Diana Enriquez
December 2020

The Freelance Penalty:
Income Variation and Job Structure of High-Skill Freelance Workers in the United States

ABSTRACT

The majority of US job growth post-Great Recession occurred in alternative work. Though alternative work includes gig economy workers and contingent workers, it also includes a variety of high-skill, professional freelancers. Heterogeneity among high-skill freelancers comes in several forms. Popular media portraits of high-skill freelancers often focus on the entrepreneurial full-time freelancers, who are well positioned with their professional networks to earn high incomes and control their time. This portait, however, ignores the freelancers who compete in this market as part-time small freelancers or workers who only occasionally freelance but generation a lot of income from a few projects. This article focuses on the differences in time structured into the freelance role: there are Full-Time, Part-Time and Occasional Freelancers who balance different risks and professional commitments. Using original interview data, this article introduces a few different kinds of freelance roles. With these structural differences in mind, I then compare the annual incomes of different freelance roles to full-time employees in similar industries. Though there some important exceptions, most Full-Time Freelancers earn several thousand dollars less yearly than their full-time employed workers as well as the part-time and occasional freelancers in the same occupation. The Full-Time Freelancers who are the exceptions to this trend tend to be well-positions and visible in their industry, thus they more closely resemble small businesses competing in their market rather than decoupled employees seeking a foothold in the labor market.

Key words: alternative work, outsourcing, freelancers, inequality

Author Bio: Diana Enriquez is a doctoral candidate in Princeton University's Sociology Department. Her research interests include labor (outsourcing, automation, and alternative work), technology, law, and organizations. Her recent publications include a study on the impact of the Covid-19 shutdown on low income households and a study on pre-automated workforces. (de8@princeton.edu)

INTRODUCTION

Shocking estimates like "In 2017, the number of freelancers in the U.S was estimated at 57 million, representing 36% of the U.S. workforce — this number is expected to reach 54% in 2020" appear regularly in many popular media platforms as the public grapples with the increasing number of jobs transitioning from full time into

freelance and contingent work. (Forbes 2017) According to Katz and Krueger, the majority of the United States' job growth between 2005-2015 happened in the "alternative workforce." (2016) This may mean that alternative work is an important part of the US workforce's recovery post-2008. Katz and Krueger later argue that the alternative workforce grows under weak labor markets: when workers are unable to find appropriate jobs, they are forced to create their own opportunities. (2019) Under the economic crisis of the Covid-19 shutdown, it is likely this segment of the workforce will continue growing. While employment through these alternative work roles may indicate a return to financial stability for some who are well positioned within their labor market, this is not the case for many others.

The "alternative workforce" refers to workers whose contracts list them as freelancers or contractors. Katz and Krueger describe freelancers, or "Independent Contractors," as "individuals who report they obtain customers on their own to provide a product or service as an independent contractor, independent consultant, or freelance worker." (2016) The freelancers interviewed and surveyed for this article have completed 1099s to file their taxes for their paid work. These are more traditional freelance workers in that they do not use platforms to find their freelance work. The freelancers included in this study are typically categorized as "high skill service workers." They do not receive benefits from their employer and their status is negotiated for specific projects and/or services they provide to their employer to be incorporated into the employer's regular production cycle. Freelancers also handle their own overhead operating costs. Research is limited on who participates in the high skill freelance labor market and how those roles are structured. This study is meant to

provide an empirical description of different types of freelancers participating in high-skill professional occupations and their annual incomes before the Covid-19 shutdown.

An interesting organizational question emerges with regards to freelancers. Are they more like employees or firms? This paper examines cases where the freelancer looks more like a small firm and cases where freelance roles represent outsourcing that puts the worker in a position of increased precarity. In this article I will compare freelancers by their personal characteristics, the structure of time commitment to their freelance role, and their annual income. Annual income is used here as one way to compare the success and stability of these different roles while the time structure of the role helps explain some variation between freelancers. I will use similar variables to compare freelancers to full-time employees within the same industries. The freelancer/employee comparisons are helpful to see the increased instability that comes with a freelancing compared to a full-time, within-firm role. The between-freelancers analysis is especially helpful to see where specific narratives about the freelance labor emerge and why.

This study aims to provide a descriptive account of high-skill, professional freelancers. Within occupation groups, I will describe the previously unstudied heterogeneity within freelancing arrangements and the personal and professional attributes of those who fill these roles. I will also compare the total yearly incomes of each type of freelancer to employees in the same occupation to see if there are repercussions to the increased distance between freelancer and employer.

CONCEPTUALIZING FREELANCE WORK

Are freelancers more like employees or more like firms? For freelancers, the line between being an independent firm or an employee is blurry. Whether a freelancer's experience working for a firm is more like that of an employee or that of another firm deeps on the relationship between the freelancer and the firm hiring them. The firm is usually the party to set the rules on the nature of the relationship between the firm and the freelancer. Of Phelps' three classifications of external labor markets, the freelance labor market most closely resembles one managed unilaterally by employers rather than the government or union agreements. (1957) Form and Huber argue that there is variation in the relationships between workers, firms, governments, and unions based on how well different occupational groups are able to defend themselves. (1976, Kalleberg and Sorenson 1979) Within an external market, firms are advantaged because they have more resources than freelancers do to run their businesses and protect their market positions. Firms have the resources to enforce contracts while many freelancers cannot afford the legal support needed to do so. Firms often have better information about labor pricing and budgets than freelancers do, which puts freelancers at a disadvantage during contract negotiations. Firms are also more visible and can more easily replace employees or contractors than freelancers can replace clients. To the firm, the freelancer and a potential full-time employee are both laborers. To the freelancer, the agreement between a firm and the freelancer is legally more like a deal between businesses, because they do not have the kinds of legal worker protections and benefits they would receive if they were employees. Freelancing increases the distance between employers and employees, which means less leverage to use when negotiating contracts. It is currently easier for firms in a specific industry to

organize and set prices for labor than it is for freelancers to unionize and enact demands on entire industries. Historically, these types of higher skilled workers have influenced the market were when they formed organizations like creative agencies, where designers are hired out as teams of consultants. Freelancers' confusing status as simultaneous businesses and employees requires them to perform multiple roles simultaneously while competing with a firm that has better resources to distribute more of the functions of a business.

There are currently two popular theoretical frameworks used to describe the placement of freelancers on the labor market: one where freelancers are self-sufficient businesses ("free agents") and one where freelancers are threatening to full-time workers who compete in similar labor markets. In this second theoretical framework, freelancing is not desirable. Instead, it is full of instability and stagnation for its participants. (Barley and Kunda, 2006) The latter is described by the literature on primary/secondary markets, where the primary market is seen as a labor market full of full-time employment and the possibility of long-term career paths. The secondary market is full of short term, unstable contracts and limited career growth. The secondary market is seen as threatening to the primary market, because it could drag wages down for full-time workers. (Berger and Piore, 1980) In their critique of these two theories, Barley and Kunda note that the former is based on opportunities available to the skilled middle and upper classes, whereas the latter is more typical in immigrant and isolated minority communities in the US. (2006) This paper focuses on high-skill freelancers competing in the American service industry. The social class distinction is less visible than in the "free agent" and "secondary market" examples when we compare

exclusively high-skill freelancers in the services sector because there are other earlier barriers to entry for these kinds of jobs, but there may be similar patterns of stratification based on gender and race that we see in other forms of work.

If we were to consider freelancers as a distinct kind of organization, what would it look like? Many descriptions of alternative workers rely on this primary/secondary market description of the labor market, but I would like to explore a much less frequently discussed idea from Berger and Piore's framework: the craftsman. Berger and Piore's description of two labor markets also makes a key distinction between the skills required in the Primary vs. Secondary market, briefly mentioning a category of work they label as "craft jobs." (1980) The "craft jobs" theory is less developed but offers a theory for explaining a freelancer's place in the labor market. They describe primary jobs as requiring workers to think abstractly to identify problems, operationalize possible responses, and then solve them. Secondary jobs require workers to learn concrete operations and perform them. Craft jobs exist between these two tiers, because they must problem solve AND execute complete operations. If we consider freelancing as a hybrid role that requires several different skillsets and methods of problem solving, we get closer to what makes freelancing a distinct type of role. It is not entirely an independent firm and it is not entirely the role of an employee within a firm. It may be most useful to think of freelancers in more stable occupations as the knowledge economy's "craftsmen."

One challenge in categorizing freelance work is that the boundaries between different kinds of alternative work, especially gig work and freelance work, are evolving.

There are incentives for larger firms to encourage the boundaries on alternative work remaining blurry, because it means these employees operate outside of pre-existing legal protections for workers. (Hyman 2019, Dubal 2017, Weil 2014) One way to explain an important difference between gig and freelance work is to examine the relational difference between firms and workers. In Figure 1, I explain the Gig Work triangle. Most importantly, the gig workers are deeply integrated into the productional cycle of the firm.

[Figure1]

High-skill Freelancers typically have a different relationship to the firm than gig workers as I note in Figure 2.

[Figure2]

High-skill freelancers typically complete their own individualized production cycle that is intergrated into the firms larger production cycle before it reaches the customers.

Another important difference exists in the structure of the worker's production cycle. Gig work *taskified*; the presence of a platform coordinating the workers and recording data on the coordination effort means gig work follows a "script" of events imagined by engineers. (Vertesi et al 2021) While there are some entrepreneurial elements to gig work that require these workers to think creativity to fill in the gaps when the platform fails, these tasks are more scripted and consistent than high-skill freelance work. (Vertesi et al 2021) Gig work via platforms like Uber, TaskRabbit, and others have been critiqued for the repeatitive nature of the tasks, the instability of working/income schedules, and the challenges in receving any sort of management support from the platform. (Vallas and Schor 2020, Ravenelle 2019) High-skill freelancers are responsible for the administrative work that is mostly handled by the platform in gig

work. They are also responsible for conceptualizing and executing an entirely project each time they are hired by a client.

