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THE NONPROFIT'S DILEMMA

by
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The Nonprofit's Dilemma*

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Abstract

Nonprofit firms producing services that are of broad public concern — mission-driven organizations — pay lower wages and often use low-powered incentive schemes, which has been explained by binding financial constraints and the threat to attract wrong worker types if wages are increased. Yet, they face higher labor turnover than for-profit firms, which is very costly. We construct a simple model that reproduces these stylized facts, explains the high labor turnover of mission-driven organizations, and suggests a way out of this nonprofit's dilemma, based on insights from the economic psychology literature. We construct testable empirical hypotheses and offer managerial and policy implications.

JEL classification: L31, J31, D64, D91, M51

Keywords: intrinsic motivation, altruism, beliefs, nonprofit, nonprofit sector, NGOs, charities, self-deception

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1 Introduction

The provision of services that are of broad public concern is a widespread phenomenon not only among organizations in public ownership but also among private firms, especially not-for-profit organizations (NFPs). Healthcare, educational or childcare providers, charities and social groups all are active in the provision of goods with positive spillover effects for society. Such activities contribute significantly to our economies. In the United States, nonprofits accounted for 10.2% of jobs (12.3 million) in the private sector in 2016 (WIPFLI, 2020) and for 5.3% of GDP (U.S. Bureau of Economic Analysis). Nonprofits employed the third largest workforce of any U.S. industry in 2016 and were the third largest generator of payroll income (Salamon and Newhouse, 2020).¹

One characteristic of the nonprofit sector is that salaries are relatively low, compared to profit-maximizing firms (Ruhm and Borkoski, 2003).² The major explanation for this finding has been the so-called “labor donation hypothesis” (Preston, 1989; Jones, 2015), according to which many employees in the nonprofit sector are committed to the mission of their organization and accept a lower wage because they want to improve some aspects of the living conditions on our planet: they want to “make a difference.”³

However, lately the wage gap has been criticized heavily. Cohen (2010) calls: “Mission and motivation are laudable, but substandard incomes are not.”⁴ Murdock (2002), Bénabou and Tirole (2003), Besley and Ghatak (2005), Francois (2000, 2007), and others have analyzed optimal wages in the nonprofit sector and modeled versions of the labor donation hypothesis (see Francois and Vlassopoulos (2008) for an overview). These papers suggest that low wages in nonprofits are used as a screening device for intrinsically motivated workers, who voluntarily forego some income by choosing to work in the nonprofit sector. This benefits them either directly if they are “pure altruists,” or indirectly, by attracting social recognition and self-esteem as individuals who make the world a better place if they are “impure altruists.”⁵ Thereby,

¹Despite the fact that different types of nonprofits exist, all have in common that they follow some mission different from profit-maximization (Filistrucchi and Prüfer, 2019).

²Cohen (2010) underlines these findings. Weisbrod (1983) finds that lawyers with similar qualifications earn 20 percent more in the private, for-profit sector than in nonprofits. Francois (2007, footnote 1) reports more related evidence.

³According to a survey among 1,000 full-time employees in the nonprofit and philanthropic sector, more than 90 percent of respondents agree that personal satisfaction with the mission of their work is the most important driver in their career decisions (TIAA-CREF, 2011).

⁴Similarly, nonprofit workers claim: “The system is set up in such a way that the income gap between for and non-profit worlds seems just an inevitability, even if we recognize the pitfalls in such a society. But non-profit workers have somehow been made to believe that our low paying salaries are a source of pride and show we truly care. And that internalization is a big part of the problem” (Restauro, 2015).

⁵Rose-Ackerman (1996) characterizes pure (and impure) altruists as people who enjoy seeing certain public

increasing wages in nonprofits bears the risk of crowding out intrinsic motivation and to attract workers without altruistic concerns.

The apparently paradoxical problem facing the nonprofit sector is that, despite the reported wish of many employees to make a difference, labor turnover is significantly higher than in the for-profit sector. Based on survey data, Brown and Yoshioka (2003) find that mission attachment and good working conditions improve employee satisfaction and retention — but that low wages and lacking of career advancement in the nonprofit sector override mission attachment. Annual labor turnover in nonprofits is estimated between twenty to forty percent (Faller et al., 2010; Schudrich et al., 2012).⁶ It results in a loss of both the employee and the resources required for the recruitment and training of a new employee (Selden and Sowa, 2015). It also diminishes an organization’s capability to manage relational contracts with key stakeholders such as donors, due to the frequent cessation of personal links between the firm’s employees and outside parties.

