WORKERS' RESPONSE TO MONETARY INCENTIVES IN FOR-PROFIT AND NON-PROFIT JOBS

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Version: Jan 5, 2024

Abstract

When workers decide how hard to work, they consider not only extrinsic factors (e.g., the salary), but also the type of work and the mission of the organization. We study the relationship between monetary compensation and worker effort in non-profit and for-profit settings using a modified gift-exchange experiment. Contrary to some prior research, we find that having a mission does not reduce the responsiveness of effort to increasing wages. Workers are more responsive to *higher* wages in a non-profit setting, contributing to our understanding of how the presence of a mission and monetary payments interact in work settings.

Keywords: worker motivation, non-profit, gift-exchange game, lab experiment.

JEL Classifications: C90, L31, J20.

Funding and Ethics Approvals: This project was funded by National Science Foundation (SES-1062055 and SES-1344018). The funding source had no direct involvement in this study. IRB approval was obtained from Texas A&M University (*IRB2013-3026D*).

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1. Introduction

One crucial aspect of a successful charitable organization is the people – the workers who often accept lower monetary compensation to dedicate their time and talents to the organization's mission. Selecting and motivating effective workers presents a significant challenge for such organizations. In the United States, workers in nonprofit organizations earn less than their for-profit counterparts: Preston (1989) finds a pay gap of 18%, controlling for industry and human capital characteristics.[1] Previous research suggests several reasons for this pay gap, including workers receiving nonpecuniary rewards, viewing their work as a form of "labor donation," or lower wages being necessary to attract intrinsically motivated individuals. Due to the demographic makeup of the non-profit sector, this wage differential may contribute to overall racial and gender disparities in pay. Therefore, it is important to understand the relationship between monetary compensation and workers' productivity, and whether this relationship differs based on the type of organization. The main goal of this paper is to study the relationship between monetary compensation and worker effort decisions in non-profit and for-profit settings.

We study our research question using a modified gift exchange environment in the lab that includes three types of actors: workers, managers, and firm owners.[2] The difference in organizations is implemented by varying the identity of the "firm owner." The decisions made by workers and managers generate payments for the firm owner, who can be either another subject in the lab (representing a for-profit firm) or a non-profit organization. Since workers are randomly assigned to either a non-profit or for-profit firm, self-selection into a mission is not possible, eliminating the inherent correlation between mission motivation and non-profit employment. In practice, self-selection, the presence of a mission, and monetary compensation can all impact worker motivation. However, by removing self-selection, our design captures the difference in a key motivating factor: the mission of the firm. This enables us to investigate the relationship between financial compensation and effort across the two settings, which is the focus of this paper. Section 2 provides a detailed discussion of the related literature, including the impact of self-selection into non-profit employment on worker motivation and the role of mission motivation.

First, we find that workers exert more effort when randomly assigned to an exogenously chosen mission-oriented job, but only when the wages are sufficiently high. Furthermore, we investigate whether managers offer different wage levels between non-profit and for-profit firms, considering the observed difference in effort exertion. Surprisingly, we find that the wages offered by managers are similar across these two types of firms. As a result of the behaviors exhibited by workers and managers, the non-profit firm generates higher profits.

[1] Although more recent evidence suggests that this pay gap has decreased over time (Hirsch et al., 2018). Additionally, some studies show that in more profitable sectors, where for-profit and non-profit firms coexist (as in health care) non-profit workers may earn more than their for-profit counterparts, due primarily to upward pressure from the non-distribution constraint. This constraint specifies that profits cannot be distributed to shareholders. Consideration of the impact of such factors is beyond the scope of our paper. See Ruhm and Borkowski (2003) for a survey of studies of non-profit compensation.

[2] See Fehr et al. (1993) for the first gift-exchange (efficiency-wage) experiment, which translates the idea of efficiency wages (Akerlof and Yellen 1990) into the lab. See also Fehr et al. (1998). For a survey of lab labor experiments including gift-exchange game that is utilized in this paper, please see Charness and Kuhn (2011).

Our findings have significant implications for managing workers in non-profit organizations. Contrary to prior theoretical arguments, we found no evidence that appropriately compensating individuals based on their value to the organization hinders their effort. In fact, paying efficiency wages further enhances their effort and engagement. Surprisingly, we observe that managers, even in this abstract setting, fail to recognize this important truth. In real-world scenarios, the failure to recognize that individuals do not have to be underpaid to exhibit strong dedication in a charitable organization contributes to gender and racial inequality in the labor market and likely affects retention rates.

2. Related Research

What motivates workers? Many studies have addressed aspects of this question. While monetary incentives are clearly important, the employment relation is broader and more complex than its characterization by economists (Lazear 2018 reviews the former, while Cassar and Meier 2018 review research on nonmonetary incentives). There is a vast literature looking into this question and there are several key issues in this literature.

The first key issue is the importance of pro-social motivation for selection into non-profit or public sector jobs. Employment is a two-sided selection process, with firms choosing workers, and workers choosing jobs. Organizations selecting more pro-social workers, and pro-social workers preferring non-profit sector jobs, produce powerful selection effects. Indeed, several studies document higher levels of pro-social behavior among public sector workers (e.g., Dur and Zoutenbier 2014, 2015; Banuri and Keefer 2016a; Banuri and Keefer 2016b; Carpenter and Myers 2010; Gregg et al. 2011).

