Non-Financial Incentives, Selectivity and Performance of Volunteers: Evidence from a Large Scale Natural Field Experiment

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Abstract
We embed a randomized controlled experiment in BRAC’s existing volunteer tutor (Chhatrabandhu) program in Bangladesh to examine the effects of non-financial incentives on tutors’ retention rates and performance. The experiment involves nearly 500 secondary schools and 4200 volunteer tutors. We demonstrate that offering performance-contingent public-recognition award leads to higher dropout rates and poorer performance, particularly among volunteers with high other-regarding and low teaching-career motive for volunteering. Nevertheless, the treatment improves the performance of volunteers with low other-regarding motive for volunteering. When individuals can self-select into an incentive scheme, its motivation crowding-in effect may counteract its motivation crowding-out effect on performance. The overall performance effect of non-financial incentives depends crucially on the composition of the types of workers who self-select into an organization.

Keywords: Non-financial incentives; volunteers; motivation; retention.

JEL Codes: O15; I25; J24; H42.

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1. Introduction

Volunteers play an important role in an economy. Roughly one quarter to one half of adult population volunteer their time without pay to help organizations to deliver services, such as education, health, and religious services, to individuals and communities in many countries.\(^1\) The value of their time accounts for roughly 2.2% of GDP in the U.S. (Lough et al. 2007), 1.4% of GDP in Australia (ABS 2002), and 1.7% of GDP in Bangladesh (BBS 2011). However, volunteers tend not to stay long with the organizations for which they volunteer as they are usually not paid (Bussell and Forbes 2002; Clary et al. 1992).\(^2\) Hence, the important question for organizations that utilize volunteers is how to better recruit and retain volunteers.

Conventional economic theories suggest that using incentives may help recruit and retain the right workers and also improve their efforts and (Lazear 2000; Muralidharan & Sundararaman 2011; Dal Bó et al. 2013), but behavioral economic research indicates that the effects of incentives may differ in the context of volunteers. Specifically, volunteers’ motivations for participation are often non-monetary. For example, they may volunteer for other-regarding reasons as they derive satisfaction from helping others. They may also volunteer for career concerns as their volunteer work may help them acquire human capital or serve as a signal to future employers. Behavioral economic theories suggest that using incentives, whether monetary or non-monetary, can have unintended consequences on an agent’s effort and performance because incentives may crowd out their intrinsic motivation for the work they volunteer to perform (Frey 1994; Frey & Goette 1999; Bénabou & Tirole 2006). Furthermore, organizations rely on volunteers because they do not have to pay for their services. This means that the incentives used may need to be small or non-monetary, but Gneezy and Rustichini (2000) shows that the use of small incentives lead to poorer performance.

In this paper, we examine whether offering non-financial incentives helps retain (attract) the right type of volunteers and whether it leads to improved performance. We embed a randomized controlled experiment in the Chhatrabandhu (CB) program of the non-government organization (NGO), BRAC, in Bangladesh to examine how the use of different performance-based non-

\(^1\) For the United States, volunteer rate was 24.9 % in 2015 (BLS 2015). In Australia, 31% of people aged 18 years and over participated in formal volunteering in 2014 (ABS, 2015). In 2014/15, 42% of adults aged 16 and over (around two in five) reported volunteering formally at least once in the previous year in England. The estimated mean hours per month among regular volunteers was 11.6.

\(^2\) In the US, one third of volunteers who volunteered in 2005 did not continue to volunteer in 2006 (VIA 2007). Volunteer retention crisis is also found to be acute in developing countries (Alam et al. 2011, Paradis & Usui 1987).
financial reward schemes affects volunteer tutors’ retention and their students’ achievement. Our experiment is a natural field experiment in the language of Harrison and List (2004), as the experiment is embedded in an existing program of BRAC, one of the largest NGOs in the world. The CB program is a flagship program of BRAC, and it engages more than 40,000 volunteer tutors and 1,400 schools in 55 districts in Bangladesh. The program recruits local volunteers to offer free after-school tutoring services to selected secondary school students who came from poor or disadvantaged families. The experiment involves over 4,000 volunteer tutors who provided after-school tutoring service in mathematics and English to more than 5,000 students in 495 schools across Bangladesh.