Summarizing, the *nonprofit’s dilemma* is that the sector suffers from high labor turnover, which can be partly attributed to the wage gap, compared to for-profit enterprises. But closing this gap by increasing wages of nonprofit workers may not only be impossible because many nonprofits face tighter budget constraints than for-profit corporations. Even more, due to the risk of attracting the “wrong” workers, which would exploit free-riding opportunities inherent in the production of public goods and hence reduce the philanthropic impact of their work, higher salaries may be counterproductive.

In this paper, we challenge the view that high labor turnover is a consequence of lower payment in the nonprofit sector. Nonprofit workers know their employment contract already when starting their job assignment and must necessarily find it beneficial then, compared to their outside options. Instead, we propose that it is the impairing belief in the possibility of “making a difference” that induces workers to stop working for a mission-oriented organization.

We model a labor market populated both by workers with different degrees of intrinsic motivation and by nonprofit jobs that differ in their effectiveness of producing public goods. Mission-oriented firms, whose managers have common beliefs about the intrinsic motivation of workers and about the potential altruistic productivity of workers on their jobs, make take-it-

goods provided by somebody (or by themselves). Andreoni (1990) explains why people give to charity with people expressing impure altruism. Those “warm glow” givers receive utility from the act of giving.

⁶Another survey reports a voluntary annual turnover rate in the nonprofit sector of 19%, as compared to the all-industry average of 12% (<https://www.exacthire.com/workforce-management/nonprofit-employee-retention/>). Slatten et al. (2021) report that especially small nonprofits have difficulties offering salary packages that are competitive to for-profit firms’.

or-leave-it wage offers. Workers care both about private consumption and about their prosocial impact. They know their own intrinsic motivation but can only guess their potential to make a difference on a specific job. Depending on the wage offered, they choose to accept the nonprofit job or to revert to their outside option in for-profit employment.

While being employed, the worker learns his true potential to “make a difference” on this job. Then, he can choose either to stay working for his NFP-employer, to switch jobs within the nonprofit sector, or to take up a job in a for-profit firm. Our key questions are, who makes which choice, and what does the worker do if he realizes that he cannot make a difference?

Following Bénabou and Tirole (2006), we assume that every worker can neglect disappointing information and manipulate his own recollection of the true productivity level on his job—but that doing so is costly for the worker.⁷ Specifically, by investing effort into repressing disappointing information received from his daily work for the mission-driven firm, the worker can make himself believe that the true productivity level is high and derive the utility from making a difference corresponding to that belief. This choice can occur subconsciously and is non-observable for others.⁸

The model reproduces the wage gap between nonprofit and for-profit employers. It also reproduces Francois (2007) showing that only workers who are sufficiently intrinsically motivated take up a nonprofit job. Going beyond Francois (2007), Besley and Ghatak (2005), and Delfgaauw and Dur (2007), we show which worker type makes which employment decisions. Workers with the lowest level of intrinsic motivation seek employment in the for-profit sector right away. Workers with higher intrinsic motivation start working for NFPs: those who find out that they actually do make a difference stay with their employer, being pleased about their philanthropic impact. Those who are disappointed about their impact but who are highly intrinsically motivated or for whom belief manipulation is not very costly, also stay with their employer. Both groups constantly manipulate their beliefs, where the extent of this manipulation even increases in their own prosocial motivation and in the true impact they can make on this job. Thereby, workers who are actually making the highest impact get even more enthusiastic about their work, making self-deception about their work a “natural” characteristic of the nonprofit sector.

⁷Bénabou and Tirole (2002) provide evidence from the psychology literature on the selective accessibility of past data. See also Bénabou and Tirole (2006, footnote 8). Kopczuk and Slemrod (2005) apply this belief-manipulation technology to model people’s denial of their own death, despite knowing better, that is, conscious repression of received, negative information.

⁸Already Akerlof and Dickens (1982, p.307) summarized insights from the psychology literature: “not only are people able to exercise some choice about belief given available information, they can also manipulate their own beliefs by selecting sources of information likely to confirm “desired” beliefs.