The second key issue is the crowding out of pro-social motivation by monetary incentives. Many prior studies examine the relationship between intrinsic motivation and incentives. This literature tends to focus on the extent to which financial compensations crowds out intrinsic motives (e.g., Frey and Jegen 2001). This phenomenon, termed by psychologists the "undermining effect," was first highlighted in economics by two studies: The first shows that introducing fines for bad behavior can have the perverse effect of increasing that behavior (Gneezy and Rustichini 2000a); and the second shows that paying intrinsically-motivated volunteer fundraisers can lower work effort unless those incentives are sufficiently high (Gneezy and Rustichini 2000b). Cerasoli et al. (2014) note that, despite the existence of several meta-analyses, the question of how these different types of motivation interact has not been fully explored. Their own meta-analysis shows that that both are important, and that their interaction depends on the nature of the task: When compensation is closely tied to (measurable) output, crowing out is stronger. They argue that monetary and non-monetary compensation should be used in partnership to motivate workers.

Crowding out can also occur in the selection process itself. It is sometimes argued that offering higher compensation to workers in the care sector, for example, could lead to the wrong kind of workers seeking those jobs, and to lower quality care (England et al. 2002; Folbre 2012). While higher monetary rewards increase the number of applicants for a position, it may also elicit applications from candidates with lower levels of commitment and intrinsic motivation (Delfgaauw and Dur 2007, 2008). By acting as a screening device, barriers to entry such as

occupational licensing can reduce this problem, and at the same time reduce the pay gap (Budig et al. 2019). Banuri and Keefer (2016b) show in an experimental setting that higher payment attracts workers with less pro-social preferences to work on pro-social tasks. This confirms the idea that pro-social motivation is related to selection, and hints at the possibility that higher wages will select the "wrong" workers. Ashraf et al (2020) also finds that offering extrinsic motivation (i.e., career opportunities in their study) attracts less prosocial applicants but the trade-off exists only at low levels of talent.

Finally, the third key issue is the extent to which mission increases worker motivation. A considerable body of research is devoted to modeling and testing the role that pro-social preferences play in worker motivation, with altruism or pro-social motives contributing to greater worker effort in settings where the firm has a pro-social mission, as in a government or non-profit organization. Besley and Ghatak (2005) developed a theory regarding mission alignment and its impacts on worker motivation (see also Besley and Ghatak 2018 for a survey of models of mission motivation). They predict that workers self-select into missions and this mission match enhances their efficiency at work. They show that if the workers are matched with the right mission, they work hard even when the financial incentives are little. However, high-powered incentives are needed to get workers to exert effort in the case of a mission mis-match. There have been some studies testing the implications of this model and the findings are generally in line with the predictions (e.g. Gregg et al., 2011; Serra et al., 2011; Gerhards, 2015; Carpenter and Gong, 2016; Smith, 2016; Banuri et al., 2018).

On the contrary, Cassar (2019) does not find any difference in the effort when the mission is matched compared to random mission assignment, though the presence of *any* mission (random or matched) does increase effort compared to the no-mission treatment. However, her mission and no-mission treatments are not equivalent in that only the mission treatments generate an external payment to a third party, and therefore effort generates a larger total benefit (profit to the manager plus external payment to the nonprofit). This may be why the mission treatments lead to higher effort. Differently in our experiment, we fix the total monetary benefits generated. Similar to Cassar (2019), we also find that pro-social mission results in higher effort, but only if the wage paid is high. In contrast to Cassar (2019), we find that managers offer the same wages across the two treatments, while her results show inefficiently low wages by for-profit managers. Our managers are unaffected by the mission in their choice of wages, and this results in higher profits generated in our non-profit treatment.

Armouti-Hansen et al. (2020) explore efficiency wages as we do, in for-profit and non-profit treatments (i.e. no piece rate). However, like Cassar (2019) the treatments are not equivalent, in that an external payment is only generated in the non-profit treatment. Moreover, unlike our study, effort choices by workers are elicited using a strategy method where the worker indicates for each possible wage whether they would accept the offer and their selected effort level. They find that workers will accept lower offers in the non-profit treatment and exert greater effort for a given wage level.

In a closely related study, Fehrler and Kosfeld (2014) conduct an experiment to investigate mission motivation and the importance of selection into mission-motivated organizations. Although their design is similar to ours, they are different in two important ways. First, they use

a partner-matching design where subjects play in the same groups across all periods of the experiment. Second, their labor contracts are not efficiency wages, but rather include a fixed payment (set by the experimenter) and a piece rate (selected by the manager). Possibly due to these differences in design, in contrast to our findings, they find that workers are not motivated by the mission of their organization but rather selection plays an important role.

We contribute to the existing literature in two main ways. Firstly, by randomly assigning workers to either a non-profit firm or a for-profit firm, we eliminate the possibility of self-selection into a particular mission, thus removing the inherent correlation between mission motivation and non-profit employment. This design allows us to isolate and study the impact of financial compensation on worker effort in both settings, providing valuable insights into the relationship between compensation and motivation. Secondly, our treatments ensure equivalence by generating external payments to a third party in both the non-profit and for-profit settings. As a result, the total benefits generated by worker effort are similar across the two settings, enabling us to compare the effects of compensation on effort without confounding factors. Overall, our research sheds light on the intricate interplay between financial incentives and mission motivation in organizational settings.

