Does the sharing economy increase inequality within the eighty percent?: Findings from a qualitative study of platform providers

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Does the Sharing Economy Increase Inequality Within the Eighty Percent?: Findings from a Qualitative Study of Platform Providers

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Abstract: The sharing economy has generated controversy for its effects on labor conditions, wages and the distributions of income and wealth. In this paper we present evidence for a previously unrecognized effect: increased income inequality among the bottom 80% of the distribution. On the basis of interviews with U.S. providers on three for-profit platforms (Airbnb, RelayRides and TaskRabbit) we find that providers are highly educated and many have well-paying full-time jobs. They use the platforms to augment their incomes. Furthermore, many are engaging in manual labor, including cleaning, moving and other tasks that are traditionally done by workers with low educational attainment, suggesting a crowding-out effect.

Introduction

The sharing economy comprises a diverse set of platforms and organizations, including non-profits such as time banks, food swaps and makerspaces, as well as for-profit platforms that offer income-earning opportunities, such as home and car rental and the

sale of goods and labor (Schor & Fitzmaurice 2015). The for-profits, which are often quite large, have attracted a great deal of popular attention, in part because they have the potential to yield economic benefits by replacing conventional economic activity with new technologies and innovative business models. Proponents argue that technologically-based disruptions will enhance economic efficiency, flexibility and autonomy for providers. Sharing platforms reduce transactions costs for person-to-person exchange, in part by crowdsourcing information from users but also via their sophisticated logistics software (Sundarajan 2016). Some observers have gone so far to predict a "zero marginal cost society," (Rifkin 2014) in which highly productive technologies combine with users to remake economic relations. Investors are also optimistic about the sector, as recent valuations of for-profit companies in this sector have been high. The ride-sourcing platform Uber, which is the largest of all sharing economy companies, was valued at $50 billion in 2015, which at the time made it more valuable than 80% of all companies on the Standard and Poors index (Myers, 2015). Rapid growth in the two largest companies—Uber and Airbnb—also reveals the attractions of these services to consumers, who, we find, appreciate the low costs, convenience and branding of many of the platforms.

However, sharing economy platforms have also become objects of heated controversy around the world. To some extent this because many of them launched with a rhetoric of common-good claims (Schor 2014). Most of the large companies in the sector have taken credit for reducing ecological and carbon footprints, providing opportunity for people who are struggling economically, building social connection, and in the case of Airbnb,

fostering cultural exchange. Airbnb conducts local impact studies to show its positive effects on local communities, looking at both economic and ecological outcomes (http://blog.airbnb.com/economic-impact-airbnb_ and http://blog.airbnb.com/environmental-impacts-of-home-sharing/). Founders, consultants, and many participants argue that the sharing economy is a force for social and ecological good, an alternative to a dysfunctional and inefficient conventional economy (Botsman & Rogers 2010). As the companies grew, observers assessed these claims and found that many of the platforms were coming up short (Schor 2014).

Critics have assailed the sharing economy on a number of fronts. One issue is terminology and whether renting or providing labor services is properly considered sharing. Anthony Kalamar (Kalamar, 2013) has argued that these exchanges crowd out genuine sharing and that for-profit companies are "sharewashing," i.e., using the positive associations of sharing to hide their self-interested activities. Ravenelle (2016) reports that the New York City providers she studied reject the sharing designation, seeing themselves more like workers. A related critique is that selling slivers of one's life (room, car, time, attention) is a commodification of daily life that will undermine genuine social connection and solidarity (Henwood, 2015; Morozov, 2013) .

A second line of argument asserts that the sharing economy is exacerbating neo-liberal economic trends and policies which favor business and undermine the power of labor. Despite its common-good rhetoric, the sector is seen as part of an anti-labor offensive from business which is expanding the *precariat* and a facilitating a larger risk shift onto

workers (Hacker 2006; Standing, 2011). The for-profit platforms are described as super-exploiters of labor, as in Trebor Scholz' evocatively titled *Uberworked and Underpaid* (Scholz, 2016; Slee, 2015; Ravenelle, 2016). This is partly due to their practice of classifying providers as independent contractors rather than employees, which absolves them of responsibility for expenses, benefits and employment security. The sharing economy is seen as an ultra-free market which is resulting in a race to the bottom, or what political economist Robert Reich termed a "share the scraps" economy (Reich, 2015).

While the sharing economy is frequently conceptualized as *sui generis*, it is more useful to consider it within its broader context and ask whether it strengthens or undermines larger economic trends. For example, in recent decades, inequality has increased sharply in many countries. Most attention has been paid to the concentration of income at the very top, including among the 1% (Piketty, 2014). Within the sharing sector, there has been attention to the large fortunes being made by founders and venture capitalists (Schneider, 2014; Schor, 2014), which raises the question of whether the sharing economy is contributing to the increase in extreme inequality. Alternatively, some argue that it is reducing inequality by spreading opportunity and providing incomes to people at the bottom of the distribution (Fraiberg and Sundarajan 2015). However, these debates have had relatively little empirical data to inform them. The platforms have been largely unwilling to share their data, particularly to independent researchers, and much of this activity is not captured in government surveys. As such, it is not possible to give definitive answers to these questions. Furthermore, the debate is not just about current practices, but also what the effects of the sector will be as it grows.

In this paper, we explore a potential impact of the sharing economy, which, to our knowledge, has not yet been raised in the popular press or the academic literature: how sharing economy activity is affecting the distribution of income and opportunity *within* the bottom 80% of the population. To answer this question, we use a sample of 43 providers on three platforms. To anticipate our results, we find that most providers are highly educated, with other sources of income. We also find that they are engaging in activities that have traditionally been blue and pink collar tasks. Our data is collected at the individual level, however, if our findings are generalizable, platform activity is likely exacerbating inequality within the 80%, shifting more income and opportunity to better-off households and providers.