However, workers with medium altruistic preferences or with high psychological costs of neglecting disappointing information leave their current employer and seek to work for another nonprofit. The model predicts that these workers keep switching jobs within the nonprofit sector until they have found one with high social impact. This effect is unique to the nonprofit sector because in the corporate world workers are more motivated by higher wages and other material amenities. Hence, there a workers' expectations about making a difference are comparatively low from the start, which leads to less potential disappointment. This difference rationalizes the higher observed labor turnover rate in the nonprofit sector.

We review the literature in Section 2. Section 3 contains our model and its theoretical results. They are transformed into empirical hypotheses and related to anecdotal evidence in Section 4. In Section 5, policy and managerial implications are presented.

2 Literature

Besley and Ghatak (2005) analyze the optimal incentive structure in the mission-oriented sector and emphasize the role of matching and competition when agents are motivated. Matching is also crucial in our model, but when the agents find out matching is not ideal after working in a nonprofit, there is an opportunity for self-deception (details follow below). Francois (2007) and Delfgaauw and Dur (2007) suggest that low wages in nonprofits are used as a screening device to ensure that only the agents who genuinely care about the mission are hired. Our model differs in that we do not need to explicitly model efforts, but focus on the matching parameters. The joint prosocial productivity level depends on both how well the principal-agent matching is and the agent's personal level of intrinsic motivation.

An alternative way to incentivize NFP-workers is to keep them committed and engaged to the cause of their employer (Slatten et al., 2021). This can be achieved by neglecting disappointing information and by denying contradictory evidence in an effort to maintain a positive view of oneself. Such self-deception, where one part of a worker's self is lying to another part, is a phenomenon well documented by psychologists, rationalized by anthropologists, and initiated an ongoing debate among philosophers. It can occur both when individuals encounter normal stressful events, such as unpleasant work conditions, and more extreme events, such as fatal diseases (Taylor and Armor (1996) offer an overview). Ramachandran and Rogers-Ramachandran (1996) report that, after a stroke, patients tend to deny their paralysis, some even without

realizing it (so-called *anosognosia*). Kopczuk and Slemrod (2005) apply this unconscious self-deception mechanism to model people’s denial of their own death, despite knowing better, that is, conscious repression of received, negative information. Trivers (2000) rationalizes why human beings deceive themselves, from an evolutionary perspective: because a lie can be more convincing if the liar believes it to be true, individuals lie to themselves in order to better lie to their social environment (so-called *interpersonal deception*).⁹ In our model, we assume that an agent does not plan to deceive himself in the future (hence, self-deception is unintentional), but would be motivated to do so after receiving disappointing information.

Following Bénabou and Tirole (2006)’s modeling of believing in a just world despite knowing better, we assume that every worker can manipulate his own recollection of his job’s philanthropic impact but that doing so comes at a psychological cost. Our model differs from Bénabou and Tirole (2006) and Kopczuk and Slemrod (2005) in the timing of information regarding productivity and when to neglect the negative information. In these two papers, an agent first knows the true parameter value, which can be good or bad news, and then chooses whether to ignore the bad news, or not. Instead, we assume that an agent only learns his true impact after working for a nonprofit, and then chooses whether, and to which extent, to ignore the bad news.

3 The Model

Consider two players, one worker (he) and one nonprofit employer (NFP; she), each randomly drawn from a large pool of workers or nonprofit firms, respectively.¹⁰ Both are risk-neutral and matched to each other on the labor market. The worker is characterized by a degree of intrinsic motivation $\gamma \sim \mathcal{U}(0, \hat{\gamma})$, which denotes his altruism when contributing to public goods production. The job that the nonprofit offers is characterized by the parameter $\beta \sim \mathcal{U}(\beta_0 - \delta, \beta_0 + \delta)$, $\beta_0 > \delta$, which measures the public goods productivity level the worker produces on this particular job. Hence, β captures the possibility to “make a difference.” The extent of this possibility, however, is a function of firm-worker-specific factors (Besley and Ghatak, 2005). Therefore, we assume that no party knows β ex ante.¹¹ The worker’s type, γ , is

⁹Whether individuals deceive themselves intentionally, or not, is an open question. So-called *intentionalists* often utilize some combination of psychological and temporal divisions that serve to insulate self-deceivers from the awareness of their deceptive strategy (Bermúdez, 2000). *Non-intentionalists*, by contrast, argue that the willingness to hold a false belief is in fact motivated by desire, anxiety, or some other emotion related to what one wants (not) to believe (see Johnston (1995) for an overview.)