Recent rulings in California courts required Uber to classify drivers as employees, thus answering some of the questions raised about the nature of employer/employee relationship between gig workers and the platforms that contract them for labor, only to be overturned in the 2020 election through popular vote in a referendum. (Luna 2020, Dubal 2017) Without a clear legal or descriptive boundary between freelance and gig work, existing employment policies designed to help gig workers make freelance work more difficult. AB5 in California was a bill designed to help gig workers but led to lay offs for high-skill freelancers working remotely. (Tracy and Draper 2019)

The high-skill freelancers in this study do not use platforms to find work. Their relationship to their client firms is a little more clearly established because they complete a full production cycle for their services outside the production cycle of their client firm. Their work is less easily "scripted" because they are typically hired for a specific "expertise" necessary on a specific product or service rather than a repeative task. Without platforms, these high skill freelancers rely heavily on their professional networks or public marketing efforts, similarly to other independent firms. Rather than build a presence on a single platform, these freelancers are constantly adapting their products, marketing tools, and professional skills as they react to the markets they can "see" and access.

CONTEXTUALIZING A FREELANCER WITHIN THE FREELANCE LABOR MARKET

Like other workers in more priviledged positions within the labor market, high-skill freelancers rely heavily on their existing social networks to find work. (Granovetter 1983, Tholen et al 2013) Given the reliance on social networks to find work, we would expect to see similar structural labor market issues to appear in the freelance labor market that we see in full-time job arrangments. Though they may sound like similar jobs in their basic functions, each freelancer's role has varying outcomes for potential earnings, social status, opportunities for career growth, and autonomy depending on their social network. (Calvó-Armengol and Jackson 2004) Gender may also play in role in which freelancers are contacted by recruiters. (Erlandsson 2019) Many studies have shown different kinds of labor market segmentation between racial and gender groups that put non-White workers at a disadvantage for salaries, promotions, and scheduling. (Clawson and Gerstel 2014, Tomaskovic-Devey 1993, Reich, Gordon, and Edwards 1973) This means that freelancers with stronger contacts within their given industry fare better than freelancers with fewer connections.

Flexibility is frequently described as a "perk" by recruiters to market alternative work arrangements to potential workers. For some, the flexibility is necessary and for others the flexibility puts them in a precarious role. Several note the stigma of "flexibility" in scheduling for full-time employees impacts the incomes and job security of female workers and working mothers who sometimes require that stability in order to juggle other commitments. (Fuller and Hirsch 2019, Munsch 2016, Williams, Blair-Loy, and Berdahl 2013) Freelancers are an interesting case to examine in further study on the impact of work flexibility, because they are legally permitted to set their hours and vacation days without bureaucratic approval from their employers. Though they are

legally protected, there may still be repercussions for the freelancers who set their own hours without prioritizing the schedules and desires of their clients.

This is a mixed method study designed to contrast some important differences among freelance workers. The qualitative work in this article offers some tools for comparing different kinds of freelancers and establishing different types of freelance roles based on the time committed to the role. The qualitative component of this article then compares different kinds of freelancers by their total annual income. Using annual income as a measurement of success of the "business" offers some insight into how well this increased independence for the worker translates into their financial well-being. These comparisons draw attention to the variesties of job structures emerging through the alterative workforce. They also highlight who is better positioned to thrive in this workforce vs. for whom freelancing introduces increasing instability and limited financial returns. Understanding these strengths and inequalities may help contextualize which freelancers are more like firms and which are more like employees forced into increasingly precarious roles.

DATA AND METHODS

Data and Sampling

The **qualitative** components of this study relied on interview data with current and former freelancers. Subjects were considered freelancers if they had completed projects for clients and filed 1099s. Some freelancers are or were Full-Time Freelancers, others freelanced part time or occasionally in addition to their full or part-time jobs inside of firms. The interview data consists of 1-2 hour long semi-structured interviews with 119

freelancers who work in Media (61), Tech (15), Design (20), Marketing (10), and Theater (12). All but two of these interviews were completed between May and August 2018 by me. Media contains print and digital journalists, radio producers and technicians, and video producers and editors. Tech freelancers were software developers. Design included graphic designers and UX designers. Theater was primarily actors, though some freelancers in this category worked other freelance jobs in theater in addition to their acting work. Subjects were recruited through four possible routes for this study: 1) through direct outreach by the researcher into her network, 2) through private Facebook groups, 3) through email announcements by professional groups, and 4) snowball recruited by interview subjects.

I worked in media at TED Conferences LLC for 3+ years and hired freelancers to my team (it was a mixed group of full-time and freelance researchers). Through my time at TED, I met freelancers and full-time workers at Viacom, VICE, Conde Nast, Hearst, the New York Times, and many other publications. I reached out to these contacts directly over email and Facebook. Subjects from theater were recruited through the Yale School of Drama and Yale Dramat alumni. Beyond my professional network, I have also been embedded in private Facebook groups for freelancers broadly and media freelancers for two years. I posted recruitment ads inside these Facebook groups to attract freelancers in Tech, Marketing, and Design. Additional announcements went through Alumni newsletters for the NYU Tandon Engineering and Design community. Finally, subjects were recruited through snowball sampling.

The majority of these subjects are based in or near New York City, though there are some individuals now based in San Francisco (5), Chicago (2), Baltimore (1), Boston (1), Minnesota (1), and Ohio (2). Of these subjects, 66 of them are female, 50 of them are male, 1 identified as Transfemme, and 2 identified as non-binary. On racial/ethnic terms, 88 of them are White, 9 of them are Latino, 7 of them are Black, 15 of them are Asian. The majority of my subjects are Millennials (77), followed by another large group of Gen Xers (36), and a few Baby Boomers (6). Most of them are single, but 28 of these freelancers are married and 15 of them have children. With only a few excepts exceptions, they were all able to complete their Bachelor's degrees from 4-year colleges and many of them have additional training or professional degrees.

The **quantitative** component of this study relied on data from Katz and Krueger's 2015 study on the contingent workforce, which was gathered through the RAND American Life Panel (ALP). RAND ALP is a nationally representative sample of 6,000 subjects that they contact for their surveys. The response rate for the survey was 63.8% (3,844 completed out of 6,028 subjects contacted). ALP's sample is a consistent group of individuals paid by RAND each quarter to complete surveys and they were recruited through a University of Michigan internet panel, random digital dial, and snowball sampling. (Katz and Krueger, 2016) The weights RAND developed with the survey results are meant to make results generalizable for the population their sample attempts to represent.

Katz and Krueger's data was gathered 10 years after the Bureau of Labor Statistics (BLS) last survey on the contingent workforce. The survey was modeled after

the core elements of BLS's contingent worker survey. From this sample, I selected

workers in high-skill, professional occupations, both as full-time employees and as

freelancers, and had completed their responses for my variables of interest. The final

sample of workers for the regression included 1422 subjects (1097 full-time employees

and 325 freelancers across all three categories).

VARIABLES IN THE RAND DATA SET

Worker Type: Roles Based on Time Within Freelancing

This study distinguishes between Full-Time Freelancers, Part-Time Freelancers, and

Occasional-freelancers, because these are structurally different work arrangements that

produce different kinds of risk for the freelancer to navigate. I split freelancers into these

different categories because they are all competing inside the freelance labor market,

but each role type has different sets of benefits and risks that come with the role. More

specific features of these three freelancer role types are described in the Results

section based on summaries from my interview data.

Since the interview sample drew heavily from younger workers in New York City,

the RAND ALP Contingent Workers Survey offered new opportunities to test different

ways to describing freelancers. I am confident that the time-investment differences in

freelancing roles are important as we distinguish between different kinds of freelancers,

so I divided the RAND ALP respondents into four groups: Full-Time Freelancers, Part-

Time Freelancers, Occasional Freelancers, and within-firm employees. Their grouping

was determined based on their answers to questions on the survey about whether their

main job was through self-employment or through a firm, if they held other jobs (and

how many), how many, if any, 1099s they would file for 2015, and if they had worked as

a freelance worker, contractor, or consultant in the last week. Full-Time Freelancers

were listed as self-employed and working as self-employed freelancers in the last week

last week. Part-Time Freelancers listed having a main job working for a firm, but

additional part-time jobs, more than four 1099 filings in 2015, and worked as a self-

employed freelancer/consultant/contractor in the last week. Occasional Freelancers

listed themselves as having a single, full-time job working for a firm but filing between 1-

3 additional 1099s for 2015. Employees describe themselves as working for a single job

in a firm and without 1099 filings for 2015. I ran a descriptive analysis of variables that

may influence job outcomes on the labor market and compared the differences between

my three types of freelancers. For this analysis, I included the weights offered by RAND

with this data. I present the results of these differences in the tables and graphs

displayed in Results.

Occupation selection:

For the purposes of this study, I am focusing on freelancers who we would expect to be

have more stable jobs based on their occupation. I selected job categories typically

described as high-skill, professional work (listed in Table 1). There is a different kind of

training expected of employees in these fields than those more closely involved with

manual labor. Most of these jobs are involved in the "knowledge economy," healthcare,

business/sales, which are some of the largest opportunities for employment in the

American service industry.[1] These are roles that are still, more often than not, full-time roles but there are also opportunities for freelancers to participate in these labor markets. These are also occupations that typically have higher incomes and hire full-time employees who receive yearly salaries that I can use to compare to their peers' freelancer incomes.

