Pro-social behavior where we least expect it? The selection and socialization of intrinsically-motivated government (tax!) officials

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Abstract: Recent research raises two questions about the match between the mission of organizations and employees' mission preferences. First, to what degree must organizations pursue pro-social missions in order for their employees to exhibit more pro-social behavior? Second, which mechanism explains the organizational clustering of individuals with pro-social motivations? That is, do pro-social individuals select into pro-social organizations, or do employees in pro-social organizations become more pro-social? We address these using a pool of more than 1000 subjects from the public and private sectors in Indonesia. We find that individuals in the Indonesian government, including the Ministry of Finance, are significantly more pro-social than their private-sector counterparts, despite the fact that Finance is not particularly "caring" and the Indonesian public sector is not known for its single-minded pursuit of the public interest. We attribute pro-sociality among government employees to the paucity of organizations with pro-social missions in Indonesia. Our subject pool also allows us to test "selection" versus "socialization" effects more precisely than has been possible in prior research. We find strong evidence for both effects.

1. Introduction

Based on the observation that performance monitoring in government is weak, contracts between principals and agents are incomplete, and incentives generally low-powered, James Q. Wilson (1989) concluded that "[W]hat is surprising is that bureaucrats work at all..." (p. 156). So, why do bureaucrats work? A large body of research answers this question by appealing to the intrinsic motivation of workers. Wilson himself argued that employees work because they are intrinsically motivated to complete the tasks set before them, or because they enjoy the tasks. Since government and private sector tasks are often similar (procurement officers, secretaries, managers), in much of the research in the economics literature, and in this paper, another type of intrinsic motivation, "mission-orientation," is of greater interest. When workers intrinsically value the outcome of the task they are performing – their mission – they exert effort even when extrinsic incentives to do so are weak. This explanation for employee effort in the presence of weak monitoring and low-powered incentives implies that government employees exert effort because they are intrinsically pro-social and motivated to serve the public interest. Despite the weight given to this explanation for bureaucratic effort, however, little behavioral evidence exists to support the claim that government workers are, in fact, more pro-social.

The analysis in this paper suggests that they are, based on novel evidence from lab experiments with over 1,000 subjects from the government and private sectors in Indonesia.[1] All subjects participated in a variation of the dictator "game" that precisely measured their pro-social motivation: they received a sum of money and were told that they could give as much of it as they wanted to the Indonesian Red Cross, keeping the rest for themselves. Those from government donated significantly more than others to the Indonesian Red Cross.

These results contribute in several ways to research on intrinsic motivation among public and private sector employees. First, the empirical setting allows us to more precisely estimate differences in pro-social attitudes between government and private sector workers: the analysis is based on actual, rather than self-reported behavior; it looks specifically at government employees, neither focusing narrowly on front-line service providers, nor aggregating government employees with other "non-private sector" employees who do not work for profit-oriented organizations; and finally, our experimental design is focused precisely on pro-social behavior and not on other attitudes and values, such as trust in others. Previous research has had one or two of these attributes, but, because of data limitations, not all three. This analysis is also one of the first to examine subjects located outside a handful of high income OECD countries.

Second, the study design enables us to make progress in addressing a central question in the literature concerning the mechanism through which government employees come to be more pro-social. Are government employees more pro-social because pro-social individuals select into the government sector, or because service in the government sector reinforces pro-social behavior? Selection is at work if organizations attract workers who share their mission orientation (Besley and Ghatak, 2005; Gregg et al. 2011; Serra et al. 2011). Intrinsically-

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[1] Our unique study setting, Indonesia, allows us to assess the pro-social motivations of government employees in an organizational environment that is quite different from that of the developed country public sectors utilized in prior research (Gregg et al. 2011; Buurman et al. 2012). For example, Indonesia lies in the middle of the distribution of countries in terms of government effectiveness (percentile rank of 47.8 for 2010) according to world governance indicators (Kaufmann, Kraay, Mastruzzi 2009). This allows for greater generalizability of the findings to other developing countries.

motivated individuals always behave pro-socially; differences across organizations in the attitudes of their employees are therefore driven by the selection of intrinsically-motivated individuals into organizations that share their mission.[2] Organizational differences might also emerge because of socialization, however, if individuals in organizations with a pro-social mission become more pro-social over time (Andreoni and Bernheim, 2009; Benabou and Tirole, 2006; Ellingsen and Johannesson, 2008).

The two hypotheses are usually difficult to disentangle, but our unique subject pools allow us to perform a strong test of the selection hypothesis. We observe behavior in subjects who have selected into, but not yet worked in, the government and private sectors. More than 400 subjects came from the State College of Accountancy (STAN) funded by the Ministry of Finance, whose graduates are obliged to take a job with the Ministry, if offered; nearly all are offered and accept employment there. Another 400 subjects were students in economics and business at the University of Indonesia (UI), nearly all of whom pursue and most of whom will take a job in the private sector. The STAN and UI students are a close match in terms of age and academic qualifications, and all have very little or no job experience. Any differences between the two groups in pro-social behavior therefore constitute a well-identified test of the selection mechanism.

The third subject pool allows us to estimate a "socialization" effect, by testing whether longer-serving mid-career employees exhibit more pro-social behavior. The remaining 300 subjects were mid-career government employees attending night school at the College of Administrative Science (STIA), a government-run college for public administrators. In this group of subjects, pro-social behavior was significantly greater among subjects with more work experience in the government sector. Altogether, the evidence indicates that both socialization and selection lead to more pro-social behavior among government employees.

The third contribution of the analysis concerns the mechanism of "mission-matching" in the sorting of individuals across organizations. The literature is uniform in arguing that employees of organizations with different missions (e.g., more or less pro-social) should themselves have different mission preferences. There is no empirical evidence indicating how close this match must be in order to trigger systematic between-organization differences in employee orientation, however. The analysis here indicates that this match need not be particularly close. We find more pro-social behavior among government employees, but in a country, Indonesia, where the public sector is not ranked highly for its pro-social mission[3]; and in an organization, the Ministry of Finance, that is not, in any country, tasked with the type of "caring" mission that would be more obviously associated with pro-social behavior. We offer an explanation for these findings that is consistent with the analysis in Besley and Ghatak (2005): in labor markets where organizations with pro-social missions are scarce, even organizations that are only weakly pro-social may attract strongly pro-social employees.

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[2] Francois (2000) makes a somewhat different selection argument: individuals inclined to pro-social behavior should only exhibit it in non-profit or government settings where managers do not have high-powered incentives to take advantage of the free effort that they get from pro-social employees by reducing costs elsewhere in the organization.

[3] Worldwide Governance Indicators place Indonesia's control of corruption below the 40th percentile of all countries (Kaufmann, Kraay, Mastruzzi 2009), suggesting a weaker pro-social orientation.

Existing research has already made substantial progress in analyzing the attitudes and values of public and private sector employees; the next section of the paper describes in more detail our contribution to this literature. We then describe our experimental design and subject pool in Indonesia. The remainder of the paper presents our results in detail, along with numerous robustness checks. The discussion at the end focuses on two surprising results of our analysis: first, unlike previous empirical work, we find strong differences in pro-social motivation between government and private sector employees; second, we find these differences even for organizations with an attenuated pro-social mission.

2. The contribution to prior research

Prior literature has argued that pro-social behavior should be greatest in organizations that have a pro-social mission and pay lower wages than the private sector (Frey, 1997; Francois, 2000; Besley and Ghatak, 2005; Brewer and Selden, 1998; Crewson, 1997; Perry, 1996; Perry and Wise, 1990; Sheehan, 1996; Tirole, 1994; Wilson, 1989). A key insight of this literature is that organizations that can attract individuals who share the organization's mission can undertake activities at lower costs and reduce the costs of shirking (Besley and Ghatak, 2003, 2005; Delfgaauw and Dur, 2007; Dixit, 2002; Francois, 2007; Prendergast, 2007; among others). Studies also show the importance of mission on worker occupational choices and job satisfaction (Serra et al. 2011; Malka and Chatman, 2003).

