Getting Gig Workers to Do More by Doing Good:

Field Experimental Evidence from Online Platform Labor Marketplaces

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This paper describes two randomized field experiments designed to examine the effect of employer charitable giving on a stakeholder and a source of human capital that is becoming increasingly important to firms: the contingent or "gig" worker. The experiments, implemented on two online labor market platforms, suggest that a message about the employer's charitable giving increases gig workers' willingness to complete extra work. I also explore heterogeneity in gig workers' response to the charitable giving and find that prosocially-oriented gig workers are most responsive. This paper provides insight into gig workers' nonpecuniary motivation, explores heterogeneity in this type of workers' responsiveness to employers' charitable giving activities, and illustrates how online platform labor markets can be used as a setting to implement field experiments examining effects of employer-level characteristics on gig worker behavior.

Introduction

The importance of human capital to organizational success has been well-established (Campbell, Ganco, Franco, & Agarwal, 2012; Coff, 1997; Huselid, Jackson, & Schuler, 1997; Koch & McGrath, 1996). One source of human capital that is becoming increasingly prevalent in organizations, yet whose motivation has been under-examined, is the contingent or "gig" worker. A 2016 Deloitte study indicated that 42 percent of executives anticipate an increase in the use of contingent workers in the next three to five years. A 2013 Accenture study predicted that future competitive advantage will hinge on "workers who aren't employees at all."[1] The emergence of the "gig" and "sharing" economies (Sundararajan, 2016) that enable companies to access "talent in the cloud" has contributed significantly to the prevalence of this type of worker in both smaller, entrepreneurial organizations as well as larger, established organizations (Kokkodis & Ipeirotis, 2016).[2] Yet, there are few studies examining how employer-level characteristics influence the motivation of these non-traditional workers (Martins, Gilson, & Maynard, 2004), whose work experience has been noted to be fundamentally different from those of traditional in-house employees (Bartel, Wrzesniewski, & Wiesenfeld, 2012; Chesbrough & Teece, 1998; Gibson & Cohen, 2003; Kirkman, Rosen, Tesluk, & Gibson, 2004; Wiesenfeld, Raghuram, & Garud, 2001).[3]

One employer-level characteristic whose influence on traditional employee behavior has been explored in recent years is a firm's charitable giving (Bode & Singh, 2017; Bode, Singh, & Rogan, 2015; Burbano, 2016). Though proximity to and participation in charitable activities have been shown to drive the effects of this employer-level characteristic on traditional employee behavior (Bode et al., 2015; Kim, Lee, Lee, & Kim, 2010; Brockner, Senior, & Welch, 2014), making it theoretically unclear whether gig workers will in practice be motivated by employer

charitable giving, gig workers have been shown to respond to employer social responsibility more broadly in the form of willingness to accept lower wages (Burbano, 2016).

To study a causal effect of an employer's charitable giving on an important type of gig workers' performance or effort, their willingness to go beyond what is required in their job contract, I implement field experiments (List, 2009) on two multi-sided online labor platforms (Hagiu & Wright, 2015).[4] The settings, Elance (which merged with ODesk and has been rebranded as Upwork since the time of the study) and Amazon Mechanical Turk are both online platform labor marketplaces that connect workers with employers' short-term jobs online. Elance is a particularly relevant gig labor marketplace. It is commonly cited as one of the gig economy platforms that will reshape the nature of companies' workforces, as the freelance economy continues to grow and increasingly relies on online resources to connect to employers (Malone and Laubacher, 1998).[5] These are thus prime settings in which to study gig workers' response to employer-level characteristics such as charitable giving. This paper responds to a call for the increased use of field experiments in strategy-related research (Chatterji, Findley, Jensen, Meier, & Nielson, 2016), as well as in research related to sustainable development and social responsibility in organizations (Delmas & Aragon-Correa, 2016; Zollo, Cennamo, & Neumann, 2013).

After hiring gig workers for short-term jobs on these online labor platforms, I randomly assigned whether they received information about their employer's charitable giving, and then observed the effect of this charitable giving message on a type of on-the-job performance: their willingness to complete extra work unrequired for payment. I found that receiving information about their employer's charitable giving caused gig workers to complete a statistically significant higher quantity and quality of extra work unrequired for payment in the AMT setting. In the Elance

setting, main effects were directionally consistent (but only statistically significant with the inclusion of control variables). I found that prosocially-oriented gig workers were most responsive to the charitable giving message in the Elance setting, with similar, but only marginally statistically significant, effects in the AMT setting. I begin to explore the mechanism driving the effects and find suggestive evidence of a "feel good" mechanism. The fact that the results were less consistent across the two experiments than originally expected highlights the importance of seeking to replicate studies in multiple field experimental settings whenever possible (Chatterji et al., 2016).

By examining the response of gig workers to an employer-level input, this paper contributes to the nascent strategic human capital literature examining the motivation and strategic management of non-traditional workers for organizational effectiveness and competitive advantage (Bartel et al., 2012; Chesbrough & Teece, 1998; Gibson & Cohen, 2003; Kirkman et al., 2004; Wiesenfeld et al., 2001). It has been noted that there are very few empirical studies examining how employers can effectively motivate and manage non-traditional workers despite the increasing prevalence of this type of worker (Martins et al., 2004). Though some scholars have begun to examine the task- or team-specific characteristics that influence contingent workers' performance, such as task type (Straus & McGrath, 1994; Tan, Wei, Watson, Clapper, & McLean, 1998), communication context (Weisband & Atwater, 1999; Zack & McKenney, 1995), and team member characteristics (Ahuja, Galletta, & Carley, 2003; Ahuja & Galvin, 2003), this paper examines *employer*-level characteristic influences on non-traditional workers as well. It further examines how heterogeneity in gig workers' attitudes influence behavioral responses of import to firm value (Burbano, 2016; Burtch, Carnahan, & Greenwood, 2016), on which there has been relatively little focus to date (Martins et al., 2004). Lastly, given that the settings of focus in this paper are typical gig worker settings, these experiments serve as an example of how researchers

can implement field experiments in such settings to study causal effects of employee-level characteristics on revealed gig worker behavior on the job.

Theory and Hypotheses

Employer Charitable Giving and Traditional Employee Willingness to Do Extra Work

Stakeholders develop their perception of employer merit, image, and reputation by interpreting signals (Fombrun & Shanley, 1990) such as philanthropic activities (Waddock & Graves, 1997). Corporate philanthropy and charitable giving indicate to stakeholders whether and to what extent the employer is trustworthy (Godfrey, Merrill, & Hansen, 2009; Greening & Turban, 2000; Turban & Greening, 1997). Prospective employees have been shown to respond to such perceptions (Burbano, 2016; Greening & Turban, 2000; Turban & Greening, 1997), and it has also been argued that current employees draw similar inferences from such signals (Rupp, Ganapathi, Aguilera, & Williams, 2006; Rupp, Shao, Thornton, & Skarlicki, 2013).