3. Experimental Design

We modify the standard gift exchange game to mimic two types of firms: for-profit and non-profit. Our goal is to develop experimental models that are as equivalent as possible, except for the distribution of the profit. To that end, we add a third player to the standard two-player game and vary the identity of the third player to capture this key factor.

In this modified version, subjects are randomly assigned to one of three roles: a worker, a manager, and a firm owner. First, the manager determines a wage level to be paid to the worker. Then, the worker observes the wage and decides how much effort to provide.[3] Both the wage paid, and the effort level provided determines the earnings for all three group members. The payoff functions, which are the modified versions of Charness et al. (2004), are as follows:

$$\pi_w = wage - c(e) \quad (1)$$

$$\pi_M = 0.40 \text{ x Profit} \quad (2)$$

$$\pi_F = 0.60 \text{ x Profit} \quad (3)$$

$$\text{Profit} = 2 \text{ x } (100 - wage) \text{ x } e \quad (4)$$

where W, M, and F represent worker, manager, and firm owner respectively; and c(e) denotes the cost of providing the effort level, e. Worker receives the wage ($wage \in \{10, 20, 30, 40, 50, 60\}$) determined by the manager and bears the cost of their chosen effort level. We use the Charness et al. (2004) cost of effort schedule which is shown in Table 1.

[3] In a pilot experiment, we used a strategy method to elicit worker's response to wages. We found that the strategy method caused workers to focus mostly on the payment structure, which decreased the saliency of the treatments (i.e. the identity of the firm owner). As a result, we opted to take a more realistic approach and use the direct response elicitation method.

[Table 1]

While the wage increases the worker's payoff, it decreases the profit. Both wage and effort determine the profit which in turn determines the earnings for the manager and the firm owner. The profit is calculated according to eq. (4) and is shared between the manager and the firm owner. The firm owner receives 60% of the profit and the manager receives the remaining 40%. In this game, the firm owner does not make any decisions: They simply collect their share of the profit.

The roles are assigned randomly at the beginning and fixed across all rounds, consistent with most of the literature. Subjects are placed in groups of three that consist of one worker, one manager and one firm owner. Groups are re-matched randomly in each round. This design choice minimizes the impact of a specific history of play on the outcome of subsequent rounds, which can create a confound.[4] Subjects play this game for 20 rounds and are paid at the end for two randomly selected rounds. At the end of each round, we provide feedback about the wage chosen, effort provided, and the earnings.

We have two treatments: For-Profit and Non-Profit. The difference between the two treatments is the identity of the firm owner. In the for-profit treatment, the firm owner is another subject in the lab who receives a share of the profit, whereas in the non-profit treatment, it is a non-profit organization. We chose Operation Kindness, which is the largest and oldest no-kill animal shelter in North Texas, as the non-profit organization. We made this choice because in our prior work we observed that animal-related charitable organizations were particularly popular with student subjects. At the end of the non-profit treatment sessions, we randomly select one of the subjects to be the monitor. The monitor is paid an extra $5 to stay a little longer to make sure that earnings generated for Operation Kindness are donated on the organization's website. This is to increase subjects' trust in the experimenters that the earnings generated for the charity would indeed be donated.

4. Results

We ran eleven sessions in the Economic Research Lab at Texas A&M University (TAMU) in February and March 2018, with a total of 251 subjects. The experiment was programmed in z-tree (Fischbacher, 2007), and the undergraduate students at TAMU were recruited through ORSEE (Greiner, 2004). We used tokens, where 6 tokens were worth 1 USD. Subjects earned $19 on average including a $10 show-up fee. The number of subjects in the for-profit treatment was 141, with the remaining 110 participating in the non-profit treatment. Thus, we have 47 workers and managers in the for-profit treatment; and 55 workers and managers in the non-profit treatment. Table B.1. in the Online Appendix presents the key subject demographic variables. We do not find any statistically significant differences across the two treatment groups.

[4] There are several studies in the public goods literature showing that "partners" matching design lead to more extreme results (more groups converging toward zero and toward full contributions) than "strangers" matching design. This can make treatment differences more difficult to detect. See, for example, Andreoni and Croson (2008).

In what follows, we first present findings on workers' behavior, then we present the findings on managers' behavior and finally present and discuss the impact of these observed behavior on firm profits.

4.1. Workers

Similar to previous studies using the gift-exchange game (or variants of it), we do not find support for Nash equilibrium (NE) predictions. The workers provide significantly higher effort levels than the NE prediction of 0.1; the average across both treatments is 0.44. Table 2 presents the average effort provided across treatments and wage levels. In both treatments, there is a positive relationship between the wage offered and the effort provided. This reciprocal relationship that we observe is similar to the findings in the literature. When we compare the effort levels across treatments, we notice that the treatment does not have a significant impact on effort for wages lower than 40. However, workers provide significantly higher levels of effort if the wage offered is 40 or higher. These findings imply that the workers reciprocate significantly more when they work for a non-profit firm relative to a for-profit firm when the wages are sufficiently high. Otherwise, the workers' reciprocal behavioral is similar across these two types of firms.[5]

[Table 2]

When we compare the distribution of effort levels provided across treatments, we see a similar story. Figures A.2. and A.3. in the Online Appendix present these distributions for low and high wages, respectively. Using the Epps-Singleton test,[6] we compare these distributions across non-profit and for-profit treatments. We find that the distributions are not statistically significantly different if the wage offered is 10 (p-value: 0.105) or 20 (p-value: 0.311). On the other hand, the distributions of efforts are significantly different across for-profit and non-profit treatments if the managers offer 30 or more (p-value ≤ 0.01 for all).