We begin with a short description of our methods and the platforms we are discussing in this paper. We then turn to definitions, because there is considerable confusion about terminology and exactly what the sharing economy is. Next we address the context of rising inequality and the ongoing impacts of the 2008 financial crash. We then discuss findings from interviews with providers on three for-profit platforms—Airbnb, RelayRides (now renamed Turo) and TaskRabbit. We discuss the demographic characteristics of our sample of providers, their earnings, and the content of their work. Then we consider how opportunities on these sites vary between highly educated and low-income/low educational attainment providers.

Methods

The findings we report on in this paper are part of a larger program of research on the sharing economy, which has been funded by the MacArthur Foundation (http://clrn.dmlhub.net/projects/connected-consumption). Since 2011, our research team has studied more than ten sharing economy initiatives, done approximately 275 interviews and conducted hundreds of hours of participant observation. In this paper, we draw on interviews with 43 earners on three platforms (Airbnb, RelayRides and TaskRabbit). Interviews are semi-structured, range from 45-90 minutes and cover a range of topics, including participants' life narratives, how they got involved in the platform, motives, attitudes toward risk, and experiences. Interviews are concentrated among people aged 18-34 because the innovators and early users of the sharing economy come from this age group. Almost all of the interviews were conducted in 2013, however in 2015 we conducted follow-up interviews with 9 TaskRabbit and Airbnb providers.

Recruitment differed slightly by platform. In all three cases, we first eliminated users who were obviously outside our age range. Then we randomly sent communications via the platform. If we inadvertently contacted a person outside the age range, we declined to set up an interview. We also required that the person had done at least five trades to be eligible for the study. On TaskRabbit, we posted the interview as a task, which readily yielded informants. On Airbnb and RelayRides we queried providers via the platform, and once we made contact we let them know we were interested in interviewing them. This method yielded enough informants on RelayRides, but on Airbnb the platform repeatedly deactivated our account when it realized that we were attempting to interview hosts. We then reverted to snowball sampling. We also faced this problem at one point

with TaskRabbit, when they saw our posting and tried to stop us from interviewing. However, they did not de-activate us. To date, these platforms (and others) have not made data available to researchers, which has hampered our ability to study them. (I twice had encouraging conversations with Airbnb to gain access to their data, but both were unsuccessful.)[1]

Overall, our sample consisted of 23 men and 20 women. Thirty-five (or 81%) classified themselves as white, and eight were non-white. Of those we had 3 Latino/as, 4 Asians and 1 Afro-Caribbean man.

Here we offer a brief description of each platform. Airbnb, largest of the three, is a housing exchange that began in San Francisco in 2008. Originally, hosts offered rented rooms in their own homes and apartments, but over time a much wider range of offerings became available, including whole apartments and houses that are unoccupied by owners. The site consists of a set of listings, with photos, descriptions of the lodging, profiles of the hosts and other information. Prices are set by the host. Like almost all peer-to-peer sites, this one offers ratings and comments about the hosts and their lodgings. At the time we conducted our interviews, Airbnb was known for a rhetoric that emphasized cultural exchange, meeting people and the homey-ness of its offerings. It calls itself a community and has been at the forefront of the idea of "sharing" in this sector.

[1] Airbnb's aggressiveness in trying to stop researchers from finding informants on the platform is particularly frustrating, given its size and importance. While there are a few researchers who have been granted access to their data, it is our understanding that they are required to sign agreements that give Airbnb the right to prevent publication of results.

RelayRides, a person-to-person car rental site, was founded in Boston in 2009. As with Airbnb, owners list their cars on the site, with pictures, descriptions of the car and profiles and pictures of themselves. The site also calls itself a community, although its rhetoric is more transactional and functional than Airbnb's. Renters must have their identity verified, and the $1 million insurance policy that RelayRides offers is prominently advertised on their site. Ratings of cars and drivers are also an important part of this site. RelayRides emphasizes convenience, value, selection and risk management. In 2015, RelayRides rebranded itself as Turo as part of an attempt to orient its business toward out-of-town renters.

TaskRabbit is a labor services site that specializes in errands and relatively low skill tasks. It was also founded in Boston in 2008, under a different name (RunMyErrand), which was changed to TaskRabbit in 2010. On this platform, customers hire "Rabbits" to perform tasks such as house cleaning, delivery services, handyman work, computer tasks, pet sitting, moving and assembling furniture. Our interviewees also reported engaging in non-manual tasks such as being a virtual assistant or product tester, or doing translation or online shopping. At the time of our first round of interviews, TaskRabbit used an auction model. "Posters" provided a description of the job they wanted done with a maximum price they were willing to pay for the task. "Rabbits," (hereafter referred to as providers or workers) then bid for the job and the poster opted for his or her preferred provider. All providers are vetted by the company, and have profiles with pictures and descriptions of themselves. In 2014 the platform undertook a radical redesign in which it

eliminated auction pricing and set an hourly wage range for tasks. It also renamed the workers, "Taskers" and shifted from an open format in which clients could post any type of task, to one in which it offers tasks from a pre-set list.

All three platforms derive their revenue by taking a fraction of each completed transaction. The percentage differs across the platforms, and varies with the nature of the exchange, making it difficult to generalize. However, the range is large, from a current high of 35% for some transactions on TaskRabbit to 9-15% on Airbnb, combining both guest and host service fees. At the time of our interviews, all three platforms were growing.