This work predicts substantial productivity and contracting effects when pro-social organizations can attract pro-social employees. It raises the question of how pro-social an organization must be in order for its employees to be significantly more pro-social. Our results indicate that, in some important contexts, the answer is, "not very." Government employees exhibit significantly greater pro-social behavior even when the specific jobs of the subjects and the missions of their government organizations are diverse and, in many cases, not particularly pro-social.

The literature already includes several important behavioral studies that find differences in intrinsic motivation between public and private sector employees (Buurman et al. 2012, Gregg et al. 2011, and Serra et al. 2011). Our analysis builds on these contributions in several ways, and yields new findings.

First, we specifically examine general government workers, not front-line service providers. Buurman et al. (2012) and Gregg, et al. (2011) focus on public sector workers broadly, including both government and not-for-profit sectors, and workers working both in general government and in front-line service provision. Serra, et al. (2011) examine front-line service (health) providers exclusively, from the not-for-profit, government and private sectors.

Second, we are able to use a more precise measure of pro-social behavior. Buurman, et al. (2012) examine data taken from the results of a large Dutch survey of workers. Respondents were compensated for participating in the survey and could choose what type of compensation they would receive: a gift certificate, a lottery ticket, or a charitable donation. Buurman, et al. find that the public sector employees (broadly-defined) were significantly more likely to make the "pro-social" choice, a charitable donation. As in their work, our experiments ask subjects to choose between a contribution to a charity (the Indonesian Red Cross) or private compensation. However, in our experiments, the units of compensation are the same (money for the charity or money for the subject). In the Dutch survey, while the charitable donation was monetary, private

compensation was tied to the purchase of a particular class of products (a gift certificate) or lottery ticket, which potentially confounds pro-social and risk-taking behaviors. In addition, the compensation choices in the Dutch survey were necessarily known to participants prior to the decision to participate; our subjects were ignorant of these choices, avoiding a possible source of selection bias among individuals who choose between private and charitable contributions.

Gregg, Grout, Ratcliffe, Smith and Windjeijer (2011) compare actual behavior in the workplace, the overtime hours self-reported by respondents in a survey of thousands of British workers, including employees in for-profit and (as in Buurman, et al., 2012) non-profit "non-caring" and "caring" (health, education and social care) sectors. Our measure of pro-social behavior, actual contributions to charity, offers a more precise estimate of value differences. On the one hand, respondents are likely to have only an imperfect ability to recall their unpaid overtime hours. On the other, even if pro-social orientation is the most plausible explanation of unpaid overtime in the non-profit caring sector, overtime differences have other possible interpretations. For example, non-profit employers may attract less productive workers who need to work extra unpaid hours to achieve the same output.

Serra, et al. (2011) use a Generalized Trust Game to assess workers' pro-social motivation and, to assess workers' pro-poor orientation, they rely on workers' response to a survey question asking them to rank how important to them eight job characteristics are, including an "opportunity to help the poor". Their behavioral measure of pro-social behavior is a proxy, trust. The dictator game that we analyze is a direct behavioral measure.

Our third contribution is simply that our results differ from those found by other researchers. Even in a group of government employees that excludes the front-line service providers (e.g., in health and education) who are most likely to exhibit pro-social motivations, we find significantly more pro-social motivation than among private sector counterparts. Buurman, et al. (2012) get a similar result, but for public sector employees broadly rather than general government employees specifically. In contrast, Gregg, et al. (2011) find that only workers in the non-profit *caring* sector report significantly more unpaid overtime. Employees in the non-profit, *non-caring* sector report roughly the same levels of overtime as those in the for-profit sector. In contrast, we find significantly *greater* pro-social behavior in the non-profit non-caring sector (central government employees and students who are committed to entering the Ministry of Finance). One possible explanation for the different results is that we use a more precise measure of pro-social motivation. A more interesting explanation that we discuss below lies in differences in the labor market: to the extent that the Indonesia's non-profit caring sector is small compared to the United Kingdom's, the non-profit, non-caring sector may attract more pro-social employees than it otherwise would.

As in the analysis here, Serra et al. (2011) also explore the mission orientation of public sector workers in a non-OECD setting, with data on medical professionals in Ethiopia. They find that employees in non-profit, non-governmental organizations exhibit more trust and are more likely to say that the opportunity to help the poor is most important to them. However, in contrast to our findings, they report no differences between the government and private sector professionals.

We are also able to advance understanding of the relative roles of selection and socialization in the emergence of differences in pro-social motivations between government and private sector employees. Gregg, et al. (2011) offer the first test of the selection mechanism, by

looking at respondents from the non-profit caring sector, comparing those respondents who switch to the for-profit caring sector with respondents who do not switch. If selection is operating, those who switch should be less pro-social and report lower levels of unpaid overtime. This is what Gregg, et al. (2011) find.[4] Our study design allows us to better exclude competing explanations for these differences. We identify selection effects using a very large sample (800 government and private sector subjects), none of whom have experience in either government or private sector employment, so that socialization cannot confound our findings.

3. Experimental Design and Hypotheses

This review of the literature suggests that three key hypotheses remain open questions; our experimental design and subject pool allow us to test each of them. First, employees in "non-caring" government ministries exhibit more pro-social behavior than employees in non-governmental, non-caring organizations. Second, this difference arises because more pro-social individuals select into government ministries. And third, this difference arises because individuals who work in government ministries are socialized into having stronger pro-social preferences. The evidence supports each of these.

Testing these hypotheses requires an accurate measure of pro-social behavior. However, pro-social behavior can be defined in different, reasonable ways. For example, individuals manifest pro-social behavior when they make sacrifices to provide direct assistance to people they know or to people they do not know; to people from their locality or ethnic group or people more physically or socially distant from themselves; and when they provide assistance directly to individuals or indirectly, by donating to organizations that, in turn, assist anonymous individuals.

Our aim is to capture pro-social behavior that is most relevant to employees in the "non-caring" government workplace. First, since their actions have only an indirect effect on citizen welfare, we assess pro-social behavior by measuring donations to an organization that, in turn, provides assistance to anonymous individuals. Second, the reach of the organization should match the jurisdiction of the employees' own organization. Since our focus is the behavior of workers in the government of Indonesia, the organization should therefore have a national reach. Third, the organization should have no ideological attractiveness to potential donors apart from the work it does in providing assistance to Indonesians. Fourth, the organization should be well-known, such that potential donors are all equally familiar with it.

There are few such organizations in Indonesia. In fact, after canvassing broadly, we found only one, the Indonesian Red Cross Society. The mission of the Indonesian Red Cross is not specific to any particular region or type of problem, but rather a general charity that assists with disaster-relief, ambulance services, climate change, disaster preparedness, water, sanitation, HIV/AIDS, Avian FLU and blood donation, among other activities.[5]

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[4] The 83 respondents who reported moving from the non-profit to the for-profit caring sector were significantly less likely to report unpaid overtime in the non-profit sector than the 2404 respondents who remained in the non-profit caring sector.

[5] Previous research has also used charitable organizations in dictator games. Eckel and Grossman (1996) find, for example, that subjects give substantially more when the anonymous recipient is replaced with a charity (in their case, the American Red Cross). See also Carpenter et al. (2008) and Li et al. (2011).

To measure pro-social behavior, we asked subjects to play a version of the standard dictator "game." Normally, it is played with two players, one of whom is given an endowment of $X. The first player can transfer any proportion of the $X to the other player. Standard results for this game show that individuals (on average) give about 10% of their endowment to the other player (Hoffman et al. 1994; Eckel and Grossman, 1996). We change the standard setup by replacing the second player with the Indonesian Red Cross Society.[6]

Perhaps the major distinguishing factor between private and public enterprise is the focus of public enterprises on serving the public. This distinction is not simply relevant for front line service providers (such as doctors, teachers and so forth) but also for supporting ministries. Indeed, the stated mission of virtually every government agency is to serve the public. Furthermore, when considering the motivation of public sector employees, the literature focuses on these front-line providers, abstracting from the bulk of employees in government. Our subject pool therefore consists of three samples: general university students, pre-career public officials, and mid-career public officials.