To check the robustness of these findings, we run a panel data random effects Tobit regression and the results are presented in Table 3. In both Panels A and B, the dependent variable is *Worker Effort* which is the level of effort provided by the worker. *Wage* is the wage offered by the manager to the worker in that period. *Non-Profit* is the indicator variable that takes the value of 1 for the non-profit treatment, otherwise 0. *Period* is the trend variable and *Female* is the indicator variable for female subjects. Looking at columns (1) and (2) in Panel A, we see that workers are responsive to the wages offered. Workers provide significantly higher effort for higher wage levels. Additionally, we see that workers provide significantly higher effort when they are in the non-profit treatment compared to the for-profit treatment.

[Table 3]

[5] The average effort provided over time is presented in Figure A.1 Panel (a) in the Online Appendix. Although there are some fluctuations, the average effort provided in the non-profit treatment is almost always above the average effort provided in the for-profit treatment. We see that the behavior is consistent over time with a slight decline.
[6] Findings are similar if we use the Kolmogorov-Smirnov test.

We are also interested in the workers' *responsiveness to the wages* in the non-profit treatment compared to the for-profit treatment. As shown in Table B.2 in the Online Appendix, we find weak evidence of higher responsiveness to wages in the non-profit treatment in column (1). However, this impact is not statistically significant when we control for period and gender (see column (2) in Table B.2.). Based on the findings presented above, we next examine this behavior separately for high and low wages, and the regression results are presented in Panel B of Table 3. We use an indicator variable, *High Wage*, which takes the value of 1 if the wage offered is high (i.e., 40, 50, or 60), and otherwise zero. Although workers in both treatments respond to the higher wages by increasing their effort level, we find that workers in the non-profit treatment are significantly more responsive to the higher wages compared to the for-profit treatment. We summarize as follows.

Result 1 *Workers exert significantly higher levels of effort when they work for a non-profit firm relative to a for-profit firm, but only when the wages are sufficiently high*.

We next explore heterogenous treatment effects by including a variable to measure the mission motivation of subjects. Inspired by the Public Service Measure (PSM) of Perry (1996), we construct a new variable, *Society Oriented*, by using the answers to the following question: "Making a difference in society means more to me than personal achievements."[7] The answers range from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). As can be seen in column (4) of Panel B in Table 3, what distinguishes Society Oriented subjects is their behavior in the for-profit treatment. Society-oriented individuals provide significantly higher levels of effort when they are in the for-profit treatment (see the coefficient of Society Oriented). Being society oriented creates an extra incentive for these individuals to work harder and thus exert higher level of effort. Arguably, these are the individuals who would have selected into the non-profit treatment, given the choice. If they had, then comparing their effort levels in the non-profit treatment with others in the for-profit treatment would have led us to believe (erroneously) that mission motivation contributed substantially to their productivity. On the other hand, caring about making a difference in society does not impact behavior in the non-profit treatment (the summation of the coefficients of Society Oriented and Society Oriented*Non-Profit is not significantly different from zero). This is perhaps because all subjects in the non-profit treatment could exhibit mission motivation, and thus there is no differential impact coming from how society oriented one is.

4.2. Managers and Profits

Given that we see a differential worker response across treatments based on whether the wage offered was high, we also investigate the managers' response to the treatment. If the managers expect workers to respond to wages differently across treatments, then we would also expect to see a difference in wages offered across for-profit and non-profit firms. However, this is not what we find. On average, managers paid workers 38 and 39 tokens in the for-profit and non-profit treatments, respectively, and they are not statistically different from one another (Mann-

[7] This item is listed as PSM1 under the self-sacrifice subscale in Perry (1996).

Whitney test p-value: 0:207. Figure A.1. (b) shows the average wage offered over time across treatments. Average wages seem consistent over time and across treatments.

To check the robustness of these findings, we run a panel-data random-effects Tobit model regression where the dependent variable is the wage paid in each period and the findings are presented in Table 5. According to these results, wages paid across treatments are not statistically different. Although we see that managers respond positively to the effort provided in the previous round, we do not find any evidence that managers respond to the treatment. These results suggest that managers do not anticipate workers to be more responsive to wages across treatments. We summarize as follows.

Result 2 *Managers pay similar wages to workers independent of whether they work for a non-profit firm or a for-profit firm. This implies that managers in the non-profit treatment do not anticipate that their workers will respond more to higher wages.*

Above, we showed that the workers exert more effort when offered higher wages in the non-profit treatment compared to the for-profit treatment, and there is no difference in managers' wage selection. All of these translate into higher overall profits for the non-profit firm compared to the for-profit firm. Average profits are 44.85 and 53.67 tokens in the for-profit and non-profit treatments respectively (Mann-Whitney test p-value < 0.001). Figure A.1. (c) shows the average profits generated across treatments across different wage levels. The profits across treatments are not significantly different when the wages are either 10 or 20. However, the profits are higher in the non-profit treatment when the wage offered is 30 or higher (Mann-Whitney test p-values $<$ 0.01 for all).[8] More formally, Table 6 presents the panel data Tobit model regression where the dependent variable is the profits generated in each period. As shown in column (1) of Table 6, we find that profits are significantly higher in the non-profit treatment. Moreover, looking at column (2), we see that high wages result in the higher profits in both treatments. Additionally, the increase in profits in the non-profit treatment is higher than the one in the for-profit treatment when the wages are high (40, 50, or 60).