Defining the Sharing Economy: Peer to Peer Platforms

What is popularly termed the sharing economy is a diverse sector. We have previously (Schor & Fitzmaurice, 2015) identified five types of sharing economy sites and activities. The first, which is probably the category most closely associated with the term sharing economy, is sites that increase the utilization of durable assets, via rental or free use. Examples include Airbnb and Couchsurfing. The second category is labor and service exchange sites, such as timebanks, TaskRabbit or Postmates. The third is crowdfunding sites, such as Kickstarter, Gofundme, or Indigogo. The fourth is sites that facilitate the recirculation of goods, including the resale or gifting of used goods, such as Yerdle and Freecycle. A final category is a hybrid which combines both labor and a tangible product, such as etsy, which offers handcrafts and Feastly, a peer-to-peer site on which aspiring chefs sell dinner spots at their homes or pop-up venues.

Given this diversity of activities it is not surprising that there has been a proliferation of terms to describe the sector. These include collaborative consumption, on-demand labor, the gig economy, the peer economy, the access economy, and the platform economy. (For one discussion, see Botsman, 2015.) One terminological issue is controversy about the appropriateness of the term "sharing" (Schor and Attwood-Charles 2017). Critics argue that monetized transactions on platforms such as Airbnb or ride-sourcing apps like Uber are not sharing (Kalamar, 2013; Slee, 2015).

A second issue is that there is little analytic coherence or practical consistency to how these terms are used (Schor, 2014). Amazon's Mechanical Turk, which is a digital labor platform, is very similar to the errands site TaskRabbit except that all work on Mechanical Turk is digital and TaskRabbit includes both online and offline work. However, Mechanical Turk is almost never considered part of the sharing economy and TaskRabbit always is. Uber has never identified itself as belonging to the sharing economy, but Lyft, which provides a nearly identical service, always does. Furthermore, the popular press nearly always classifies Uber as a sharing economy company.

However, there are some ways to differentiate among these labels. Collaborative consumption, the term used by Rachel Botsman (2010), mainly refers to sites that increase the utilization of durable assets. On-demand and gig labor are used for labor services sites. Platform economy is broader, and we use it to denot for-profit companies that use platforms and apps, crowdsource ratings and reputational data, and use digital

technology to organize exchanges. These characteristics, plus two pertaining to labor conditions (flexible schedules and worker-provided tools and assets) have been identified by the U.S. Department of Commerce, which has provided the first governmental definition of the sector, using the terminology of "digital matching firms" (Telles 2016). However, this definition does not include the many non-profit organizations that are typically considered part of the sharing economy, such as food swaps and makerspaces, which may not use matching software. They are part of the sharing economy but are not platforms. For the remainder of this paper, we will use the terms platform economy and sharing economy interchangeably, as we are only discussing sites which do use platforms and apps.

We also reserve the terms sharing economy and platform economy for structures that are organized via person to person, or Peer-to-Peer (P2P) exchange. The term P2P comes from the open source software movement, and refers to open-access communities of collaborating individuals (Benkler, 2006). In the sharing economy, many sites are organized as person to person, with the platform operating as a "middleman" or broker. This is the case for the three platforms that we study in this paper (Airbnb, RelayRides and TaskRabbit). By this definition, Zipcar, which is considered by some to be the first car sharing company, is not part of the sharing economy, because it owns the cars and is therefore considered a Business-to-Peer (B2P) entity. For this discussion, we exclude B2P companies because they are not sufficiently different from conventional businesses. (Zipcar was originally novel because it placed cars within neighborhoods and rented them for shorter time periods than a day. Now it is less so.) Co-working spaces, another B2P

model, are not functionally different from conventional shared office space rental models. We recognize that not all observers of the sharing economy agree with restricting the definition to P2P models, however we have followed this practice to highlight what is different about this sector.

It may be worth addressing the question of whether Airbnb is a P2P or a B2P platform, in view of claims that business entities offering multiple properties are now prevalent on the platform. Tom Slee (2015) did a 2013 analysis of listings in New York City, in which he found that while 87% of hosts have a single listing, the remaining 13% accounted for 40% of listings. (This is a fluctuating number, because the company periodically purges these high volume listers.) We have conducted a more recent study covering late 2015 and the first half of 2016 in which we scraped listings from all U.S. Metropolitan Statistical Areas with populations of at least 500,000, a dataset which includes 319 cities and more than 200,000 listings (Cansoy & Schor, 2016). We find that approximately 40% of all hosts have two or more listings and they comprise 37% of all entire home/apartment listings. However, we a minority of large listers. In our data, 14% have five or more listings and their properties comprise 16% of entire home/apartment lists. For 10+ properties, the figures are 7.5% of listers and 10% of entire home/apt properties. Thus, we conclude that while there is some movement toward turning Airbnb into a B2P platform, it is still largely a P2P site. Among the providers we interviewed, none offered more than one property for rent.

A key difference between the P2P and B2P structures is that for the former, exchange occurs between unknown others, i.e., strangers. Stranger exchange creates issues of incomplete information and, by extension, risk for would-be transactors. In conventional market transactions, brand reputation (in the B2P context) or licensures (for professionals) are used to reduce risk. The technological analog in P2P economies is the crowdsourcing of information from users in the form of ratings and reputational data. This data is believed to enhance the willingness of people to transact by reducing the perceived risk of dealing with strangers. How much ratings and reputational data reduce true risk is as yet an unanswered question. There is a growing literature on the quality of ratings and reputational data in online sites which suggests that current systems overstate quality (Overgoor, Wulczyn, & Potts, 2012). This is true of Airbnb, according to a recent study (Zervas, Proserpio, & Byers, 2015). In general, we believe that users are likely overstating the accuracy of the ratings and reputational data on these sites. However, because there seem to be relatively few malfeasants on platforms at this time, that overstatement may not be recognized. The data may also be better at revealing certain kinds of risk (eg., poor quality) than others (eg., safety concerns).