The general university students sample utilizes a university subject pool from the economics and accounting departments of the University of Indonesia, similar to the pool used in most experimental work in behavioral economics. The pre-career public officials are students attending Sekolah Tinggi Akuntansi Negara (STAN), the State College of Accountancy. Study at STAN is tuition-free in exchange for a commitment to join either the Ministry of Finance or to assume an accounting role at one of the other ministries, should a position be offered to the students. Students who are offered a position and turn it down are required to repay their tuition. All STAN students intend to join the public sector; nearly all do so. The essentially iron-clad commitment to join the public sector is the main distinguishing feature between STAN and the University of Indonesia. For example, entry into both is highly competitive and both are prestigious, as students in both places affirmed.[7]

The third sample, of mid-career public officials, is drawn from students attending the Sekolah Tinggi Ilmu Administrasi (STIA), the College of Administrative Sciences. This is a college of continuing education run by the government. Its students are current employees of various ministries in Indonesia; study at the college enhances students' chances for promotion. Some of the students, particularly from regional governments in Indonesia, are on leave from their current positions at their respective ministries; most of our subjects were taking evening classes to earn diplomas in administrative sciences, attending class at the end of their regular workday. This sample is particularly useful since it includes individuals with longer and shorter tenure in government and from various ministries, allowing us to evaluate whether work in government socializes employees to exhibit more pro-social preferences. Table 1 provides the descriptive statistics for the three samples.

If the first hypothesis is true, that government workers in non-caring ministries are more pro-social than non-government workers in non-caring organizations, then students at STAN and

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[6] A large literature in behavioral economics uses the dictator game as its core measure of altruism and pro-sociality (Forsythe et al 1994; Eckel and Grossman, 1996; Whitt and Wilson, 2007; among many others). Previous research has also replaced the recipient of the dictator game from a student to a charitable organization (Eckel and Grossman, 1996; Li et al, 2010; Carpenter et al. 2008, among others).

[7] For example, a student at UI, who had also been accepted at STAN, indicated that he chose UI over STAN because he did not want to join the public sector.

STIA should exhibit more pro-social behavior than students at UI (i.e. donate more to the Indonesian Red Cross Society). Our samples also allow us to test the second, selection hypothesis, by comparing one group of individuals who will definitely work in government, but have not yet started work – the students at STAN – with another, individuals of roughly the same age and education level who have not yet started working, and may or may not take jobs in the public sector – the students at the University of Indonesia. In fact, the comparison is sharper than this, since it is well-known that most UI students will not join government and our survey of UI subjects indicates that only half would even prefer a government job (our results are, not surprisingly, entirely robust to excluding UI respondents who would prefer a government job from comparisons with STAN). If it is true that pro-social individuals self-select into public sector positions, we should therefore observe that students at STAN donate more to the Indonesian Red Cross Society relative to students at UI.

The STIA samples allows us to examine the third, socialization hypothesis. It consists of individuals from various ministries and ranks with, importantly, widely differing years of experience in government. If experience in government socializes workers to adopt pro-social preferences, then STIA subjects with more years of service should donate more to the Indonesian Red Cross Society than those with fewer years. However, while we can exclude socialization as an alternative explanation of our selection results, the reverse is not true. It is possible that individuals who joined government earlier exhibited greater intrinsic pro-social preferences than individuals who joined later. This is not the most plausible explanation of the results presented below, however, since it can account for our findings only if there were a monotonic increase in the intrinsic motivation of new government employees over the last 37 years.

Experimental sessions were conducted with 1,134 students at their respective institutions in March 2012. Subjects were recruited using announcements with the aid of students and instructors at each location. Subjects at the junior institutions (UI and STAN) were paid a 25,000 IDR ($2.66) show-up fee in addition to their earnings from the experiment. Subjects at the senior institution (STIA) were paid a 100,000 IDR ($10.66) show-up fee.[8] The experimental session consisted of a number of games, but always began with the dictator task. All earnings were expressed in tokens, with an exchange rate of 8.33 IDR per token. The stake size for the dictator game, for all three subject pools, was 2,000 tokens (16,666 IDR - $1.78).[9]

Payment procedures were as follows: at the end of a session, experimentalists asked for a volunteer from the session. The volunteer stayed behind to verify payment to the charity. Once all subjects were paid, the volunteer added up the total donation to the charity from the session, and filled out a cash deposit slip for (depending on the location) Bank Mandiri, or PT. Bank Rakyat Indonesia. Deposits were made in the presence of the volunteer once per day in cash at the closest bank location. All subjects were informed of this procedure in the instructions at the beginning of the experiment.

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[8] This amount was equivalent to their meeting allowance, and was required for them to attend the session.

[9] Income per capita in Indonesia is approximately $3,000; this amount is approximately 20 percent of daily income per capita. The average cost of lunch at the local cafeteria was approximately 15,000 IDR. Therefore, we are confident that the stakes were not trivial for the subjects.

4. Results

This section reviews the results supporting the three main findings of the paper. First, government employees exhibit more pro-social behavior than individuals in the private sector. Second, those who select into government are more pro-social than those who do not. And, third, work in government reinforces pro-social behavior.

4.1 Pro-social behavior in the government and private sectors

The first set of results shows that the pool of subjects who have chosen to work in the public sector (STAN plus STIA students) exhibit significantly more pro-social behavior than those who have not (UI students). Figure 1 shows that students at STAN donated 175 more tokens (31.1 percent more) on average than UI students (p=0.00).[10] STIA students donated 311 tokens (55.24 percent more) more than UI students (p=0.00). On average, the STAN and STIA students therefore donated 41.03 percent more to the charity than the UI students, a large difference on its face, but also in the context of a literature where 10 percent is regarded as a large difference.[11]

Unobserved characteristics of the different subject pools could give rise to a spurious association between their location (at STIA, UI, or STAN) and their donations to the Indonesian Red Cross. For example, public sector subjects might be significantly richer than UI students, and richer subjects may give more to charity. Alternatively, the results in Figure 1 could be driven by differences in group composition, which differs along dimensions that are known to be associated with pro-social behavior. It is well-known, for example, that some types of individuals are more pro-social than others (e.g., older versus younger subjects, or women versus men). This should lead to the over-representation of more pro-social types in government, if government attracts pro-social individuals. However, if gender or age influence government employment for reasons unrelated to pro-social motivations, it becomes more difficult to infer that pro-social individuals join the government because they are pro-social.

One approach to addressing this issue is to consider those public sector subjects who are most similar to the private sector, UI subjects. This is effectively what we do below, when we compare only the STAN and UI students to assess whether individuals with more pro-social preferences select into government. Here, we control for observable characteristics of public sector subjects which might drive differences in donations, and find that they do not. The differences in pro-social behavior observed in Figure 1 are robust to numerous controls for observable subject characteristics, derived from a survey given to every subject at the end of each session.

We estimate the following OLS regression,

$$DONATE_i = \alpha + \beta OFFICIAL_i + \delta CONTROLS_i + \gamma RATING_i + \varepsilon_i$$

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[10] Unless otherwise stated, all p-values correspond to standard two-sample t-tests.

[11] A direct comparison between the average amounts donated by UI and STAN students with STIA students is difficult given that the endowment level is a smaller percentage of the show-up fee, and thus subjects might incorporate the entire earnings portfolio when making their decision. This would result in STIA subjects donating more (which we observe). We suspect that any such bias is small, however. First, we mentioned the show up fee only once, at the beginning of the experiment. Second, all transactions within the experiment took place in terms of "tokens" making it difficult for the subjects to construct a portfolio incorporating the show-up fee.

asking whether the coefficient β remains significant in the presence of numerous controls, where $OFFICIAL_i$ is a dummy variable equal to 1 if subject i is from either one of the public official training colleges. The variable $DONATE_i$ is subject i's donation to the charity and ε is the error term.