¹⁰We use different genders for clarity and sparsity and do not intend to make any normative judgment.

¹¹For instance, consider a NFP worker with potential donors in his personal network, who could be motivated to donate to *this* employer’s cause. The potential impact of this worker (as fundraiser) could be huge. But the

private information. The distributions of γ and β are common knowledge. Hence, both players expect $E(\beta) = \beta_0$, and the NFP expects $E(\gamma) = \hat{\gamma}$.

The true level of public goods generated by the worker-firm combination is denoted by $\gamma\beta$.¹² The worker's outside option, working for a for-profit enterprise without producing any public goods, pays a competitive wage that yields consumption utility \bar{u} . This is common knowledge.¹³ If the firm cannot hire the worker, it saves the wage but cannot substitute the candidate with another worker in a given game. We restrict our attention to parameter values, where the market for nonprofit jobs exists and where workers earn non-negative wages.

Assumption 1 $\bar{u} < 2\beta_0\hat{\gamma}$.

We study two phases in the worker-employer relationship: first, the job search and matching phase; second, the long-term employment phase. We consider only myopic workers and firms, in the sense that workers make job choices based on their expected impact on the job, assuming that the impact is fixed in the long run. Therefore, when choosing an employer, workers do not incorporate that they may learn something about the true impact of their job over time. Because an employer does not know when a worker learned something about his true impact on this job, the employer has no information when the switch from phase one to phase two occurs. Therefore, we model two distinct games, G1 and G2, and analyze them subsequently, using Subgame-perfect Nash Equilibrium as solution concept for each game.

In G1, the worker maximizes his expected utility from working for the NFP:

$$EU_1(\gamma, w) = \gamma E(\beta) + w, \quad (1)$$

which captures that the worker cares both about “making a difference” and his private consumption, proxied by a fixed wage, w . The nonprofit's manager also wants to make a difference and makes the worker a take-it-or-leave-it wage offer w in order to maximize her expected payoff:

$$E\pi(w) = \text{prob}\{\text{worker accepts contract}\}(E(\gamma|\gamma > \gamma_1(w))E(\beta) - w), \quad (2)$$

fact would neither be verifiable nor observable ex ante.

¹²It follows that we construct a pure adverse selection model. We thereby implement a shortcut of Francois (2007), who studies moral hazard if workers are intrinsically motivated but make unverifiable effort decisions and also receive a fixed wage. We implicitly assume that a highly intrinsically motivated worker exerts more effort and therefore produces more public goods, which is attractive for the mission-driven employer.

¹³In practice, the worker's CV, education, and work experience, which produces information about his earnings potential in the for-profit world, are public information.

where $\gamma_1(w)$ characterizes the worker who is indifferent between accepting and rejecting the NFP's offer.

At the end of G1, that is, after working for the nonprofit, the worker perfectly learns the true potential to make a difference on this job, β . In G2, he then decides whether to stay employed with his employer (NFP1), whether to seek a job in another nonprofit (NFP2), or whether to leave the nonprofit sector altogether and to seek employment in a for-profit firm (FP). All employers could observe employment decisions in G1 and make wage offers first. If the worker stays with NFP1, he chooses β_a , the extent of manipulation of his own recollection to make a difference on this job. This comes at psychological cost $m = \frac{\eta}{2}(\beta_a - \beta)^2$, where η parameterizes the psychological and social cost of own belief manipulation. We summarize the timing of the games.

- G(ame) 1: Matching and learning
 - Stage 0: Nature randomly draws one job candidate from the pool of workers for a nonprofit, NFP1.
 - Stage 1: NFP1 makes a take-it-or-leave-it wage offer, w_1 , to the worker.
 - Stage 2: The worker decides whether to accept the job offer or whether to move to the corporate sector, earning \bar{u} . If working for NFP1, the worker learns the job's true impact β and G1-payoffs are realized.
- G2: Long-term employment
 - Stage 1: NFP1 and NFP2 make take-it-or-leave-it wage offers, w_2 .
 - Stage 2: The worker accepts one NFP-contract or the for-profit outside option. If he stays with NFP1, he also decides the extent of his own belief manipulation, β_a . G2-payoffs are realized.