The perception that an employer is trustworthy has been shown to be a driver of an important type of employee performance: a willingness to go above and beyond what is contractually required (Bolino & Turnley, 2003; Niehoff & Moorman, 1993)—sometimes called "organizational citizenship behavior," (Morrison, 1994; Organ, 1988) or "prosocial organizational behavior" (Brief & Motowidlo, 1986). Working for a prosocial organization may satisfy an employee's need for a meaningful existence (Rupp et al., 2006; Rupp et al., 2013) or improve self-concept (Ashforth & Mael, 1989; Brockner et al., 2014; Dutton & Dukerich, 1991; Greening & Turban, 2000; Turban & Greening, 1997), thus generating utility similar to the "warm glow" utility garnered from behaving prosocially (Andreoni, 1989, 1990, 1995). It could also induce positive affect (Barsade, Brief, & Spataro, 2003; Forgas 1990, 1992; George, 1990), which has been shown

to have motivational properties (Forgas, 1991; George, 1990; Kelly and Barsade, 2001; Martin, Ward, Achee & Wyer, 1993; Staw and Barsade, 1993; Staw, Sutton, and Pelled, 1994) when affect infusion takes place (Forgas, 1995). This feel-good utility should increase an employee's job satisfaction (Ashforth & Mael, 1989; Brockner et al., 2014; Dutton & Dukerich, 1991; Dutton, Dukerich, & Harquail, 1994; Greening & Turban, 2000; Mael & Ashforth, 1992; Turban & Greening, 1997), which in turn has been shown to drive prosocial organizational behavior such as going beyond what is required and being willing to complete extra work for an employer (Bateman & Organ, 1983; Ilies, Scott, & Judge, 2006; Organ & Ryan, 1995).[6]

Employer Charitable Giving and Gig Worker Willingness to Do Extra Work

Perceived proximity to and participation in charitable giving and other socially responsible activities have been shown to drive the effects of these employer-level characteristics on traditional employee behavior (Bode et al., 2015; Brockner et al., 2014; Kim et al., 2010). When working as gig workers, individuals feel physically distant from their employer.[7] They also do not participate in corporate philanthropic activities like volunteer programs and other initiatives that involve employees in charitable giving. Extrapolating from this literature thus suggests that gig workers' responses to employer charitable giving should be muted.

On the other hand, literature on the motivation of virtual workers (which would include most contingent, gig workers, but also non-gig workers such as fulltime employees who telecommute or are otherwise physically distant from their employer) (Wiesenfeld, Raghuram, & Garud, 1999; Wiesenfeld et al., 2001) has noted that in a virtual work context that lacks traditional (non-virtual) mechanisms of workplace connection (e.g., facilitated by being in a shared physical space), drivers of trust (Jarvenpaa and Leidner, 1999) and perceptions of organizational justice or

fairness (Hakanen & Lipponen, 2008) are central. This could apply to contingent gig workers as well. Since charitable giving has been suggested to activate these perceptions in traditional employees, and such perceptions are particularly central in the context of virtual work, these perceptions could offset the distance from and lack of participation in employer charitable giving which we would otherwise expect to mute gig workers' willingness to complete extra work unrequired for payment in response to employer charitable giving.

Related empirical work examining the effect of social responsibility on employee outcomes in gig worker settings suggest that gig workers should indeed be responsive to such employer-level characteristics, despite the theoretical reasons that distance from and lack of participation in the program could limit effects. For example, Burbano (2016) finds workers in gig settings are willing to accept lower payment amounts to work for socially responsible employers. This suggests that the motivational effects should outweigh the muting of the effects due to lack of participation and physical proximity in the employer's social responsibility. I thus predict that:

H1: Gig workers will complete more extra work for an employer that donates to charity than for an employer that does not donate to charity.

Prosocial orientation. It has been noted that the utility of working for a prosocial organization should be higher if the employee sees value congruence with the employer (Evans & Davis, 2011). Indeed, as individuals identify with organizations as a way of expressing valued personality characteristics (Dutton & Dukerich, 1994), morally inclined (Rupp et al., 2013) or prosocially-oriented virtual workers should identify more strongly with an employer that engages in corporate philanthropy. As organizational identity has also been identified as a driver of

prosocial organizational behavior (Ashforth & Mael, 1989; Brockner et al., 2014; Dutton & Dukerich, 1991; Dutton et al., 1994; Greening & Turban, 2000; Mael & Ashforth, 1992; Turban & Greening, 1997), we would expect these workers to be even more motivated by a corporate philanthropy program than those who are not prosocially oriented, and to exhibit a greater willingness to go beyond required work for employers who engage in charitable giving, compared to employers who do not.

H2: Gig workers' prosocial orientation will mediate their willingness to complete more extra work for an employer that donates to charity than for an employer that does not donate to charity.

Empirical Setting

To empirically examine whether gig workers respond to employer charitable giving with an increased willingness to do extra work, I implement field experiments in the online platform labor marketplaces Amazon Mechanical Turk (AMT) and Elance. AMT jobs, called HITs (an acronym for human intelligence tasks), typically take only a few minutes to complete, with more complex or time-consuming tasks broken into a series of smaller HITs. Typical jobs include simple data entry and survey completion. The average effective wage of an AMT worker is $4.80 per hour (Mason & Suri, 2012). A benefit of the AMT setting is that it is possible to gather a large sample and exert high control over the randomization process (since all instructions are automated online, and there is no communication between employer and worker during a job). As completion of surveys is common on AMT, it is also a natural context in which to ask questions to begin to study the mechanisms driving results. A downside of the AMT setting is that jobs are very short and

remuneration is small, making the generalizability of studies in this setting to gig jobs more broadly more challenging.

A benefit of the Elance setting is that it is one of the most commonly used job sites for gig workers. Elance currently has twelve million registered freelancers and five million registered clients. Three million jobs are posted annually, worth $1B USD, making it one of the largest freelancer marketplaces. Typical jobs take days or weeks to complete, and payment amounts are in the tens or hundreds of dollars. They include such categories as IT and programming, administrative support, design and multimedia, and even engineering and manufacturing. The average hourly wage for U.S. freelancers on Elance is $28, which translates into an annual income of $56,000 (Eha, 2013), which is comparable to the average annual U.S. household income. A tradeoff of the Elance setting is that it is uncommon to attract or hire hundreds of workers for the same job (which is common on AMT), resulting in a smaller sample size. Surveys are also rarely administered in Elance, so to keep the job being studied typical of other Elance jobs, I did not ask additional survey questions at the end of the experiment to study the mechanisms driving results in this setting. Steps must also be taken to ensure that communication between the employee and employer during the job on Elance does not bias results. I did this by including controls for the degree of positivity in communication between the employee and employer in the analyses that follow.

By implementing field experiments in both settings, I seek to increase the robustness and generalizability of my main results, drawing from Chatterji et al. (2016), who emphasize the value of replicating field experiments in different settings when possible. In what follows, I describe the AMT experiment design, results, and limitations, followed by those of the Elance experiment. IRB approval was obtained for each.

Field Experiment 1 (AMT)

Design. Acting as a firm, I advertised a data-gathering HIT on AMT for payment of $0.50.[8] Though seemingly low, the payment amount, nature of the job, and description were, by design, constructed to be typical of other AMT jobs at the time. Hired workers were taken to an external survey site to complete the HIT. Workers were given detailed instructions for the job, which consisted of gathering 10 data points from a website and completing a short survey. Workers were given a sample data-entry question and were instructed to enter an answer for feedback.[9]

To construct a proxy for charitable giving treatment, workers were then randomly assigned to one of two conditions: a control group or a charitable giving treatment group. The control and treatment groups received different messages (see Figure 1 for the exact messages). The treatment group received information about the employer's corporate philanthropy. A supplementary study confirmed that the control condition of providing no information is statistically equivalent in terms of influence on extra work completed as providing generic information about the employer, and as providing information about charitable giving behavior more broadly (and not in the context of the employer).[10]

Insert Figure 1 here

After receiving the control or treatment message described in Figure 1, workers received feedback about whether their answer to the sample question was correct and what the correct answer was. Workers were prompted to enter the 10 required data-entry points, then asked if they were willing to complete additional data-entry points, which were optional and not required for payment. Those willing were provided 20 more data-entry queries and could provide answers to

none, some, or all of them. Workers were then surveyed to gather information on demographic and other characteristics. They were paid at the end of the job.

