coverage plans that resopondents are currently covered by such as “Insurance through an employer or union, insurance purchased directly from an insurance company, Medicare or Medicaid, TRICARE, VA, or other military or veteran's health care, insurance purchased through a health insurance exchange or any other health insurance” (Board of Governors of the Federal Reserve System, 2022). Insteead of considering all of the separate types of health coverage I created a new variable (healthinsurance) that splits the variable E4 into those who have no health insurance or coverage and those who have at one type. I elected to do this because what is most relevant as it relates to gig work is whether or not gig workers have health insurance, and less so the type of health insurance. Figure 9 in the Appendix highlights a notable difference between gig workers and non gig workers and whether or not they have health insurance. 10.97% of those who perform gig work did not have any health insurance or coverage in any form compared to only 6.18% of those without gig work. This is interesting as gig work often does not provide the employer sponsored health insureance that traditional work traditionally offers.

These key variables in combination with the SHED’s relevant demographic variables provide the opportunity to make notable, up-to-date conclusions about the state of gig work that can serve to better shape policy surrounding gig work.

**Demographic Variables.** As aforementioned, this paper will consider a number of demographic variables that are listed below:

 ***Gender.*** The gender variable that this paper will use (ppgender) is a binary variable consisting of male and female. As shown by Figure 10a in the appendix, the dataset is quite evenly split when it comes to gender, with 50.23% of the respondents being male and 49.77% being female. Again, as shown in Figure 10b in the appendix, 6.34% of male respondents performed gig work compared to 5.63% of females. 53.16% of those who performed gig work are male and 46.84% female as shown by Figure 10c in the Appendix.

***Age.*** The age variable used (ppagecat) is a categorical variable that is split up into 7 categories, ranging from age 18 to 94 years old. In my estimations, I will use the discrete variable (ppage) as it is more precise for the model, but the categorical variable is better to display in tables. Figure 11a shows that the largest age categories fall in the categories between the ages of 25 and 74 (85.29%), as there are notably fewer respondents aged 18 to 24 (4.76%) and 75 plus (9.32%). Figure 11b in the Appendix reveals that as the age category increases the percentage of those performing gig work decreases rather consistently. A higher proportion of those aged 18 to 24 performed gig work (9.73% of that age group) compared to those over age 75 (1.99%) with the lowest proportion of those who performed gig work. Figure 11c in the Appendix shows that those aged 18 to 24 make up the smallest proportion of those who performed gig work (7.74%) and the largest proportion are those aged 25 to 34 (24.47%), which then decreases with each subsequent category.

***Race***. The race variable used (race\_5cat) is a categorical variable that is broken up into five categories (White, Black, Hispanic, Asian, Other). I created a dummy variable (dumrace) for this variable that breaks it down to a variable for each race so it is useful in later models. Figure 12a in the appendix shows that the majority of respondents are White (70.68%) followed by Hispanic (11.82%), Black (10%), Asian (3.82%), and Other (3.68%). Figure 12b reveals that those in the Other category are most likely to have performed gig work (7.55% of that group) followed by Black (6.91%), Hispanic (6.62%), White (5.73%), and Asian (4.85%). Figure 12c in the appendix shows that those who are White make up the majority of those who performed gig work (67.65%) followed by Black (11.53%), Hispanic (13.08%), Other (4.64%), and Asian (3.09%).

***Income.*** The income variable used (ppinc7) is another categorical variable that breaks up household income into seven categories ranging from less than $10,000 to $150,000 or more. All of the income variables in the dataset are in terms of household income instead of individual income. This is unideal because all the other variables that we will consider from the SHED data concern individuals, which leaves room for a variety of situations that would not be accounted for in the data. Although this is unideal, this variable is still valuable for this research. Figure 13a reveals that the majority of respondents (53.77%) have a household income of over $75,000 with the vast majority of the remainder (33.62%) making between $25,000 and $74,999. Figure 13b shows a general trend that those with a lower household income are more likely to perform gig work as the percentage of those who do gig work generally seems to decrease as household income increases.

***Education.*** The education variable (ppeduc5) is a categorical variable that is split into five categories from “No high school diploma or GED” to “Master’s degree or higher”. Figure 14a in the appendix shows that the majority of respondents pursued higher education (71.55%) and nearly all at least graduated high school (94.22%). In the appendix, Figure 14b reveals a general trend that as education rises the proportion of people in that category who performed gig work also rises. However, the difference here is not great as those with no high school diploma (5.85%) are quite close to those with a Master’s degree or higher. While age and probably income likely play a role in this table, this will be addressed later when a probit model is used. As seen in Figure 14c, the majority of those who performed gig work pursued higher education (77.22%), and almost all at least graduated high school (94.37%).

***Employment.*** The employment variable (ppemploy) is another categorical variable that describes the current employment status of respondents as either full time, part time, or not working. Figure 15a in the appendix reveals the different current employment status of the respondent with most working full-time (47.88%), followed by those not working (39.14%), and then those working part-time (12.99%). This figure of those not working is an accurate representation of the general population as it includes those who are unemployed and those who are not a part of the labor force due to retirement, and raising kids, among others. Figure 15b considers the current employment status of those who performed gig work and unsurprisingly those who identify themselves as working part time have the highest proportion of those who also performed gig work (12.84%), followed by those who work full-time (6.97%) and those who report that they are not working (2.52%). Interestingly enough, we see in Figure 15c in the Appendix that the majority of those who reported working full-time make up the majority of the respondents who performed gig work (55.7%) followed by those working part-time (27.85%) and those not working (16.46%).

***Marital Status.*** The marital status variable (ppmarit5) is a categorical variable that describes marital status as now married, widowed, divorced, separated, or never married. Figure 16a in the appendix shows that the majority of respondents are currently married (59.83%) followed by those who have never been married (23.77%). As shown by Figure 16b, there are larger proportions of those who are single (never married (8.11%), separated (8.15%), divorced (7.18)) compared to the proportion of those who are currently married (5.12%). Figure 16c reveals the proportion of those who are currently married (51.20%) and not currently married (48.9%) out of those who performed gig work is quite evenly distributed, which is notably less than the proportion of those who are married out of all the respondents.

***Metropolitan Statistical Areas.*** The metro or non-metro variable (ppmsacat) is a binary variable that considers whether each individual resides in a metropolitan statistical area (msa), which is a core area that contains a substantial population nucleus that is surrounded by integrated communities. Figure 17 in the appendix highlights that there is a slightly greater proportion of gig workers that live in Metropolitan areas compared to those who are not gig workers. While this is the case, the difference is only marginal.

***Region.*** The region variable (ppreg4) is a categorical variable that breaks down the U.S. region that each respondent resides. This variable is broken down into the four regions being, Northeast, Midwest, South, and West. As shown in the appendix in Figure 18 reflects that while a lesser proportion of gig workers live in the Northeast region and a slightly greater proportion of gig workers living in the Midwest and South, these differences are very marginal and don’t appear to be all that notable.

# **Estimation Procedures**

## ***Linear Probability Model***

 I will be using a linear probability model to evaluate the data and explore who gig workers are, why they are doing gig work, and how they are fairing. I will perform these linear regressions on several binary variables, which I am aware comes with some limitations. One of these limitations is that the estimations can yield results that are outside the range of acceptable values for probabilities (between 0 and 1), making the results uninterpretable. Another limitation of this method is the issue of heteroskedasticity. The linear probability model assumes that the error term is homoskedastic, and the presence of heteroskedasticity proves can violate the Gauss-Markov theorem and can lead to other issues. Although the linear probability model has its issues it is still useful in displaying a general idea of the relationships between the demographic variables and the key variables.

## ***Probit and Ordered Probit Models***

To address the issues with the linear probability model, I use a probit and ordered probit model. The probit model overcomes the limitations of the linear probability model in a number of ways. Probit models were specifically designed for binary dependent variables in that the predicted probabilities generated from probit models are always between 0 and 1. In addition to this, probit models also incorporate the non-linear effects of the independent variable. The ordered probit model will be used to estimate ordered outcome dependent variables. Although you are unable to interpret the size of the coefficients of the probit and ordered probit models in the same way that you can with the linear probability model, these models are very useful for this research as it overcomes the limitations that hinder the linear probability model.