3.1 Analysis of G1: Matching and Learning

In Game 1, given equation (1), the worker accepts a job for wage w if, and only if:

$$\gamma\beta_0 + w \geq \bar{u} \tag{3}$$

$$\Leftrightarrow \gamma \geq \frac{\bar{u} - w}{\beta_0} \equiv \gamma_1(w), \tag{4}$$

where equation (4) is the worker's participation constraint and $\gamma_1(w)$ characterizes the least intrinsically motivated worker who would accept a NFP-job offer with wage w . Using this, the firm can rewrite (2):

$$E\pi = \left(\frac{\hat{\gamma} - \gamma_1(w)}{\hat{\gamma}} \right) \left(\beta_0 \frac{\hat{\gamma} + \gamma_1(w)}{2} - w \right) \quad (5)$$

Maximizing (5) w.r.t. w and substituting the equilibrium wage in (4) yields the G1-equilibrium.

Proposition 1 (Equilibrium wage and matching) *(i) In G1, the equilibrium nonprofit wage is $w_1^* = \frac{1}{3}(2\bar{u} - \beta_0\hat{\gamma})$. (ii) Workers with intrinsic motivation $\gamma \in [\frac{\beta_0\hat{\gamma} + \bar{u}}{3\beta_0}, \hat{\gamma}]$ accept the nonprofit's job offer. Other workers move to the corporate sector.*

This Proposition shows that the equilibrium wage is strictly smaller than \bar{u} , the for-profit outside option. This wedge grows in the expected impact of the worker's job (proxied by $\beta_0\hat{\gamma}$), that is, it grows in the worker's *belief of making a difference*. Second, the equilibrium wage is increasing in \bar{u} . Hence, for workers with skills that are sought after in the for-profit sector, nonprofits have to pay more. If $\bar{u} < \frac{\hat{\gamma}\beta_0}{2}$, a worker will work for free. If $\bar{u} \geq 2\hat{\gamma}\beta_0$, which we rule out by Assumption 1, the market for jobs in the nonprofit sector breaks down. Third, Proposition 1.(ii) shows that there is a selection effect predicting that workers with high prosocial motivation are found in the nonprofit sector, and that workers with less (but potentially still positive) prosocial motivation prefer a corporate job.

At the end of G1, the nonprofit worker learns the true impact he can make on this job, β . Payoffs are realized.

Corollary 1 (G1-Equilibrium payoffs) *At the subgame-perfect Nash equilibrium of G1, the nonprofit worker receives:*

$$U_1(\gamma, \beta) = \gamma\beta + \frac{1}{3}(2\bar{u} - \beta_0\hat{\gamma}) \quad (6)$$

The nonprofit's expected payoff from one worker is:

$$E\pi = \frac{(\bar{u} - 2\beta_0\hat{\gamma})^2}{6\beta_0\hat{\gamma}} > 0 \quad (7)$$

Equation (6) implies that the least intrinsically motivated NFP worker gets higher (lower) payoff than his outside option if the true β of his job is larger (smaller) than β_0 . For workers

with higher intrinsic motivation, the likelihood of being disappointed is lower than 50% and decreasing in γ . The nonprofit employer also gets positive payoff in expectation.

3.2 Analysis of G2: Long-term Employment

By assumption, even as the NFP worker learns the true level prosocial impact he has when working for NFP1, β , he cannot communicate it credibly to his employer. Consequently, the wage of a nonprofit worker with constant outside option \bar{u} is the same in both games: $w_2 = w_1^* = w^*$. Knowing this, the worker can first choose to manipulate his recollection of the true impact of the job, by setting β_a , for a cost $m = \frac{\eta}{2}(\beta_a - \beta)^2$. He solves:

$$\max_{\beta_a} EU_2(\gamma, \beta) = \gamma\beta_a + w^* - \frac{\eta}{2}(\beta_a - \beta)^2. \quad (8)$$

Lemma 1 (Equilibrium self-deception) *The unique solution to (8) is $\beta_a^* = \beta + \frac{\gamma}{\eta}$.*

Given that, according to Proposition 1.(ii), all nonprofit workers are intrinsically motivated, Lemma 1 implies that *all* workers who stay with their employer after learning β manipulate their beliefs about making a difference. Setting $\beta_a = \beta_a^*$ implies that a worker deceives himself by $(\beta_a^* - \beta) = \frac{\gamma}{\eta}$: workers who are highly intrinsically motivated deceive themselves more than workers with lower intrinsic motivation. Moreover, Lemma 1 shows that the prosocial impact that a long-term nonprofit worker makes himself believe of (β_a) increases in the true impact he makes (β) and it decreases in the cost of manipulating his belief (η).