5. Conclusion

While significant research examines the impact of incentives on effort in for-profit settings, largely showing that employees provide more effort for higher wage levels (Lazear 2018), less direct evidence exists for mission-oriented organizations. Prior work argues that we cannot pay higher wages – or even, in some cases, living wages – in mission-oriented organizations because the incentives will reduce effort by crowding out intrinsic motivation. This relationship is difficult or impossible to test with observational data because of selection pressures that result in more pro-social workers selecting into non-profit organizations.

We take advantage of the control available through experiments to systematically test whether and how individuals differentially respond to financial incentives in equivalent non-profit and

[8] Since our experiment uses a partner-matching design, the group members who generate the profits in each round are determined randomly. In order to account for this, we conduct these tests using average profits per manager. First, we calculate the average profits across all rounds for each manager at a given wage level using manager's earnings. And then, using the Mann-Whitney test, we test for treatment differences.

for-profit jobs. In the lab, we remove the selection effect by randomly allocating workers to the two types of firms and ask whether workers exert more effort, for a given a wage level, when they work for a non-profit firm rather than a for-profit firm.

We find a significant amount of reciprocity in both the for-profit and non-profit firms. That is, the presence of a mission does not eliminate or reduce the responsiveness of effort to increasing wages. Rather, the responsiveness to wages is identical for for-profit and non-profit firms at lower wages. At higher wages, on the other hand, workers in the non-profit firms exert *higher* levels of effort than the workers in the non-profit firms. This directly contradicts prevailing theoretical arguments that higher wages will crowd out mission motivation, intrinsic motivation or both. These results show that higher wages are an effective way to motivate workers in both sectors and even more in the non-profit sector.

Interestingly, we also find that individuals who self-report that they care about making a difference in society provide significantly higher levels of effort than their less-society-oriented counterparts when they are in the for-profit treatment but not in the non-profit treatment. This occurs because the less-social workers work less hard without a mission motivation; the society-oriented workers are 'better' workers (providing higher effort, contingent on wage) regardless of whether they are working for a for-profit or non-profit firm. The increase in effort associated with working for the non-profit firm comes from the less-society-oriented individuals.

In addition to our focus on worker responses, we also examine whether managers in the for-profit and non-profit firms offer different wage levels. We do not find any evidence that managers respond to the treatment: for-profit and non-profit managers offer similar wages. These results suggest that managers do not anticipate workers to be more responsive to wages across treatments.

To conclude, our research is important for understanding the management of workers in non-profit organizations. Our findings on worker behavior contradict the claim in prior research that paying workers in non-profit organizations higher wages will harm their effort. On the contrary, paying efficiency wages increases their engagement with the organization. Managers not anticipating or noticing this behavioral response by workers to higher wages curbs the organizations' ability to increase efficiency and further contributes to gender and racial inequality in the labor market.

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WORKERS' RESPONSE TO MONETARY INCENTIVES IN FOR-PROFIT AND NON-PROFIT JOBS

TABLES

Table 1: Worker's Cost of Effort Schedule

e	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
$c(e)$	0	1	2	4	6	8	10	12	15	18

e is the effort level chosen by the worker. $c(e)$ is the worker's cost of providing effort, e.

Table 2: Average Effort Provided across Wage

	Wage Offered					
	10	**20**	**30**	**40**	**50**	**60**
For-Profit	0.17	0.21	0.31	0.41	0.51	0.59
Treatment	(0.18)	(0.13)	(0.16)	(0.19)	(0.23)	(0.33)
	n=41	n=38	n=47	n=47	n=43	n=42
Non-Profit	0.15	0.21	0.34	0.49	0.64	0.72
Treatment	(0.10)	(0.11)	(0.15)	(0.16)	(0.21)	(0.28)
	n=46	n=45	n=53	n=55	n=55	n=47
p-values†	*0. 391*	*0. 965*	*0.341*	*0.028*	*0.006*	*0.044*
p-values‡	*0.885*	*0.698*	*0.288*	*0.030*	*0.006*	*0.054*

The average efforts for each wage and treatment are computed by taking the average effort provided across all 20 periods by each subject. Standard deviations are in parentheses. †t-test †Mann-Whitney test.

Table 3: Panel Data Random Effect Tobit Regression Results for Worker's Effort

	(1)	(2)	(3)	(4)
Panel A				
Wage	0.015***	0.015***	0.015***	
	(0.001)	(0.001)	(0.001)	
Non-Profit	0.106**	0.099*	0.473***	
	(0.054)	(0.056)	(0.168)	
Period		-0.008***	-0.008***	
		(0.002)	(0.002)	
Female		-0.085*	-0.067	
		(0.051)	(0.051)	
Society Oriented			0.110***	
			(0.036)	
Society Oriented*Non-Profit			-0.099**	
			(0.042)	
Constant	-0.247***	-0.126*	-0.550***	
	(0.056)	(0.067)	(0.160)	
Number of Observations	*2040*	*2040*	*2040*	
Number of Groups	*102*	*102*	*102*	
Panel B				
High Wage (40-60)	0.376***	0.334***	0.344***	0.344***
	(0.020)	(0.030)	(0.030)	(0.030)
Non-Profit	0.113**	0.062	0.058	0.444***
	(0.053)	(0.055)	(0.056)	(0.162)
High Wage*Non-Profit		0.073**	0.070*	0.070*
		(0.036)	(0.036)	(0.036)
Period			-0.008***	-0.008***
			(0.002)	(0.002)
Female			-0.078	-0.059
			(0.049)	(0.049)
Society Oriented				0.113***
				(0.035)
Society Oriented*Non-Profit				-0.102**
				(0.041)
Constant	0.086*	0.114**	0.237***	-0.198
	(0.050)	(0.047)	(0.056)	(0.149)
Number of Observations	*2040*	*2040*	*2040*	*2040*
Number of Groups	*102*	*102*	*102*	*102*