# **Preliminary Results**

**Figure 19: Regression Output of Demographic Variables and Key Variables**

|  |  |  |
| --- | --- | --- |
|   |  (1) |  (2) |
|   |  GE1A |  GE13GE1A |
| **Gender** |   |   |
| Ref. Male  |   |   |
| Female | -.011\*\* | .031 |
|   | (.004) | (.036) |
| **Age** | -.001\*\*\* | -.003\*\* |
|   | (0) | (.001) |
| **Race** |   |   |
| Ref. White |   |   |
| Black | .003 | .091 |
|   | (.008) | (.058) |
| Hispanic | -.002 | -.009 |
|   | (.007) | (.055) |
| Asian | -.023\*\* | .008 |
|   | (.012) | (.102) |
| Other | .01 | -.026 |
|   | (.012) | (.083) |
| **Household Income** |   |   |
| Ref. Less than $10,000 |   |   |
| $10,000 to $24,999 | -.009 | .009 |
|   | (.013) | (.092) |
| $25,000 to $49,999 | -.022\* | -.055 |
|   | (.013) | (.087) |
| $50,000 to $74,999 | -.031\*\* | -.136 |
|   | (.013) | (.089) |
| $75,000 to $99,999 | -.021 | -.265\*\*\* |
|   | (.013) | (.091) |
| $100,000 to $149,999 | -.038\*\*\* | -.286\*\*\* |
|   | (.013) | (.092) |
| $150,000 or more | -.052\*\*\* | -.345\*\*\* |
|   | (.014) | (.095) |
| **Education** |   |   |
| Ref. No high school diploma or GED |   |   |
| High school graduate (high school diploma or the equivalent GED) | -.009 | -.128 |
|   | (.01) | (.085) |
| Some college or Associate's degree | .003 | -.117 |
|   | (.01) | (.084) |
| Bachelor's degree | .009 | -.195\*\* |
|   | (.011) | (.086) |
| Master’s degree or higher | .029\*\*\* | -.121 |
|   | (.011) | (.09) |
| **Current Employment Status** |   |   |
| Ref. Working full-time  |   |   |
| Working part-time | .06\*\*\* | -.001 |
|   | (.007) | (.042) |
| Not working | -.033\*\*\* | .046 |
|   | (.006) | (.052) |
| **Marital Status** |   |   |
| Ref. Now married  |   |   |
| Widowed | .002 | .039 |
|   | (.011) | (.117) |
| Divorced | .018\*\* | -.044 |
|   | (.008) | (.059) |
| Separated | .021 | .126 |
|   | (.018) | (.124) |
| Never married | 0 | -.059 |
|   | (.006) | (.046) |
| **Metropolitan Statistical Areas** |   |   |
| Ref Non-Metro |   |   |
| Metro | .003 | .103\* |
|   | (.007) | (.054) |
| **Region** |   |   |
| Ref. Northeast |   |   |
| Midwest | .01 | -.016 |
|   | (.007) | (.059) |
| South | .01 | .022 |
|   | (.006) | (.055) |
| West | .008 | .016 |
|   | (.007) | (.059) |
| **\_cons** | .127\*\*\* | 1.702\*\*\* |
|  | (.018) | (.137) |
| **Observations** | 11874 | 711 |
| **R-squared** | .029 | .117 |
| *Standard errors are in parentheses* |
| *\*\*\* p<.01, \*\* p<.05, \* p<.1* |
|   |

The results above reflect the linear probability model that was used to evaluate the data. Previous research has found that many of these demographic characteristics impact the likelihood of performing gig work. The regression output listed above offers the ability to get a general idea of the general relationships between the demographic variables and the binary key variables that this paper considers by considering the marginal effects. In the regressions, I initially introduced the discrete age variable (ppage) squared because it is suspected that there is a bend in the way some explanatory variable affects the dependent variable. As age increases one might be more likely to perform gig work but at a certain point individuals become less likely to perform gig work as individuals retire and are limited by the effects of old age. However, none of the results for the squared age variable were significant so I removed them from the estimation. In the following paragraphs, I will touch on all of the results that are significant at least at the 10% level of significance.

## ***Gig Work?***

The regression output reveals several significant results for the dependent variable of whether one performed gig work or not in the past month (GE1A). One of these significant results is that females are 1.1% less likely than males to have performed gig work. Although it is very marginal, the discrete age variable is also significant and reflects that as an individual ages one year they are 0.1% less likely to have performed gig work in the past month. In terms of race, Asians are shown to be the least likely to perform gig work compared to Whites, being 2.3% less likely. In terms of household income, households that make $25,000 to $49,999 are 2.2% less likely than households with less than $10,000 to have performed gig work, $50,000 to $74,999 are 3.1% less likely, $100,000 to $149,999 are 3.8% less likely, and $150,000 or more are 5.2% less likely. There is a pretty clear pattern of being less likely to have performed gig work as household income rises. In terms of education, someone with a Master’s degree or higher is 2.9% more likely have performed gig work than someone with no high school diploma or GED. For employment, those who work part-time are 6% more likely than those working full-time to have performed gig work and those who are not working are 3.3% less likely. When it comes to marital status, those who are divorced are 1.8% more likely than those who were currently married when the survey was administered to have performed gig work.

## ***Choice or Necessity?***

Several demographic variables also displayed significant results for the regression with the choice or necessity variable (GE13GE1A). As one ages one year, they are 0.3% less likely to perform gig work out of necessity. In terms of Household income, households that make $75,000 to $99,999 are 26.5% less likely than households with less than $10,000 to perform gig work out of necessity, $100,000 to $149,999 are 28.6% less likely, and $150,000 or more are 34.5% less likely. There is a strong pattern of being less likely to have performed gig work out of necessity as household income rises. As for education, the output shows that those with a Bachelor’s degree are 19.5% less likely to have done gig work out of necessity than someone with no high school diploma or GED. In terms of region, the results reveal that those who live in a metro area are are 10.3% more likely than those who live in a non-metro area to perform gig work out of necessity.

# **Empirical Findings**

## ***Results***

**Probit Models.** The table below displays the results for the probit models that reflect whether there are demographic variations for these binary dependent variables. This table reports five probit models which consider the demographic variations for whether the respondent performs gig work (GE1A), why they do gig work (GW13GE1A), whether they are on track financially (K0), whether they have at least one retirement account (retirementtype), and whether they have health insurance (healthinsurance). The table includes the standard errors in parenthesis and makes note of the values that are statistically significant at the ten percent, five percent, and one percent level.