Substituting β_a^* into (8) yields the utility of a worker who stays with NFP1 in G2:

$$EU_{2,NFP1}(\gamma, \beta) = \gamma\beta + \frac{\gamma^2}{2\eta} + \frac{1}{3}(2\bar{u} - \beta_0\hat{\gamma}) \quad (9)$$

The first factor in (9) is the utility the worker derives from his true impact on this job. The third factor is the consumption utility from his wage. The second factor is a psychological or social bonus that he gets from manipulating his recollection of the facts and inflating his perceived potential to make a difference.

Alternately to staying with NFP1, the worker can switch to another nonprofit, denoted by *NFP2*. There he would be facing a job with unknown β again: $E(\beta) = \beta_0$. NFP2 would neither know the worker's true γ nor the true β of the worker on her job. But as NFP2 knows that the worker already worked for another nonprofit, which is verifiable information, she can use

Proposition 1.(ii) and update the probability that the worker accepts her job offer. The worker expects the following utility if he switches from NFP1 to NFP2 in G2:

$$EU_{2,NFP2}(\gamma) = \gamma\beta_0 + \frac{1}{3}(2\bar{u} - \beta_0\hat{\gamma}) \quad (10)$$

The third option of the worker in G2, to seek employment in a for-profit firm, yields:

$$EU_{2,FP} = \bar{u} \quad (11)$$

Comparing the expected payoff functions in the three possible employment schemes yields our central result.

Proposition 2 (Equilibrium employment decisions in G2) *(i) Consider workers who learned the true β of their employer, NFP1. Those with highest intrinsic motivation, $\gamma \geq 2\eta(\beta_0 - \beta)$, stay employed with NFP1 and manipulate their beliefs as specified in Lemma 1. (ii) Workers with medium intrinsic motivation, $2\eta(\beta_0 - \beta) > \gamma \geq \frac{\beta_0\hat{\gamma} + \bar{u}}{3\beta_0}$, leave their employer and switch to another NFP-job. (iii) Workers with low intrinsic motivation, $\gamma < \frac{\beta_0\hat{\gamma} + \bar{u}}{3\beta_0}$, already worked for a for-profit in G1 and stay in the for-profit sector.*

Proof: see appendix.

This Proposition shows that only workers who were disappointed about the true prosocial impact of their first job (for whom $\beta < \beta_0$) consider switching employers. All workers whose expectations were positively surprised, happily stay with NFP1. In contrast, all these workers manipulate their beliefs about making a difference, as specified in Lemma 1.

Proposition 2.(i) states that workers act similar to the first group if they were only mildly disappointed (if $\beta_0 - \beta > 0$ but low) or whose intrinsic motivation (γ) is very high or if the cost of belief manipulation (η) is small. Proposition 2.(ii) implies that, if the disappointment is sufficiently large or the cost of belief manipulation is too high, the worker leaves his employer (NFP1) but, driven by his substantial intrinsic motivation, prefers to look for another opportunity in the nonprofit sector (NFP2). Proposition 2.(iii) then predicts that workers who never took up employment with a nonprofit would stay in the corporate world in G2.

4 Empirical hypotheses

The model suggests the following empirically testable hypotheses.

H1 (*Labor Donation Hypothesis*): (i) *We expect the wage level for a certain job to be smaller in nonprofits than in for-profits.* (ii) *The wage difference is growing in the perceived prosocial impact.*¹⁴

This extends to entire industries. Hence, nonprofit wages should be lower for helping poor children in developing countries (obviously a good deed) than for donating labor to building a new opera house (the prosocial impact of which is less clear). For evidence, see Preston (1989) and Jones (2015).

H2 (*For-profit options affect nonprofit wages*): *We expect wages in nonprofits to be increasing in wages of corresponding jobs in for-profits.*¹⁵

The wages of NFP workers with highly demanded skills in the for-profit sector (e.g. management, sales/fundraising) should rise with those in corporations. Consequently, high overhead is not necessarily a sign of inefficient nonprofit management but a necessity in organizations depending on workers with skills that are also demanded elsewhere (Pallotta, 2009). For jobs with low outside options (e.g. distribute leaflets), we expect free volunteering.