*p < 0.10, **p < 0.05, ***p < 0.01. Bootstrapped standard errors are in parentheses. Dependent variable is the amount of effort provided by the worker. Since the effort has to be between 0.1 and 1, the left censoring is set to 0.1 and the right censoring is set to 1.

Table 4: Panel Data Random Effects Tobit Regression Results for Wage

	(1)	(2)
Non-Profit	0.747	-0.447
	(2.274)	(2. 031)
Female		-1.639
		(2.222)
Period		0.135*
		(0.077)
Lagged Effort		13.818***
		(1.847)
Constant	38.682***	32.699***
	(1. 540)	(2.138)
Number of Observations	*2040*	*2040*
Number of Groups	*102*	*102*

*p < 0.10, **p < 0.05, ***p < 0.01. Bootstrapped standard errors are in parentheses. Dependent variable is the wage paid by the managers. Since the wages have to be between 10 and 60, the left censoring is set to 10 and the right censoring is set to 60.

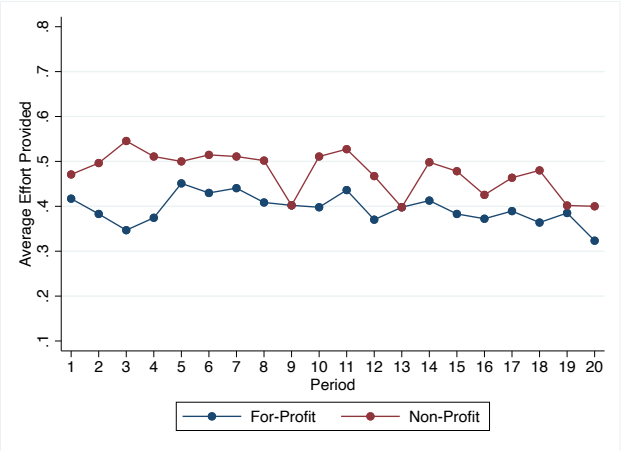
Table 5: Panel Data Random Effect Tobit Regression Results for Firm Profits

	(1)	(2)
Non-Profit	9.172**	0.324
	(3. 926)	(4.492)
Period	- 0.582 ***	-0. 602***
	(0.123)	(0. 121)
Wage 20		6.448**
		(2.908)
Wage 30		13. 604***
		(3.135)
Wage 40		20.832***
		(3.641)
Wage 50		23.756***
		(3.746)
Wage 60		15.863***
		(4.521)
Wage 20*Non-Profit		-1.274
		(4.289)
Wage 30*Non-Profit		5.204
		(4.094)
Wage 40*Non-Profit		10.217**
		(4.407)
Wage 50*Non-Profit		11.586**
		(4.794)
Wage 60*Non-Profit		10.388**
		(5.070)
Constant	50.389***	34.847***
	(3.458)	(3.894)
Number of Observations	*2,040*	*2,040*
Number of Groups	*102*	*102*

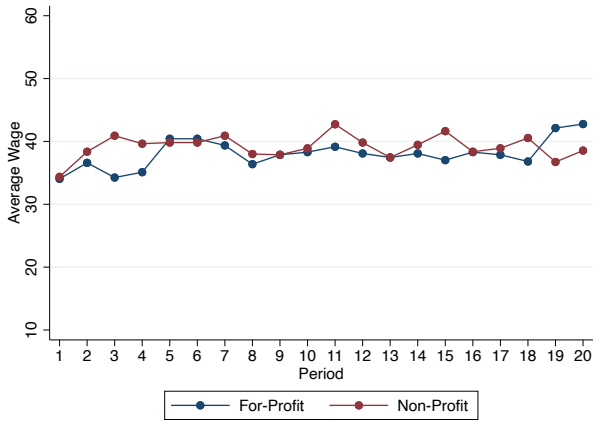
*p < 0.10, **p < 0.05, ***p < 0.01. Bootstrapped standard errors are in parentheses. The dependent variable is the profits generated in each round. Minimum possible profit of 8 occurs when the manager pays the highest wage of 60 and the worker provides the lowest effort of 0.1. Maximum possible profit of 180 occurs when the manager pays the lowest wage of 10 and the worker provides the highest effort of 1. Thus, the left censoring is set to 8 and the right censoring is set to 180.