**Figure 20: Probit Output Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   |  (1) |  (2) |  (3) |  (4) |  (5) |
|   |  GE1A |  GE13GE1A |   K0 |  retirementtype |  healthinsurance |
| **Gender** Ref. Male |   |   |   |   |   |
| Female | -.108\*\*\* | .089\*\*\* | -.085\*\* | .209\*\*\* | .109\*\*\* |
|   | (.039) | (.106) | (.035) | (.032) | (.041) |
| Age | -.008\*\*\* | -.009\*\* | .007\*\*\* | -.03\*\*\* | .023\*\*\* |
|   | (.001) | (.004) | (.001) | (.001) | (.002) |
| **Race** |   |   |   |   |   |
|  Ref. White  |   |   |   |   |   |
| Black | .036 | .256 | -.311\*\*\* | -.118\*\* | -.092 |
|   | (.064) | (.164) | (.059) | (.052) | (.064) |
| Hispanic | -.005 | -.013 | -.299\*\*\* | -.258\*\*\* | -.289\*\*\* |
|   | (.061) | (.157) | (.053) | (.048) | (.055) |
| Asian | -.201\* | .04 | -.07 | .025 | -.241\*\* |
|   | (.108) | (.303) | (.082) | (.085) | (.112) |
| Other | .092 | -.06 | -.358\*\*\* | .001 | -.085 |
|   | (.095) | (.241) | (.086) | (.08) | (.1) |
| **Household Income** |   |   |   |   |   |
| Ref. Less than $10,000  |   |   |   |   |   |
| $10,000 to $24,999 | -.075 | .034 | -.087 | .2\*\* | .091 |
|   | (.108) | (.257) | (.144) | (.099) | (.087) |
| $25,000 to $49,999 | -.195\* | -.138 | .261\*\* | .536\*\*\* | .248\*\*\* |
|   | (.103) | (.243) | (.132) | (.092) | (.085) |
| $50,000 to $74,999 | -.27\*\* | -.349 | .5\*\*\* | .777\*\*\* | .487\*\*\* |
|   | (.106) | (.249) | (.132) | (.093) | (.09) |
| $75,000 to $99,999 | -.181\* | -.717\*\*\* | .762\*\*\* | .975\*\*\* | .496\*\*\* |
|   | (.108) | (.257) | (.134) | (.096) | (.097) |
| $100,000 to $149,999 | -.331\*\*\* | -.782\*\*\* | .988\*\*\* | 1.138\*\*\* | .577\*\*\* |
|   | (.109) | (.263) | (.133) | (.096) | (.098) |
| $150,000 or more | -.446\*\*\* | -.991\*\*\* | 1.294\*\*\* | 1.177\*\*\* | .797\*\*\* |
|   | (.112) | (.273) | (.136) | (.098) | (.109) |
| **Education**Ref. No high school diploma or GED |   |   |   |   |   |
|   |   |   |   |   |   |
| High school graduate (high school diploma or the equivalent GED) | -.106 | -.354 | .073 | .163\*\* | .146\*\* |
|   | (.094) | (.246) | (.1) | (.075) | (.073) |
| Some college or Associate's degree | .015 | -.325 | .146 | .227\*\*\* | .384\*\*\* |
|   | (.093) | (.244) | (.098) | (.075) | (.077) |
| Bachelor's degree | .058 | -.554\*\* | .448\*\*\* | .465\*\*\* | .649\*\*\* |
|   | (.097) | (.25) | (.1) | (.079) | (.087) |
| Master’s degree or higher | .238\*\* | -.323 | .428\*\*\* | .434\*\*\* | .703\*\*\* |
|   | (.101) | (.26) | (.104) | (.083) | (.1) |
| **Current Employment Status**Ref. Working full-time |   |   |   |   |   |
| Working part-time | .367\*\*\* | -006. | -.221\*\*\* | -.935\*\*\* | -.194\*\*\* |
|   | (.051) | (.123) | (.052) | (.042) | (.058) |
| Not working | -.386\*\*\* | .135 | -.509\*\*\* | -1.909\*\*\* | .085\* |
|   | (.054) | (.149) | (.055) | (.036) | (.051) |
| **Marital Status**Ref. Now married |   |   |   |   |   |
| Widowed | -.017 | .105 | -.053 | -.251\*\*\* | -.065 |
|   | (.118) | (.333) | (.143) | (.091) | (.121) |
| Divorced | .167\*\* | -.144 | -.335\*\*\* | .037 | -.066 |
|   | (.065) | (.175) | (.063) | (.054) | (.073) |
| Separated | .182 | .369 | -.22 | -.102 | -.035 |
|   | (.143) | (.369) | (.146) | (.125) | (.142) |
| Never married | -.001 | -.169 | -.068 | -.317\*\*\* | -.129\*\* |
|   | (.052) | (.133) | (.044) | (.043) | (.052) |
| **Metropolitan Statistical Areas**Ref. Non-Metro |   |   |   |   |   |
| Metro | .018 | .308\* | -.033 | .143\*\*\* | .021 |
|   | (.059) | (.16) | (.055) | (.046) | (.058) |
| **Region**Ref. Northeast |   |   |   |   |   |
| Midwest | .079 | -.042 | 0 | .033 | .102 |
|   | (.063) | (.175) | (.054) | (.049) | (.07) |
| South | .079 | .066 | -.078 | -.097\*\* | -.207\*\*\* |
|   | (.058) | (.162) | (.05) | (.045) | (.06) |
| West | .06 | .052 | -.002 | -.021 | .086 |
|   | (.063) | (.175) | (.054) | (.049) | (.069) |
| **\_cons** | -.941\*\*\* | .545 | -.962\*\*\* | 1.281\*\*\* | -.24\* |
|   | (.152) | (.398) | (.176) | (.131) | (.144) |
| **Observations** | 11874 | 711 | 6588 | 11874 | 11874 |
| **Pseudo R2** | .065 | .093 | .191 | .48 | .187 |
| *Standard errors are in parentheses**\*\*\* p<.01, \*\* p<.05, \* p<.1* |

**Ordered Probit Models.** The table below displays the results for the ordered probit models that reflect whether there are demographic variations for these ordered outcome dependent variables. This table reports four ordered probit models which consider the demographic variations for whether the respondent thinks they make more doing gig work (GE24), how they think they’re managing financially (B2), how much they have saved for retirement (K20), and how satisfied they are with life (B10). The table includes the standard errors in parenthesis and makes note of the values that are statistically significant at the ten percent, five percent, and one percent level.
 **Figure 21: Ordered Probit Output Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |  (1) |  (2) |  (3) |  (4) |
|   |  GE24 |  B2 |  B10 |  K20 |
| **Gender** Ref. Male |   |   |   |   |
| Female | -.025 | .025 | -.024 | -.27\*\*\* |
|   | (.091) | (.022) | (.019) | (.021) |
| Age | .001 | .01\*\*\* | .004\*\*\* | .024\*\*\* |
|   | (.003) | (.001) | (.001) | (.001) |
| **Race** |   |   |   |   |
|  Ref. White  |   |   |   |   |
| Black | -.164 | -.186\*\*\* | .164\*\*\* | -.456\*\*\* |
|   | (.144) | (.035) | (.033) | (.038) |
| Hispanic | .217 | -.075\*\* | .16\*\*\* | -.163\*\*\* |
|   | (.138) | (.034) | (.031) | (.036) |
| Asian | -.107 | -.086 | -.009 | -.101\* |
|   | (.25) | (.058) | (.05) | (.054) |
| Other | .146 | -.32\*\*\* | -.182\*\*\* | -.194\*\*\* |
|   | (.206) | (.055) | (.05) | (.057) |
| **Household Income** |   |   |   |   |
|  Ref. Less than $10,000  |   |   |   |   |
| $10,000 to $24,999 | .434\* | -.12\* | -.06 | -.078 |
|   | (.229) | (.061) | (.058) | (.086) |
| $25,000 to $49,999 | .182 | .23\*\*\* | .218\*\*\* | .12 |
|   | (.217) | (.059) | (.055) | (.081) |
| $50,000 to $74,999 | .14 | .603\*\*\* | .39\*\*\* | .399\*\*\* |
|   | (.222) | (.06) | (.057) | (.081) |
| $75,000 to $99,999 | .307 | .846\*\*\* | .462\*\*\* | .643\*\*\* |
|   | (.227) | (.063) | (.058) | (.083) |
| $100,000 to $149,999 | .263 | 1.083\*\*\* | .595\*\*\* | .816\*\*\* |
|   | (.231) | (.063) | (.058) | (.083) |
| $150,000 or more | .05 | 1.494\*\*\* | .66\*\*\* | 1.371\*\*\* |
|   | (.235) | (.065) | (.06) | (.084) |
| **Education**Ref. No high school diploma or GED |   |   |   |   |
| High school graduate (high school diploma or the equivalent GED) | -.085 | .213\*\*\* | .06 | .281\*\*\* |
|   | (.21) | (.048) | (.045) | (.058) |
| Some college or Associate's degree | .059 | .204\*\*\* | .052 | .434\*\*\* |
|   | (.208) | (.048) | (.045) | (.058) |
| Bachelor's degree | .083 | .539\*\*\* | .182\*\*\* | .697\*\*\* |
|   | (.212) | (.051) | (.048) | (.06) |
| Master’s degree or higher | .031 | .562\*\*\* | .22\*\*\* | .804\*\*\* |
|   | (.221) | (.054) | (.05) | (.062) |
| **Current Employment Status**Ref. Working full-time |   |   |   |   |
| Working part-time | -.054 | -.038 | .013 | -.035 |
|   | (.105) | (.034) | (.03) | (.035) |
| Not working | .222\* | .053\* | -.014 | -.096\*\*\* |
|   | (.13) | (.027) | (.024) | (.029) |
| **Marital Status**Ref. Now married |   |   |   |   |
| Widowed | .724\*\* | -.013 | -.066 | -.187\*\*\* |
|   | (.322) | (.052) | (.046) | (.049) |
| Divorced | -.059 | -.291\*\*\* | -.263\*\*\* | -.071\* |
|   | (.145) | (.036) | (.033) | (.037) |
| Separated | -.104 | -.246\*\*\* | -.071 | -.086 |
|   | (.309) | (.083) | (.077) | (.095) |
| Never married | .032 | -.057\* | -.219\*\*\* | -.015 |
|   | (.115) | (.03) | (.027) | (.031) |
| **Metropolitan Statistical Areas**Ref. Non-Metro |   |   |   |   |
| Metro | .243\* | -.02 | .041 | .074\*\* |
|   | (.133) | (.031) | (.028) | (.032) |
| **Region**Ref. Northeast |   |   |   |   |
| Midwest | .061 | .165\*\*\* | .073\*\* | .107\*\*\* |
|   | (.146) | (.034) | (.03) | (.033) |
| South | -.009 | .083\*\*\* | .1\*\*\* | .024 |
|   | (.136) | (.031) | (.027) | (.031) |
| West | -.069 | .082\*\* | .039 | .036 |
|   | (.149) | (.034) | (.03) | (.033) |
|  **/cut1** | .105 | -.311\*\*\* | -1.387\*\*\* | .971\*\*\* |
|  | (.339) | (.085) | (.08) | (.105) |
|  **/cut2** | .823\*\* | .654\*\*\* | -1.17\*\*\* | 1.623\*\*\* |
|  | (.34) | (.084) | (.079) | (.105) |
|  **/cut3** |   | 1.95\*\*\* | -.87\*\*\* | 1.889\*\*\* |
|  |   | (.086) | (.078) | (.106) |
|  **/cut4** |   |   | -.524\*\*\* | 2.107\*\*\* |
|  |   |   | (.078) | (.106) |
|  **/cut5** |   |   | -.257\*\*\* | 2.398\*\*\* |
|  |   |   | (.078) | (.106) |
|  **/cut6** |   |   | .196\*\* | 2.849\*\*\* |
|  |   |   | (.078) | (.107) |
|  **/cut7** |   |   | .525\*\*\* | 3.278\*\*\* |
|  |   |   | (.078) | (.108) |
|  **/cut8** |   |   | 1.083\*\*\* | 3.808\*\*\* |
|  |   |   | (.078) | (.109) |
|  **/cut9** |   |   | 1.828\*\*\* |   |
|  |   |   | (.079) |   |
|  **/cut10** |   |   | 2.416\*\*\* |   |
|   |   |   | (.08) |   |
|  **Observations** | 711 | 11874 | 11874 | 10060 |
|  **Pseudo R2** | .019 | .139 | .025 | .097 |
| *Standard errors are in parentheses* |
| *\*\*\* p<.01, \*\* p<.05, \* p<.1* |