Sample

Six hundred workers living in the United States, with HIT approval ratings of 95 percent or higher, were recruited on AMT for this field experiment.[11] Thirty-two observations were dropped due to (a) repeat IP addresses, suggesting that a worker may have participated in the experiment more than once; (b) starting but not completing the HIT; or (c) answering that the worker has worked for the hiring employer before.[12] Twenty-nine individuals who did not complete the HIT exited after the random assignment of conditions; there was no statistically significant difference between the control and treatment groups in likelihood of exiting.[13] This suggests that selection bias due to attrition is minimal. The resulting sample size is 568 workers, of which 241 completed at least one of the unrequired data points.

Table 1 presents summary statistics for workers in the sample, by condition. Approximately half of the workers were female, the mean age was 30 years, and approximately half of the workers had a college degree. Approximately three quarters of the workers answered that the reason they complete HITs on MTurk is for the money earned from these HITs, as opposed to it being a productive use of free time or fun. This suggests that, although the payment amount received on AMT is low, the money earned on these HITs is important and relevant for these workers. As there were no statistically significant differences ($p > 0.10$) between the mean characteristics listed in Table 1 for the treatment and control groups, this suggests that selection bias due to observables is minimal.

Insert Table 1 here

Variable Construction

Dependent variables. *# optional data points completed* is the number of optional data points (out of 20) that the worker completed, whether or not correctly, and is a proxy for the quantity of extra work completed unrequired for payment. *% optional data points correct* is a proxy for quality of extra work completed, and is equal to the number of unrequired data points correct divided by the number of unrequired data points completed.

Independent variables. *Charitable giving message* is a dummy coded 1 if the worker received information about the corporate philanthropy program and 0 otherwise.

Control and moderating variables. Control variables include demographic control variables and AMT experience and performance control variables. *HIT approval rating* is a proxy for prior AMT performance and takes the values 95, 96, 97, 98, 99, or 100. *HITs per week buckets* is a proxy for prior AMT experience and is an ordinal variable with the following values: 1 if the worker completed less than 10 HITs per week in the past month, 2 if the worker completed 10 to 49, 3 if the worker completed 50 to 100, and 4 if the worker complete more than 100. *% Required data pts correct* is the proportion of required data points that the worker answered correctly, and is a proxy for baseline work ability. *Female* is a dummy variable equal to 1 if the worker is female and 0 if the worker is male. *College degree* is a dummy variable equal to 1 if the worker has a college degree and 0 otherwise. *Volunteer & donate* is a dummy variable equal to 1 if the worker volunteered and donated to charity in the prior year and 0 otherwise.

Results

Figure 2 presents the kernel density estimations for the number of optional data points completed, by condition. The treatment group completed more optional data points (mean 7.3 vs. 5.8, t(563) = -2.01, $p < 0.05$); and those who completed at least one optional data point did so more accurately than the control group (mean proportion of optional data point correct 0.97 vs. 0.93, t(139) = -2.28, $p < 0.05$). This suggests that the charitable giving message caused workers to complete a higher quantity and quality of extra work unrequired for payment on average.[14]

Insert Figure 2 here

The results of several regressions exploring the drivers of gig worker job performance are reported in Table 2. Model 1 shows that workers who received a philanthropy message completed on average 1.49 more optional data points than those who did not ($p < 0.05$).[15] This represents an increase of about 25 percent compared to the control group. Model 2 demonstrates that controlling for demographics, prior performance, and prior experience, the effect of the philanthropy message on the number of optional data points completed holds. Prior performance, prior experience, and prior education factors were not predictive of this measure of performance ($p > 0.10$). Gender was notably predictive of this measure of performance ($\beta = 2.51$, $p < 0.01$). Women completed on average 47 percent more optional data points than men. This supports the notion that women are more cooperative and altruistic than men (Hofstede, 1980) and, thus, are more likely to go above and beyond for their employer by doing work unrequired by payment or contract (Organ & Ryan, 1995).

Workers who volunteered with and donated money to charity in the previous year completed directionally less optional data points on average than those who did not volunteer or donate ($\beta = -1.67$, $p < 0.10$). There has been disagreement on whether volunteering outside of work is negatively or positively associated with job performance, and under what conditions

(Rodell, 2013). On the one hand, it has been suggested that devoting resources to one activity leaves fewer resources available for another (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985), which would suggest that volunteering should be negatively correlated with job performance. On the other hand, it has been suggested that volunteering provides employees with the psychological resources needed to perform better on the job (Kahn, 1990); i.e., morally motivated workers are less likely to shirk and, thus, are more productive workers (Brekke & Nyborg, 2008); additionally, prosocial motivation is correlated with higher employee performance (Grant & Berry, 2011), which would suggest that past volunteer and donation history would positively correlate with performance outcomes. Model 2 provides suggestive support of the former argument.

Model 3 reports that individuals who volunteered and donated in the past year completed less unrequired data points, all else equal (β = -3.12, $p < 0.01$). They were directionally more responsive to receiving information about their employer's corporate philanthropy program than individuals who had not volunteered or donated, though this effect is only marginally significant (β = 2.96, $p < 0.10$).[16]

Models 4, 5, and 6 report logistic regression results with likelihood of completing all 20 optional data points as the dependent variable. According to a marginal effects analysis, the treatment group was seven percent more likely to complete all 20 optional data points than the control group. Models 4 and 5 provide additional support for the hypothesis that gig workers are motivated by an employer's corporate philanthropy program. Model 6 provides directional ($p<0.10$) support for the argument that prosocially-motivated gig workers are even more motivated by a corporate philanthropy program.[17]

Models 7 and 8 show that corporate philanthropy treatment additionally caused an increase in accuracy of the extra data points completed ($\beta = 0.04$, $p < 0.05$ without control variables and $\beta = 0.04$, $p < 0.05$ with controls). Those in the treatment group completed four percent more of the optional data points correctly than did the control group. The accuracy of required work was also highly correlated with accuracy of optional work ($\beta = 0.45$, $p < 0.01$).

Taken in whole, results in Table 2 provide support for H1 - that learning about their employer's corporate philanthropy program made gig workers willing to do more work unrequired for payment. It provides some suggestive evidence that this effect was greater for prosocially-oriented gig workers, though the marginal effects do not provide strong evidence for H2.

Insert Table 2 here

To begin to explore the mechanisms that could be driving the main results of charitable giving treatment on gig workers' willingness to complete extra work, in Table 3, I analyzed self-reported survey data collected from individuals in the corporate philanthropy treatment group (who received information about the employer's corporate philanthropy program). These workers were asked to indicate their agreement with the following statements (presented in random order) using a 5-point Likert scale with 1 being Strongly Disagree" and 5 being "Strongly Agree": 1) "Learning about the charitable giving program made me feel good while working with this employer," 2) "The charitable giving program was a signal to me that this employer is trustworthy," 3) "The charitable giving program was a signal to me that this employer is not greedy, and 4) "The charitable giving program indicated to me that this employer has excess profits."[18] Model 1 reflects continuous operationalization of these variables, while Model 2 reflects binary operationalization of these variables (equal to 1 if the participant agreed or strongly agreed with

the statement, and 0 if the participant neither agreed nor disagreed, disagreed, or strongly disagreed with the statement).

The direction and statistical significance between the responses to these statements and the number of optional data points completed provide suggestive evidence of the idea that a feel-good, or what some of the literature has referred to as a "warm glow," mechanism is driving the behavioral effect on current employees at this stage in the employer-gig employee relationship. Models 1 and 2 demonstrate that the feel-good effect influenced willingness to complete extra unrequired work ($p < 0.05$), while proxies for signaling about employer trustworthiness, proxied by statements 2 and 3, were uncorrelated with unrequired work completed ($p > 0.10$). This provides suggestive evidence in support of the theoretical argument that a feel-good, warm glow explanation as explaining worker motivation in this context. Burbano (2016) found that, in the same gig worker context and using a similar treatment, a signaling-about-employer-trustworthiness mechanism, and not a feel-good or "warm glow" mechanism, appeared to drive prospective employees' willingness to accept lower salaries. These distinct drivers of prospective employee behavior (in Burbano, 2016) and current employee behavior (in this paper) provide suggestive evidence that the mechanism driving behavior in response to charitable giving could vary by stage of the individual in relation to the employer. Future work could explore this further.