ONLINE APPENDIX

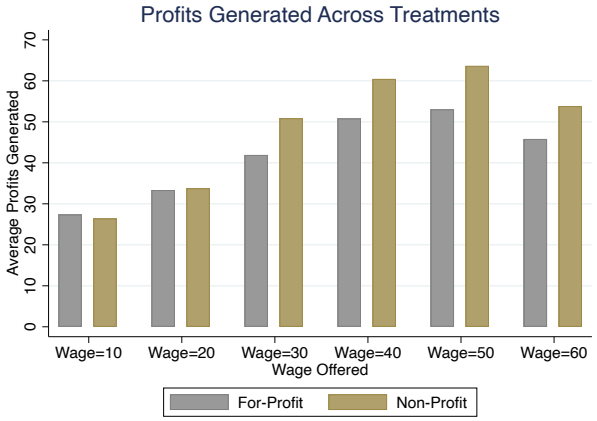
APPENDIX A ADDITIONAL FIGURES



(a) Average Effort Provided



(b) Average Wage Offered



(c) Average Profits Generated

Fig A.1. Average Effort Provided, Wage Offered, and Profits Generated across Treatments

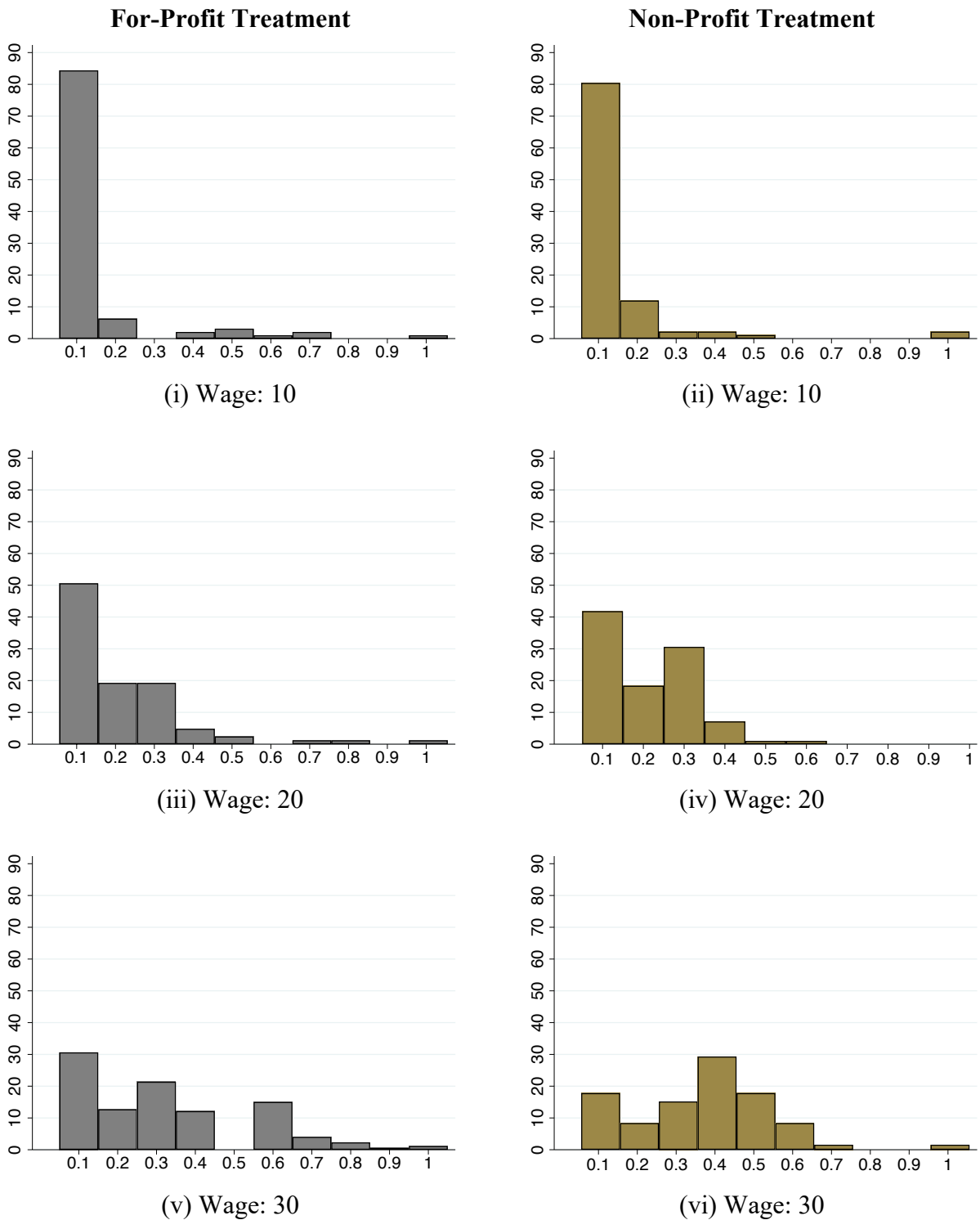


Fig A.2. Distributions of Effort provided Across Low Wages and Treatments.