[Table 1 will go here]

These occupational categories are not more specific than the list I presented above, which means I cannot address all existing heterogeneity between occupations and industries. One of the most challenging categories in this data set is "Arts, Design, Entertainment, Sports, and Media Occupations" because Media and Art/Design are two industries that employ large numbers of freelancers. I was able to capture some of the differences between these two industries through my interview sample, but it is difficult for me to capture all of the heterogeneity in this variable as it is constructed in the RAND data.

These roles typically require educational training beyond high school for entry. Many of them require additional training and professional experience to obtain, especially for freelancers. This barrier is not always evenly applied and there are different ways of attaining technical training for some of the roles included in this study. I set the reference group used in the regressions are full-time employees with a bachelor's degree. Though there are some occupations with workers who have not

---

[1] Further notes on educational attainment appear in Table 4.

gone beyond high school, it is worth noting that the majority of the freelancers included in this sample have at least some college.

Total Income: Comparing income for freelancers and full-time workers

To examine how freelancers' incomes compare to their full-time peers, I am using Total Income as the dependent variable in my OLS regressions. The RAND data set includes freelance income for those who have freelanced and total income for all workers (freelancers and non-freelancers). Total income is defined in the RAND survey as "This should include money from all jobs, net income from a business or farm, and any rent, pensions, dividends, interest, social security payments or other money income you received." Total income is different from Family Income, which is also measured in the survey. Total Income is focused on earnings of the individual respondent. Unfortunately, I am not able to separate income from wages from the other sources of income included in this variable. I am also not able to establish how much the worker is paid PER HOUR of work. It may be worth noting that some of the retirement age workers included in this study may receive an income boost from social security and pensions. Though I am interested in hourly and weekly incomes, the RAND data is limited to Total Yearly Income. I can compare the income Full-Time Freelancers receive from their freelance work to their total income to see how much additional support their receive from sources beyond their freelance work. Table 2 includes the weighted results for the number of freelancers in each category along with the average age and annual income for the category.

[TABLE 2 WILL GO HERE]

A note on the structure of the Total Income variable: the survey questions about income required respondents to select their income levels for Total Income and Freelance Income based on ranges of income. For each range, I selected the midpoint as the representative value of that bin to make it easier to work with their income data. This means that within each range, there is more variation than is reflected in the final version of the variable used for income. There are a total of 16 bins for Total Income. Bins 1-5 begin at $5000 (bin 1) for the year and increase by $2500 up to bin 5 ($14,999). Bin 6-10 increase by $5,000 (bin 10 ends at $39,999). Bins 11-12 increase by $10,000 each. Bins 13-14 increase by $15,000 each. Bin 15 increases by $50,000. The final bin begins at $150,000. Bin 16 is the upper limit of the range, which used a lower value to infinity, I selected the lower bound of the range. The bins were constructed by RAND. Given the structure of the data, it may be useful to think about Total Income in these models as differences in financial stability and consumption or reinvestment opportunity, rather than specific figures of wage differences. While this limits how closely I can predict the difference in Income for Freelancers vs. Employees, it can help us estimate some degree of difference in Total Income. While there are several limitations to how well OLS models can predict income from the workers' personal and professional traits, OLS models may still be useful in examining differences between workers.

[TABLE 3 WILL GO HERE]

The other variables included in this model are race, gender, and age. Race is also introduced into the regression as dummy variables for White, Black, Hispanic, Native American, Asian, and Other. There are very few freelancers in most racial categories other than White and Other. The codebook did not provide a clarification on what "Other" entails, so it is difficult to interpret this variable as a specific racial group. Both OLS models use the weights provided by RAND, which may provide a little more weight to the individuals surveyed under the other racial categories, but further research is needed to provide better estimates in the differences in income for Black, Hispanic, Asian, and Native American workers. Age is treated as a continuous variable in OLS regressions and a categorical variable for the Matching. Female is treated as a dummy variable for gender.

Educational attainment is closely tied with many occupations in the knowledge industry. Table 4 includes the educational attainment levels of individuals included in this sample. Education is included as a control variable in both OLS models and an interaction term with occupation for Model 2.

[TABLE 4 WILL GO HERE]

METHODS FOR ANALYSIS:

First, I analyzed data from my interviews to establish different structures of freelance roles. Then I compared total incomes through an OLS regression among all workers in this study to examine differences between different freelance roles and full-time employees. Next, I completed a matching experiment using the RAND data as one way to compare annual incomes for full-time freelancers and full-time employees. Finally, the

K-Means clustering examines differences among freelancers to look for similarities

between groups of freelancers beyond their role type.

OLS REGRESSIONS: Comparing annual income and personal/professional traits

To test for differences in total income, I used two OLS regressions to examine

differences between different freelancer roles in contrast to full-time employees. I have

chosen OLS, despite the limitations from the binned Total Income, because there are

enough bins for Total Income (16) that we may be able to tell some degree of difference

in financial stability between these workers without a more complicated model. While

there are some violations of the OLS assumptions, Total Income is an ordinal variable

and the model seems to perform reasonably well against my robustness checks.[2] OLS

also allows for easy interpretability to highlight potential differences between groups of

freelancers and employees. I use RAND's weights in the OLS regression and

descriptive statistics presented in the Results.

The two OLS models included Table 5 compare their total income (dependent

variable) to traits of the individual worker (age, race, gender, occupation, worker type,

education level as independent variables). The first model does not include any

interacting variables and the second includes interacting variables for each level of

education and each type of occupation. The constant refers to a white man with a BA

who works in Sales, which I chose because Sales is frequently treated as a contract or

freelance position and it is the largest occupation group of full-time freelancers included

---

[2] The results of these tests are included in the Appendix as Figures 7-9 and Table 10.

in this survey. I set the constant to reflect workers with Bachelor's degrees, because this is frequently the level of educational attainment associated with the occupations I selected for this study. Many of the variables included are meant to control for fixed effects in differences for occupation and education. The interacting variables are included to try to capture some of the heterogeneity that comes with the variety of different occupations and industries included in this survey. The survey data did not offer more granular breakdowns of occupations, which means that even with this effort to capture fixed effects, there may be more errors than are captured here.

If there are not any major differences in earnings for freelance and full-time employee roles, I would expect the variables for worker type to have insignificant coefficients that are close to 0. If there is a difference in wages for freelance and full-time workers fulfilling the same occupation, I expect to see a significant coefficient that is either large or smaller than 0.

MATCHING: Employees and full-time freelancers' earnings compared

As a second test, I matched each Full-Time Freelancer case to similar Full-Time Employees and comparing their Total Incomes. This test allows me to look more closely at the financial repercussions of increased distance between the worker and the firm. I selected the Full-Time Freelancers and excluded the Part-Time and Occasional Freelancers to try to compare workers who were exclusively freelancing to those who were exclusively employed within a firm. Ideally this clearer difference in relationship type between the worker and the firm will help to highlight differences in Total Income.

For each Full-Time Freelancer, I found Employees who were within 5 years (+/-) of age, the same gender, same level of educational attainment, and in the same occupational category. Including more variables required a trade off in the number of cases I would be able to compare. With these four dependent variables, I was able to compare 105 of the Full-Time Freelancers to matched Employees to compare total income (meaning I was able to match 64% of the Full-Time Freelancers matched with at least one Employee along these four variables).

I ran two more experiments not included here: 1) including race and 2) excluding education. The matching experiment with Race yielded very few matches because the number of Black, Hispanic, Asian, and Native American subjects in this analytical sample are low. To include other variables that I was able to study in the OLS models, I will need a larger sample of Freelancers and Employees from these groups. The matching exercise without education yielded a higher number of pairings than the experiment that included education as a variable. Without education, I could match 151, or 93% of the Full-Time Freelancers, to employees but the cost of excluding education seemed too high to use my results from this experiment as my primary results. From existing research, we know that higher levels of educational attainment is positively associated with higher earnings for many professional workers. (Webber 2016) This is also visible in the OLS regressions, where there are positive returns to several of the categories of educational attainment above high school and Associates degrees. Some high-skill professional jobs will not consider candidates who do not have at least a Bachelor's Degree. While excluding education would yield a higher number of matched

Full-Time Freelancers, it may not present the most accurate comparison of incomes between freelancers and employees.

Once the matches were made, I took the average of the Employee's Total Incomes, subtracted the Freelancer's Total Income, and recorded the difference. If there wasn't a difference between their Total Incomes, I would expect to see a Normal distribution of Income differences to be centered at 0.

K-Means Clustering: freelancer cases and income trends

The final analysis uses K-means clustering to compare specific cases of freelancers in the RAND data to look for trends among freelancers based on their personal and professional traits. These clusters highlight divisions within the freelance labor market. What are the personal and professional traits that may lead to different outcomes and structural positions within the freelance labor market? I comment on the groupings created through K-Means Cluster Analysis using findings from my interview data. The K-Means clustering does not include survey weights.

For the K-Means clustering, I am using Discriminant Coordinates (dc, as shown on the X and Y axis of the clusters graph). The first step of this model is to test linear combinations that can maximize differences between potential groups. The second step of the program is to create linear functions that minimize errors within each group. I determined the appropriate number of clusters for this model using a test for Within-Cluster Variation (or within-cluster sum of squares, WSS). Within the WSS graph, I

selected the "Elbow" of the curve to determine the appropriate number of clusters.[3] I

also tested clustering for one level higher than the point on the curve (four clusters) to

see if there were noticeable differences in the groupings that made them easier to

interpret. The groups with the most distinctions were through the three clusters, as was

suggested through my WSS test.