Insert Table 3 here

It is possible that the proxy for prosocial inclination used in this AMT study, volunteer and donation history, could be capturing a characteristic other than prosocial orientation. One could interpret the fact that volunteer and donation history was negatively correlated with amount of extra work completed as contradictory to the notion that individuals who volunteer and donate are prosocially-oriented; one could argue that prosocially-oriented individuals should be on average

more prosocial toward their employer. To begin to investigate the differential response among individuals who volunteered and donated the prior year, I compared responses to 5-point Likert scale survey questions administered at the end of the experiment. Workers who volunteered and donated in the prior year were more likely to agree or strongly agree that "my employer's commitment to the broader community is important to me" (mean 0.66 vs. 0.54, $t(236) = -2.44$, $p < 0.05$), providing suggestive evidence that they are indeed prosocially-inclined. Workers who volunteered and donated in the prior year were also more likely to agree or strongly agree that "I would work harder for an employer that gives back to the broader community" (mean 0.63 vs. 0.53, $t(233) = -2.13$, $p < 0.05$). This suggests that these workers consciously increased their work effort for an employer that they viewed to be more prosocial, again suggesting that these individuals are likely prosocially-oriented themselves. Though these survey results suggest that volunteer and donation history was likely an adequate proxy for prosocial inclination, volunteer and donation history is not the only facet of prosocial orientation. Thus, in the following Elance experiment, to ensure robustness of my findings, I employ a different proxy for prosocial orientation: a prosocial motivation scale adapted from Grant (2008).

In the following Elance experiment, I also employ a different control condition. In the AMT experiment, the control group received less information about the employer, which takes less time to read. A possible alternative explanation for the main effects between the control and treatment groups could thus be an information-effect, though it seems unlikely that prosocial inclination would moderate the main treatment effect if it were indeed being driven by the increased amount of information. Indeed, there is no reason to believe that prosocially oriented individuals would be more responsive to a greater amount of information than the non-prosocially oriented. Furthermore, a supplementary study confirmed no apparent effect of greater employer

information provision on willingness to complete extra work (see Endnote 10 for more detail). Nonetheless, to ensure results are not being driven by an information-effect, in the following Elance study, the control group receives generic information about the employer, rather than receiving no information about the employer.

Field Experiment 2 (Elance)

Design. Acting as a hiring firm, I advertised a job on Elance: data entry into Excel from websites.[19] The job was to fill in an Excel database with at least the top 50 Twitter users per category (for three categories), gathered from a website. This job was designed in collaboration with a real start-up organization that uses Elance for most of its hiring needs, to ensure that the job was one that a real employer on Elance would post and which would not seem out of place in indicating the possibility for (but not requirement of) extra work unrequired for payment.[20]

Interested applicants submitted a proposal on the Elance website, including bid amount. All workers who submitted complete proposals and bid less than $100 for the job were hired.[21] After workers were hired, they were asked to click on a link to receive information about the hiring company, gather their information, and to receive more detailed instructions about the job. Via this link, participants were first asked a few optional questions about themselves.[22] All workers were then randomly assigned to one of two conditions: (1) a charitable giving treatment group that received information about the employer's charitable giving program or (2) a control group that received generic information about the employer. (See Figure 3 for the messages corresponding to each condition.) After receiving their messages, workers were given detailed instructions about the job, as well as the website from which to pull information, and an Excel file to fill out (all workers received the same website and Excel file, by design, though they did not know this). In the job instructions, it was noted that, although only the top 50 Twitter users in each of the three

categories (150 total) were required for payment, information on more users was always helpful for the hiring company, and would be welcome. There were 1081 possible extra entries on the website.[23] Workers completed the job within two weeks, and submitted their final work product (the filled-out Excel file) via Elance. Upon completion of the job, all workers were paid through the Elance payment system. After paying them, they were asked to take an optional one-minute survey.

Insert Figure 3 here

Sample

Ninety-four individuals were offered the job. After dropping those who did not accept the job and observations with duplicate IP addresses (an indication that the job was completed more than once by the same person under different Elance aliases, which would result in treatment contamination), the resulting sample size is 70 observations. None of the workers dropped out of the job after random assignment of conditions. Not all workers answered the optional survey questions (69 started the optional survey, and 66 answered all the optional survey questions).

Table 4 reports summary statistics for the sample by condition. The difference in mean proportion of workers *living in Central or South America* was statistically significant.[24] Prosocial orientation was directionally higher in the Control group, though its mean was statistically equivalent to that of the treatment group (p=0.32). Based on Elance metrics, workers, on average, earned $2,830 from previous Elance jobs, completed 22 previous Elance jobs, and earned 4.8 stars (out of 5) based on employers' ratings from previous Elance jobs. Forty-nine percent of the workers are women. Based on self-reported data gathered during the survey, the average prosocial orientation rating was 4.2.[25] The mean bid amount for the job amongst hired workers was $35.16.

Insert Table 4 here

Measures

Dependent variable. *# unrequired data entries* is the number of unrequired extra data entries completed (i.e., the number of completed data entries above the required 150 entries).

Independent variable. *Charitable giving message* is a dummy variable coded 1 if the worker received information about the company's charitable giving program and 0 otherwise.

Control and moderating variables. Control variables which could intuitively influence a worker's willingness to complete extra work beyond what is included in the job contract were constructed from information reported by the applicants (income and a prosocial inclination proxy) and from the Elance proposal submissions (all other characteristics). *Female* is a dummy variable. Gender was classified based on pictures and names on the virtual worker's Elance profile. *Income buckets* is an ordinal variable with the following values: 1 if household income in the previous year was less than $30K, 2 if between $30,000 and $49,9999, 3 if between $50,000 and $69,999, 4 if between $70,000 and $89,9999, and 5 if $90,000 or above. *Bid amount* is a continuous variable indicating the amount bid, and thus paid, for the job. *Earnings from previous Elance jobs* is a continuous variable for the amount earned on Elance prior to completion of the job (in USD). *Performance on previous Elance jobs* indicates the average number of stars (out of 5) awarded to the worker by previous Elance employers and is a proxy for prior work performance. *Proposal quality* is the average of two research assistants' independent assessments of the quality of the proposal submitted (on a scale of 1 to 5). *Correspondence tone* is the average of two research assistants' independent assessments of the degree of positivity in the online communication between the worker and the employer during the course of the job (on a scale of 1 to 5). It is included as a control variable to ensure that communication between the employer and worker during the course of the job did not bias results. *Living in Central or South America* is a dummy

variable included due to imperfect randomization of this characteristic across the treatment and control groups.

Prosocial orientation is a continuous variable operationalized as the average of responses to 5-point Likert scale questions commonly used to assess individuals' prosocial motivation taken from Grant (2008).[26] Specifically, participants were asked to indicate how much they agree or disagree with these statements: "I care about benefitting others"; "I want to help others"; "It is important to me to do good for others." Cronbach's alpha scale reliability coefficient is 0.80, which suggests internal consistency among these responses, making it is reasonable to combine these measures into a single index.

Results

Figure 4 presents the kernel density estimations of # *unrequired data entries* for the control and philanthropy treatment groups. The Kolmogorov-Smirnov and Wilson rank-sum (Mann-Whitney) tests show that the distributions of the control and treatment groups are marginally statistically different ($p < 0.10$ and $p < 0.05$, respectively).