One set of controls captures potential income differences between subjects. Subjects were asked about the state of their personal finances; the specification takes into account their responses to this question (e.g., fair or good). In addition, we are able to control for the characteristics of STIA respondents that capture pay differences across active public sector workers. $SERVICE_i$ and $RANK_i$ denote how long the public official has been in the civil service and their rank (scaled from 5-17 with higher numbers indicating higher ranks) in their respective ministry. Rank is our closest proxy for income; individuals with higher income levels may give the same percentage of their income as lower income individuals, which would be observed as higher nominal levels of giving. Service length controls for giving motivated by socialization, i.e. the longer subject i's experience in the private sector, the more likely they are to give.

Other controls consist of objective individual characteristics that are known to influence pro-social behavior, age and gender. The Indonesian public service does not have any employment regulations that systematically privilege the employment applications of demographic groups that might be more pro-social (i.e., affirmative action programs that favor groups that happen to have higher pro-social motivation). On the contrary, one group known to be more pro-social, women, is significantly under-represented among the (more pro-social) STAN subjects.

In addition, we control for respondents' answers to a number of subjective questions. These are more challenging controls, since it is plausible that they are inherently related to pro-social motivation. If they are, controlling for them spuriously reduces the significance of government employment as a determinant of donations to the Red Cross.

One of these is trust, which is known to increase giving to charitable causes, but which Serra, et al. (2011) also use as a proxy for pro-social motivations.[12] Another is the extent to which subject i has confidence that the charity will be paid, to ensure that subjects understood the stakes of the game; it is possible that this lack of confidence reflects individual characteristics that influence both pro-social behavior and entry into government. $RATING_i$ is a 7-point Likert scale variable of subject i's response to the question: "To what extent do you agree that the Indonesian Red Cross Society provides effective assistance to Indonesians in need" where 7 equals complete agreement. Individuals who believe organizations like the Red Cross are effective may be more likely to believe in the effectiveness of government, leading them both to prefer government employment for reasons other than pro-social motivation, but also to be more inclined to make donations to the Red Cross. This variable also controls for subject i's private information regarding the charity.[13]

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[12] Prior literature has shown that higher levels of giving in the dictator game is associated with females (Eckel and Grossman, 1998); older individuals (Bekkers, 2007); and higher levels of generalized trust (Uslaner, 2002; Bekkers, 2003). Generalized trust is measure by the subjects 9 point Likert scale response to the question "Generally speaking, would you say that most people can be trusted, or that you need to be very careful in dealing with people?" taken from the World Values Survey (accessed at http://www.wvsevsdb.com/wvs/WVSDocumentation.jsp?Idioma=I).

[13] Public officials, for example, may simply have had more experience dealing with the charity, and hence they may

The results, presented in Table 2, reinforce the conclusions drawn on the basis of Figure 1.[14] The dummy variable indicating whether the subject is a current or future public official is positive and significant (p=0.00): public officials donate about 140, or 24.8 percent, more tokens than non-public officials. Unsurprisingly, subjects who rate the charity as more effective give significantly more (p=0.00). As an additional robustness check, we exclude from the sample those UI students who indicated in the follow up survey that they desired to join the public sector.[15] The results presented are robust to excluding these subjects from the analysis (Table 1 in appendix B).

4.2 The selection of pro-social types into government

The second hypothesis is that government service attracts individuals with pro-social preferences. If it does, then students at STAN, who have selected into the public sector, should exhibit more pro-social behavior than students at UI studying economics and business, who have not. Neither group has work experience, so neither has had the opportunity to be socialized by work in the government or private sectors. Moreover, the two groups are similar, reinforcing the conclusion that differences in pro-social motivation explain the behavioral differences between the two groups.

Although Table 1 identifies some statistically significant differences in observed characteristics across the STAN and UI groups, the magnitudes of the differences with respect to age, finances, and religion are small. They are precisely estimated because of large sample sizes. For example, both STAN and UI students reported that their personal finances were, on average, between "fair" and "good". Differences across other characteristics (effectiveness of the charity, trust, fairness, etc.) are larger, but, as before, these could, themselves, be *indications* of pro-social motivation.

Other evidence also supports the argument that income differences between STAN and UI students do not drive differences in pro-social behavior between the two groups. While STAN students might see themselves as richer – and therefore give more generously to the Red Cross – because their tuition is free and they have essentially guaranteed employment at the relatively well-paid Ministry of Finance, the families of UI students are likely to be richer, precisely because they can afford the substantial tuition charges at that university. In addition, expected incomes of the two groups of students are likely to be similar or, if anything, higher for the UI students. On the one hand, unemployment is an equally remote possibility for both groups. While STAN subjects have essentially guaranteed jobs after graduation, all reports from students and faculty at UI indicate that students in our subject pool there spend, at most, one or

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be more inclined to act upon this private information and donate more. For this reason, we include this variable in our models.

[14] All regressions reported are OLS with robust standard errors. Results are robust to a tobit specification of the model with censoring at 0 and 2000.

[15] Alatas et al. (2010) actually use this variable to sort between future public officials and non-public officials. We nevertheless include them in our base analysis since expressions of interest in public sector employment are weak indications of actual preferences. In fact, results there are no significant differences in pro-social behavior between these two groups of UI students. 242 subjects (57%) responded that they would prefer to join the public sector. Large differences in pro-social behavior between government and private sector subjects emerge despite including these 242 subjects in the private sector sample.

two months looking for work after graduation. On the other hand, average salaries for UI students appear to be as high or higher than STAN entrants into the Ministry of Finance.[16]

Figure 1 provides the first evidence in support of the hypothesis that pro-social individuals select into government service: the STAN students exhibited significantly more pro-social behavior than the UI students. UI students donated 564 tokens (28 percent); STAN students, though, donated one third more: 739 tokens out of a possible 2,000 (37 percent) (p=0.00). Table 3 matches each level of donation with the fraction of subjects from each institution who gave donations at that level. In addition, the fraction of UI students who made donations at lower levels exceeded the fraction of STAN students who made donations at lower levels. The reverse was true at the higher donation levels.

More formally, a number of non-parametric tests confirm that the differences in means, medians, and distributions across the two samples are significant. Each test shows that STAN students gave more to the Indonesian Red Cross. A two tailed t-test of the equality of means rejects the null hypothesis that they gave the same amount ($p < 0.001$); a chi-squared test of the equality of medians does the same ($p < 0.001$). Kolmorogov-Smirnov and Epps-Singleton tests for the equality of distributions also reject the null hypothesis of no difference in distributions, both for the entire samples and for the samples of only those subjects who made a donation. All of these tests are reported in Table 4.[17]

A unique feature of these comparisons that allows us to identify the selection effect is that subjects have not had an opportunity to be socialized by government (or private sector) employment. However, time spent in STAN might itself socialize individuals into pro-social behavior, since STAN is a dependency of the Ministry of Finance. Such socialization would not be a function of the curriculum, which is technical; nor would it be a function of the activities of the students, which are the same as those at the UI. There is no evidence of such socialization, in any case. In our sample, students are either second year (19 years old) or third year (20 years old). There is, however, no difference in donations between these two age groups. Within-STAN socialization, therefore, can only explain the higher level of STAN donations if it occurs within the first year and then stops.   This is implausible, particularly since results below indicate that pro-social behavior at the college for mid-career officials (STIA) increases systematically with years in service.

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[16] Almost all of our STAN subjects are pursuing the three-year degree, Diploma III, which means that upon graduation they enter government at Rank IIC, grades six to nine, for a total salary, including numerous allowances, of approximately 3.5 to 4.5 million rupiah ($350-450) per month. Surveys of economics and business graduates by the University of Indonesia indicate average salaries of 4.8 million per month, and 6 million per month for overall income (e.g., including overtime). The accountants from UI (approximately 1/5 of our sample) can expect to earn 3-4 million rupiah per month, plus overtime. The finance graduates (approximately 40 percent of the sample) can expect to earn 4-6 million per month. The economics graduates, the remaining 40 percent, go both into the public and private sectors, and their expected salaries are at least those of STAN (even if they do not go to the highest-paid Ministry of Finance, they would enter government at a higher rank, IIIa, because they have a four-year degree).