H3 (*Selection and Dilution Effects*): *We expect that (i) workers who are highly (only a little) intrinsically motivated are found in the nonprofit (for-profit) sector. (ii) Higher nonprofit wages attract workers with increasingly lower intrinsic motivation.*¹⁶

Bhati and Manimala (2011) find that nonprofit workers, more than in other sectors, are attracted and motivated by a belief in the organization's values and mission and the opportunity to connect to their own values on the job. Fehrler and Kosfeld (2014) find an increase in effort among mission-motivated workers only once firms can screen workers by offering less financially attractive contracts.

H4 (*Self-deception and job satisfaction in the nonprofit sector*): *We expect that self-deception about their true pro-social impact is a natural characteristic of all long-term workers in the nonprofit sector.*¹⁷

There is little structural but lots of anecdotal evidence.¹⁸ Lab experiments with actual

¹⁴Based on Proposition 1(i).

¹⁵Based on Proposition 1(i).

¹⁶Based on Proposition 1(ii).

¹⁷Based on Lemma 1.

¹⁸For example, Advice 24 of *24 Things I Wish I Knew Before Entering the Nonprofit World* reads: "Once you merge your personal drive with a best-fit organizational culture and focus, prepare for a boost in job satisfaction. Seeing the impact of your work helping others really does feel great"

NFP-/FP-workers could effectively test H4.

H5 (Labor turnover within the nonprofit sector): *We expect to see three categories of employees: (i) Among nonprofit workers, those with highest intrinsic motivation and those whose job is actually impactful (and not necessarily those with highest salaries) stay with their nonprofit employer. (ii) Workers with less impactful jobs switch employers within the nonprofit sector. (iii) Workers who never worked for a nonprofit stay out of the sector.*¹⁹

Forbes writes about recent survey research among 1,004 nonprofit employees in the U.S.:²⁰ “45% of responding nonprofit employees indicated that they will seek new or different employment in the next five years. Of that group, 23% said that nonprofits would not be among the types of organizations they intend to pursue. Of the 45% who said they’d seek other employment, a plurality — 49% — said that nonprofit organizations do not pay enough. Additionally, 19% said that nonprofits do not offer good long-term career opportunities, and 12% concluded that nonprofits are not well-run businesses.”

These findings can be interpreted through the lens of our model. First, it suggests that only disappointed nonprofit workers, with $\beta < \beta_0$ (i.e. 50%), *consider* switching employers. The survey finds 45%. Second, Proposition 2 does not predict switches from NFPs to FPs, *ceteris paribus*. But as workers’ skills develop and the technological opportunities change over time, so do workers’ FP outside options (\bar{u}), which suggests that some, not many, disappointed NFP workers leave the sector in practice (cf. the 23% in the survey).²¹ Third, the 49% complaining about low pay are either not honest or myopic: they knew the wage level upfront. Hence, they could be reinterpreted as NFP workers who *hoped* to get more pay or to have more impact, which was disappointed. Fourth, the 19% who are disappointed about low career perspectives and the 12% who said that nonprofits are not well-run businesses may have found out that β of their employer was lower than expected (β_0).

(<https://www.wildapricot.com/blog/24-things-i-wish-i-knew-before-entering-the-nonprofit-world#23-always-lead-with-mission-and-be-passionate>).

¹⁹Based on Proposition 2.

²⁰<https://www.forbes.com/sites/chrisstrub/2020/02/10/nonprofithr/?sh=2d41563e15ca>.

²¹Such a model extension is straightforward but exceeds our space constraints. Assume that \bar{u} can differ across games and that \bar{u} in G2 is called u_2 . Then, if $u_2 \gg u_1$, it can be easily shown that even some very happy NFP-workers (with high β) switch to a for-profit employer.

5 Two nonprofit firms, two societies

Consider two nonprofit organizations characterized by $\underline{\eta}$ and $\bar{\eta}$, $\underline{\eta} < \bar{\eta}$. In the $\bar{\eta}$ -firm, management implements a data-based impact evaluation system, which shows transparently what the true impact of each worker is. In the $\underline{\eta}$ -firm, management is very positively enthusiastic about the firm's impact on society and the importance of every worker's effects for their beneficiaries, a bit exaggerating. Similarly, consider two societies, with $\underline{\eta}$ and $\bar{\eta}$, respectively. A different η could be interpreted as different social norms about exaggerating one's impact or, alternatively, as different social status levels a worker enjoys if telling others about the high impact he has via his NFP job. If scrutiny about the details of one's actions is high (making it relatively difficult to exaggerate one's impact), the society is characterized by $\bar{\eta}$. In turn, if workers know that they will obtain a lot of respect from their peers if telling (selected) stories from their job or if manipulating the perception of one's true impact (by themselves and their peers) is more acceptable, the society is characterized by $\underline{\eta}$.