##

## ***Interpretation***

**The Demographics of Gig Workers.** The probit model with the binary GE1A variable considers the demographic variations for whether the respondent performs gig work. The results displayed in Figure 20 indicate that the demographic variables do impact one’s likelihood to perform gig work. The probit output table (Figure 20) reveals that females are less likely than males to perform gig work. The discrete age variable is also significant highlighting that as one’s age increases they become less likely to perform gig work. Another significant result is that Asians are less likely to perform gig work than those who are White. In terms of household income, there are a number of significant results. Households that make $25,000 to $49,999 are less likely than households with less than $10,000 to have performed gig work at the ten percent significance level, $50,000 to $74,999 are less likely at the 5 percent significance level, $75,000 to $99,999 are less likely at the ten percent significance level, $100,000 to $149,999 are less likely at the one percent significance level, and $150,000 or more are also less likely at the one percent significance level. There is a notable negative relationship between household income and the likelihood of performing gig work. This is intuitive, in that those with higher household income might feel less of a need to perform gig work. It could also be indicative of the reality that gig work is often low pay work as the literature notes. In regard to education, interestingly enough, those with a masters degree are more likely to perform gig work than those with no high school diploma or GED. Additionally, those who are working part-time are more likely to perform gig work than those who are working full-time. This lines up with the current literature in terms of the work schedule flexibility of gig work that allows many to perform it part-time. One final statistically significant result that is fascinating is that those who are divorced are more likely than those who are currently married to perform gig work. This might be the case because those who might have relied on their partner’s income could struggle to get by financially after getting divorced.

**Motivations and Perceptions of Gig Workers.** The probit model with the binary GE13GE1A variable considers the demographic variations for why gig workers are doing gig work. The results displayed in Figure 20 indicate that the demographic variables do impact one’s likelihood to perform gig work. The findings presented in Figure 20 indicate that demographic variation has an impact on why an individual is performing gig work. The probit output table (Figure 20) demonstrates that females are more likely than males to do gig work out of necessity. Women are still marginalized in the workforce which would make sense that they are more likely than males to do gig work out of necessity. The estimations also reveal a significant association between age and gig work, indicating that as individuals grow older, their likelihood of performing gig work out of necessity decreases. Regarding household income, several significant findings emerge, including that households earning between $75,000 and $99,999 are less likely, at the one percent significance level, to perform gig work out of necessity compared to those with incomes below $10,000. Similarly, households earning between $100,000 and $149,999 and $150,000 or more are also less likely, at a one percent significance level, to perform gig work out of necessity. These findings highlight a clear negative relationship between household income and the likelihood of participating in gig work out of necessity. This observation aligns with the intuition that individuals with higher household incomes have less of a need for the income that gig work can generate as suggested in the literature. Surprisingly, results for education reveal that individuals with a bachelor’s degree are more likely to perform gig work out of necessity compared to those without a high school diploma or GED. This differs from what is depicted in the literature and what one might expect as one would assume an individual with more education would be less likely to do gig work out of necessity. One last statistically significant result is that individuals who live in metropolitan areas are more likely to perform gig work out of necessity than those who live in non-metropolitan areas. One consideration with this could be related to the generally greater costs of living in a metropolitan area, which necessitates individuals taking on gig work to make ends meet.

Another interesting aspect in evaluating the state of those who perform gig work is to consider their own perceptions about whether they are financially better off performing gig work compared to traditional work. Variable GE24 addresses this by asking if respondents think they make more, less or the same performing gig work. This ordered outcome dependent variable was modeled in the ordered probit as it has three classifications. There aren’t many significant results from this ordered probit model, but one such result is that households earning between $10,000 and $24,999 are more likely, at the ten percent significance level, to think that they make less per hour performing gig work compared to those with incomes below $10,000. Those who identify as not working are more likely to think they make less per hour hour performing gig work than those who identify as working full-time. Another statistically significant result is that those who are widowed are more likely to think they make less performing gig work than those who are now married. This makes sense as those who are divorced might feel like they could make more money doing traditional full-time work, but they choose to do gig work for the flexibility that is needed to take care of kids as a single parent or because they aren’t able to land a traditional full-time position. Additionally, those who live in metro areas are more likely to think that they make less per hour performing gig work compared to traditional full-time work than those who live in non-metro areas. There aren’t as many significant results for this ordered probit model at least in part due to there only being 711 observations.

## **The Well-Being of Gig Workers.** Another key aspect in this evaluation of the state of the gig economy is to consider the well being of gig workers. This paper examines well-being in the form of life satisfaction, health insurance, and financial status. The inequities that gig workers face very much shapes their well-being, as is reflected by many of these aspects.

 ***Life satisfaction.*** The ordered probit model with the ordered outcome dependent variable B10 examines the demographic variations for life satisfaction. It does this by asking respondents, “Overall, on a scale from zero to ten, where zero is not at all satisfied and ten is completely satisfied, how satisfied are you with life as a whole these days?” (Board of Governors of the Federal Reserve System, 2022). The results displayed in Figure 21 indicate that the demographic variables do have significant impacts on one’s likelihood to perform gig work in areas such as age, race, household income, education, marital status, and region. One such significant result is that as one ages they are more likely to report that they are more satisfied with life as a whole. This is sensible in that, as one becomes more established in life they become more satisfied. There are also a number of significant results for race with black, hispanic and the other race category all more likely to report that they are more satisfied with life as a whole than whites. In terms of household income, the majority of the results are statistically significant, highlighting the relationship between household income and life satisfaction. Those with household incomes of $25,000 to $49,999, $50,000 to $74,999, $75,000 to $99,999, $100,000 to $149,999, and $150,000 or more are all more likely to report that they are more satisfied with life as a whole than those with less than $10,000. Higher life satisfaction is also associated with higher education as well as those with a bachelor’s and masters degree or higher are more likely to report that they are more satisfied with life as a whole than those with no high school diploma or GED. In addition to this, being married also makes one more likely to have a higher level of life satisfaction. This is highlighted in that those who are divorced and never married are less likely than those who are currently married to report that they are more satisfied with life as a whole. On a less relevant note, the region variable also yielded significant results that note that respondents living in the Midwest and South are both more likely than those in the Northeast to report that they are more satisfied with life as a whole.