[17] We might be concerned that the UI sample contains Economics majors (known in the literature to give at lower levels), biasing the "private sector" average downwards, as well as subjects that reported having plans to join the public sector after graduation, potentially biasing the "private sector" average upwards. We conduct mean, median, and distribution tests by systematically excluding just the economics majors in the sample, and then excluding just the subjects that reported plans to join the public sector. The differences remain significant at the 5% level (not reported).

As with the previous hypothesis, the differences in pro-social behavior between STAN and UI subjects only increases when we control for their observable characteristics. To see this, we estimate the following OLS regression on the amount donated to the Indonesian Red Cross in the dictator game, identical to those presented in table 2 above, but restricting our sample to UI and STAN students alone. Specifically, we estimate:

$$DONATE_i = \alpha + \beta STAN_i + \gamma RATING_i + \delta CONTROLS_i + \varepsilon_i$$

where $STAN_i$ is a dummy variable equal to 1 if subject i is from the public official training college, and ε is the error term. The controls are specific to these two sub-samples (omitting time in service and rank). We control for demographics (subject i's gender, and age) and major (by introducing dummy variables if subject i is an economics or accounting major). Model I includes just the institution and the charity rating as explanatory variables, while models II through IV introduce the demographics, areas of study, and perceptions controls variables respectively. Table 5 presents the results.

In all models, STAN subjects donate more to charity. The coefficient is stable across model specifications and highly significant ($p<0.001$). Depending on the specification, STAN students donate between 145 and 175 tokens (7 to 9 percentage points) more than their University of Indonesia counterparts. Coefficients on the control variables are also illuminating. Subjects that perceive the Indonesian Red Cross to be more effective donate higher amounts (an additional 70 tokens for each rating). When including age and gender in Model II, we see that women donate approximately 80 tokens to the charity (relative to males).[18] The difference in pro-social preferences between STAN and UI is large compared to the effects of these controls.[19] STAN students give 175 more tokens to charity than UI students. Women, though, give 80 more tokens than men, and those who agree with the statement that the Indonesian Red Cross is an effective organization give 237 more tokens than those who disagree with the statement.

4.3 Experience in government and pro-social behavior

The third hypothesis is that differences in the pro-social motivations of employees across organizations emerge because of socialization. Figure 1 already provides support for the hypothesis, showing that those with significant work experience in the government (the mid-career government employees at STIA) contributed 136 (18.4 percent) more tokens than the pre-career STAN students ($p=0.00$). The second piece of evidence comes from Table 2, showing that differences in giving (between public officials and others) increase with time in service, with subjects donating between 12-16 tokens for each year they have served in the public sector ($p=0.02$). Only STIA subjects have job experience in the public sector.

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[18] Adding an interaction term for gender and location shows that giving by females in UI is not significantly different from the males in UI. Males in STAN donate significantly more, and STAN females donate even more than the males (p = 0.055). In addition, excluding women from the regressions in table 3 has no effect on the results: male subjects at STAN give more to the Indonesian Red Cross than male subjects at UI (results not shown). These results rule out the possibility of different gender compositions in the two institutions affecting donations.

[19] Results are robust to adding additional controls (i.e. risk, religiosity, finances, and helpfulness). The core results remain. In addition, we find that subjects who perceive the public sector as a better place to work relative to the private sector donate more, and risk-seeking individuals donate more.

Here, we focus only on the sample from STIA, using OLS to estimate once again the specifications in Table 2. Model I includes just the length of service and the charity rating as explanatory variables. If socialization occurs, pro-social behavior should rise with length of service. The key difficulty with isolating the effect of length of service is to account for various alternative factors that influence giving. For example, Carpenter et al. (2008) use a representative sample of community members to show that older and, less robustly, more educated people give more to charity. We therefore add controls for age, education level[20], and rank[21]. The rank variable also allows us to control for income, since, in the Indonesian public service, income closely follows rank. These controls exclude the possibility that more senior officials are more pro-social because they are older or have higher incomes. Models II through IV introduce the career specific, demographic, and perceptions controls variables respectively. Table 6 presents the results.

In all specifications, the coefficient on the service variable is positive and significant, and hovers around 0.5% - 1% for every year in service. Figure 2 plots the predicted donation by service length from model IV[22]. As in the UI and STAN samples, giving in the dictator game is strongly correlated with the charity rating. The only other variable that is significant is trust preferences of individuals, consistent with earlier findings of the relationship between trust and altruism (Cox, 2004). From this and earlier results, we conclude that pro-social individuals self-select into public service. Furthermore, working in public service induces public servants to become more pro-social over time.

This evidence supports the idea that public service influences the motivations of individuals, making them more pro-social. An alternative interpretation is also possible, but not the most plausible: cohorts differ systematically in their pro-social preferences, with younger workers joining with weaker pro-social preferences than their older colleagues had when they joined government. Indonesia provides a natural setting to examine this issue more closely.

Starting in 2006, the government began to dramatically increase the compensation of government workers, beginning with the Ministry of Finance; by the time of the survey, four additional ministries had received the pay increase. Of the 293 STIA subjects, 122 joined the government after 2006. Of those, only eight were from ministries that have received the pay increase. Nevertheless, the prospect of very significant pay increases might have increased the proportion of less socially-motivated individuals who entered government service after 2006 (e.g., consistent with the arguments in Besley and Ghatak 2005). If pay increases, rather than socialization, explain the lower motivation of more recent entrants, a dummy control that equals one for all recent entrants (since 2006) should have a significant, negative coefficient. However,

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[20] The education variable is coded as 1=high school graduate; 2=some college; 3=bachelors; 4=masters; 5=doctorate.

[21] The ranking system of the Indonesian Public Service is finely graded, allowing us to capture fairly small differences both with respect to job responsibility and salary. It ranges from 1a (lowest) through 4e (highest). We convert those into a straight numeric system where 1a=1, 1b=2, etc. The lowest rank in our sample was 2a, while the highest was 4e.

[22] The outlier in the graph is a 33 year old public servant reporting 58 years of service, which is clearly an error. The results are robust to dropping the outlier. Furthermore, no other instance of similar errors are found in the data.

the dummy control is insignificant: these cohorts are not less pro-social than their time in service (socialization) would predict.[23]

4. Discussion

Prior research has yielded mixed results on whether general government employees are more pro-social. In Gregg, et al. (2011), a group that includes general government employees (those in the non-profit, non-caring sector) are *not* more pro-social. One interpretation of the evidence presented in Serra, et al. (2011) is also that government-employed front-line medical professionals are not more pro-social than their private-sector counterparts. Only Buurman, et al. (2012) find more pro-social behavior in a group that includes general government employees (all government and non-profit sector workers), but this result may be driven by the presence of workers in caring occupations. What mechanisms could explain greater differences in the pro-social motivations of private and government sector employees in Indonesia than in the United Kingdom, the Netherlands and Ethiopia?

One possibility is the measurement of pro-social behavior. Only Buurman, et al. (2012) and our analysis use direct, behavioral measures of pro-social behavior. This explanation is not entirely satisfactory, however, since, Serra et al.'s (2011) behavioral proxy for pro-social behavior (results from the Generalized Trust Game), and Gregg, et al.'s (2011) survey data (self-reported unpaid overtime) are both likely to be correlated with pro-social behavior.[24]

We conjecture, instead, that labor markets vary with respect to both the number of opportunities for pro-social work that they offer and the wage offers that governments make in response to changing labor market conditions. If we hold constant extrinsic rewards and the number of pro-social organizations, then a country with a less pro-social public sector should attract fewer, not more, pro-social individuals than a country with a more pro-social public sector. However, these *ceteris paribus* conditions are unlikely to prevail.