To test the effects of using different non-financial incentives (NFI) schemes on the retention and performance of volunteers, we randomly assign volunteer tutors to different treatments several months after they have started the CB program. In the first treatment group, BRAC offers a certificate of excellence (“superior certificate”) in a public ceremony which is contingent on the performance of the students for whom the volunteers are responsible at the end of the two-year program. If the volunteer tutors do not meet the performance threshold for a superior certificate, they receive a certificate of appreciation for their participation in the program (“regular certificate”). This regular certificate is the status-quo BRAC’s policy for all volunteer tutors completing the CB program, including those working with schools that are not part of our field experiment. Thus, the performance-contingent public ceremony and superior certificate may serve as an incentive to those who may use it for labor market signaling and who have an image concern. The second treatment group differs from the first only in terms of how the certificates are awarded – certificates are given privately to the volunteers in the absence of a ceremony; the performance requirement for the award of the superior certificate is the same for both treatment groups. This performance-contingent certificate may still serve as an incentive (as the certificate can be used as a signaling device in the labor market, for example), but without an implication on the public image of volunteers. Lastly, there is a control group where each volunteer receives a regular certificate upon program completion.

Our experiment yields several novel findings that help understand the interplay between non-financial incentives, volunteers’ participating decision, and volunteers’ performance. First, we show that offering performance-based public-recognition award leads to an increase in the attrition (dropout) of volunteer tutors, but offering performance-based private-recognition award does not.
Specifically, volunteer tutors who have high other-regarding motive and low teaching-career motive for volunteering are more likely to drop out of the program if they are in the performance-contingent public-recognition treatment group. This result is consistent with Frey’s (1994) argument that the external intervention effectively shifts their locus of control from the intrinsic motivation of helping others to the extrinsic motivation of achieving the performance target and being publicly recognized, but the incentive offered is too small for them to perform. If self-selection into and out of the incentive scheme is not possible, the incentive would lead to decreased performance. In many situations, including our field experiment, however, volunteers have an outside option and they are better off not partake in the program. Thus, they self-select out of the program. The results also imply that volunteers with high other-regarding motive and low teaching-career motive for volunteering and who remain in the performance-contingent public-recognition treatment group are likely to be a more selective group of individuals.

Second, we find that for volunteers who stay in the program, the performance-contingent public-recognition treatment is especially effective in incentivizing those with low other-regarding motive for volunteering to perform. Their students’ performance in tests, especially standardized mathematics test that we designed and administered by BRAC, is significantly better than similar volunteers’ students’ performance in the other treatment groups. For volunteers with high other-regarding motive for volunteering, both non-financial incentive schemes are ineffective in incentivizing them to perform. When we correct for the positive selection into the performance-contingent public-recognition treatment, the offering of the performance-contingent incentive actually leads to poorer performance among this type of volunteers. The net effect of the non-financial incentives on performance depends on the composition change in the types of volunteers remaining in the program. We find that after correcting for positive selection, the net effect of the non-financial incentives on performance is still negative, as the share of volunteers with high other-regarding motive for volunteering remain large in the sample. Thus, offering performance-contingent public-recognition award to incentivize volunteers can potentially: (1) discourage those whose motivation is more likely crowded out by incentives from joining the organization; (2) crowd in performance among those who self-select into the organization.