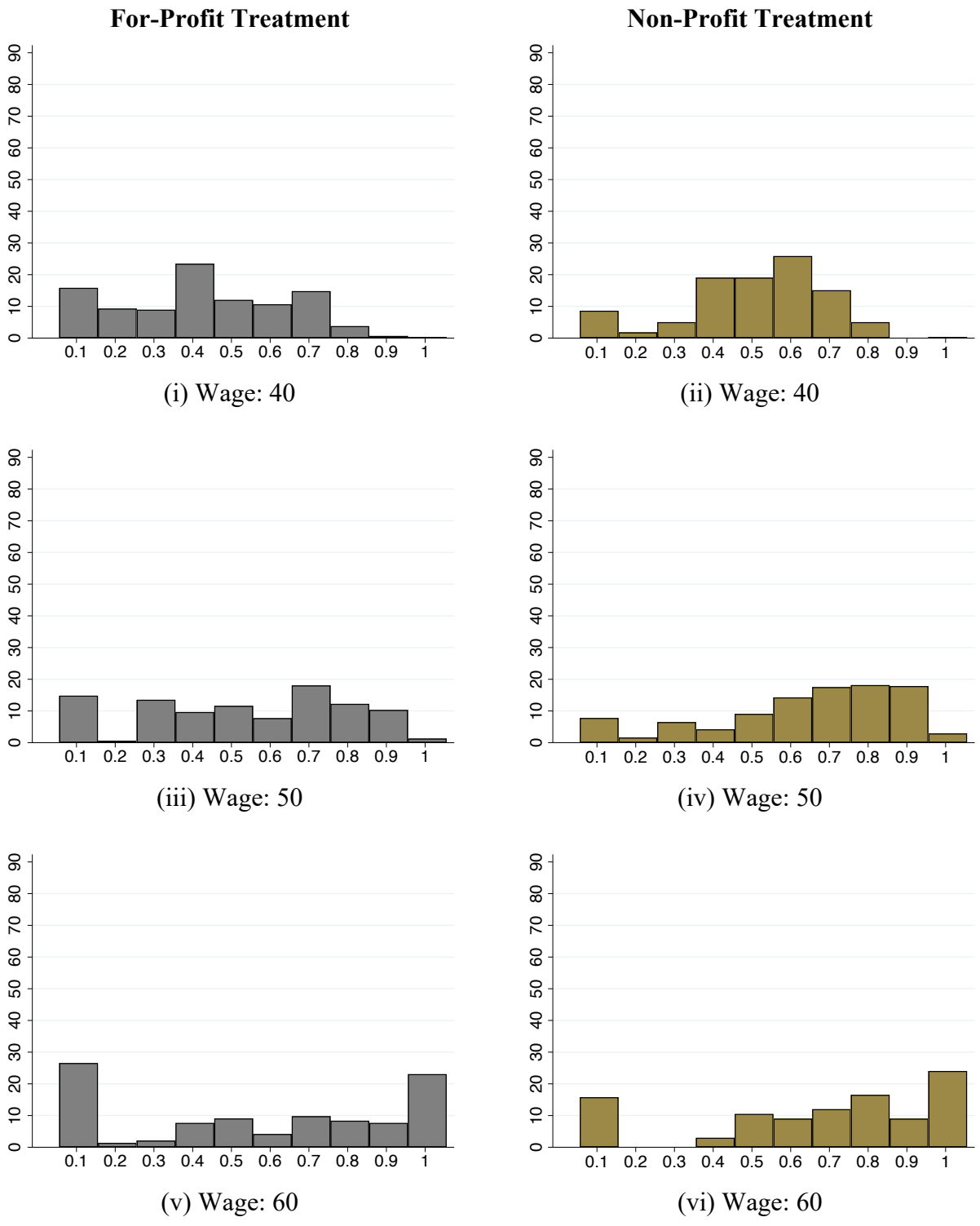


Fig A.3. Distributions of Effort provided Across High Wages and Treatments.

APPENDIX B ADDITIONAL TABLES

Table B.1. Subjects' Demographics Across Treatments

	Non-Profit	**For-Profit**	***p-values***
Female	0.53 (0.50)	0.51 (0.50)	*0.801*†
Age	20.09 (1.56)	20.22 (3.02)	*0.452*††
White	0.53 (0.50)	0.53 (0.50)	*1.000*†
Economics or Business Major	0.30 (0.46)	0.38 (0.49)	*0.183*†
College Year	2.56 (1.22)	2.33 (1.09)	*0.145*††
Relative Family Income	2.95 (1.20)	2.96 (1.00)	*0.932*††
Work While Schooling	0.37 (0.49)	0.32 (0.47)	*0.422*†
Number of Subjects	*110*	*141*	

Standard deviations are in parentheses. †Fisher's Exact Test ††Mann-Whitney test.
Relative family income variable is subjects' answer to the following survey question: Relative to other students at Texas A&M University, would you say your income is (1) much below average … (5) much above average.
Work While Schooling is the indicator variable if the subject works while attending school.

Table B.2. Panel Data Random Effects Tobit Regression Results

	(1)	(2)	(3)
Wage	0.013***	0.014***	0.014***
	(0.001)	(0.001)	(0.001)
Non-Profit	0.001	0.002	0.368**
	(0.073)	(0.072)	(0. 178)
Wage*Non-Profit	0.003*	0.002*	0.002*
	(0.001)	(0.001)	(0.001)
Period		-0.008***	-0.008***
		(0.001)	(0.002)
Female		-0.085*	-0.067
		(0.050)	(0.051)
Society Oriented			0.109***
			(0.036)
Society Oriented*Non-Profit			-0.096**
			(0.042)
Constant	-0.188***	-0.072	-0.491***
	(0.063)	(0.068)	(0.161)
Number of Observations	*2040*	*2040*	*2040*
Number of Groups	*102*	*102*	*102*

*p < 0.10, **p < 0.05, ***p < 0.01. Bootstrapped standard errors are in parentheses. Dependent variable is the amount of effort provided by the worker. Since the effort has to be between 0.1 and 1, the left censoring is set to 0.1 and the right censoring is set to 1.