While there has been considerable debate about the sharing economy in the popular press, there are relatively few published academic articles about this sector. As noted above there are a number of studies on the quality of ratings and reputational data. There are papers on the motives and experiences of users, including Airbnb users (Ikkala & Lampinen, 2015; Lampinen & Cheshire, 2016; Lampinen, Huotari, & Cheshire, 2015; Möhlmann, 2015). There are a few unpublished studies of racial discrimination on

Airbnb (Cansoy & Schor, 2016; B. G. Edelman, Luca, & Svirsky, 2016; B. Edelman & Luca, 2014). Cansoy & Schor (2016) also look at educational attainment and find that Airbnb hosts are very highly educated. There are also studies of other kinds of market structures, such as B2P and non-profits which consider a range of questions (Schor et al, 2016; Albinsson & Yasanthi Perera, 2012; Bardhi & Eckhardt, 2012; Bellotti et al., 2015; Dubois, Schor, & Carfagna, 2014). A number of studies have involved platforms that do not use money, such as Couchsurfing and HomeExchange (Forno, Garibaldi, Scandella, & Polini, 2013; Parigi, State, Dakhlallah, Corten, & Cook, 2013; Parigi & State, 2014). Uber and Airbnb have funded their own studies (Hall & Krueger, 2015) but they have not made their data available to independent researchers.

Economic trends and the platforms

A general question about the sector is whether it is exacerbating or countering ongoing economic trends. In the U.S. case, answering that question requires attention to two factors: the 2008 financial crisis and subsequent recession, and the trend toward extreme inequality. Airbnb and Uber were founded in 2008 and 2009 respectively, and it is widely believed that their success is due in part to the high unemployment, indebtedness and difficult economic situation that young people found themselves in at that time. The 2009 recession was severe, rivaled in the 20th century only by the 1930s Depression. In the U.S., GDP dropped more than 3%, measured unemployment rose to a high of 9.6%, and the employment to population ratio fell to 54%, a drop from which it has largely not yet recovered (Council of Economic Advisors, 2016). Youth, who have been the innovators and first wave of users of these platforms, were especially hard hit, by a combination of

high unemployment and rising levels of education debt. Overall, youth unemployment (defined as under age 25) after the crash rose to 19.1%. High school graduates were the worst hit, but even among college graduates, the 9.9% unemployment rate was far above previous experience (Davis, Kimball, & Gould, 2015). Elevated levels of unemployment and underemployment have persisted, even through the economic recovery. Among our respondents, we found quite a few who were under- or unemployed. We also found people were active on platforms in order to reduce their education-related debt.

Recent studies support the idea of a *precariat*, a term introduced originally by Guy Standing (Standing, 2011). In the U.S. labor market, participants are increasingly likely to lack full-time employment and to be classified as independent contractors, or 1099 employees (a reference to the tax form that independent contractors are required to file). In the platform economy, most providers are classified as independent contractors. A 2016 study of the rise of alternative work arrangements (Katz & Krueger, 2016) found that between 2005 and 2015, the fraction of the labor force in non-standard work rose from 10.1% to 15.8% and that non-standard work accounted for the entire net gain in employment over this period. Online intermediaries such as Uber and TaskRabbit accounted for 0.5% of employment in 2015. A qualitative study of 1099 platform workers in New York City (Ravenelle, 2016) supports the idea that they labor under precarious conditions.

The second development is the growth of extreme inequality of wealth and income (Piketty, 2014; Piketty & Saez, 2014; Saez & Zucman, 2015). While social scientists

have been writing about the growth of inequality for decades, the Occupy Wall Street movement at the end of 2011 galvanized popular and political attention to the growing mal-distribution of income and wealth in the U.S. and elsewhere. Occupy's focus was on the concentration of wealth at the very top. However, since the 1970s, the share of the top 20% has risen, at the expense of the bottom 80% (Mishel & Bivens, 2015).

Our research suggests that the growth of platforms since 2008 is contributing to an intensification of the trend toward inequality, both as it relates to the 1-99% split and to shifts within the broad middle class and working classes. The former effect is already widely recognized. Platform owners and their investors are appropriating large amounts of value from users on both sides of the market. The co-founders of Airbnb became billionaires in 2015 (Konrad & Mac, 2015) and Uber's founder is also likely to be in that exclusive group (Bertoni, 2014). Within the sharing community, the appropriation of wealth by founders and venture capitalists has become a controversial issue (Schneider, 2014; Schor, 2014).

The second effect, of increased inequality within the bottom 80%, has not yet been identified in the literature. On the basis of our research, we believe that platforms are increasing the incomes of the upper portion of the bottom 80% of the income distribution in two ways. The first is that well-off and highly educated providers are using the platforms to increase their earnings. The second is that this group is doing work that is traditionally done by people of low educational status. White collar providers are engaging in blue and pink collar manual labor, in a "crowding-out" effect. In 2014, the

top income at the top of the fourth quintile (80%) was $112,262 (http://www.taxpolicycenter.org/statistics/household-income-quintiles). We have only two providers in our sample who earned more than that in the year before we interviewed them. Only one averaged above that level in the previous five years. Therefore, we believe that the fourth quintile is the group within which we are seeing this inequality-enhancing effect.

We use the term "believe" to describe our finding because this is not a question that can be settled with qualitative data. Furthermore, it would be difficult to show this effect with quantitative data at the moment because the sector is so small. However, our findings point strongly in the direction of an "inequality-enhancement" effect. We turn now to discuss them.