RESULTS

QUALITATIVE RESULTS: VARIATION AMONG FREELANCER ROLES

Full-Time Freelancers

The Full-Time freelancers for this study highlighted several kinds of risk associated with

this role. The freelancers in this category represented a mix of well-established industry

experts, workers who lost their full-time roles and were using freelance work to help

them stay afloat while they sought full-time work, and less experienced workers trying to

become competitive for full-time work by building a portfolio of completed projects. Each

of these categories of full-time freelancers described the market differently: the industry

experts described clear business strategies while the newer freelancers described the

strain of boom-and-bust work schedules alongside the process of trail-and-error,

lamenting the errors that "cost" them hours and paid work. Most importantly: the

earnings from their freelance work was expected to cover their overhead costs and their

income. The "slow months" of the year (consistently noted as August and December)

were predictable and could be managed through planning, though these freelancers

---

[3] The elbow test is listed in the Appendix as Figure 4.

also described a fear of rejecting any work even during especially busy times because there were unpredictable slow weeks/months they felt should account for too. Their working hours were typically beyond the 40 hour work week, because there was pressure to be "online" during the "client's hours" and handle "administrative hours" during the client's offline hours. During busy months, many of the freelancers described working 60 hour weeks – essentially a full-time paid job for their clients' needs and a part-time unpaid job completing their administrative overhead hours.

Part-Time and Occasional Freelancers

The other two categories of workers are able to off-set some of the risk that comes from freelancing through more traditional work arrangements with an employer. Part-Time Freelancers balance full or part-time roles working for an employer with their additional freelancing work, which allows them to earn some predictable income alongside their less predictable freelancing income. Part-time workers represented freelancers who were not able to find full-time employment in their chosen field, individuals whose living costs exceeded what they could earn in their full time work or unstable freelance work, and individuals who remedied their stress from unstable freelance work schedules by working part-time to ensure their rent/basic expenses were guaranteed to be covered each month. For Part-Time freelancers, freelance work may serve as a steady source necessary income or it could be a route to doing the kind of work they are passionate about but could not survive on alone.

Occasional Freelancers are workers who have full-time roles within a firm or are retired but will occasionally take on a freelance project for special projects or specific clients. The occasional project usually arises through the freelancer's personal or professional network or because the freelancer has a very specialized skill set that a firm seek out for a short-term arrangement. Occasional Freelancers are frequently much more privileged than the other two groups and can charge higher hourly rates for their freelance project, because their freelance work is supplemental income, rather than something they expect and depend upon in their monthly budget. The income generated by this category of freelancer is especially noisy in regressions because these workers typically charge very high hourly rates or complete projects for especially low rates as volunteers for projects that hold meaning to them.

COMPARING TOTAL INCOME BETWEEN FREELANCERS AND EMPLOYEES

I created the categories between different types of freelancers analytically based on the freelancers I encountered in my fieldwork. I was able to distinguish between the Full-Time, Part-Time and Occasional Freelancers in the RAND data based on their tax filings, time commitments to their various jobs, and which of their roles (main or extra work) was self-employed.

When we compare freelancers to employees through the OLS Model and the Matching experiments, Full-Time Freelancers are associated with a lower Total Income than other types of freelancers and employees. Figure 3 demonstrates a weighted

comparison of Total Income in each of the freelancer types and employees for this

analytical sample.

[FIGURE 3 WILL GO HERE]

Table 5 contains the results of the OLS regressions. The variables that were especially

significant in building these particular models were gender, age, education, worker type,

and many of the occupation categories. The constant reflects a white male full-time

employee in Sales with a Bachelor's degree.

[TABLE 5 WILL GO HERE]

First, my two regression models have negative associations between Total

Income and Full-Time Freelancer Status. It is the only one of the three where there is a

negative association, and this is consistent across both models. Worker type,

specifically for Full-Time Freelancers carried a significant coefficient in both models.

When comparing the Full-Time Freelancers in Sales to Full-Time Employees in Sales,

the Full-Time Freelancers are associated with a -$14.8K (model 1) and -$15.5K (model

2) Total Income compared to their Full-Time Employee peers. Occasional freelancers

were associated with a Total Income higher than their Full-Time Employee peers ($6.5K

in model 1 and $7.6K in model 2). These coefficients were both statistically significant.

Part-Time Freelancers were associated with an income level little higher than their Full-

Time Employee peers (~$1.5K in both models) but this coefficient was not statistically

significant. Based on these results, there do seem to be some important differences

between the Full-Time, Part-Time and Occasional Freelancers as well as freelancers

compared to their full-time peers. It makes sense that both the Part-Time and

Occasional Freelancer would have positive associations with Total Income compared to their Full-Time Employee peers, because their freelance work is secondary to their full or part-time work inside a firm. The freelancing work they take on is for additional income to their regular work.

Gender, specifically being Female, is negatively associated with Total Income across all roles. Workers who were female were associated with -$15.3K (model 1) and -$15K (model 2) difference in Total Income when compared to their male peers in the same occupational role. Compared to the other physical traits of the worker, gender has the highest negative coefficient. These results are echo findings in existing gender and salary research, which I will describe in more depth in the Discussion.

While the coefficients for Black workers and Hispanic workers were not statistically significant, we know from other literature that race has an impact on wages. While none of the coefficients for race were statistically significant in this model, they are all negatively associated with Total Income (except Native Americans, in model 2, which has a positive association). Based on the coefficients included in both models for Black and Hispanic workers as particular groups of interest, the Black workers are associated with -$4.5K (model 1) and -$5K Total (model 2) Income compared to their White peers and Hispanic workers were -$4K (model 1) and -$2K (model 2).

Occupation type is an important place to begin when considering salary and income outcomes, because salaries are typically determined within a "range" of what it costs to hire a particular type of work on the labor market. The three occupational categories with the most negative associations are Life, Physical, and Social Science

Occupations, Community and Social Services Occupations, and Education, Training,

and Library Occupations. These three occupational categories are frequently lower

earning than sales roles because they often exist inside of non-profit firms. These three

terms were not consistently statistically significant. The four categories with the highest

boosts on income are management jobs (which implies rank within the firm is likely

higher than someone in sales), business and financial jobs, and two careers that require

advanced technical expertise, thus have a barrier to entry that may be too high for the

average worker to cross (Computer and Mathematical Occupations & Architecture and

Engineering Occupations). These coefficients were statistically significant in both

models.

Several variables that are positively associated with total income are consistent

with existing literature on wages. Higher levels of education are positively associated

with income. Both models treat education as a dummy variables for each level of

educational attainment. The models compare each level to the earnings of those with

Bachelor's Degrees. The levels of educational attainment under Bachelor's Degrees

(some High school, High School degree, some College, Associates Degree) have large

negative coefficients (between -$50K and -$16K) in both models, all of which are

statistically significant. The Masters, Professional Degree, and PhD holders are all

associated with higher levels of income compared to the Bachelor's degree holders for

model 1. All of their coefficients are statistically significant in model 1. However, model

2, which contains interacting variables between each level of educational attainment

and occupation, shows a much higher coefficient on Professional Degree holders, a

slightly higher coefficient on Master's degree holders, and a high negative association

for PhD holders. The Master's degree coefficient is no longer statistically significant in

model 2, but the Professional Degree and the PhD coefficients are still statistically

significant. These results are not surprisingly, given existing literature about the returns

on higher levels of education, especially when consider education in three major

categories: less than a BA, BAs, and Graduate School.

The variable for age is associated with a slight increase in total income with each

year of age. This data set begins with workers in their 20s, so it may be useful to think

about each additional unit of this variable as a proxy for viable years in the workforce.

As such, it makes sense that each additional year of age (and therefore years of

potentially being a worker in the labor market) is positively associated with a slight

increase in Total Income.

[FIGURE 4 WILL GO HERE]

The Matching comparison (Figure 4) for Full-Time Freelancers and Full-Time

Employees resulted in a distribution with a Median at $20,000 and a Mean at $17,694.

All of these results are for Total Income before taxes, which means that in addition to

the lower Income levels associated with Full-Time Freelancers, they must pay high self-

employment taxes on their earnings that are higher than the rates charged for Full-Time

Employees. Though the distribution of the data is concentrated above 0, there is a left-

skew to the distribution. The left skew outliers are interesting and might suggest that

there are different income groups of freelancers within the Full-Time Freelance group.

Some are at a disadvantage compared to their Employee peers, but some are able to

benefit from their status as Freelancers. This outlier group of very successful

freelancers may be the group that has been able to shape the narrative about

freelancers as a powerful group of workers with more control over their businesses and

livelihoods than Employees. They may also hold a more privileged position in the labor

market than the typical freelancer does.

Beyond my analytical categories of freelancers, the K-Means Clusters (Figure 5)

demonstrate other ways to describe the differences between freelancers. Here we may

notice the differences between freelancers who are high earners in the freelance labor

market and those who may be earning less as freelancers than they might if they were

hired inside a firm. These clusters demonstrate different market positions that

freelancers might occupy inside the freelance labor market. Table 6 includes further

information on the structure of each cluster based on key variables.

[FIGURE 5 WILL GO HERE]

[TABLE 6 WILL GO HERE]

Group 3 is the tightest cluster of workers and the most evenly split between Full-

Time Freelancers and Part-Time Freelancers. These workers earn higher than the US

Median household income levels (US Median: $61,000 in 2017. Group 3 Total Income

level is $75,000, US Census 2017). Group 3 is also very diverse occupationally, but its

dominant groups include Education (19%), Sales (14%), Business and Finance (14%),

and Design/Media/Entertainment/Sport (12%). Demographically, this group is a little

over half female and has the highest percentage of Black workers of the three clusters.