***Health insurance.*** The probit model with the binary health insurance variable considers the demographic variations for whether the respondent has health insurance or not. The results displayed in Figure 20 indicate that a number of the demographic variables do impact one’s likelihood to have health insurance. The probit output table (Figure 20) reveals that females are more likely than males to have health insurance. In addition to this the continuous age variable reveals that as one ages they become more likely to have health insurance. This is intuitive as those who are older often require more healthcare as their health begins to decline with age. The race variable yields significant results as well. Those who are hispanic and asian are less likely than whites to have health insurance. The household income variable again is significant, highlighting that those with a higher household income are more likely to have health insurance. This is intuitive in that those with more household income likely have more disposable income to spend on healthcare. Education is also shown to be statistically significant for all of the education dummy variables. Those who are High school graduates, have completed some college or Associate's degree, Bachelor’s degree, or a Master’s degree or higher are all more likely than those with no high school diploma or GED to have health insurance. This could largely be in part due to those with higher education being more likely to be working full-time and receiving employer sponsored health insurance. In terms of employment status, those who are working part-time are less likely than those working full time to have health insurance. As just mentioned, this is intuitive as those who work full-time often have health insurance provided through their employer, while those who work part-time often do not. Interestingly enough though, those who are working part-time are actually more likely than those working full time to have health insurance. This is very suprising for the same reason as the previous statement about full-time work. For marital status there is one significant result, being that those who are married are less likely than those who are currently married to have health insurance. In terms of the region there is also one statistically significant result which is that those from the South region are less likely to have health insurance than those from the Northeast.

***Financial status.*** Financial status is a key indicator of well-being in life as it is necessary security and opens up opportunities for individuals and households. This paper considers a number of different variables that relate to financial status and examine whether demographic variation exists across the financial status variables.

The ordered probit model with the ordered outcome dependent variable, B2 examines the demographic variations for financial wellbeing. The survey question asks, “Overall, which one of the following best describes how well you are managing financially these days?” The response options are “1. Finding it difficult to get by 2. Just getting by 3. Doing okay 4. Living comfortably” (Board of Governors of the Federal Reserve System, 2022). The output for the ordered probit model that categorical variable reveals that as one ages they are more likely to report managing better financially. There are also a number of significant results for race, which are that those who are Black, Hispanic, and in the Other category are all less likely than Whites to report managing better financially. When it comes to household income all of the dummy variables are significant. The ordered probit output reveals that those who have a household income of $10,000 to $24,999 are actually less likely than those who make less than $10,000 to report managing better financially, while all of the other five categories with a higher household income are all more likely than those who make less than $10,000 to report managing better financially. All of the education dummy variables are also significant and highlight that those with more education report managing better financially. All four of the education variables are all more likely to be managing better financially than the lowest education category, being no high school diploma or GED. For employment, those who are not working are surprisingly more likely than those who make less than $10,000 to report managing better financially. For marital status, those who are divorced, separated, or never married are all less likely than those who are currently married to report managing better financially. There is also statistical significance for all the region variables that show that the Midwest, South, and West are all more likely than the Northeast to report managing better financially.

Another key financial variable is whether a respondent thinks they are on track financially or not. The probit model with the binary K0 variable considers the demographic variations for whether the respondent thinks that their retirement savings are on track. The results displayed in Figure 20 indicate that a number of the demographic variables do impact one’s likelihood to think their retirement savings are on track. The results show that females are less likely than males to think that their retirement savings is on track. In terms of age, as one gets older they are more likely to think that their retirement savings is on track. There are also a number of significant results for age as well. The probit model output highlights that White people are more likely to think they are on track for retirement than other races. Those who are Black, Hispanic, and Other race category are all less likely than Whites to think that their retirement savings is on track. For household income, the those who have a household income of $25,000 to $49,999 and the four categories above that are all more likely than those with a household income of less than $10,000 to think that their retirement savings is on track. This makes a lot of sense as having a higher income better enables one to put away more money towards saving towards retirement. In terms of education, the results show a significant difference for higher education. The results show that those with a Bachelor’s degree or a Master’s degree or higher are more likely than those with no high school diploma or GED to think that their retirement savings is on track. In terms of employment those who are working part-time and those who are not working are both less likely than those working full-time to think that their retirement savings is on track. In regard to marital status, those who are divorced are less likely than those who are currently married to think that their retirement savings is on track.

An additional key financial variable is whether a respondent has a retirement savings account. The probit model with the binary retirementtype variable (K2) considers the demographic variations for whether the respondent has at least one of retirement account or not. The results displayed in Figure 20 indicate that a number of the demographic variables do impact one’s likelihood have at least one type of retirement account. The output displays that females are more likely than males to have at least one retirement account. The results also show that as one ages they become less likely to have at least one retirement account. This seems quite odd as one would assume that someone older would be more likely to have a retirement savings account. For race, those who are Black and Hispanic are less likely than Whites to have at least one retirement account. This is a very notable result because as aforementioned, having a retirement savings account is vital to setting oneself up for the future and building generational wealth and Black and Hispanic monorities are disadvantaged in this regard. In terms of household income, all of the variables are statistically significant noting that all household income categories $10,000 or greater are more likely than those with less than $10,000 to have at least one retirement account. Again, this is intuitive as someone who makes more money is more likely to be saving foir retirement. All of the education variables are also significant as all levels of education greater than no high school diploma or GED are more likely than those with no high school diploma or GED to have at least one retirement account. Also, both of the employment status variables are significant highlighting that those who work full time are more likely to be saving for retirement. This is shown by the Probit Output Table (Figure 20) as those who are working part-time and those who are not working are both less likely than those working full-time to have at least one form of a retirement savings account. For marital status, those who are widowed and never married are less likely than those who are currently married to have at least one form of a retirement savings account. When it comes to MSA’s, those who live in metro areas are more likely than those in non-metro areas to have at least one form of a retirement savings account. Lastly, those who live in the South are less likely than those in the Northeast to have at least one form of a retirement savings account.

 One last model to consider is the ordered probit with the ordered outcome dependent variable, K20. This categoriocal variable examines the amount of money saved for retirement. Saving for retirement is vitally important to generational wealth and financial well-being and security as individuals age and progress towards a point at which they are no longer physically able to work. The Ordered Probit Output Table (Figure 21) shows that females are less likely than males to have more money saved for retirement. Additionally, as individuals age they are more likely to have more money saved for retirement. This is intuitive because retirement savings accounts are designed to decentivize you from pulling money out, so the amount saved normally grows over time. In regard to race, those who are white are more likely to have more money saved for retirement than all of the other four race categories. This is significant as it highlights that minorities are more likely to have less saved for retirement putting them at a greater disadvantage than whites when they reach their later years of life. In terms of household income, those with a household income of $50,000 to $74,999, $75,000 to $99,999, $100,000 to $149,999, and $150,000 or more are all more likely than those with a household income of less than $10,000 to have more saved for retirement. All of the education variables are also significant as all levels of education greater than no high school diploma or GED are more likely than those with no high school diploma or GED to have more saved for retirement. In terms of employment, those who are not working are less likely than those working full-time to have more saved for retirement. This makes a lot of sense as someone who is not working likely has less money to put into a retirement savings account than someone who is working a full-time job. In terms of marital status those who are widowed or divorced are less likely than those who are currently married to have more saved for retirement. In regard to MSAs, those who reside in a metropolitan area are more likely than those living in a non-metropolitan area to have more saved for retirement. Lastly, in terms of region those located in the Midwest region are more likely than those in the Northeast to have more saved for retirement.

# **Policy Implications**

## ***Main Results to Direct Policy***

 The estimation and interpretation of these models has been motivated by the purpose of using the results to shape and direct policy. The findings from the linear probability models, probit models, and ordered probit models come together to highlight a number of key areas and conclusions that can be taken away to direct policy.

 One of these such results are that those with lower household incomes are more likely to perform gig work. There is a significant negative relationship between household income and the likelihood of performing gig work, which is intuitive in that those with higher household income might feel less of a need to perform gig work, but at the could also be indicative of the reality that gig work is often low pay work, as is noted in the literature. In addition to this, the models concluded that those who are divorced are more likely to perform gig work than those who are currently married. This could very well be the case because those who might have relied on their partner’s income might struggle to get by financially without their partner. Another main conclusion of interest is that individuals who live in metropolitan areas are more likely to perform gig work out of necessity than those who live in non-metropolitan areas. This is important because living in a metropolitan area often comes at greater costs and which necessitates individuals taking on gig work to make ends meet. An additional key result was that those who are Hispanic are less likely than Whites to have health insurance. Health insurance is vitally important to ones well-being and health as well as that of ones family rendering this a vital issue. Racial groups like Hispanics are already marginalized and having less access to healthcare is a serious issue that must be addressed. Hispanics are also one of the most prominent populations in the gig economy (Figure 12b), which makes it all the more important to ensure that healthcare is provided through gig work.