To the best of our knowledge, this is the first paper that attempts to understand how non-financial incentives may influence the selection as well as the performance of volunteers using a randomized controlled field experiment that is embedded in an existing volunteer program. Past
studies primarily focus on the effects of incentives on efforts or performance conditional on participation, while our study provides insights into the effects of incentives on the selection as well as performance of volunteers. For example, Frey’s (1994) theoretical model shows how external intervention may influence volunteers’ efforts and performance, while we extend the model to show how external intervention may influence different types of volunteers’ decision to enter or dropout and its consequential effects on their performance. Some recent research shows that career consideration and non-financial incentives may influence the selection and performance of agents. For example, recent research by Ashraf et al. (2014a) shows that making career concerns salient are likely to attract high ability applicants willing to work as health workers. Similarly, Ashraf et al. (2014b) show that non-financial award (e.g., star treatment) is more effective than financial rewards for agents selling condoms. However, less is known about the joint effects of providing NFI on the selection and performance of volunteers. Taking into consideration of program participation decision is important, as the motivation crowding-out effect of incentives on the overall performance of the program may dissipate while the motivation crowding-in effect of incentives strengthens when individuals can self-select into the program. Our findings thus contribute to the extant empirical studies examining the effects of financial incentives (FI) and NFI on agents’ performance.³ Lastly, our study provides external validity as the intervention is a part of an existing large-scale program of one of the largest NGOs in the world.

2. External Intervention, Participation Decision, and Performance

We extend Frey’s (1994) model to draw insights on the effects of external intervention on individuals’ participation and performance decisions. The model informs our research design, the hypotheses to be tested, the econometrics analysis, and the interpretations of the findings.

The decision problem of an individual is to decide whether to join a volunteer program given the benefits B and cost C from performance. The person compares the relative net benefit (B-C) from performing in the volunteer program and the value of the outside option, v, and decides to join the program if the net benefit from performance exceeds the value of the outside option.

Assume heterogeneous agents with different $B$, $C$, and $v$. Both benefit and cost associated with the voluntary work increase in performance $P$: \( \partial B / \partial P \equiv B_p > 0 \) and \( \partial C / \partial P \equiv C_p > 0 \). Further, performance is associated with diminishing marginal returns ($B_{pp} < 0$) and increasing marginal cost ($C_{pp} > 0$).

Conditional on program participation, the volunteer chooses the level of performance $P^*$ that maximizes the net benefit from performance, i.e., they choose $P^*$ such that $B_p = C_p$.

The principal’s (BRAC) external intervention in the form of incentives, $I$, also influences the benefits and cost from performance. As the incentive $I$ for performing volunteer work changes, the volunteer’s optimal choice of performance will change as follows:

\[
B_{pi} + B_{pp} \frac{dP^*}{dI} = C_{pi} + C_{pp} \frac{dP^*}{dI}
\]

\[
\frac{dP^*}{dI} = \frac{B_{pi} - C_{pi}}{C_{pp} - B_{pp}}
\]

Frey (1994) distinguishes two cases to sign the optimal performance in response to an increase in external intervention ($\partial P^*/\partial I$). The first case is the disciplining effect of external intervention on performance ($C_{pi}$). Standard economic principal-agent theory indicates that $C_{pi} < 0$. For example, principal may impose a higher marginal cost of shirking through monitoring and hence lower the marginal cost of performance. Thus, the disciplining effect increases optimal performance.

The second case is the crowding effect of external intervention on performance ($B_{pi}$). This is the part with which our experiment is concerned. Whether the optimal performance increases or decreases with an increase in the incentive depends crucially on the size and sign of $B_{pi}$. Frey (1994) gives examples of the crowding out effect of incentive ($B_{pi} < 0$). For instance, when agents get a reward, such as money, prize, or gift, only if they have performed according to the principals’ requirements, the more intrinsic motivation (volunteering) is crowded out. Specifically, Frey (1994) argues that in the language of Rotter (1966), the locus of control has shifted from inside to outside the person affected, as the agents perceive the external intervention as reducing the extent to which they can control actions by themselves. In the case of volunteering, a performance-contingent reward essentially shifts an intrinsically motivated volunteer’s focal point towards the externally determined prize and performance requirements rather than the joy derived internally from helping others. However, not all individuals will experience the crowding out effect of incentive. In the case of volunteer tutoring, if a person’s motivation to join the volunteer program
is to acquire skills and/or signal useful for future employment opportunities, the reward may actually crowd in the person’s motivation as it can be used as a signal to potential employers. Then, the incentive will crowd in motivation \((B_{PI} > 0)\).