It is the mid-range group of the three in education and earnings. Many of these workers'

total incomes seem to be supplemented by other sources of income. This group may have established ways to remain more financially stable in their current employment than those in Group 1. They are also earning more as individuals than the Median US household income level. Depending on their location in the US, this may mean that their freelancing work or part-time freelancing work provides a comfortable income level. This is also a lower level of income than one might expect for a senior level professional in a number of occupations included in this study. From this Total Income figure, we may assume that that Group 3 has more autonomy and flexibility through freelancing. However, these freelancers are also responsible for covering their own health insurance, a consistently high point of stress among my freelance interview subjects, and hours of unpaid labor in the process of running their businesses. What may be a good salary in a full-time role with benefits may not be enough to cover all the expenses of a full-time freelance role. The operating costs vs. living costs of a freelancer deserves further investigation.

Group 1 contains the highest number of female workers and receives the lowest income ($21,000). Group 1's largest occupational groups are Education (19%), the very broad category listed as Design/Media/Entertainment/Sport (17%), and Sales (17%). The Freelancer income used to describe the group is about half the Total Income, suggesting there are other important sources of income besides freelance work for many of these workers. This other income may come from part time work, social security benefits, and other welfare payments. Group 1 has the highest percentage of Hispanic workers of the three groups. This group also has high levels of post-graduate

educational attainment, but it still has the lowest income levels of the three groups. It is less tightly clustered group than Group 3, but it is more closely clustered than Group 2. Freelancing for this group might be an additional source of income that is needed in order to make ends meet. Freelancing may not be the route to stability, flexibility, and independence that it is described to be, but a necessary additional job that allows the worker to cover more of the expenses than they might without the additional work. These workers may also receive a lot of support from their family member, therefore making their Total Income only part of their Household Income. Questions about those who are balancing several jobs to cover their expenses and those who are contributing to household income but not responsible for the majority of their household earnings require further investigation and are currently not addressed in this clustering model.

Group 2 is the wealthiest collection of workers and is predominantly Full-Time Freelance workers. It is also the group with the lowest percentage of female, Black, and Hispanic workers. The majority of their earnings appear to be from their freelance work. It contains the highest percentage of workers with Bachelor's degrees but the lowest percentages of post-graduate degrees of the three groups. The freelancers in Group 2 are focused in four occupational groups: Sales (~37% of the group), Business and Finance (16%), Education (19%), and Health Practitioners (11%). These four categories may explain why there are smaller groupings within the larger cluster of Group 2, rather than a clear center. This group may represent the freelancers who are best placed to operate their own businesses.

These clusters are also interesting because they may help explain who participates in three common experiences in freelancing: those who freelance to earn a little extra income on top of their consistent salaries as employees (Group 1), those who freelance as an alternative to full-time employment either by choice or necessity (Group 3), and those for whom freelancing is lucrative (Group 2). These distinctions represented here are similar to some of the major differences I noticed between Freelancers' roles through my interview data. Some people freelance as an opportunity to earn a little extra income and it more closely resembles "gig work." There were others who freelanced because it provided income while they looked for full-time employment inside a firm. For them, freelancing was part of a survival strategy that was a necessary part of building a career. They described having very little leverage in their negotiations with employers, which also means they are more likely to end up with lower wages and less job stability than full-time employees. Freelancers are treated as a temporary hires, so their relationship is far more precarious within the firm. These freelancers are competing on the labor market as employees and trying to earn favor with the firms they hope will hire them.

The few workers who can overcome this relationship fragility have power from another source: rather than being an important person *inside* the firm, they are usually socially powerful *within their industry*. They are recognized for their very specific expertise and experience. They are in high demand between many different firms. This seems to give the freelancer power beyond the status as an "employee." It sometimes puts them on similar footings with the firms themselves and their self-employment as a

business is taken a little more seriously than the freelancers who are competing on the labor market as potential temporary employees.

DISCUSSION

This article describes a few ways to compare freelancers and then measures their outcomes through their annual total income. The OLS models and matching exercise associate full-time freelancers with a lower income than their full-time employed within-firm peers and the occasional or part-time freelancers. From these cases, it would seem that Full-Time freelancers usually earn less than the full-time employees or part-time freelancers in their field. This is complicated further by the results of the K-means clusters. The K-means cluster demonstates some of the divisions within the freelance workforce, particularly among the highest income group (which is predominantly White, Male, and Full-Time freelancers) and the middle and lower income groups (which are more diverse with regard to gender, race, and role type). My interview data confirms that while some (often Full-Time) freelancers run thriving businesses, many others see the administrative and business strategy components of their jobs to be draining and challenging. Many of the freelancers who described this role as less-than-ideal spent a significant portion of their interview time describing methods for stabilizing their income and finding a route out of freelancing compared to the thriving Full-Time freelancers who spent their interview time describing their business strategies with excitement.

When these results are taken together, I highlight the presence of a small but powerful group of Full-Time Freelancers who are well connected and highly visible in

their fields and a larger group of freelancers for whom freelancing is what they perceive to be their best option but not necessarily one they view as a successful business/employment model. Cluster 2 in the K-Means group is high-income, predominantly White, Male, and Full-Time freelancers. The authors and interview subjects of many opeds and popular media articles about freelancing and entrepreneurship also seem to come from freelancers like those in Cluster 2. While they are not the majority of freelancers, their market position and visible offers them greater access to the media channels used to shape narratives on the freelance experience. This article offers some contrast to the "entrepreneurship" story by highlighting the other ways workers compete in the freelance market when they are in weaker market positions present a different story about growth in the alternative workforce. This story is less about alternative work as a route to independence and more about increasing instability in American jobs.

Sociological research highlights the frequency at which working members of low income households hold more than one job as they attempt to cover their household expenses. Gallup polls have noted that the average time Millennials spend in a job is 2 years. (2016) A reason given for the high turnover is that Millennials view it as a necessity to master as many different roles as possible as part of their professional training, especially since experience expectations for even entry level work has increased over time. Survival in this labor market, they claim, requires being highly versatile. This makes both part-time and occasional-freelancing roles highly appealing to workers who are looking for ways to enter different industries or master new skills.

The Part-Time freelancers highlight how frequently even individuals with higher earning roles, typically categorized as "middle class jobs," also turn to additional part-time work in addition to their full-time roles for their incomes. Through my interviews I discovered this was sometimes a professional decision (portfolio or skill building) and sometimes from financial pressure. Overall, I would argue that the frequency of individuals who hold multiple jobs, even when one of those jobs is less formalized because it is a freelance position, is a trend that is likely to continue as firms cut budgets for internal training and increase their expectations for previous experience even in entry level roles.

Labor market discrimination in full-time hiring continues in freelancer hiring, though the freelance labor market comes with far fewer options for protecting workers. The total income gap between full-time employees and freelancers is highest for women and Black and Latinx workers. Even within high profile and higher income occupations, Black workers are given less high profile tasks, which means they are considered "less competitive" than their white coworkers when considered for promotions. (Wingfield and Alston 2014) Female workers are encouraged to pursue less prestigious subfields within their occupation. (Campero 2020) In a hiring process focused on "merit" and "experience" these two issues along the career trajectory make it difficult for these workers to improve their own market positions. At the higher levels of an organization, negotiation and professional training cannot replace mentorship within a hierarchy. (Wingfield and Chavez 2020) Mentorship/positive network marketing and proof of prestigious work experiences are central to the survival of freelance businesses. If only

one kind of freelance is hired for high-profile projects, the divide between the thriving and the struggling workers in the alternative workforce will only continue growing.

One methodological improvement I could make with a larger sample of freelancers would be to use a Oaxaca Blinder Decomposition to further examine the differences between specific types of freelancers and their total incomes. With a larger sample and this method, I believe I would be able to manage more of the heterogeneity that exists among industries and occupations to examine the freelancer penalty a little more closely.

A clear breakdown of hours worked per week would further improve the comparison freelance workers and their total incomes. Within the Full-Time Freelance category there may be workers who choose freelancing for its flexibility because they are also responsible for other unpaid work like caregiving. They may be working less than 40 hours a week in their full-time freelance role but they are categorized as Full-Time Freelancers because they are exclusively self-employed as their "day job." Comparing the earnings of a full-time freelancer who does complete 40 hours of paid work per week to a full-time freelancer who completes 10 hours of paid work per week would give a very skewed picture on freelancer earnings when compared to employees who are usually working 40 hours a week and receive a fixed salary per week for that time. Though there are some freelancers who freelance for flexibility, many Full-Time Freelancers interviewed described working beyond the recommended 40-hour work-week to cover both client demands and "overhead hours" of administrative work.

This study would also improve with better data on hours worked and hourly earnings. The Total Income variable contains may contain income from several sources beyond wages and it describes yearly income. The best way to compare freelance wages and employee wages would be through an hourly comparison of hours worked per week and income per hour of work. This type of analysis is required to more accurately calculate the difference in earnings between freelancers and employees. Another limitation to clearly measuring differences in total income for freelancers and employees is that the tax rates are missing from the Total Income variable. This is important to note because freelancers are taxed at a much higher rate than their full-time peers. This is because firms pay employment tax on behalf of their employees, but freelancers are responsible for this tax load themselves.

The RAND sample is also low on several ethnic/racial groups, but it's worth noting that of this analytical sample, 14% of the white workforce is full-time freelance compared to the 4% Black and 8% Hispanic freelancers in this sample. Freelancing is a risky endeavor and in some communities it may carrier a heavier stigma than others. For Black and Hispanic workers seeking stable employment, it may be more important to remain in stable full-time jobs, because they face additional scrutiny in the workforce. The stigma that "freelancers are just workers who cannot find full-time jobs" vs. "freelancers are entrepreneurs" may be applied more frequently to them, based on other stereotypes about Black and Hispanic workers. It also may be a riskier employment option, because successful freelancers require extensive professional networks for employment. Groups that are systematically blocked out of professional networks or

face additional scrutiny in their professional interactions may have a hard time

developing the vast professional networks needed for a successful freelancing career.