In particular, opportunities for pro-social employment outside of government may be fewer in some countries, so that pro-social individuals concentrate in government employment. Indonesia is likely to have fewer organizations and employment opportunities with pro-social missions compared to the Netherlands and Great Britain.[25] At the same time, in countries where government organizations are not ranked highly internationally in terms of their pro-social motivation, non-government employers may also rank less highly (corporate efforts to be seen as "good citizens", for example, may be less common). In these settings, the intrinsic rewards for

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[23] It could be that heterogeneity across STIA subjects in the ministry from which they come drives the results. One important source of heterogeneity arises because of the Bureaucracy Reform initiative, begun in 2006 (associated with the salary increases that began with the Ministry of Finance). Not all ministries have been approved for salary increases, or even participated in the Bureaucracy Reform process. We therefore group respondents into 4 distinct categories of ministries: (1) Undergone reform; (2) Approved for reform; (3) Applied for, but not approved for reform; and (4) Not applied for reform. Of our respondents, 6 come from reformed ministries, 19 come from approved ministries, 67 from applied but no approved ministries, and 199 from "not applied" ministries. Our results are robust to controlling for fixed category effects (not reported).

[24] Among the subjects in our experiments, pro-social behavior and responses to the question "can others be trusted" are significantly correlated.

[25] Ethiopia has fewer still, of course. However, Serra, et al. (2011) focus precisely on a narrow class of employees (health workers) where non-government opportunities for pro-social individuals appear to be greater.

pro-social individuals may be higher in the general government sector, even when it is not particularly pro-social.

In addition, the wage-setting policies of governments often differ and diverge from optimality. Besley and Ghatak (2005) describe optimal contracts in the mission-oriented and non-mission-oriented sectors, such that mission-oriented organizations adopt high-powered extrinsic incentives and retain mission-oriented employees in response to higher wages in the non-mission-oriented sector. Only Serra, et al. (2011) have data on private and public sector wages, revealing that government-employed medical professionals earn substantially less (as much as 60 percent less) than professionals in the private sector. One effect of this is that government wages are unlikely to meet the participation constraint defined in Besley and Ghatak (2005) to retain pro-social individuals: more of them end up in the private sector than would otherwise be the case, blurring distinctions between the two. The other effect is to attract individuals with fewer compunctions against venal behavior into the public sector – intrinsic characteristics that are likely to be negatively correlated with pro-social motivations. In Indonesia, on the other hand, particularly since the 2006 pay reform that especially benefited employees in the Ministry of Finance (and, therefore, students at STAN), wages are high enough to make the public sector unambiguously more attractive to pro-social individuals.

5. Conclusion

Using a novel pool of subjects in Indonesia, we find that government employees exhibit greater pro-social preferences than others. However, theory and prior empirical research have concluded that pro-social behavior should emerge in organizations that have a direct "caring" social mission. We find greater pro-social behavior even in organizations that are distant from "caring" functions. Two possible explanations suggest themselves for future investigation: in countries where the private sector is less pro-social, or where few pro-social organizations exist, or where general government salaries are high enough to compensate for the more limited intrinsic payoffs that pro-social individuals receive for working there, pro-social individuals might gravitate even to government ministries with only weakly pro-social missions.

Second, we are able to conduct a strong test of the hypothesis that more pro-socially motivated individuals select into government service. Prior to experiencing a socializing influence of public or private sector employment, students at the Ministry of Finance-run State College of Accountancy exhibit greater pro-social behavior than students at the University of Indonesia.

In addition, we explore the alternative hypothesis, that individuals become more pro-social as a consequence of their experience in government employment. Subjects with longer experience in government do, in fact, exhibit more pro-social behavior and make larger donations to charity. While it is possible that individuals who joined the government earlier had greater intrinsic pro-social motivation than those who joined more recently, we present evidence suggesting that this interpretation is less plausible.

Our results shed new light on the importance of organizational diversity and mission-matching emphasized in previous research and point to new areas of future research. Past research has tended to abstract from differences in the mission-orientation of the private sector and the availability of pro-social jobs outside of government. However, firms can vary in the degree to which owners and managers internalize the costs of firm activities on society (e.g.,

with respect to pollution or with the quality of products they sell). If the private sector in Indonesia is also in the 40th percentile of pro-social orientation, relative to other countries, then the public sector may, relative to the private sector, still be more attractive to individuals with a pro-social orientation. Besley and Ghatak (2005) emphasize the importance of taking into account general labor market conditions on the pro-social motivations of "mission-oriented" organizations. Our results, showing significantly different results in the Indonesian organizational and labor market context than others have found in the OECD, provide preliminary evidence that these labor market conditions are of first-order importance.

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Table 1: Description of sample [a, b]

Variable	University of Indonesia	STAN	STIA (Mid-career)
Observations	423	420	293[c]
Effectiveness of the Charity	5.12	5.61[***]	5.47[**]
Belief that Charity was Paid	4.12	4.23[*]	4.11
Risk Gambles	3.26	3.45‡	3.05‡
Age	19.63	20.02[***]	35.68[***]
Female (%)	54%	21%[***]	42%[**]
Religious Attendance	4.06	4.28[**]	4.24[*]
Personal Finances	2.47	2.59[**]	2.57[*]
Family Income	2.78	2.83	2.92[*]
Help Others in Need	1.64	1.80[**]	1.77‡
Trust in Others	3.69	4.11[**]	3.37‡
Want to Join the Public Sector (%)	57%	97%[***]	---
Education Level (1 = High School)	---	---	2.52
Years in Public Service	---	---	10.97
Rank (1 = Lowest)	---	---	9.26

Notes:

[a] Reported significance levels compare the sample with students at the University of Indonesia. 2-tailed t-statistics (proportions tests for percentages) reported.

[b] ‡ 10%, * 5%, ** 1%, *** 0.1% significance level.

[c] The STIA sample contains 293 subjects that started the experiment, but 2 subjects did not complete the final survey. They are included in the Effectiveness of the Charity and Risk Gambles variables above, but excluded from the remaining variables, as well as the regressions.
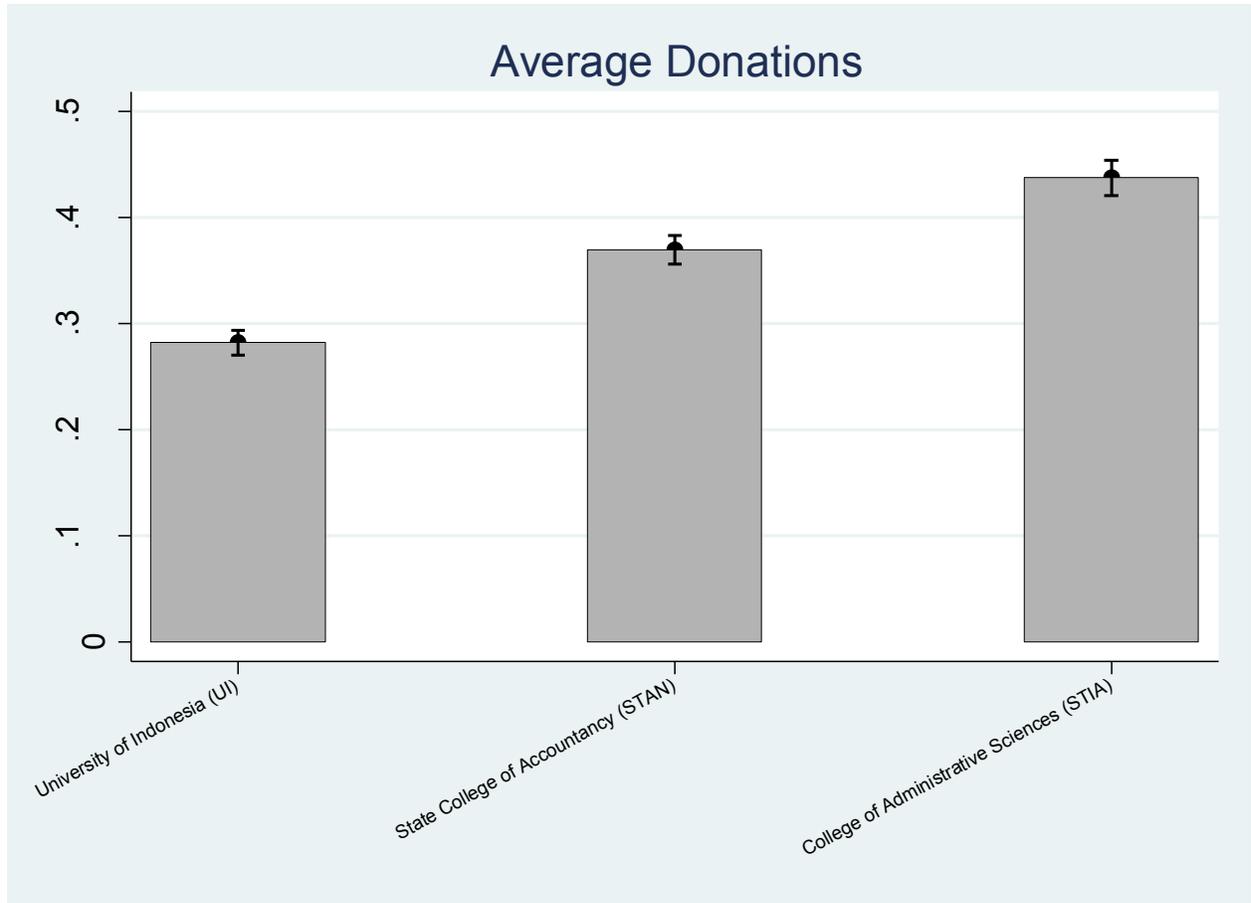
Figure 1: Average donations by subject pool