Insert Figure 4 here

Ordinary least squares (OLS) regression results are reported in Table 5. Model 1 shows that without inclusion of control variables, workers in the treatment group completed a directionally, but not statistically significant, higher number of optional data points than the control group ($\beta = 124$, $p > 0.10$). Model 2 includes control variables which could intuitively influence the number of unrequired entries completed. Workers who earned more and received higher prior performance ratings on previous Elance jobs completed more unrequired data points than those who earned less and received lower performance ratings ($\beta = 0.04$, $p < 0.05$ and $\beta = 139.93$, $p < 0.10$ respectively). This demonstrates that prior Elance experience was predictive of willingness

to complete extra work unrequired for payment. *Living in Central and South America* was included due to imperfect randomization of geographic location across the control and treatment groups, but the coefficient on this variable is not significant. Other demographic characteristics and Elance proposal characteristics were not predictive of willingness to complete extra work unrequired for payment either. With inclusion of these controls, information about the corporate philanthropy program resulted in completion of 234 more unrequired data points, though this effect is only marginally significant ($\beta = 234$, $p < 0.10$). This represents an increase of 68 percent more unrequired data points completed compared to the control group average. Model 3 reports the effect of the charitable giving message when only those control variables which appear to influence number of unrequired data points are included ($\beta = 184$, $p < 0.05$). Models 1 through 3 provides moderate support for H1; that gig workers are motivated by receiving information about their employer's corporate philanthropy, which causes them to be more willing to complete extra work unrequired for payment.[27]

Models 4 and 5 explore whether a corporate philanthropy message differentially affects the willingness to complete unrequired work amongst those who are more prosocially oriented. Model 4 includes no controls, and Model 5 includes the control variables shown to be predictive of completion of unrequired work. Model 4 reports that, without the inclusion of these highly predictive control variables, the interaction between prosocial orientation and treatment is not statistically significant. Model 5 shows that, with the inclusion of these highly predictive control variables, workers who are more prosocially oriented are more responsive to a corporate philanthropy message ($\beta = 303$, $p < 0.05$). This provides moderate support for H2.

Insert Table 5 here

Discussion and Conclusions

Through field experiments implemented in two online labor platform marketplaces, this paper explored whether information about an employer's charitable giving activities increased gig workers' willingness to go beyond what was required for their employer . This paper thus explored the nonpecuniary motivation of a type of worker—the gig or contingent worker—who is becoming increasingly important for firms. Results across the two field experiments were directionally consistent, though not as robust across the two experiments as expected. That is, the main effect of charitable giving on willingness to complete extra work was statistically significant ($p<0.05$) in the AMT study, but only statistically significant in the Elance study with inclusion of control variables. The mediating effect of prosocial orientation of workers was found to be only marginally significant in the AMT study ($p<0.10$), and significant ($p<0.05$) only with the inclusion of control variables in the Elance study. The differences across these two studies, though directionally consistent, point to the importance of replicating studies in different settings whenever possible; examination of only one of the two settings would have resulted in different interpretations of the results of the effects of charitable giving on willingness to complete extra work and the types of workers most responsive.

The treatment effect of corporate philanthropy on worker performance explored in this paper is a mechanism distinct from those put forth in the formal theoretical CSR literature, where it has been suggested, for example, that there is a labor-market screening effect of CSR with implications for employee performance (e.g., as suggested by Albinger & Freeman, 2000; Brekke & Nyborg, 2008; Fehrler & Kosfeld, 2014). In this paper, any selection effect is controlled for, as the random assignment of conditions takes place after gig workers have selected into working on

the job.[28] Whether and how self-selection and treatment effects interact with implications for the overall effect on (gig) employee productivity can be explored in future research.

This paper provides suggestive evidence that a feel-good mechanism, rather than a signaling-about-employer-trustworthiness mechanism, drove gig workers' behavioral response to employer social responsibility. This contrasts Burbano's (2016) finding, which examined the effect of socially responsible messages on (gig) workers in a parallel context (MTurk and Elance) at a different stage in the stakeholder-employer relationship: prospective workers before they are (or are not) hired. Burbano (2016) demonstrated that a signaling-about-employer-trustworthiness mechanism, rather than a feel good or "warm glow" mechanism, drove the negative impact of CSR messages on prospective (gig) workers' payment requirements.[29] Burbano (2016) also found that higher performing prospective workers, not the prosocially-oriented, were most responsive to a CSR message. Taken together with these findings, this provides suggestive evidence that the type of individual most affected by employer social responsibility, as well as the mechanism through which such activities influence employee behavior, varies by the stage of the employee-employer relationship. Indeed, just as the distinction has been made between internal and external stakeholders in their responses to CSR (Hawn & Ioannou, 2016), this suggests that there may even be more fine-grained distinctions in responses to CSR to explore within stakeholder groups, by stage of the stakeholder-firm relationship. Future work can explore this further, in addition to exploring other potential mechanisms, for example, whether a sense of guilt induced by employer charitable giving amongst those who do not give to charity results in increased unrequired work or other positive employee outcomes.

The online labor marketplaces used in this paper are prime contexts in which to study gig workers. However, it is important to note that there are different degrees of distance and virtual-

ness in working (Martins et al. 2004). In these online labor market settings, workers are completely physically separate from and do not interact face-to-face at all with their employer. As such, they are likely far along the spectrum of degree of work virtual-ness (Martins et al. 2004). Future work could explore whether and how effects differ as degree of interaction with the employer increases. The jobs used in these studies were also very short-term, for small amounts of pay, and data-entry focused. This limits the generalizability of these findings to longer-term jobs of greater payment amounts and of a different nature. Future work could explore whether and how effects differ when jobs are longer term and of a different type (e.g., more creative and innovative in nature). Future work can also explore whether variation in employee skepticism about reported CSR activities influences gig worker outcomes.

Extant work examining the strategic human capital management of related non-traditional workers such as virtual workers has mainly focused on team- and individual-level characteristics that influence the productivity of these workers (Martins et al., 2004). This paper suggests that an *employer*-level characteristic can influence the productivity of non-traditional workers, and points to the promise of exploring the effects of other types of CSR inputs and other employer-level characteristics on non-traditional workers' productivity. It also suggests the merit of exploring how gig and virtual workers respond to non-pecuniary incentives more broadly. The finding that prosocially-oriented gig workers are most responsive to information about employer charitable giving responds to a call to examine heterogeneous attitudes amongst virtual workers (Martins et al., 2004). Future work could examine whether prosocially-oriented gig and virtual workers respond differently to other non-pecuniary incentives, as well as whether this response varies by degree of virtual-ness and job type.

This paper also more broadly speaks to scholars examining the effects of charitable giving and social responsibility more broadly on (traditional) employee behavior (Arragon-Correa, Martin-Tapia, & Hurtado-Torres, 2013; Bode & Singh, 2017; Bode et al., 2015; Burbano, 2016; Burbano et al., 2018; Flammer & Luo, 2014; Flammer & Kacperczyk, 2017). Some of the studies demonstrating a relationship between social responsibility and employee performance have used cross-sectional field data (e.g., Hansen, Dunford, Boss, Boss, & Angermeier, 2011) or individual-level self-reported perception data (Rupp et al., 2006; Rupp et al., 2013). This paper builds on field and lab experiments that have shown that making the impact of a public service or nonprofit job more salient influences work effort (Chandler & Kapelner, 2013; Fehrler & Kosfeld, 2014; Grant, Campbell, Chen, Cottone, Lapedis, & Lee, 2007; Grant, 2008; Grant & Hofmann, 2011) by examining a related effect in a for-profit context. It also complements real effort experiments implemented with undergraduate student samples aware of participating in experiments, which demonstrated a positive effect on task efficiency of linking charitable donations to task efficiency (Tonin & Vlassopoulos, 2010, 2015) by demonstrating a complementary effect of information about the employer's charitable giving on workers' willingness to complete extra work unrequired for payment. A critical component to the set of field experiments (List, 2009) in this paper is that the sample of non-student workers completing work in their real-world work context are never aware of their participation in a study, which could otherwise lead to social desirability bias. This paper also complements that of Burbano (2016), which examined the effect of socially responsible messages on (gig) workers at a different stage in the stakeholder-employer relationship: prospective workers before they are (or are not) hired.