REFERENCES

Adkins, Amy. "Millenials: The Job-Hopping Generation." Gallup. *Business Journal*. 2016. https://www.gallup.com/workplace/231587/millennials-job-hopping-generation.aspx.

Barley, Stephen R., and Gideon Kunda. "Contracting: A New Form of Professional Practice." *Academy of Management Perspectives* 20, no. 1 (February 2006): 45–66. https://doi.org/10.5465/amp.2006.19873409.

Bechky, Beth A. "Gaffers, Gofers, and Grips: Role-Based Coordination in Temporary Organizations." *Organization Science* 17, no. 1 (February 2006): 3–21. https://doi.org/10.1287/orsc.1050.0149.

Berger, Suzanne, and Michael Piore. *Dualism and Discontinuity in Industrial Societies*. Cambridge, England: Cambridge University Press, 1980.

Calvó-Armengol, Antoni, and Matthew O Jackson. "The Effects of Social Networks on Employment and Inequality." *American Economic Review* 94, no. 3 (May 2004): 426–54. https://doi.org/10.1257/0002828041464542.

Campero, Santiago. "Hiring and Intra-Occupational Gender Segregation in Software Engineering." *American Sociological Review*, November 16, 2020, 33. https://doi.org/10.1177/0003122420971805.

Clawson, Dan, and Naomi Gerstel. *Unequal Time: Gender, Class, and Family in Employment Schedules*. New York: Russell Sage Foundation, 2014.

Doeringer, Peter, and Michael Piore. "Internal Labor Markets and Manpower Analysis." United States Department of Labor, May 1970.

Dubal, V. (2017). Wage Slave or Entrepreneur?: Contesting the Dualism of Legal Worker Identities. *California Law Review*, *105*, 101.

Erlandsson, Anni. "Do Men Favor Men in Recruitment? A Field Experiment in the Swedish Labor Market." *Work and Occupations* 46, no. 3 (August 2019): 239–64. https://doi.org/10.1177/0730888419849467.

Form, W. H., Huber, J. "Occupational Power." *Handbook of Work, Organizations, and Society*, ed R. Dubin. Chicago: Rand McNally. (1976) 751-806.

Fuller, Sylvia, and C. Elizabeth Hirsh. "'Family-Friendly' Jobs and Motherhood Pay Penalties: The Impact of Flexible Work Arrangements Across the Educational Spectrum." *Work and Occupations* 46, no. 1 (February 2019): 3–44. https://doi.org/10.1177/0730888418771116.

Goldsmith, Arthur H, Darrick Hamilton, and William Darity. "Shades of Discrimination: Skin Tone and Wages." *American Economic Review* 96, no. 2 (April 2006): 242–45. https://doi.org/10.1257/000282806777212152.

Granovetter, Mark S. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (May 1973): 1360–80.

Hyman, Louis. *Temp: The Real Story of What Happened to Your Salary, Benefits, and Job Security*. Penguin books, 2018.

Kalleberg, Arne. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Unemployment Systems in the United States, 1970s-2000s*. Russel Sage Foundation, 2011.

Kalleberg, Arne L., and Aage B. Sorensen. "The Sociology of Labor Markets." *Annual Review of Sociology* 5, no. 1 (August 1979): 351–79. https://doi.org/10.1146/annurev.so.05.080179.002031.

Kalleberg, Arne L. "Precarious Work, Insecure Workers: Employment Relations in Transition." *American Sociological Review* 74, no. 1 (February 2009): 1–22. https://doi.org/10.1177/000312240907400101.

Katz, Lawrence, and Alan Krueger. "The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015." Cambridge, MA: National Bureau of Economic Research, September 2016. https://doi.org/10.3386/w22667.

Katz, and Krueger. "Understanding Trends in Alternative Work Arrangements in the United States." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5, no. 5 (2019): 132. https://doi.org/10.7758/rsf.2019.5.5.07.

Luna, Tayrn. "California Voters Approve Prop. 22, Allowing Uber and Lyft Drivers to Remain Independent Contractors." *The Los Angeles Times*, November 3, 2020. https://www.latimes.com/california/story/2020-11-03/2020-california-election-tracking-prop-22. December 2020.

Munsch, Christin L. "Flexible Work, Flexible Penalties: The Effect of Gender, Childcare, and Type of Request on the Flexibility Bias." *Social Forces* 94, no. 4 (June 2016): 1567–91. https://doi.org/10.1093/sf/sov122.

Phelps, Orme W. "A Structural Model of the U.S. Labor Market," *ILR Review* 10, No. 3 (April 1957): 402-423. https://www.jstor.org/stable/2519773

Pofeldt, Elaine. "Are We Ready For A Workforce That is 50% Freelance?" *Forbes*. October 17, 2017. https://www.forbes.com/sites/elainepofeldt/2017/10/17/are-we-ready-for-a-workforce-that-is-50-freelance/#744a768e3f82. June 2019.

Ravenelle, Alexandrea. *Hustle and Gig: Struggling and Surviving in the Sharing Economy*. Oakland, CA: University of California Press, 2019.

Reich, Michael, David M. Gordon, and Richard C. Edwards. "A Theory of Labor Market Segmentation." *The American Economic Review* 63, no. 2 (1973): 359-65. http://www.jstor.org/stable/1817097.

Schneider, Daniel, and Kristen Harknett. "Consequences of Routine Work-Schedule Instability for Worker Health and Well-Being." *American Sociological Review* 84, no. 1 (February 2019): 82–114. https://doi.org/10.1177/0003122418823184.

Smith, Vicki. "The Circular Trap: Women and Part-Time Work." In *Women and the State*, edited by Anne Showstack Sassoon, 1st ed., 235–54. Routledge, 2018. https://doi.org/10.4324/9780429401602-9.

Smith, Vicki. *Crossing the Great Divide: Worker Risk and Opportunity in the New Economy*. Ithaca, NY: Cornell University Press, 2018. https://doi.org/10.7591/9781501717932.

Tholen, Gerbrand, Phillip Brown, Sally Power, and Annabelle Allouch. "The Role of Networks and Connections in Educational Elites' Labour Market Entrance." *Research in Social Stratification and Mobility* 34 (December 2013): 142–54. https://doi.org/10.1016/j.rssm.2013.10.003.

Tomaskovic-Devey, Donald. "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps." *Social Forces*, 1993, 20.

Tracy, Marc, and Kevin Draper. "Vox Media to Cut 200 Freelancers, Citing California Gig-Worker Law." *New York Times*, December 16, 2019.

Vallas, Steven, and Juliet B. Schor. "What Do Platforms Do? Understanding the Gig Economy." *Annual Review of Sociology* 46, no. 1 (July 30, 2020): 273–94. https://doi.org/10.1146/annurev-soc-121919-054857.

Vertesi, Janet A., Adam Goldstein, Diana Enriquez, Larry Liu, and Katherine T. Miller. "Pre-Automation: Insourcing and Automating the Gig Economy." *Sociologica*, January 29, 2021, 167-193. https://doi.org/10.6092/ISSN.1971-8853/11657.

Williams, Joan C., Mary Blair-Loy, and Jennifer L. Berdahl. "Cultural Schemas, Social Class, and the Flexibility Stigma: Cultural Schemas and Social Class." *Journal of Social Issues* 69, no. 2 (June 2013): 209–34. https://doi.org/10.1111/josi.12012.

Wingfield, Adia Harvey, and Renée Skeete Alston. "Maintaining Hierarchies in Predominantly White Organizations: A Theory of Racial Tasks." *American Behavioral Scientist* 58, no. 2 (February 2014): 274–87. https://doi.org/10.1177/0002764213503329.

Wingfield, Adia Harvey, and Koji Chavez. "Getting In, Getting Hired, Getting Sideways Looks: Organizational Hierarchy and Perceptions of Racial Discrimination." *American Sociological Review* 85, no. 1 (February 2020): 31–57. https://doi.org/10.1177/0003122419894335.

TABLES AND FIGURES

Figure 1

Figure 1: Gig Worker Triangle

Gig worker

Platform coordinates workers and consumers. Platform pays worker for gigs completed.

Gig work completes the service the platform sold to the consumer

Platform ← Consumer

Consumer gives the platform feedback on the worker's service and pays the platform for the completed service

Figure 2

Figure 2: Freelancer and Client Relationship

Freelancer is hired to complete a service within the production cycle or as a component of the client's final product

Client Firm

Client interacts with and sells different service or a completed product not done exclusively by the freelancer to a consumer or firm.