Earning on the Platforms

"It's, like, almost too good to be true"—Shira, Airbnb host

As noted above, the sites we are studying emerged after the 2008-2009 economic collapse, and they became a desirable option for people who lost jobs or income in the crash, as well as for recent college graduates who could not break into the job market. Aiden was a graduate with a 3.8 GPA who found himself unable to find a job after college. He turned to TaskRabbit hoping to earn some skills, make contacts and get a foot in the labor market. Other TaskRabbit providers were also recent college graduates who were unable to find steady employment, and were piecing together different types of

work. A number of these graduates came from prestigious liberal arts colleges in New England, with experience and degrees that would have yielded full-time employment in most years. We also interviewed a number of people who had lost jobs or hours of work during the crash and turned to the platforms to earn money. With a few exceptions, they all had at least college degrees, and some had advanced degrees such as Master's or law degrees. On TaskRabbit, we found highly trained and accomplished people who had lost jobs in the technology sector, including one software engineer who had previously been making $200,000 a year. Another TaskRabbit provider was formerly in publishing. Airbnb and RelayRides had fewer unemployed providers, however, one unemployed former corporate manager was managing a friend's apartment as an Airbnb rental and taking a cut of the earnings, in addition to being active on other sites. One of the unemployed software engineers we interviewed explained: "…the economy's just really tough right now…TaskRabbit adds a little liquidity in an otherwise very thick situation." A number of the people who were active on RelayRides were also using the platform to pay for rent and basic needs. These included a recent college graduate who hadn't found a decent-paying job and an underemployed musician who typically had little work over the summer. Although RelayRides was the least lucrative of the platforms and the earnings were low, these providers found the extra money to be essential.

For some of our respondents, student debt was the spur to activity on the platforms, particularly Airbnb hosting. A number of the younger hosts we interviewed used their platform earnings to reduce debts. One couple, who had earned $11,000 on Airbnb, used the money to pay off the husband's college loans. Another, who also rented out a room in

their apartment, was using the money for the same purpose, preferring Airbnb hosting to getting a permanent roommate.

However, unemployment or precarity was not the motive for most of our sample. The majority of the providers we spoke with were doing well economically, and for them, the appeal was to earn money to add to their full-time incomes. While we did have respondents whose incomes left them barely able to meet basic expenses such as rent and food, others earned more than $100,000 a year. Among our sample we have a lawyer, a political operative, management consultants, technology professionals, medical researchers, teachers, an accountant, a college teacher, and a sales representative, and other professionals. Many of the high earners were on the platforms because they saw a new way to earn money, although there was also a group of high earners on Airbnb who reported doing it because they enjoyed the sociability. Respondents often described this economic opportunity as something novel, unlike other activities they are involved in. This is one reason we think the platforms are resulting in increased inequality: they are adding to the incomes of high earners rather than just substituting for prior kinds of off-platform earnings. Participants also did not typically discuss other ways they earn money outside of their jobs. The platforms, especially Airbnb, have emerged as an easy new way to earn, using assets that people already possess.

In terms of working hours, we cannot say with certainty how the platforms are changing the overall distribution. Because most platform providers already have full-time work, we think it most likely platform activity is intensifying a longstanding trend toward a more

bi-modal distribution of hours, in which a declining majority has rising hours and an growing minority is underemployed (Schor 1992). For example, one TaskRabbit provider explained that she liked the work because it gave her something to do outside her regular full-time job, thereby allowing her to be "productive" with her time. However, because the platforms also offer opportunities to the unemployed and the under-employed, they also have an opposite, equalizing effect on hours.

There is also the issue of the kind of work that is being done, which in the TaskRabbit case often involved high status professionals doing low status work. Six of the nineteen TaskRabbit providers we interviewed were people with full-time jobs or their own businesses who were using the platform to supplement their incomes. About half were in lucrative professions (lawyer, biotech scientist, accountant). Another five had part-time jobs and added TaskRabbit into the mix. Six reported no other type of employment, although for most of them TaskRabbit seemed to be transitional—one person was between jobs, another had lost a job as a software designer. Of the six who were working on the platform full-time only one seemed to be trying to build a career there. The woman discussed above, who wanted to be "productive," was an MIT graduate working in the life sciences who cleaned houses on the platform.

Of the three platforms, Airbnb offers the highest earnings, by a wide margin. We asked providers to estimate their total earnings since they began activity on the platform. Median Airbnb earnings were $9,000, mean earnings were $11,264. In our sample we have two individuals who had earned more than $30,000 on the platform—by renting out

a single property. Shira, a single young woman whose family has gotten into the Airbnb business, reported that she was expecting to earn $30,000 just in the year we interviewed her. She explained that renting whole apartments on Airbnb yielded between three and four times the income of ordinary renting. Indeed, the site had been so lucrative for her family that she was a bit suspicious: "Something's going to happen, I know that. Because it's, like, almost too good to be true." Other Airbnb hosts who vacated their own homes to rent them were also able to earn significant sums. One management consultant reported charging about $350 a night for his centrally located luxury apartment, and had already earned $34,000.

On RelayRides, earnings were much lower, with mean and median earnings at $600 and $643 respectively. Only two owners reported more than $1000 in total revenue. Economically, this group was probably the most diverse, as it included some people with near-poverty incomes and others with $100,000+ a year salaries. Not surprisingly, their attitudes and specific economic motives varied. For a number of them, having their cars sit unused is an irritation, because they have monthly bills associated with the vehicles. For others, the site made it financially viable to buy the vehicle. Another group was just pleased to be able to pay off their car loans or expenses with this incremental income stream. As noted above, we also had a few who were just scraping by financially.