From a practical perspective, this paper suggests that managers could benefit from highlighting their firm's charitable giving activities to gig and contingent workers, particularly if

their workers are prosocially oriented. Though corporate philanthropy programs are commonly highlighted during full-time employee career fairs and other recruiting initiatives, managers note that they are rarely highlighted during the recruiting of gig employees.[30] As the strategic management of gig workers becomes increasingly important to the firm (Chesbrough & Teece, 1998; Gibson & Cohen, 2003; Kirkman et al., 2004), tools such as these will become increasingly relevant to managers.

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Figures and Tables

Figure 1. Message received, by condition
Experiment 1 (AMT)

Control group (1)	Philanthropy treatment group (2)
We are processing your answer. Click on "continue" after the button appears at the bottom right of this page. This should take approximately 15 seconds. Thank you for your patience.	
	In the meantime, we would like to tell you about one of our philanthropic programs. Charitable Giving Program We have a longstanding tradition of giving back to the community. In 2012, we donated 1% of our profit to charities doing important work in our community. In 2013, we will continue to identify the nonprofit organizations that contribute to the well-being of the broader community. The recipients of our 2012 donations were: The American Red Cross enables communities to prepare for and respond to natural disasters. The Boys and Girls Clubs of America enables young people to reach their full potential. The Cancer Research Institute supports and coordinates lab and clinical efforts towards the treatment, control and prevention of cancer. The Global Hunger Project works towards the sustainable end of hunger and poverty. The Greenpeace Fund increases public awareness and understanding of environmental issues.

Figure 2. Kernel densities of number of optional data points completed, by condition Experiment 1 (AMT)

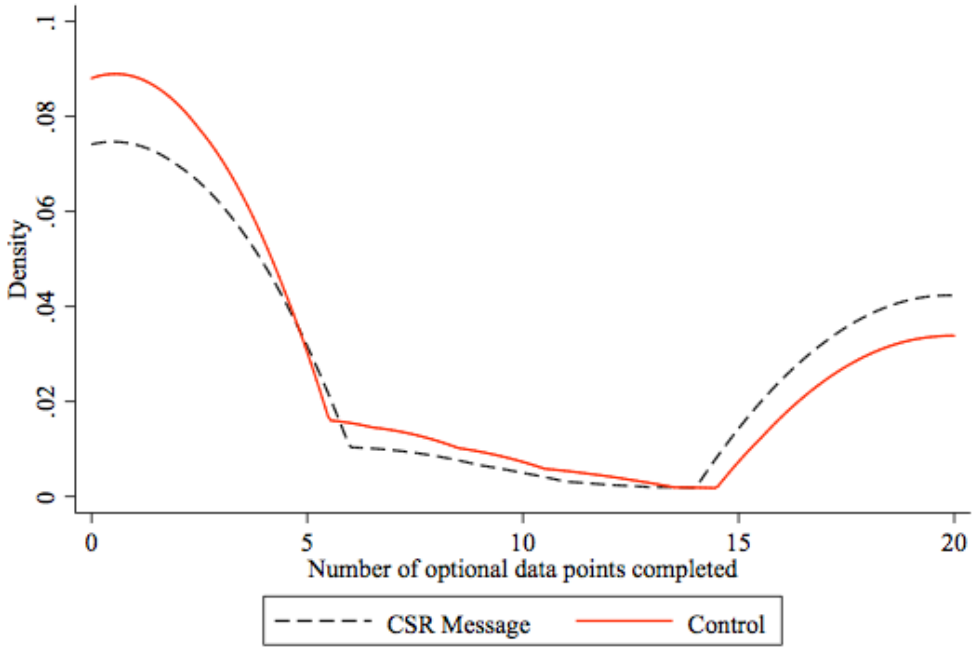

Figure 3. Message received, by condition
Experiment 2 (Elance)

Control group **(1)**	**Philanthropy treatment group** **(2)**
Thank you, we are processing your answers. This will only take 15 seconds. In the meantime, we are very proud of, and wanted to tell you about,	
our company. {Firm Name Omitted} Incorporated Founded in 2014, we are a privately owned company that provides a range of services to our clients. In 2015, we will continue our important work. Our services include but are not limited to: Data gathering and analysis seek and synthesize data information. Internet research capture and analyze quantitative and qualitative information from the internet. Statistical consulting use the art and science of statistics to solve practical problems. Forecasting use data to make predictions about events whose outcomes have not yet been observed. Pattern recognition analyze patterns and regularities in data.	our charitable giving program. {Firm Name Omitted} Incorporated Gives We have a tradition of giving back to the communities where our workers live and work. In 2014, we donated 1% of our profit to charities doing important work in our community. In 2015, we will continue this important work. The recipients of our 2014 donations were: The American Red Cross enables communities to prepare for and respond to natural disasters. The Boys and Girls Clubs of America enables young people to reach their full potential. The Cancer Research Institute supports and coordinates lab and clinical efforts towards the treatment, control and prevention of cancer. The Global Hunger Project works towards the sustainable end of hunger and poverty. The Greenpeace Fund increases public awareness and understanding of environmental issues.

Figure 4. Kernel densities of number of additional entries, by condition
Experiment 2 (Elance)

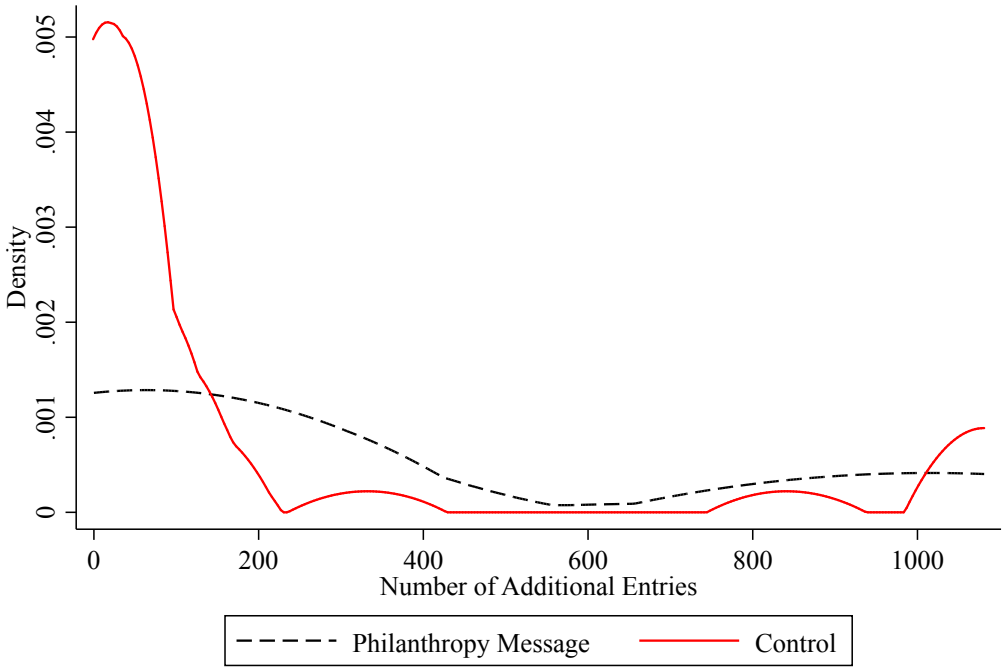

Table 1. Worker characteristics: summary statistics, by condition (randomization balance) Experiment 1 (AMT)