## ***Current Policy Scene***

 In its current state, gig work is generally performed independently without afforded protections, like having the opportunity to purchase health insurance through work, having a retirement savings account set up, or being granted the protections of of wage regulations, as well as workplace safety laws. These precarious situations simply need to be addressed.

 One such area that is seeking to address these concerns is in California. Quite recently the state of California has sought to provide employer-like protections for gig workers. Recently in a California state assembly, the state of California deemed gig workers to be employees rather than independent contractors. In addition to this, there are some companies that claimed that they would offer new health insurance protections, minimum mileage reimbursement rates, and occupational accident insurance coverage for their drivers who worked more than working more than fifteen hours per week (Blank & Harput, 2020). In seeking these employer-like protections as a state, California’s gig work population is actually quite split on whether they want to be employees or not. This attitudinal ambivalebnce is due to their desire for employee benefits, while also simultaneously holding a fear of how their company might treat them and change as an official employer.

## ***The Future Direction of Policy on Gig Work***

 While California has made notable progress on reclassifying gig workers and giving them employee stats, there is vast amounts of room for growth and improvement in the policy surrounding gig work. Gig workers should be classified as employees and given employee benefits and protections. As aforementioned, gig workers work in very precarious conditions that leave them at great risk when performing gig work. They often lack employer sponsored health insurance and employer sponsored retirement accounts.

There are various forms of policy solutions that are necessary to address the issues highlighted by this research. One such solution is that governments should establish a comprehensive legal framework that recognizes gig workers as a distinct category, ensuring they receive fair wages, benefits, and protections equivalent to traditional employees. This could involve enacting legislation mandating minimum earnings, health insurance coverage, and paid sick leave to name a few. Additionally, creating mechanisms for collective bargaining and unionization would empower gig workers to negotiate for better working conditions and fairer treatment. Moreover, implementing robust enforcement mechanisms and penalties for companies that exploit or misclassify gig workers would act as a deterrent and promote compliance. Policymakers should also explore portable benefits models, where benefits like retirement savings and healthcare can be accrued independently of individual gig platforms, providing workers with stability and security.

Policy is the means by which there is opportunity to bring about beneficial change, both in the realm of gig work and in society at large. With this newfound clarity about the state of gig work, policies surrounding gig work and alternative work arrangements can be implemented to make a difference in the lives of so many workers who have been forced to put up with the extreme vulberabilities and lack of benefits from their employers.

# **Possible Limitations**

## ***SHED Dataset Limitations***

Although there are several advantages to using the SHED dataset to answer the questions that this paper has considered concerning the current state of gig work, there are possible concerns. One limitation is that there is a possible bias in the SHED estimates. The SHED is administered via online survey panels and although weights are placed to match the demographic characteristics of the target population, there is a concern that those who are willing to participate in an online survey might be more likely to participate in gig work and have less traditional work schedules. Although this is a reasonable cause for concern, in recent years, when compared with estimates from other sources SHED data is consistent (Abraham & Houseman, 2019).

Additionally, the models that I estimated in this paper were not weighted to match the U.S. population. Weighing the models might not have notable impacts on the results, but it could improve the significance of the results and could serve to provide a more accurate depiction of the characteristics of the U.S. population.

## ***Lack of Gig Worker Specificity***

 Another possible limitation in this study relates to who the gig workers are. Of the 711 respondents who reported as performing gig work within the last month, they all do gig work to varying extents. For example, those 711 gig workers will include someone who works a traditional full-time job and does one uber eats delivery every other week as well as someone who is working full-time each and every week doing gig work. The GE1A variable includes those who only perform very short or small amounts of gig work as well as those who rely significantly on it. This limits the results in that the state of gig workers might very well be different for someone performing gig work for one hour per week compared to someone performing gig work for forty hours per week. This limitation could be addressed by running the models that were used in the paper and using the GE40A (“in the past month, how much of your income was from gig work?”) variable to only include those who make 50 percent or more or 90 percent or more of their income from, re-running the same models and comparing the results.

# **Conclusion**

The rise of gig work in the era of digitization and technological advancement has offered new opportunities and flexibility in the labor market. However, it has also brought forth a range of challenges and difficulties for gig workers. This paper concludes that there are a number of demographic variations in who does gig work, why they do gig work, and their financial status, health coverage, and life satisfaction. By utilizing data from the Federal Reserve Board's Survey of Household Economics and Decisionmaking (SHED) dataset, we have gained valuable insights into the experiences of gig workers. We have taken the understanding of these dynamics to implement in developing policies that address the precarious nature of gig work and promote equity. It is essential to ensure that gig workers have access to fair wages, benefits, and protections that align with their contributions to the workforce. By fostering this deeper understanding of the gig economy and its impact on workers, we have assisted in creating a more inclusive and supportive labor environment for all.

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# **Appendix**

# **Figure 2a: Tabulation of GE13GE1A**

|  |  |  |  |
| --- | --- | --- | --- |
|   | Freq. | Percent | Cum. |
| No Gig | 11163 | 94.01 | 94.01 |
| Choice | 459 | 3.87 | 97.88 |
| Necessity | 252 | 2.12 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 3a: Tabulation of GE24**

|  |  |  |  |
| --- | --- | --- | --- |
| Do you think that you generally make more, about the same, or less per hour doing freelance or gig work as you could make at a traditional job? | Freq. | Percent | Cum. |
| More per hour doing freelance or gig work | 237 | 33.33 | 33.33 |
| About the same | 194 | 27.29 | 60.62 |
| Less per hour doing freelance or gig work | 280 | 39.38 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 3b: Tabulation of GE24 GE13GE1A**

|  |  |
| --- | --- |
| Do you think that you generally make more, about the same, or less per hour doing freelance or gig work as you could make at a traditional job? | GE13GE1A |
|  Choice | Necessity | Total |
| More per hour doing freelance or gig work | 162 | 75 | 237 |
|   | 68.35 | 31.65 | 100.00 |
| About the same | 123 | 71 | 194 |
|   | 63.40 | 36.60 | 100.00 |
| Less per hour doing freelance or gig work | 174 | 106 | 280 |
|   | 62.14 | 37.86 | 100.00 |
| Total | 459 | 252 | 711 |
|   | 64.56 | 35.44 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 4a: Tabulation of B2**

|  |  |  |  |
| --- | --- | --- | --- |
| Overall, which one of the following best describes how well you are managing financially these days? | Freq. | Percent | Cum. |
| Finding it difficult to get by | 638 | 5.37 | 5.37 |
| Just getting by | 1818 | 15.31 | 20.68 |
| Doing okay | 4539 | 38.23 | 58.91 |
| Living comfortably | 4879 | 41.09 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 4b: Tabulation of B2 GE1A**

|  |  |
| --- | --- |
| Overall, which one of the following best describes how well you are managing financially these days? | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| Finding it difficult to get by | 554 | 84 | 638 |
|   | 86.83 | 13.17 | 100.00 |
| Just getting by | 1682 | 136 | 1818 |
|   | 92.52 | 7.48 | 100.00 |
| Doing okay | 4263 | 276 | 4539 |
|   | 93.92 | 6.08 | 100.00 |
| Living comfortably | 4664 | 215 | 4879 |
|   | 95.59 | 4.41 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 4c: Tabulation of B2 (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Overall, which one of the following best describes how well you are managing financially these days? | Freq. | Percent | Cum. |
| Finding it difficult to get by | 84 | 11.81 | 11.81 |
| Just getting by | 136 | 19.13 | 30.94 |
| Doing okay | 276 | 38.82 | 69.76 |
| Living comfortably | 215 | 30.24 | 100.00 |
| Total | 711 | 100.00 |   |
| **Figure 5a: Tabulation of B10**

|  |  |  |  |
| --- | --- | --- | --- |
| Overall, on a scale from zero to ten, where zero is not at all satisfied and ten is completely satisfied, how satisfied are you with life as a whole these days? | Freq. | Percent | Cum. |
| 0 Not at all satisfied | 264 | 2.22 | 2.22 |
| 1 | 156 | 1.31 | 3.54 |
| 2 | 332 | 2.80 | 6.33 |
| 3 | 604 | 5.09 | 11.42 |
| 4 | 664 | 5.59 | 17.01 |
| 5 | 1523 | 12.83 | 29.84 |
| 6 | 1353 | 11.39 | 41.23 |
| 7 | 2456 | 20.68 | 61.92 |
| 8 | 2678 | 22.55 | 84.47 |
| 9 | 1179 | 9.93 | 94.40 |
| 10 Completely satisfied | 665 | 5.60 | 100.00 |
| Total | 11874 | 100.00 |   |
|  |