Table 2: Charitable donations – Full sample [a, b, c, d, e]

	I	II	III	IV
Dependent variable: Amount sent to charity in dictator game				
Public Official (D)	206.6[***]	133.4[***]	148.2[***]	142.4[***]
1 = Public Official	(31.49)	(35.60)	(37.44)	(37.47)
Charity Rating	56.37[***]	60.94[***]	62.47[***]	59.46[***]
7 = Most Effective	(9.94)	(10.42)	(10.30)	(10.16)
Service (in years)		16.46[***]	14.04[*]	12.84[*]
		(4.87)	(6.12)	(5.61)
Rank in Ministry		0.08	-5.57	-4.64
		(7.88)	(9.02)	(8.85)
Age (in years)			4.28	5.15
			(5.58)	(5.16)
Gender (D)			50.53	55.91‡
1 = Female			(32.67)	(32.75)
Trust in Others				14.99[*]
9 = Believes Others are Trustworthy				(6.64)
Belief that Charity was Paid				40.23[*]
5 = Complete confidence				(18.93)
Constant	275.0[***]	251.6[***]	132.20	-93.36
	(54.04)	(56.16)	(123.90)	(143.80)
R-Squared	0.069	0.107	0.110	0.118
P-value	0.000	0.000	0.000	0.000
Observations	1134	1108	1108	1108

Notes:

[a] OLS regressions with robust standard errors. Dependent variable is the amount donated to the Indonesian Red Cross in the dictator game.

[b] Models pool all samples (i.e. from the University of Indonesia, the State College of Accountancy, and the College of Administrative Sciences). Model I is our baseline model, II adds College of Administrative Sciences-specific variables, III adds demographic variables, while IV adds preferences and beliefs.

[c] Results are robust to a tobit model specification to account for censoring at 0 and 2000 (not reported).

[d] ‡ 10%, * 5%, ** 1%, *** 0.1% significance level. Standard errors in parentheses.

[e] Due to undecipherable responses to the question on the subjects rank in their ministry, 26 observations from STIA are dropped between models I and II.

Table 3: Donations–Percentage of decisions for each amount range donated

Amount donated	Percent of subjects from the respective institution who donate the amount indicated		
	Univ. of Indonesia	STAN	STIA
0	7.09	3.10	6.14
1 - 200	24.82	21.43	10.92
201 - 400	9.93	6.67	2.05
401 - 600	24.11	22.38	20.14
601 - 800	6.15	5.24	1.71
801 - 1000	17.97	22.14	39.93
1001 - 1200	1.42	2.14	0.00
1201 - 1400	0.71	0.71	1.02
1401 - 1600	4.02	7.14	6.14
1601 - 1800	1.42	1.90	0.34
1801 - 2000	2.36	7.14	11.60
Average donation	563.76	738.81	874.97
Observations	423	420	293

Table 4: Donations across institutions – Statistical test results

Test Description	Statistic	p-value
t-test of equal average donations[a]	4.86	< 0.001
χ2 test of equal medians[b]	13.31	< 0.001
Kolmorogov-Smirnov test of donation distributions[c]	0.14	< 0.001
Kolmorogov-Smirnov test of donation distributions (conditional on giving)[d]	0.13	0.001
Epps-Singleton test of donation distributions	23.9	< 0.001
Epps-Singleton test of donation distributions (conditional on giving)	19.41	< 0.001

Notes:
[a] Two-tailed test
[b] Distributed χ2(1)
[c] Distributed χ2(10)
[d] Distributed χ2(9)

Table 5: Charitable donations – UI and STAN samples [a, b, c, d]

Dependent Variable: Amount Sent to Charity in Dictator Game				
	I	II	III	IV
Location (D)	145.4***	165.8***	174.8***	169.9***
1 = STAN	(36.46)	(38.81)	(43.05)	(43.07)
Charity Rating	60.69***	62.57***	63.13***	60.25***
7 = Most Effective	(13.02)	(12.97)	(13.04)	(12.97)
Age (in years)		14.11	14.56	15.42
		(14.46)	(14.52)	(14.44)
Gender (D)		79.39*	80.32*	83.98*
1 = Female		(37.50)	(37.47)	(37.83)
Major (D)			-4.99	-5.41
1 = Economics			(50.31)	(50.19)
Major (D)			-58.61	-59.05
1 = Accounting			(40.83)	(40.85)
Trust in Others				8.67
9 = Believes Others are Trustworthy				(8.19)
Belief that Charity was Paid				31.11
5 = Complete confidence				(22.47)
Constant	252.8***	-76.99	-71.93	-236.00
	(68.00)	(298.10)	(298.00)	(312.40)
R-Squared	0.054	0.059	0.061	0.065
P-value	0.000	0.000	0.000	0.000
Observations	843	843	843	843

Notes:

[a] OLS regressions with robust standard errors. Dependent variable is the amount donated to the Indonesian Red Cross in the dictator game.

[b] Models pool the samples from the University of Indonesia (UI) and the State College of Accountancy (STAN). Model I is our baseline model, II adds demographic variables, III adds variables for major, while IV adds preferences and beliefs.

[c] Results are robust to a tobit model specification to account for censoring at 0 and 2000 (not reported).

[d] ‡ 10%, * 5%, ** 1%, *** 0.1% significance level. Standard errors in parentheses.

[e] Due to undecipherable responses to the question on the subjects rank in their ministry, 26 observations from STIA are dropped between models I and II.

Table 6: Charitable donations – STIA sample [a, b, c, d, e]

Dependent Variable: Amount Sent to Charity in Dictator Game				
	I	II	III	IV
Service (in years)	18.57***	14.49**	12.60*	10.65*
	(3.58)	(4.61)	(5.85)	(5.25)
Charity Rating	55.61***	63.81***	64.06***	61.56***
7 = Most Effective	(14.91)	(17.19)	(16.89)	(16.19)
Rank in Ministry		17.09	15.16	16.46
		(18.39)	(18.40)	(18.63)
Education Level		23.10	21.52	1.32
1 = High School; 5 = Doctorate		(41.72)	(41.81)	(42.14)
Age (in years)			2.90	4.47
			(5.42)	(4.99)
Gender (D)			-17.92	-14.60
1 = Female			(66.39)	(65.74)
Trust in Others				25.83*
9 = Believes Others are Trustworthy				(11.44)
Belief that Charity was Paid				59.43‡
5 = Complete confidence				(35.27)
Constant	361.1***	156.40	101.30	-214.10
	(99.31)	(147.90)	(189.70)	(237.00)
R-Squared	0.130	0.145	0.146	0.172
P-value	0.000	0.000	0.000	0.000
Observations	291	265	265	265

Notes:

[a] OLS regressions with robust standard errors. Dependent variable is the amount donated to the Indonesian Red Cross in the dictator game.