	Control	Philanthropy Treatment	p-value of null that difference of means equals 0
Demographic characteristics			
Female (Y=1, N=0)	0.47	0.42	0.22
	(0.50)	(0.50)	
Age	30.30	30.28	0.98
	(10.16)	(10.17)	
College degree (Y=1. N=0)	0.47	0.53	0.18
	(0.50)	(0.50)	
Income (<$30K=1, $30-60K=2, >$60K=3)	1.96	1.91	0.45
	(0.81)	(0.81)	
White (Y=1, N=0)	0.76	0.75	0.66
	(0.42)	(0.43)	
Black (Y=1, N=0)	0.07	0.09	0.39
	(0.25)	(0.28)	
Hispanic (Y=1, N=0)	0.06	0.05	0.55
	(0.25)	(0.22)	
Asian (Y=1, N=0)	0.13	0.15	0.53
	(0.33)	(0.35)	
Democrat (Y=1, N=0)	0.43	0.44	0.77
	(0.50)	(0.50)	
Republican (Y=1, N=0)	0.14	0.17	0.41
	(0.35)	(0.37)	
Independent (Y=1, N=0)	0.35	0.31	0.37
	(0.48)	(0.46)	
AMT experience characteristics			
HITs per week in the last month (<10 = 1, 10-49=2, 50-100=3, >100=4)	2.51	2.52	0.94
	(1.02)	(1.03)	
HIT approval rate (between 95 and 100)	98.90	99.01	0.21
	(1.15)	(0.96)	
Primary reason complete HITs on AMT (Y=1, N=0):			
"The money I earn on MTurk is my primary source of income."	0.14	0.16	0.48
	(0.35)	(0.37)	
"The money I earn on MTurk is not my primary source of income, but is the main reason I complete HITs on MTurk."	0.55	0.58	0.52
	(0.50)	(0.49)	
"It is a productive use of my free time."	0.28	0.24	0.27
	(0.45)	(0.43)	
"It is fun."	0.03	0.02	0.56
	(0.17)	(0.14)	
Prosocial inclination			
Volunteered with and donated money to a charity or nonprofit in previous year (Y=1, N-0)	0.25	0.20	0.59
	(0.43)	(0.42)	

N=568, except for HIT approval rate (N=544). P-values are based on independent sample t-tests, and are robust to the use of chi-squared tests for categorical values.

Table 2. Regression results
Experiment 1 (AMT)

Regression Type:	OLS			Logit			OLS	
Dependent variable:	# Optional data points completed (out of 20)			Likelihood of completing all 20 optional data points			% Optional data points correct	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Charitable giving message	1.49**	1.80**	1.10	0.39**	0.50**	0.33	0.04**	0.04**
	(0.74)	(0.75)	(0.87)	(0.19)	(0.20)	(0.22)	(0.02)	(0.02)
Female		2.51***	2.45***		0.64***	0.62***		-0.02
		(0.80)	(0.80)		(0.21)	(0.21)		(0.02)
Volunteer & donate		-1.67*	-3.12***		-0.52**	-1.02**		-0.00
		(0.88)	(1.09)		(0.26)	(0.40)		(0.02)
(Char. giving message) x (Volunteer & donate)			2.96*			0.87*		
			(1.74)			(0.51)		
HIT approval rating		-0.37	-0.45		-0.13	-0.15		-0.01
		(0.37)	(0.37)		(0.09)	(0.09)		(0.01)
HITs per week buckets		-0.33	-0.34		0.00	0.00		-0.01
		(0.36)	(0.36)		(0.09)	(0.10)		(0.01)
College degree		-0.66	-0.74		-0.13	-0.15		0.01
		(0.78)	(0.77)		(0.21)	(0.21)		(0.01)
% Required data pts correct		3.35	3.42		0.64	0.67		0.45***
		(2.48)	(2.47)		(0.74)	(0.73)		(0.14)
Constant	5.82***	36.09	43.88	-1.16***	9.67	11.94	0.93***	1.97***
	(0.50)	(37.07)	(37.02)	(0.14)	(9.11)	(9.22)	(0.02)	(0.55)
Other demographics	No	Yes	Yes	No	Yes	Yes	No	Yes
N	568	544	544	568	544	544	241	233

Estimated coefficients of regressions are reported, with robust standard errors in parentheses. *Significant at 10%, ** significant at 5%, *** significant at 1%

Table 3. Regression results. DV: Number optional data points completed Experiment 1 (AMT)

	Model 1: Continous IV's	Model 2: Binary IV's
Makes me feel good (1)	2.69**	4.27**
	(0.77)	(1.27)
Signal employer trustworthy (2)	-0.11	-1.52
	(0.87)	(1.48)
Signal employer not greedy (3)	-0.53	-0.65
	(0.91)	(1.41)
Indicates employer has excess profit (4)	0.93	-1.68
	(0.61)	(1.34)
Constant	2.96	6.54***
	(2.45)	(0.84)
N	287	287

Estimated coefficients of OLS regressions are reported, with robust standard errors in parentheses. *Significant at 10%, **significant at 5%, *** significant at 1%.

Table 4. Worker characteristics: summary statistics, by condition (randomization balance)
Experiment 2 (Elance)

	Control	Philanthropy Treatment	p-value of null that difference of means equals 0
Female	0.46	0.51	0.63
	(0.51)	(0.51)	
Bid amount	34.91	35.41	0.89
	(17.27)	(14.72)	
Income (1=less than $30K; 2=$30-49.9K;	1.12	1.11	0.97
3=$50-69.9K; 4=$70-89.9K; 5=$90K+)	(0.41)	(0.40)	
Number of previous Elance jobs completed	25.09	18.17	0.41
	(42.02)	(26.81)	
Earnings from previous Elance jobs (USD)	3515.71	2144.94	0.21
	(5377.45)	(3555.07)	
Performance on previous Elance jobs (out of 5 stars)	4.87	4.80	0.64
	(0.16)	(0.84)	
Proposal quality (scale of 1-5)	3.67	3.42	0.33
	(1.00)	(1.08)	
Living in Asia	0.83	0.77	0.55
	(0.38)	(0.43)	
Living in Central or South America	0.09	0.00	0.08
	(0.28)	0.00	
Living in Europe	0.06	0.11	0.39
	(0.24)	(0.32)	
Living in US or Canada	0.03	0.00	0.31
	(0.17)	0.00	
Living in Africa	0	0.06	0.15
	(0.16)	(0.22)	
Pro-social orientation (scale of 1-5)	4.31	4.12	0.32
	(0.59)	(0.89)	

Means are reported with standard deviations in parentheses in Columns 1 and 2.
In Column 3, chi-squared test results are reported for Female and geographic location variables. Independent sample t-test results are reported for all other variables. Statistical significance is robust to the use of alternate statistical tests.
N=70, except for Income (N=69), and Prosocial Orientation (N=66).