Freelancer

Client provides feedback and payment for completed services.
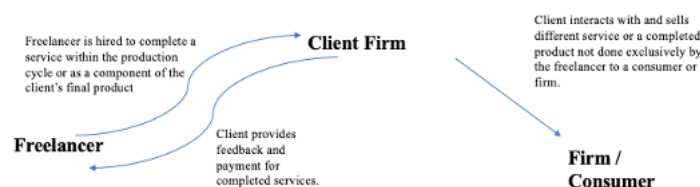
Firm / Consumer

Table 1: Number of Subjects in Each Occupational Category by Worker Type from RAND Sample

	Total Sample	FullTime Freelance	PartTime Freelance	Occasional Freelance	Employee
Management	126	11	2	7	106
Business+Finance	163	17	6	10	130
Computers+Math	79	6	1	5	67
Arch+Engineering	39	3	1	5	30
Sciences Research	28	5	1	2	20
Social Services	64	5	4	5	50
Legal	48	8	0	3	37
Education	222	20	19	20	163
Design+Media+Entertain	62	25	4	7	26
Health Practitioner	103	12	1	10	80
Health Support	128	9	6	6	107
Administrative	176	6	4	15	151
Sales	184	38	3	13	130

Table 2: Weighted Mean for Age and Income for Full RAND Sample and by Worker Type

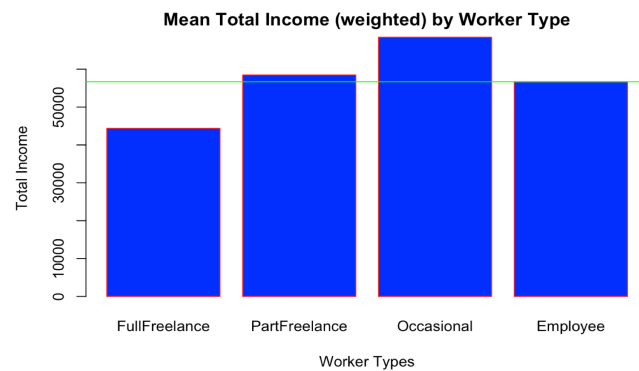|	Number of subjects	Age	Total Income (USD)
Full Sample	1411	43	56414
Full-Time Freelance	163	51	44383
Part-Time Freelance	51	40	58490
Occasional Freelance	107	47	68436
Employee	1090	42	56687

Table 3: Number of Subjects in Each Worker Type Category by Race and Gender in RAND Sample

	Total Sample	FullTime Freelance	PartTime Freelance	Occasional Freelance	Employee
White Male	438	70	11	38	319
White Female	554	70	26	45	454
Hispanic Male	39	6	2	4	27
Hispanic Female	89	4	4	2	79
Black Male	32	1	1	3	27
Black Female	87	4	3	7	73
Asian Male	14	0	2	1	11
Asian Female	25	0	0	0	25
Native American Male	2	0	1	0	1
Native American Female	7	2	0	0	5
Other Male	24	2	1	1	20
Other Female	70	6	1	7	56
Total	1411	163	51	107	1090

Table 4: Number of Subjects in Each Educational Attainment Category by Worker Type from RAND Sample

	TotalSample	FullTimeFreelance	PartTimeFreelance	OccasionalFreelance	Employee
Less than Highschool	11	4	0	2	5
Highschool diploma	107	8	3	6	90
Some college	314	43	5	19	247
Associates Degree	182	14	4	10	154
Bachelors Degree	445	50	18	32	345
Masters Degree	274	30	15	30	199
Professional Degree	49	12	2	5	30
PhD	40	4	5	4	27

FIGURE 3:

Mean Total Income (weighted) by Worker Type

The green line is meant to help compare the yearly total income of full-time employees to the other freelancer categories. The part-time and occasional freelancers have employment within a firm and supplement that income through freelance work, thus it is not a surprise that they earn more than the full-time employees.

Table 5: Comparing Freelancer Type and Worker Traits to Total Income

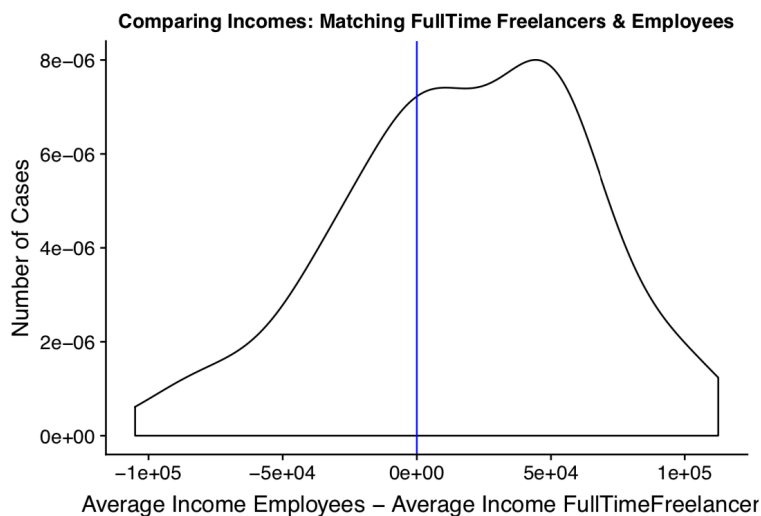|	Dependent variable:	
	Total Income	
	(1)	(2)
Age	398.184***	391.351***
	(66.556)	(68.832)
Female	−15,259.400***	−14,971.060***
	(1,903.709)	(1,971.654)
Race: Black	−5,145.827	−4,544.338
	(3,209.095)	(3,295.786)
Race: Native American	−5,414.959	1,387.207
	(9,332.579)	(9,666.947)
Race: Asian	−6,432.345	−4,125.203
	(4,424.183)	(4,637.626)
Race: Other	−6,269.502	−2,978.412
	(3,224.229)	(3,403.890)
Race: Hispanic	−4,004.307	−2,340.511
	(2,788.381)	(2,908.669)
Less than High School	−31,748.240***	−50,656.950***
	(6,500.232)	(10,203.490)
High School	−23,315.260***	−35,943.790***
	(2,717.433)	(6,184.521)
Some College	−19,461.490***	−32,755.560***
	(2,589.905)	(6,318.605)
Associates Degree	−16,108.340***	−33,409.890***
	(3,102.539)	(9,926.977)
Masters Degree	12,473.690***	1,068.493
	(2,742.022)	(11,652.490)
Professional Degree	32,270.420***	71,533.380*
	(5,274.282)	(31,637.080)
PhD	14,199.410*	−60,799.410*
	(6,099.402)	(28,475.070)
Full-Time Freelancer	−14,809.390***	−15,478.880***
	(3,101.368)	(3,287.913)
Part-Time Freelancer	1,582.797	1,450.501
	(4,677.463)	(4,873.491)
Occasional Freelancer	6,591.427	7,604.723*
	(3,392.078)	(3,482.329)
Management Jobs	25,152.010***	17,805.150*
	(3,684.864)	(7,134.952)
Business or Finance Jobs	23,021.640***	12,250.700*
	(3,373.370)	(6,208.827)
Computers or Math Jobs	27,259.650***	13,044.600
	(4,204.313)	(7,407.130)
Architecture or Engineering Jobs	34,059.650***	20,927.930*
	(5,638.585)	(9,202.184)
Sciences (Research) Jobs	−11,767.770	−10,040.880
	(6,922.482)	(13,474.850)
Social Service Jobs	−4,689.682	−15,845.430
	(5,174.959)	(9,701.406)
Legal Jobs	11,362.540*	−11,272.420
	(5,671.843)	(11,926.630)
Education Jobs	−4,786.135	−20,376.920**
	(3,475.666)	(7,069.514)
Design,Media,Entertainment,Sports Jobs	−2,758.817	−13,710.490
	(5,034.046)	(8,083.921)
Health Practitioner	13,225.350**	−1,831.389
	(4,112.128)	(8,437.915)
Health Support Jobs	−928.533	−7,868.286
	(3,651.805)	(8,349.809)
Administrative Jobs	6,449.391	−12,464.400
	(3,315.881)	(7,296.645)
Constant - white male, BA, sales, employee	49,248.880***	60,018.080***
	(3,933.912)	(5,848.500)
Observations	1,411	1,411
R^2	0.397	0.432
Adjusted R^2	0.385	0.392
Residual Std. Error	30,406.980 (df = 1381)	30,229.270 (df = 1317)
F Statistic	31.403*** (df = 29; 1381)	10.771*** (df = 93; 1317)

Note: *p<0.05; **p<0.01; ***p<0.001

Model 1 does not include interacting terms. Model 2 includes interacting terms between Educational Level and Occupation type. Interacting variables are omitted from this table for readability.

FIGURE 4:

Comparing Incomes: Matching FullTime Freelancers & Employees
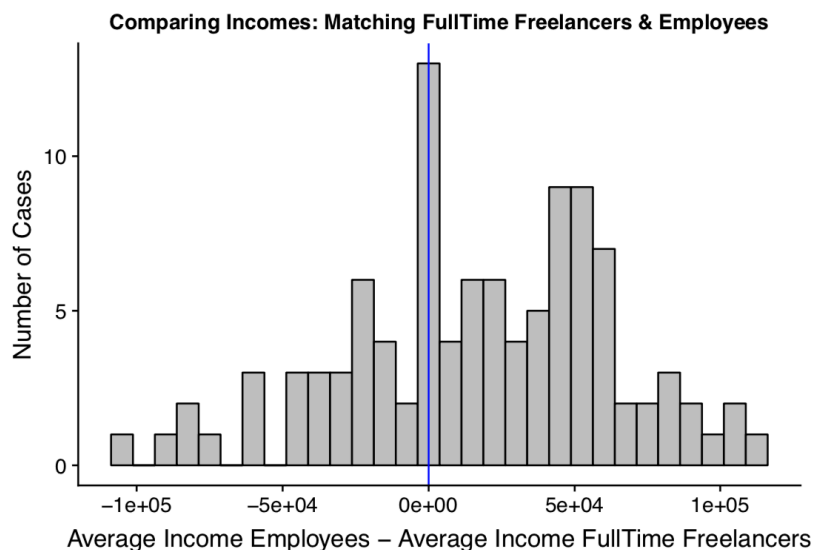
(Could also be presented as a density plot)

Comparing Incomes: Matching FullTime Freelancers & Employees

In this graph, I am comparing the average income of full-time employees who matched with Full-Time freelancers based on gender, a five-year age range, educational attainment, and occupation. I subtracted the average income from the full-time employees to the average of the Full-Time freelancers.