Among the TaskRabbits, median earnings were $2500, and mean earnings were $6819. This was also a diverse group in terms of their situations and how they used the platform. In 2013, the company estimated that 10% of providers were using the platform for full-

time work (Newton, 2013). As noted, our rate was considerably higher than that. For some, the flexibility provided by the platform was the biggest draw, as they were either starting businesses or had family obligations. Some were highly enterprising types, who preferred not to spend their free time unproductively. Overall, the hourly wages on this platform compared favorably to other market opportunities. We found that even people who only had commonly available skills (such as cleaning, driving, putting together Ikea furniture, or doing product testing) were able to make at least twice the minimum wage, and many were able to get a wage of $20-25 per hour or more. However, few had worked enough hours to make significant sums—only two reported total earnings of $10,000 or more, and most had earned less than $5,000. We also found that a number of providers were using the platform entrepreneurially. One man began getting transcription jobs and outsourced them at lower wages to people off the platform. (However, in a follow-up interview two years later he reported that he had gotten intro trouble by taking on more jobs than he could handle and was no longer active on the platform.) A few had started online businesses, as personal assistants and digital workers. However, as we note in the next section, much of the work on TaskRabbit was manual labor.

We asked providers how their earnings on the platforms compared to their full-time jobs (or if they did not have a full-time job, at other relevant paid employment). On Airbnb, nearly 60% reported earning more on the platform, about a third earned less, and fewer than 10% reported earning the same. On RelayRides, only 30% earned more and 60% earned less. On TaskRabbit, only 20% earned more on the platform, nearly half earned less, and a third earned the same.

To summarize, we find that most providers on the platform are highly educated. A large majority are supplementing their incomes with platform activity, thereby boosting their incomes relative to non-participants. The platforms appear to be a new source of income that are not replacing prior supplemental earnings. Among the TaskRabbit providers, some are highly educated unemployed or under-employed who would probably have been earning less if the platforms had not been available.

Blue and Pink Collar work for White Collar Providers

"It's manual labor in person."—Jed, TaskRabbit

The second way in which platform labor is inequality-enhancing is that highly educated, white collar providers are doing manual work that has traditionally been done by people without college degrees. We also find that most of these providers are racially "white" and Native-born, in contrast to the people of color and immigrants who disproportionately do this manual work in the conventional economy. We begin with the educational credentials of our sample and then move on to discuss the kinds of work they are doing on the platforms.

Among our 43 providers the lowest education level is "some college." Only four are in this category, and they are all on TaskRabbit. For three of the four this reflects not a final educational level, but the fact that they are currently either in college or doing college courses to complete their educations. The fourth person is a software developer who did

not complete college but founded a company and has significant technical training. Twenty-two of our informants have a college degree, sixteen have an MA degree and one has a *Juris Doctor* (J.D.), a law degree. Overall, this is a highly educated group. They are also from highly educated families. Only three come from homes where neither parent has a college degree. Sixteen have at least one parent with a degree beyond the BA/BS, that is, either a Masters or an MD/JD/PhD. Five have two parents with Bachelors Degrees and seven come from parentage with two advanced degrees. In terms of the social class they identify with, six called themselves upper middle class, seventeen said they were middle class and ten said lower middle class. Nearly all the providers who reported being lower middle class were TaskRabbit providers. The high levels of education we found in our TaskRabbit sample are typical of that platform nationally. In 2013, the company reported that 70% of their workforce held a Bachelor's degree, 20% had a Master's Degree and 5% had a Ph.D. (Newton, 2013). Among the 19 TaskRabbit providers that we interviewed, 7 had completed Bachelor's degrees and 5 had graduate degrees. Four had "some college," as noted above.

It is worth noting that our sample and some of our findings differ from those of Ravenelle (2016), who, in 2015, interviewed 87 providers on four platforms (Airbnb, TaskRabbit, Kitchensurfing and Uber). Ravenelle's sample is considerably less educated (42% college graduates) and less white (58.5%) than ours. As we discuss below, she has some divergent findings, for example on the extent to which providers feel that the work is stigmatizing. We believe there are three reasons for the differences. One is the difference in platforms: drivers and cooks are less likely to be college educated than providers on

the first two platforms. The second is that Boston has a more favorable labor market than New York City. And finally, the fact that Ravenelle did her research two years after ours is also likely relevant, a topic we return to below.

Turning to the kinds of work providers are doing, we find that a good deal of it is low-skilled and blue and pink collar. On Airbnb, there is a mix of tasks involved in hosting. There is the labor of making the initial arrangements and afterwards the generally more time consuming task of cleaning the rooms and apartments and making them ready for the next guests. In hotels and motels that work is done by desk clerks and chambermaids. Few of our Airbnb providers mentioned using cleaning services or domestic laborers to do the room preparation work. Quite a few discussed doing it themselves, explaining how they handle the cleaning. This was even the case for some of the hosts with degrees from Ivy League or prestigious schools, who had high paying professional jobs. On RelayRides, the work involved is minimal, mainly the handoff of the keys (when that is done in person), keeping the car clean and parking and servicing the car.

On TaskRabbit we see a fuller range of types of labor. While some providers were engaged in white collar or online labor, much of it was low skill. One person discussed a task where she was asked to find a type of sunglasses for a certain price. App testing is a frequent task. Beth, who has an MA, said that often her tasks were "mindless work." Some providers were hired as staff at "events," working registration desks or dressing up in costume.

However, the more commonly discussed tasks were what Jed described as "manual labor in person." Common examples include housecleaning, driving, moving, putting together Ikea furniture, and office organizing. Valeria, an immigrant and a student who does a lot of cleaning on the platform explained that doing this kind of work has been a challenge. "TaskRabbit has also been a journey to learn new skills, to develop new things that were not there before I started…In the beginning I sucked at cleaning. I sucked. People were leaving bad reviews, like, "Oh, she's okay. She's not awesome." Because back at home I didn't even make my bed, you know? There was a cleaning person in my home."