Table 5. OLS Regression results
Experiment 2 (Elance)
DV: Number of unrequired data entries completed

	Model 1	Model 2	Model 3	Model 4	Model 5
Charitable giving message	124.67	233.80*	183.53**	-603.34	-1076.67
	(183.43)	(125.16)	(88.35)	(650.37)	(629.86)
Female		-26.68			
		(128.44)			
Income buckets		-48.46			
		(132.43)			
Bid amount		-1.98			
		(3.42)			
Earnings from previous Elance jobs		0.04**	0.04**		0.04***
		(0.02)	(0.01)		(0.01)
Performance on previous Elance jobs		139.93*	146.15***		149.71***
		(81.21)	(28.57)		(29.73)
Number of previous Elance jobs		-0.50			
		(2.47)			
Proposal quality		59.15			
		(41.56)			
Correspondence tone		-77.03			
		(90.07)			
Living in Central or South America		-55.67			
		(158.08)			
Prosocial Scale		90.33		-45.76	-153.37
		(84.73)		(137.33)	(137.68)
(Char. giving message) x (Prosocial Scale)				176.14	302.51**
				(152.81)	(149.71)
Constant	183.43***	-745.45	653.73***	388.84	-22.90
	(60.83)	(633.67)	(162.82)	(597.06)	(560.57)
N	70	66	70	66	66

Estimated coefficients of OLS regressions are reported, with robust standard errors in parentheses.
*Significant at 10%, **significant at 5%, *** significant at 1%.

Endnotes

[1] Schwartz, J., Bohdal-Speigelhoff, U., Gretczko, M., & Sloan, N. (2016, February 29). *The gig economy. Distraction or disruption?* Deloitte University Press. Accenture. (2013). *Trends reshaping the future of HR: The rise of the extended workforce*.

[2] Also supported by Accenture (2013). *Trends reshaping the future of HR: The rise of the extended workforce*.

[3] These studies have examined a related type of worker, the virtual worker, whose motivation has been pointed out to be different from that of the traditional employee, as well as understudied. Certainly, not all virtual workers are gig workers (virtual workers include full-time employees who telecommute, for example). However, as they fall along the spectrum of workers who could be considered on the border of or outside the boundary of the firm, the research on these workers is relevant to that of gig workers.

[4] IRB approval was obtained for these field experiments.

[5] The Economist (2015, January 3). There's an app for that. The Economist Group Limited.

[6] Organization-level characteristics have also been shown to include voluntary sustainability behaviors (OCB-E's) (Tisti-Kharas, Lamm, & Thomas, 2017).

[7] A survey of 50 US-based individuals who have worked as both gig and full-time workers in the past 2 years, administed through Qualtrics Panel, supports the notion that perceived distance from the employer is greater when working as a gig worker than when working fulltime. Workers were asked to indicate on a scale of 1-5, how physically distant they feel from their gig employer and from their fulltime employer (from very physically distant to very physically close). Mean response for fulltime employer was 3.53. Mean response for gig employer was 2.54. P-value of test to reject the null that means are equivalent: p=0.0000.

[8] The job description was titled "Gather 10 data points from a historical weather website and answer a short survey." This study took place in August 2013. The fictitious name of the firm is available from the author upon request. IRB approval was obtained.

[9] Sample question: "In New York City, New York on Jan 1, 2010, what was the Actual Max Temperature (in Fahrenheit)?"

[10] A comparison of amount of extra data points completed amongst 150 MTurk workers randomly assigned to three variations of the control group message showed statistical equivalence in the number of optional data points completed ($p<0.10$ on coefficients of OLS regressions with robust standard errors). The messages for each of the variations of control conditions was as follows: 1) for the generic employer info condition – "In the meantime, we'd like to tell you a bit about our company. At {firm name omitted}, we are a company that provides excellent service to our customers;" 2) for the generic charitable giving condition – "In the meantime, we wanted to share that we found it interesting that donations to charities were up last year in the US."; 3) for the no-information condition – blank. Mean number of optional data points completed by condition were as follows: 1) for the control company condition mean 7.25, std. dev 9.16, N=55; for generic charitable giving condition mean 7.61, std. dev. 9.36, N=38; for no information condition mean 7.9, std.dev. 9.19, N=56. The statistical equivalence of a no information condition with a generic company and generic giving information condition suggests that the findings reported in this study are not driven by providing some sort of information about the employer (as opposed to no information), or by priming a charitable or giving mindset more generally. More detailed results are available from the author upon request.

[11] This is a common cutoff on AMT to ensure high quality results.

[12] All workers whose AMT IDs were associated with a previous job by the same employer were excluded from completing this job, so it is unlikely that these workers actually worked for this employer before. It is possible that a worker created a new AMT ID, however, so these observations are dropped.

[13] Likelihood of finishing was 0.94 for the control group and 0.96 for the CSR treatment group: $t(595) = -0.96$, $p = 0.34$.

[14] The proportion of required data points completed accurately was statistically equivalent for treatment and control groups (mean 0.92 vs. 0.91, $t(565) = -0.14$, $p > 0.10$).

[15] OLS regression results are reported because of their ease of interpretation. The direction and significance of the coefficients of the variables of interest are robust to the use of Poisson and ordered probit regressions. These are available from the author upon request.

[16] Without the inclusion of control variables, the coefficient on the interaction term loses statistical significance ($\beta = 2.39$, $p = 0.15$).

[17] Without the inclusion of control variables, the coefficient on the interaction term loses statistical significance ($\beta = 0.67$, $p = 0.16$).

[18] These were derived from the statements included in Burbano (2016) to test the mechanism driving prospective employees' behavior. As Burbano (2016) examines the effect of socially responsible messaging on prospective employees before they are hired, rather than on employees after they have been hired, a different mechanism could drive the effect on behavior.

[19] IRB approval was obtained. The study took place in May 2015. The name of the fictitious firm is available from the author upon request.

[20] I used a slightly modified version of the job description (and language indicating extra work) posted by this start-up organization on Elance the year before this study was conducted, with the organization's approval. Their posting requested the top 50 Twitter users per category for three categories (brands, celebrities, and media) for the country of Colombia. In this study's job description, I indicated that the country and categories would be different for each Elance worker.

[21] The cutoff for acceptable bid amount was determined in consultation with a start-up organization that frequented Elance for its hiring needs. This resulted in not hiring individuals who bid the amounts of $140, $165, $300, $250.01, and $438.36.
[22] They were informed that answering these questions was optional and would not influence their working relationship with the hiring firm.
[23] In cases where workers provided even *more* additional entries from other websites, their responses are coded as the maximum amount available on the website provided (1081), since assessing whether or not those additional entries are helpful to the hirer is not obvious. If those entries are coded as extra additional entries, the results presented in the results section become even stronger.
[24] This geographic control is thus included in the regressions reported in field experiment 2's Results section.
[25] Prosocial orientation rating is the average of responses to 5-point Likert scale questions commonly used to assess individuals' prosocial motivation taken from Grant (2008); Please indicate how much you agree or disagree with these statements: "I care about benefitting others"; "I want to help others"; "It is important to me to do good for others."
[26] It is possible that this scale could be prone to social desirability bias.
[27] Corporate philanthropy treatment did not influence accuracy measures for the required (or unrequired) work completed ($p > 0.10$).
[28] Certainly, there is selection into the larger sample of workers hired on AMT or Elance. However, there is no selection into the treatment or control groups; this is controlled for in these studies. The use of field experiments to control for selection and observe causal relationships have been identified as a promising way to move forward our understanding of inputs of interest and antecedents of firm performance (Chatterji et al., 2016) as well as our understanding of socially responsible initiatives (Delmas & Aragon-Correa, 2016).
[29] Rather than exploring a treatment effect of corporate philanthropy information on *hired employees'* performance behavior as this paper does, Burbano (2016) explores the effect of CSR messages on *prospective* CSR reservation wages. Burbano (2016) explores the effect of different CSR messages on a different DV (reservation wage and bid amount, rather than performance), identifies a different mechanism as driving effects (a signaling-about-employer-treatment-type, rather than feel-good) than this paper does, and finds that a different type of worker (high performing workers, rather than prosocially oriented workers) is most responsive to CSR treatment.
[30] Based on interviews with managers who work with both full-time and gig workers.