[b] Models contain the sample taken from the College of Administrative Sciences (STIA). Model I is our baseline model II adds rank and education level, III adds demographic variables, while IV adds preferences and beliefs.

[c] Results are robust to a tobit model specification to account for censoring at 0 and 2000 (not reported).

[d] ‡ 10%, * 5%, ** 1%, *** 0.1% significance level. Standard errors in parentheses.

[e] Due to undecipherable responses to the question on the subjects rank in their ministry, 26 observations from STIA are dropped between models I and II.
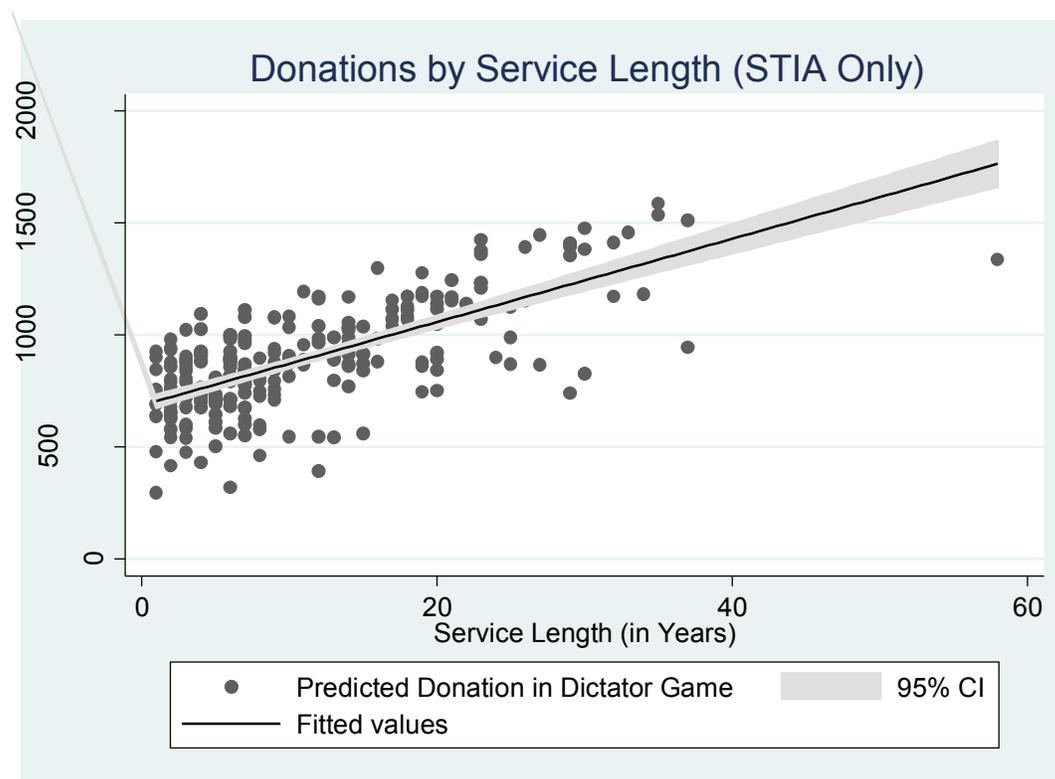
Figure 2: Predicted donations by service length (from Model IV in Table 6)

Appendix A - Instructions

Dictator Game Instructions Page 1 of 2:

On this page, we have a description of the charity that you will be paired with. Please read the description of this charity.

Indonesian Red Cross Society (Palang Merah Indonesia): The Indonesian Red Cross Society (IRCS) is a humanitarian organization and a member of International Federation of Red Cross and Red Crescent Societies. The IRCS was created on September 17th, 1945, exactly 1 month after Indonesia's independence. President Soekarno ordered its inception when a battle between Indonesian soldiers and allied troops broke out, leaving many wounded, on September 3rd, 1945. Based on its performance, IRCS received international recognition in 1950 when it was accepted as a member of the International Red Cross and achieved its legal status through Presidential Decree Number 25 Year 1959, which was later reinforced by Presidential Decree Number 245 Year 1963. The IRCS central headquarters is located at Jl. Jenderal Gatot Soebroto Kav. 96, Jakarta 12790.[26] Activities undertaken by the IRCS include:

PMI in Disaster Response: A variety of geographical and geological factors, as well as demographic conditions affect the high frequency of natural disasters in Indonesia. In accordance with the duties and functions of the organization, the Red Cross Indonesia is obliged to provide help and assistance during an emergency to those in need, in a professional manner based on the basic principles of the International Red Cross and Red Crescent Movement. Disaster response activities include evaluation of preferred PMI rescue and first aid by giving priority to the vulnerable, such as pregnant women, children, and seniors.

Water and Sanitation for Vulnerable Communities: In accordance with the Indonesian Red Cross policy 1999-2004 and the IFRC Strategy 2010 for public health programs, PMI is helping vulnerable groups promote public health through improved hygiene, clean water and sanitation facilities; making it an integrated program with community development in the field of first aid, disaster management, and development of water sanitation programs for vulnerable groups of people who have difficulty accessing clean water and people in disaster/conflict refugee camps.

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[26] Description from Wikipedia; Accessed on January 24th 2012. Link:
http://en.wikipedia.org/wiki/Indonesian_Red_Cross_Society

Dictator Game Instructions Page 2 of 2:

Now we would like to ask you whether you would like to make a donation to the charity. You are given 2000 tokens. You can choose to send none, some, or all the tokens to the charity. This amount will be added to the final total sent to the charity and you will keep the rest. Please enter the amount you would like to send and the amount you would like to keep below. Note that both these amounts should add to 2000.

Tokens you would like to keep: _____

Tokens you would like to send to the charity: _____

Appendix B – Additional Tables

Table B.1: Charitable Donations – Sample excludes UI students indicating intention to join the public sector [a, b, c, d, e]

Dependent Variable: Amount Sent to Charity in Dictator Game				
	I	II	III	IV
Public Official (D)	184.7***	111.6*	132.2**	117.7*
1 = Public Official	(43.16)	(46.39)	(47.94)	(47.98)
Charity Rating	48.89***	53.49***	55.61***	52.01***
7 = Most Effective	(11.15)	(11.90)	(11.73)	(11.50)
Service (in years)		16.47***	15.19*	13.54*
		(4.86)	(6.28)	(5.66)
Rank in Ministry		0.02	-4.59	-3.62
		(7.85)	(9.09)	(8.91)
Age (in years)			2.59	3.93
			(5.69)	(5.17)
Gender (D)			72.43‡	74.82‡
1 = Female			(39.06)	(39.03)
Trust in Others				16.41*
9 = Believes Others are Trustworthy				(7.49)
Belief that Charity was Paid				58.59**
5 = Complete confidence				(21.81)
Constant	338.4***	315.4***	216.30	-89.50
	(65.84)	(68.92)	(131.90)	(156.20)
R-Squared	0.044	0.089	0.093	0.106
P-value	0.000	0.000	0.000	0.000
Observations	894	866	866	866

Notes:
[a] OLS regressions with robust standard errors. Dependent variable is the amount donated to the Indonesian Red Cross in the dictator game.
[b] Models pool all samples (i.e. from the University of Indonesia, the State College of Accountancy, and the College of Administrative Sciences) but exclude UI students indicating intention to join the public sector. Models I is our baseline model, II adds College of Administrative Sciences-specific variables, III adds demographic variables, while IV adds preferences and beliefs.
[c] Results are robust to a tobit model specification to account for censoring at 0 and 200 (not reported).
[d] ‡ 10%, * 5%, ** 1%, *** 0.1% significance level. Standard errors in parentheses.
[e] Due to undecipherable responses to the question on the subjects rank in their ministry, 26 observations from STIA are dropped between models I and II.