Drake, a former software engineer who lost his job found himself doing a variety of manual jobs. He did handyman work, snow shoveling and food delivery. He even discussed scrubbing toilets. He described the work as "backbreaking." The range of tasks he has been involved in also suggest a "servant economy," in which highly privileged people use platforms to save themselves the trouble of doing simple things, like picking up food or drinks. Drake discussed tasks where he would pick up supplies for students' parties. Others talked about being asked to buy groceries or make other kinds of deliveries, sit for pets, put cheap furniture together, act as personal assistants and help people with parties. Moving is a popular activity that some of the men do a lot of.

Cleaning is the modal activity for our TaskRabbit providers, especially for the women. Some of the most professionally successful women in our sample do a great deal of cleaning. For Kate, who had a stable job as an administrator at a prestigious local university, one task turned into a long term cleaning arrangement. Rachel, who was on

the platform full-time, did a lot of cleaning, including some residences which were very filthy. The lawyer in our sample mostly does cleaning. Overall, we find that blue and pink collar labor, similar to what domestics and servants do for wealthy patrons, comprises a large portion of activities on these platforms. That this work is being done by highly educated professionals represents a departure from the recent past.

Although our sample is too small to make claims about sub-groups, it may be worth raising the question of gender. While one might have expected that the emergence of a new institutional setting attracting highly educated young people would yield a less gendered distribution of tasks, we find that the platform economy is not radically different from the conventional labor market. Women are more likely to be doing cleaning. Handyman work is male. On RelayRides, an automotive site, respondents are three-quarters male. For other, less gendered types of work, such as lodging services, we find a gender mix. While we do not include these interviews in this paper, our sample of Uber and Lyft drivers is also largely male. However, we do also see some erosion of gender segregation. We had reports of women on TaskRabbit who were putting together Ikea furniture. And on the ridesourcing apps such as Uber and Lyft, while the labor force is predominantly male, it seems to be less so than conventional taxi drivers.

How does the movement of white collar workers into manual labor affect the distribution of income? The first effect we have already discussed: by disproportionately providing earning opportunities for people who are already well-educated and relatively well-off, platforms increase inequality. The second pathway is via reduced demand for the services

of non-platform businesses, a crowding out or substitution effect. If Airbnb reduces demand for hotels that employ low-wage workers as maids, food service and other other manual workers, income will shift from those workers toward the higher-income platform providers. The same is true of car rental companies who employ clerks and cleaners. If people turn to TaskRabbit to have their homes cleaned it may reduce the demand for immigrant cleaners and others who have been in this market. One issue is whether consumers prefer to contract with platforms that do background checks and provide highly educated service workers more like themselves. Of course, it is possible the platforms are increasing demand overall, which would mitigate the size of this labor substitution effect. One factor which will affect the extent to which the platforms increase, rather than substitute for demand, is their relative prices. Airbnb has made travel less expensive and is likely to be increasing demand overall. TaskRabbit's 2014 price increase suggests it is less likely to expand total demand significantly.

De-stigmatizing, but up to a point.

"I don't feel like I'm demeaning myself…It's fine."—Veronica, TaskRabbit

The movement of high status people into low status work begs an explanation. Why are our providers willing to do tasks that would traditionally be considered demeaning or degrading for people with their levels of education and accomplishments? A key part of the answer is that the platforms have been able to de-stigmatize the types of tasks and work they organize people to do. What we have found is that technological novelty, the

branding of the platforms and the demographic composition of early adopters are important parts of how that de-stigmatization has occurred.

From the beginning, the platforms presented themselves as technologically advanced, a new, cool thing. That made them feel upscale rather than down-scale. Furthermore, the platforms prominently espoused a common good rhetoric that emphasized doing something beneficial for society—sharing—rather than just making money (Schor, 2014). Quite a few of our participants explained their motives in these common good terms, especially on Airbnb, but also on the other two platforms. They were doing something green, building social connection, helping others, or fostering cultural interchange. Even our most money-oriented providers usually appreciated some common good aspect of the platform, and quite a few disavowed their interest in making money. (Most were credible in that disavowal, a few not.) This discourse has played an important role in de-stigmatization, perhaps because people are willing to do a wider variety of work in the service of an ideal than they are just for money. Finally, the demographics of users contributed to de-stimatization. Early users were white, young and highly educated, on both sides of the market. That said, there were moments in our interviews when the low-status nature of the labor or the inequality of relations with the customers arose. Katy, who worked on TaskRabbit after graduating from law school explained:

> That was very, very humbling. That was actually the one thing that would bother me sometimes doing TaskRabbit. So I put in my profile that I went to law school and everything, because, like, you know, I wanted to look more credible. But, you know, people sometimes that would hire me to come over and clean, would

> almost make comments almost pitying me for having to clean their apartment, having gone to law school, and I hated that....they would be, like, "Oh, it sucks you have to do this." Like, "Yes, I know it sucks. You don't have to remind me."

For Veronica, who had an MA in a science field, as well as a full-time job, the work was mostly okay. "It doesn't make me feed bad…I don't feel like I'm demeaning myself…It's fine. I try to pick stuff that's like normal to do." However, she notes that she draws the line at some tasks: "I saw one that was 'get me a latte from Starbucks and I'll pay you $8'…Like no, get off your butt and get it yourself. Because that's lazy... I don't want to be, like a servant." The sentiments of these providers are more in line with what Ravenelle (2016) reports, as she argues that some of her informants are embarrassed about the work they are doing and hide their participation. None of our respondents expressed that concern.