**Figure 5b: Tabulation of B10 GE1A**

|  |  |
| --- | --- |
| Overall, on a scale from zero to ten, where zero is not at all satisfied and ten is completely satisfied, how satisfied are you with life as a whole these days? | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| 0 Not at all satisfied | 246 | 18 | 264 |
|   | 93.18 | 6.82 | 100.00 |
| 1 | 141 | 15 | 156 |
|   | 90.38 | 9.62 | 100.00 |
| 2 | 314 | 18 | 332 |
|   | 94.58 | 5.42 | 100.00 |
| 3 | 537 | 67 | 604 |
|   | 88.91 | 11.09 | 100.00 |
| 4 | 627 | 37 | 664 |
|   | 94.43 | 5.57 | 100.00 |
| 5 | 1441 | 82 | 1523 |
|   | 94.62 | 5.38 | 100.00 |
| 6 | 1252 | 101 | 1353 |
|   | 92.54 | 7.46 | 100.00 |
| 7 | 2303 | 153 | 2456 |
|   | 93.77 | 6.23 | 100.00 |
| 8 | 2549 | 129 | 2678 |
|   | 95.18 | 4.82 | 100.00 |
| 9 | 1122 | 57 | 1179 |
|   | 95.17 | 4.83 | 100.00 |
| 10 Completely satisfied | 631 | 34 | 665 |
|   | 94.89 | 5.11 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages***Figure 5c: Tabulation of B10 (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Overall, on a scale from zero to ten, where zero is not at all satisfied and ten is completely satisfied, how satisfied are you with life as a whole these days? | Freq. | Percent | Cum. |
| 0 Not at all satisfied | 18 | 2.53 | 2.53 |
| 1 | 15 | 2.11 | 4.64 |
| 2 | 18 | 2.53 | 7.17 |
| 3 | 67 | 9.42 | 16.60 |
| 4 | 37 | 5.20 | 21.80 |
| 5 | 82 | 11.53 | 33.33 |
| 6 | 101 | 14.21 | 47.54 |
| 7 | 153 | 21.52 | 69.06 |
| 8 | 129 | 18.14 | 87.20 |
| 9 | 57 | 8.02 | 95.22 |
| 10 Completely satisfied | 34 | 4.78 | 100.00 |
| Total | 711 | 100.00 |   |
|  |

 |

**Figure 6a: Tabulation of K0**

|  |  |  |  |
| --- | --- | --- | --- |
| Do you think that your retirement savings plan is currently on track? | Freq. | Percent | Cum. |
| No | 3229 | 49.01 | 49.01 |
| Yes | 3359 | 50.99 | 100.00 |
| Total | 6588 | 100.00 |   |
|   |

**Figure 6b: Tabulation of K0**

|  |  |  |  |
| --- | --- | --- | --- |
| Do you think that your retirement savings plan is currently on track? | Freq. | Percent | Cum. |
| No | 317 | 61.43 | 61.43 |
| Yes | 199 | 38.57 | 100.00 |
| Total | 516 | 100.00 |   |

**Figure 7: Tabulation of retirementtype**

|  |  |  |  |
| --- | --- | --- | --- |
|   | Freq. | Percent | Cum. |
| 0 | 261 | 36.71 | 36.71 |
| 1 | 450 | 63.29 | 100.00 |
| Total | 711 | 100.00 |   |
|  |

**Figure 8: Tabulation of GE1A K20**

|  |  |
| --- | --- |
| In the past month, have you done any freelance or gig-work, either to supplement | Approximately how much money do you currently have saved for retirement? |
| Less than $10,000 | $10,000 to $24,999 | $25,000 to $49,999 | $50,000 to $99,999 | $100,000 to $249,999 | $250,000 to $499,999 | $500,000 to $999,999 | Over $1,000,000 | Total |   |
| No | 1565 | 706 | 584 | 796 | 1218 | 1045 | 1002 | 1287 | 8203 |   |
|   | 19.08 | 8.61 | 7.12 | 9.70 | 14.85 | 12.74 | 12.22 | 15.69 | 100.00 |   |
| Yes | 124 | 56 | 54 | 59 | 71 | 43 | 45 | 43 | 495 |   |
|   | 25.05 | 11.31 | 10.91 | 11.92 | 14.34 | 8.69 | 9.09 | 8.69 | 100.00 |   |
| Total | 1689 | 762 | 638 | 855 | 1289 | 1088 | 1047 | 1330 | 8698 |   |
|   | 19.42 | 8.76 | 7.34 | 9.83 | 14.82 | 12.51 | 12.04 | 15.29 | 100.00 |   |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 9: Tabulation of GE1A healthinsurance**

|  |  |
| --- | --- |
| In the past month, have you done any freelance or gig-work, either to supplement | healthinsurance |
| No | Yes | Total |
| No | 690 | 10473 | 11163 |
|   | 6.18 | 93.82 | 100.00 |
| Yes | 78 | 633 | 711 |
|   | 10.97 | 89.03 | 100.00 |
| Total | 768 | 11106 | 11874 |
|   | 6.47 | 93.53 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

|  |
| --- |
|  |

**Figure 10a: Tabulation of ppgender**

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Freq. | Percent | Cum. |
| Male | 5964 | 50.23 | 50.23 |
| Female | 5910 | 49.77 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 10b: Tabulation of ppgender GE1A**

|  |  |
| --- | --- |
| Gender | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| Male | 5586 | 378 | 5964 |
|   | 93.66 | 6.34 | 100.00 |
| Female | 5577 | 333 | 5910 |
|   | 94.37 | 5.63 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 10c: Tabulation of ppgender (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Freq. | Percent | Cum. |
| Male | 378 | 53.16 | 53.16 |
| Female | 333 | 46.84 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 11a: Tabulation of ppagecat**

|  |  |  |  |
| --- | --- | --- | --- |
| Age - 7 Categories | Freq. | Percent | Cum. |
| 18-24 | 565 | 4.76 | 4.76 |
| 25-34 | 1946 | 16.39 | 21.15 |
| 35-44 | 1782 | 15.01 | 36.15 |
| 45-54 | 1711 | 14.41 | 50.56 |
| 55-64 | 2491 | 20.98 | 71.54 |
| 65-74 | 2272 | 19.13 | 90.68 |
| 75+ | 1107 | 9.32 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 11b: Tabulation of ppagecat GE1A**

|  |  |
| --- | --- |
| Age - 7 Categories | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| 18-24 | 510 | 55 | 565 |
|   | 90.27 | 9.73 | 100.00 |
| 25-34 | 1772 | 174 | 1946 |
|   | 91.06 | 8.94 | 100.00 |
| 35-44 | 1649 | 133 | 1782 |
|   | 92.54 | 7.46 | 100.00 |
| 45-54 | 1590 | 121 | 1711 |
|   | 92.93 | 7.07 | 100.00 |
| 55-64 | 2365 | 126 | 2491 |
|   | 94.94 | 5.06 | 100.00 |
| 65-74 | 2192 | 80 | 2272 |
|   | 96.48 | 3.52 | 100.00 |
| 75+ | 1085 | 22 | 1107 |
|   | 98.01 | 1.99 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 11c: Tabulation of ppagecat (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Age - 7 Categories | Freq. | Percent | Cum. |
| 18-24 | 55 | 7.74 | 7.74 |
| 25-34 | 174 | 24.47 | 32.21 |
| 35-44 | 133 | 18.71 | 50.91 |
| 45-54 | 121 | 17.02 | 67.93 |
| 55-64 | 126 | 17.72 | 85.65 |
| 65-74 | 80 | 11.25 | 96.91 |
| 75+ | 22 | 3.09 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 12a: Tabulation of race\_5cat**

|  |  |  |  |
| --- | --- | --- | --- |
| Race/Ethnicity - 5 categories | Freq. | Percent | Cum. |
| White | 8392 | 70.68 | 70.68 |
| Black | 1187 | 10.00 | 80.67 |
| Hispanic | 1404 | 11.82 | 92.50 |
| Asian | 454 | 3.82 | 96.32 |
| Other | 437 | 3.68 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 12b: Tabulation of race\_5cat GE1A**