FIGURE 5: K-Means Clustering of All Freelancer Types based on Worker Traits, Occupation, and Total Income.
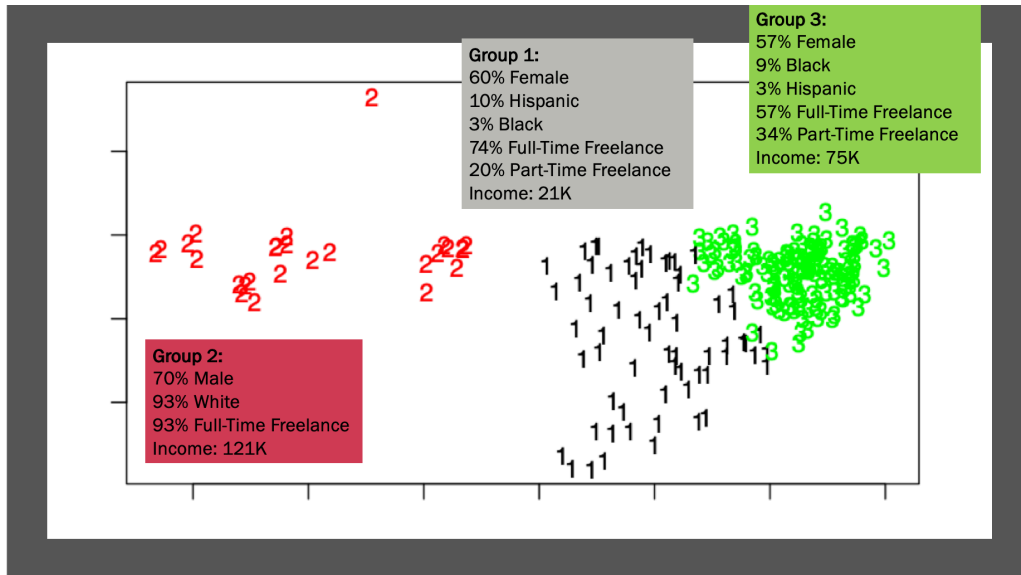
TABLE 6: Descriptions of Worker Traits for Each Cluster of All Freelancers

	Worker Traits	Cluster 1	Cluster 2	Cluster 3
1	Female	0.603	0.296	0.569
2	Age	52.066	58.81	53.692
3	Total Income	21286.33	121110.81	75422.61
4	Freelance Income	11194.35	118981.11	26630.27
5	White	0.779	0.926	0.831
6	Black	0.037	0	0.092
7	Hispanic	0.095	0.037	0.0308
8	Some College	0.265	0.148	0.154
9	Associates	0.096	0.074	0.046
10	BA	0.272	0.481	0.338
11	MA	0.228	0.111	0.246
12	Professional Degree	0.022	0.111	0.123
13	Full-time Freelance	0.743	0.926	0.569
14	Part-time Freelance	0.199	0.074	0.338
15	Occasional Freelance	0.059	0	0.092

Age should be interpreted as Years and Income is in US Dollars. The other results represent the percentage of the cluster reflected in that trait.

APPENDIX
TABLE 7: Occupational Descriptions for Each Cluster of All Freelancers

	Occupation Types	Cluster 1	Cluster 2	Cluster 3
1	Management	0.063	0.053	0.046
2	Business & finance	0.076	0.158	0.138
3	Computers & Math	0.035	0.053	0.031
4	Architecture&Engineering	0.014	0.053	0.015
5	Sciences-Research	0.035	0	0.015
6	Social Services	0.035	0	0.077
7	Legal	0.028	0.053	0.062
8	Education	0.188	0.158	0.185
9	Design+Media+Ent+Sport	0.167	0	0.123
10	Health Practitioner	0.042	0.105	0.092
11	Health Support	0.09	0	0.031
12	Administrative	0.063	0	0.046
13	Sales	0.167	0.368	0.138

The entries in this table represent what percentage of the cluster is represented by each occupational category.

- **FIGURE 6:** WSS Test To Determine The Number of Freelancers Clusters
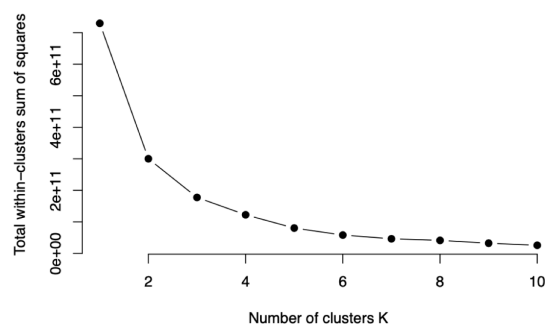
I chose three clusters based on the "elbow test," but tested both 3 and 4 cluster groupings. The clusters formed in 3 were the most distinctive from one another.

FIGURE 7: Robustness Checks for the OLS models for TOTAL INCOME.
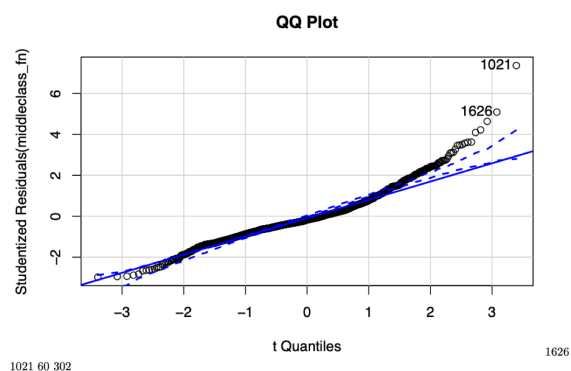
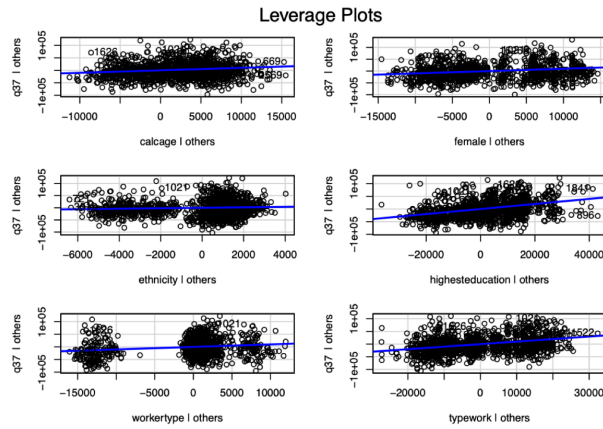

FIGURE 8: Variables in MODEL 1

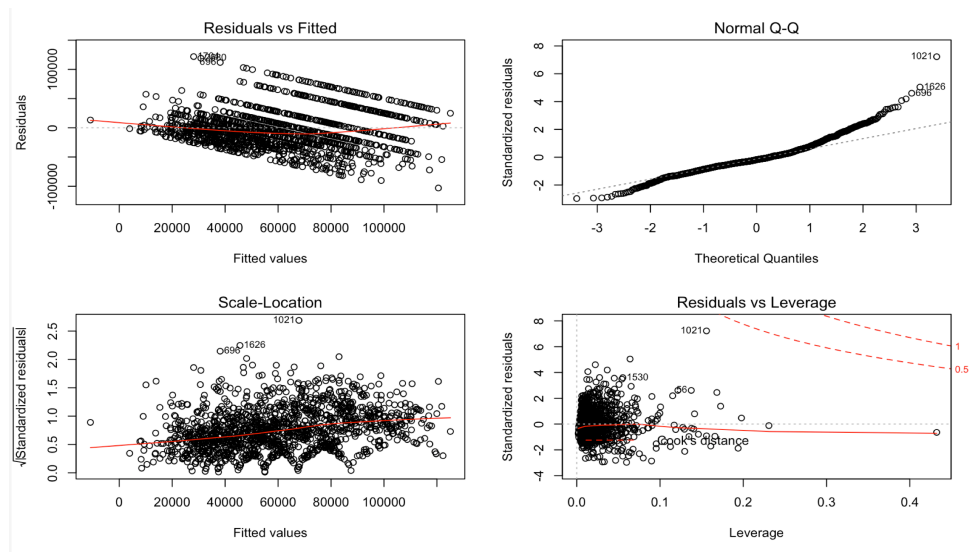FIGURE 9: Homoskedasticity tests for Model 1.

Table 10: Colinearity Testing Using Variance Inflation Factors for Model 1

	Variables	Tolerance	VIF
1	calcage	0.85	1.18
2	female	0.81	1.24
3	ethnicity2	0.94	1.07
4	ethnicity3	0.98	1.02
5	ethnicity4	0.95	1.05
6	ethnicity5	0.90	1.11
7	ethnicity6	0.90	1.12
8	highesteducation<HS	0.94	1.07
9	highesteducationHS	0.80	1.25
10	highesteducation<Col	0.69	1.44
11	highesteducationAssoc	0.76	1.31
12	highesteducationMA	0.67	1.48
13	highesteducationProDeg	0.75	1.33
14	highesteducationPhD	0.82	1.22
15	workertypeFTF	0.86	1.17
16	workertypePTF	0.96	1.04
17	workertypeOF	0.96	1.04
18	typework1	0.62	1.60
19	typework2	0.57	1.77
20	typework3	0.70	1.43
21	typework4	0.82	1.22
22	typework5	0.82	1.22
23	typework6	0.72	1.40
24	typework7	0.70	1.42
25	typework8	0.44	2.29
26	typework9	0.75	1.34
27	typework10	0.61	1.65
28	typework11	0.60	1.65
29	typework12	0.54	1.86