Can low-income providers prosper on the platforms?

"It takes money to make money" —Kiran, Airbnb host

While the platforms themselves argue that they have operated as a cushion in bad economic times and are helping to spread wealth, the story is more complicated. One issue is whether low-income, less-educated people will be able to prosper on these platforms. To date, there is little research to address this question. However, one unpublished paper by economists Fraiberger and Sundarajan (2015) is worth discussing, especially as Sundarajan has been a prominent voice in the debate about the sharing economy. The paper argues that platforms will help the poor more than other groups. The

authors use a simulation technique calibrated with data from Getaround (a RelayRides-type platform) and conventional economic assumptions to predict that below-median income users will benefit disproportionately, via both the opportunity to rent out vehicles and lower cost rides. Their method does not study actual outcomes, but simulations. Our qualitative analysis leads us to be skeptical of their assumptions and conclusions, as we believe they have missed important aspects of this market, namely the ways in which it is difficult for low-income people to benefit from these platforms.

On RelayRides, we find that relatively few low-income car owners are participating and the few who are have high educational attainment. Their cars are old, as is common among low-income car owners. This means their daily rental rates are low, so they don't earn much. In addition, unlike many low-income people, our providers live in middle class neighborhoods. Location is important in this market—cars which are sited in low income or poor neighborhoods are likely to receive fewer requests because consumers are more wary of those locations. Unlike with ridesourcing, where drivers are not confined to the areas around their own residences, with peer-to-peer car rentals, the cars are parked near the owners' homes.

Similarly, with Airbnb, earning requires coming to the market with valuable assets. As noted above, some hosts are earning $20,000-35,000 a year from a single property. But achieving that level of revenue requires either owning a nice home or apartment or having enough earning power to obtain expensive leases. It also requires access to alternative living quarters while their places are rented. On TaskRabbit some of the most

successful earners were those with highly valued skills, such as the person who started the translation business.

The experiences of our unemployed providers also makes us skeptical of the claim that low-income people will benefit disproportionately. For them, especially the few who are not recent college graduates, attempting to make a living on the platform is very difficult. As one TaskRabbit, an older man who lost his job explained: "I mean like there are many times that you do this and you think, I'd be way better off working at McDonalds because I'd make the same amount of money and I'd have free fries…Working for TaskRabbit is just a fantastic way to always stay at the poverty level, right? But at least you can pay your phone bill and you can buy some food and the landlord isn't upset with you." In our 2015 interviews with TaskRabbit providers they report more frustration with the platform, and feel the company is more concerned with customer than worker satisfaction. Overall, we are skeptical of the idea that the sharing economy will disproportionately aid economically and educationally disadvantaged providers.

Conclusion

While the sharing economy has raised many questions, this paper highlights one effect that has not yet been identified: how participation in for-profit sharing platforms may be influencing the distribution of opportunity and income within the bottom 80% of the population. We find that sharing economy participants are highly educated, often professionals, and that they are using the platforms to increase their earnings. We believe that their activity is crowding out, at least to some extent, less advantaged, lower

educational attainment workers who have traditionally done much of manual work that more privileged sharing providers are now doing. In one sense this is not surprising. At times when employment and income are scarce, standard economic reasoning expects a cascade effect in labor markets, as more educated people take jobs and opportunities that they would not accept in better times. We believe the common-good discourse of the sharing economy reduced cultural barriers that might impede this downward slide, and lengthened the status distance that middle class whites have been willing to travel for opportunity. Indeed, as we argue, platform providers are now doing some of the least desirable urban work—cleaning and moving.

Overall, the providers we interviewed expressed strong feelings of satisfaction. However, whether this attitude will endure is an important question. It is possible that conditions are changing as the platforms expand and attract a less educated and more exploitable group of providers. Ravenelle (2016), who did her research two years after ours, paints a far more pessimistic picture. How much this is attributable to the aforementioned growth, the harsher economic environment of New York City, the difference in platforms she studied, or the demographic differences between her sample and ours, we cannot presently determine. However, a comparison of her results with ours also suggests an important insight which has not been sufficiently recognized in the literature: the sharing economy cannot be separated from the labor market context in which it operates. While most discussion of the sector has considered it in isolation, platforms' ability to attract providers will depend significantly on alternative labor market opportunities. Many platforms launched during the period when financial collapse and recession dominated

local labor markets, which undoubtedly increased their available labor pool. Should labor markets continue to tighten, they may have to improve earnings and terms of contracts to assure a robust provider base.

Of course, should platforms significantly displace legacy businesses, they will have more influence over the labor markets in which they operate. It is impossible to predict how successful platforms will be and in which sectors. Many aspects of their technology can be (and are being) adopted by legacy businesses, including the convenient payment systems. However, as a counterpoint to observers who think this model will eliminate conventional employment (Sundarajan 2016), it is worth remembering that the most successful platform (Uber) entered a highly regulated, dysfunctional industry with huge economic rents. Labor platforms have been much less successful, with many going defunct or (as with TaskRabbit) repeatedly changing their business model.

In the controversies about the sharing economy, most discussions of inequality, power and adverse outcomes have focused on the creation of sharing economy billionaires, the exploitation of labor, regulation and taxation, and ecological and social impacts. Our findings suggest that there is another important issue to study: how a relatively more privileged middle class has used this technological innovation to expand opportunities for itself. Occasionally, this issue has been raised under the guise of "access," and concern about the relative whiteness and affluence of the user base (Schor 2014). However, the ways in which "accessing" the platforms is affecting larger trends in income distribution,

employment and work has not yet been recognized. We hope this paper begins that conversation.

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