|  |  |
| --- | --- |
| Race/Ethnicity - 5 categories | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| White | 7911 | 481 | 8392 |
|   | 94.27 | 5.73 | 100.00 |
| Black | 1105 | 82 | 1187 |
|   | 93.09 | 6.91 | 100.00 |
| Hispanic | 1311 | 93 | 1404 |
|   | 93.38 | 6.62 | 100.00 |
| Asian | 432 | 22 | 454 |
|   | 95.15 | 4.85 | 100.00 |
| Other | 404 | 33 | 437 |
|   | 92.45 | 7.55 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 12c: Tabulation of race\_5cat (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Race/Ethnicity - 5 categories | Freq. | Percent | Cum. |
| White | 481 | 67.65 | 67.65 |
| Black | 82 | 11.53 | 79.18 |
| Hispanic | 93 | 13.08 | 92.26 |
| Asian | 22 | 3.09 | 95.36 |
| Other | 33 | 4.64 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 13a: Tabulation of ppinc7**

|  |  |  |  |
| --- | --- | --- | --- |
| Household Income | Freq. | Percent | Cum. |
| Less than $10,000 | 447 | 3.76 | 3.76 |
| $10,000 to $24,999 | 1051 | 8.85 | 12.62 |
| $25,000 to $49,999 | 2011 | 16.94 | 29.55 |
| $50,000 to $74,999 | 1980 | 16.68 | 46.23 |
| $75,000 to $99,999 | 1605 | 13.52 | 59.74 |
| $100,000 to $149,999 | 2241 | 18.87 | 78.62 |
| $150,000 or more | 2539 | 21.38 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 13b: Tabulation of ppinc7 GE1A**

|  |  |
| --- | --- |
| Household Income | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| Less than $10,000 | 408 | 39 | 447 |
|   | 91.28 | 8.72 | 100.00 |
| $10,000 to $24,999 | 975 | 76 | 1051 |
|   | 92.77 | 7.23 | 100.00 |
| $25,000 to $49,999 | 1888 | 123 | 2011 |
|   | 93.88 | 6.12 | 100.00 |
| $50,000 to $74,999 | 1868 | 112 | 1980 |
|   | 94.34 | 5.66 | 100.00 |
| $75,000 to $99,999 | 1491 | 114 | 1605 |
|   | 92.90 | 7.10 | 100.00 |
| $100,000 to $149,999 | 2116 | 125 | 2241 |
|   | 94.42 | 5.58 | 100.00 |
| $150,000 or more | 2417 | 122 | 2539 |
|   | 95.19 | 4.81 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 14a: Tabulation of ppeduc5**

|  |  |  |  |
| --- | --- | --- | --- |
| Education (5 Categories) | Freq. | Percent | Cum. |
| No high school diploma or GED | 686 | 5.78 | 5.78 |
| High school graduate (high school diploma or the equivalent GED) | 2692 | 22.67 | 28.45 |
| Some college or Associate's degree | 3335 | 28.09 | 56.54 |
| Bachelor's degree | 2931 | 24.68 | 81.22 |
| Master’s degree or higher | 2230 | 18.78 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 14b: Tabulation of ppeduc5 GE1A**

|  |  |
| --- | --- |
| Education (5 Categories) | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| No high school diploma or GED | 646 | 40 | 686 |
|   | 94.17 | 5.83 | 100.00 |
| High school graduate (high school diploma or the equivalent GED) | 2570 | 122 | 2692 |
|   | 95.47 | 4.53 | 100.00 |
| Some college or Associate's degree | 3135 | 200 | 3335 |
|   | 94.00 | 6.00 | 100.00 |
| Bachelor's degree | 2746 | 185 | 2931 |
|   | 93.69 | 6.31 | 100.00 |
| Master’s degree or higher | 2066 | 164 | 2230 |
|   | 92.65 | 7.35 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 14c: Tabulation of ppeduc5 (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Education (5 Categories) | Freq. | Percent | Cum. |
| No high school diploma or GED | 40 | 5.63 | 5.63 |
| High school graduate (high school diploma or the equivalent GED) | 122 | 17.16 | 22.78 |
| Some college or Associate's degree | 200 | 28.13 | 50.91 |
| Bachelor's degree | 185 | 26.02 | 76.93 |
| Master’s degree or higher | 164 | 23.07 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 15a: Tabulation of ppemploy**

|  |  |  |  |
| --- | --- | --- | --- |
| Current Employment Status | Freq. | Percent | Cum. |
| Working full-time | 5685 | 47.88 | 47.88 |
| Working part-time | 1542 | 12.99 | 60.86 |
| Not working | 4647 | 39.14 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 15b: Tabulation of ppemploy GE1A**

|  |  |
| --- | --- |
| Current Employment Status | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| Working full-time | 5289 | 396 | 5685 |
|   | 93.03 | 6.97 | 100.00 |
| Working part-time | 1344 | 198 | 1542 |
|   | 87.16 | 12.84 | 100.00 |
| Not working | 4530 | 117 | 4647 |
|   | 97.48 | 2.52 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 15c: Tabulation of ppemploy (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Current Employment Status | Freq. | Percent | Cum. |
| Working full-time | 396 | 55.70 | 55.70 |
| Working part-time | 198 | 27.85 | 83.54 |
| Not working | 117 | 16.46 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 16a: Tabulation of ppmarit5**

|  |  |  |  |
| --- | --- | --- | --- |
| Marital Status | Freq. | Percent | Cum. |
| Now married | 7104 | 59.83 | 59.83 |
| Widowed | 580 | 4.88 | 64.71 |
| Divorced | 1184 | 9.97 | 74.68 |
| Separated | 184 | 1.55 | 76.23 |
| Never married | 2822 | 23.77 | 100.00 |
| Total | 11874 | 100.00 |   |
|   |

**Figure 16b: Tabulation of ppmarit5 GE1A**

|  |  |
| --- | --- |
| Marital Status | In the past month, have you done any freelance or gig work, either to supplement your income or as your main job? |
|  No | Yes | Total |
| Now married | 6740 | 364 | 7104 |
|   | 94.88 | 5.12 | 100.00 |
| Widowed | 562 | 18 | 580 |
|   | 96.90 | 3.10 | 100.00 |
| Divorced | 1099 | 85 | 1184 |
|   | 92.82 | 7.18 | 100.00 |
| Separated | 169 | 15 | 184 |
|   | 91.85 | 8.15 | 100.00 |
| Never married | 2593 | 229 | 2822 |
|   | 91.89 | 8.11 | 100.00 |
| Total | 11163 | 711 | 11874 |
|   | 94.01 | 5.99 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 16c: Tabulation of ppmarit5 (Gig Workers)**

|  |  |  |  |
| --- | --- | --- | --- |
| Marital Status | Freq. | Percent | Cum. |
| Now married | 364 | 51.20 | 51.20 |
| Widowed | 18 | 2.53 | 53.73 |
| Divorced | 85 | 11.95 | 65.68 |
| Separated | 15 | 2.11 | 67.79 |
| Never married | 229 | 32.21 | 100.00 |
| Total | 711 | 100.00 |   |
|   |

**Figure 17: Tabulation of GE1A ppmsacat**

|  |  |
| --- | --- |
| In the past month, have you done any freelance or gig-work, either to supplement | MSA Status |
| Non-Metro | Metro | Total |
| No | 1500 | 9663 | 11163 |
|   | 13.44 | 86.56 | 100.00 |
| Yes | 91 | 620 | 711 |
|   | 12.80 | 87.20 | 100.00 |
| Total | 1591 | 10283 | 11874 |
|   | 13.40 | 86.60 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*

**Figure 18: Tabulation of GE1A ppreg4**

|  |  |
| --- | --- |
| In the past month, have you done any freelance or gig-work, either to supplement | Region 4 - Based on State of Residence |
| Northeast | Midwest | South | West | Total |
| No | 1968 | 2546 | 4042 | 2607 | 11163 |
|   | 17.63 | 22.81 | 36.21 | 23.35 | 100.00 |
| Yes | 104 | 172 | 266 | 169 | 711 |
|   | 14.63 | 24.19 | 37.41 | 23.77 | 100.00 |
| Total | 2072 | 2718 | 4308 | 2776 | 11874 |
|   | 17.45 | 22.89 | 36.28 | 23.38 | 100.00 |
|   |

First row has *frequencies* and second row has *row percentages*