In a $\underline{\eta}$ -society, as compared to a $\bar{\eta}$ -society, β_a^* is higher and more workers stay with their original NFP-employer. A $\underline{\eta}$ -firm has lower labor turnover than a $\bar{\eta}$ -firm. In the latter, workers manipulate their beliefs more, which gives them higher payoffs at equilibrium.²² The payoff of NFP employers is not affected by η . Hence, summing up both sides' payoffs, total payoffs in a $\underline{\eta}$ -society is higher than in a $\bar{\eta}$ -society. If we had assumed that labor turnover, which is lower if η is low, comes at an explicit cost for both employer and employee, the $\underline{\eta}$ -society or $\underline{\eta}$ -firm would fare even better in relative terms.

These predictions are reflected by empirical studies. Wang and Wang (2020) find that employees with adequate support from their organization work harder, display positive attitudes and behaviors, and develop strong emotional bonds to the organization. Knapp et al. (2017) report that nonprofit workers care a lot about how they are treated by their employer. Echoing the same spirit, Beudean (2009) finds that building workers' commitment to the organization and focusing on relationships among workers and between workers and employers can reduce labor turnover. This can also be achieved if a nonprofit's values are similar to and align with its workers' (Slatten et al., 2021). Then there is a greater chance they will want to work for the organization and stay longer.

²²One can show that, if the productivity level of a worker depends on his effort, equilibrium effort increases both in his intrinsic motivation and the believed impact β_a . In such a model, highly intrinsically motivated workers would not only be more enthusiastic about their impact but also work more and thereby actually create more output.

These insights may contribute to the solution of the Nonprofit’s Dilemma. NFPs suffer from high labor turnover, which comes at a cost both for hiring, training personnel, and managing relational contracts. Nonprofits have tighter financial constraints, on average, than for-profit corporations. But even those that do have sufficiently deep pockets may attract less intrinsically motivated workers who, then, can be expected to produce less public goods. If η was a policy variable or could be influenced by managerial actions, e.g. by establishing social norms that support self-esteem of all NFP workers continuously underlining the effective prosocial impact of an organization, this model would strongly suggest to make use of this ability.²³ Let them believe in making a difference!

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²³During the COVID-19 crisis, several governments and private parties have run campaigns to support the social image of “healthcare workers,” independent of the true prosocial impact of every single job. Many healthcare employers are nonprofit organizations.

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Supplementary Appendix

Proof of Proposition 2: Comparing (9) and (10) shows that the worker prefers employment in NFP2 over NFP1 if, and only if:

$$\gamma < 2\eta(\beta_0 - \beta) \equiv \gamma_2 \quad (\text{A.1})$$

Comparing (9) and (11) shows that the worker prefers leaving NFP1 and taking up employment in the for-profit sector if, and only if:

$$\gamma < \sqrt{\frac{n(2\hat{\gamma}\beta_0 + 3\beta^2n + 2\bar{u})}{3}} - \beta n \equiv \gamma_3 \quad (\text{A.2})$$

Comparing (10) and (11) equals the trade-off in G1. A worker prefers employment in NFP2 over the for-profit outside option if, and only if:

$$\gamma \geq \frac{\beta_0\hat{\gamma} + \bar{u}}{3\beta_0} \equiv \gamma_1 \quad (\text{A.3})$$

Crucially, the constraint in (A.2) is not binding: If $\gamma_3 > \gamma_1$, workers with $\gamma \in [\gamma_1, \gamma_3)$ prefer to switch from NFP1 to NFP2, not to FP. Those with $\gamma \geq \gamma_3$ stay with NFP1. If $\gamma_3 < \gamma_1$, workers with $\gamma \in [\gamma_3, \gamma_1)$ would prefer to remain at NFP1 instead of switching to NFP2—but these workers already opted for work in the for-profit sector in G1. *Q.E.D.*