The overall effect of incentive on the average performance of individuals in the program is more complicated when we take into consideration the participation decisions of heterogeneous agents. As the incentive influences an agent’s net benefit from performance, the relative attractiveness of the volunteer program and the outside option varies by individual. As the incentive changes, some individuals who previously gain from joining the volunteer program may now find the value of the outside option greater. These individuals will decide not to participate. Similarly, as the incentive changes, some other individuals who previously find the value of the outside option greater than the value of joining the program may now join the program as the value of the program increases with the incentive. Among those who decide to participate, there are two groups of participants: (1) those who will experience the motivation crowding-in effect; and (2) those who will experience the motivation crowding-out effect, but whose values of outside options are still lower than the net benefit from performance. The overall effect of incentive on the average performance of individuals in the program depends on the compositions of these different types of participants and the relative size of the motivation crowding-in effect and the motivation crowding-out effect.

The model indicates that when individuals can self-select into programs with different incentive schemes, the overall performance of a program may improve despite the presence of motivation crowding-out effect because the program will be populated with individuals who experience motivation crowding-in effect and individuals who experience low level of motivation crowding-out effect.

3. **Institutional Background**

3.1 **The Context**

This study focuses on volunteers who provide after-school tutoring and mentoring services to poor children living in rural Bangladesh. Bangladesh has achieved remarkable success in improving access to primary education. For example, in 2015, gross primary-school enrolment rate was 109% and net primary-school enrolment rate was 98%. However, a large number of students do not continue into secondary education in Bangladesh and if they do, they drop out early. In 2015, the
gross and net enrolment rate for secondary schools were 71% and 67%, respectively. Dropout rate was 40.3% for secondary education, with 19% of the dropouts leaving school in grade eight alone (BANBEIS 2015). The low academic performance of children is particularly acute among rural poor.

Past studies suggest that the provision of after-school tutoring can help improve students’ educational outcomes (Burde & Linden 2013; Carr and Wang 2017). However, poor children in rural Bangladesh tend to lag behind academically their urban and rural counterparts, because they attend poor-quality schools and their parents and guardians are often not literate enough to offer any help in school work and too poor to afford after-school private tutoring (Islam 2017; Nath 2011). Thus, BRAC initiated the Chhatrabandhu Program by utilizing the volunteer time of local educated people to improve the educational outcomes of disadvantaged secondary school students in rural Bangladesh through the provision of free after-school tutoring services.

### 3.2 BRAC’s Chhatrabandhu (CB) Program

BRAC introduced the CB Program in 2007 with the primary objective of improving the educational outcomes of disadvantaged secondary school students in rural Bangladesh. Working with local non-governments schools, the program recruits and assigns local educated individuals who are willing to volunteer their time and effort to provide after-school tutoring to lower secondary school students (grade 6 to grade 8). According to BRAC, these volunteer tutors are revered as “social philanthropist” for their extraordinary service to the community and are called Chhatrabandhu – friend of the students.

The typical CBs are local youths who live in the same village as the students, have completed their secondary education (i.e., passed grade 10 public national exam), and are either currently studying, working part-time, or unemployed. Most of them have had some experience in tutoring or teaching children in their own villages. As a CB, they provide free private tutoring to poor and disadvantaged students in the subjects of mathematics and English over a two-year period. The tutoring services they provide are expected to considerably improve the students’ achievement in the grade 8 public national exam, Junior School Certificate (JSC) examination.

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4 Most secondary schools in Bangladesh are labelled as non-government schools because they are primarily managed by the local communities, even though teachers’ salaries and operating expenses come from government sources.

5 JSC and SSC exams are two most important exams conducted nationwide at grade 8 and grade 10, respectively. The results for these exams are used for admission to the next level in secondary and higher secondary level schools.
BRAC expanded the operation of the program from one district in 2007 to 55 districts in Bangladesh by 2015. In 2015, the program was available in 1400 schools in 151 sub-districts in Bangladesh. More than 40,000 volunteers were working with the program throughout the country. Table 1 reports the coverage of program between 2011 and 2015.

Table 1

CB program is implemented in four stages. In stage 1, there is the school managing committee (SMC) and teachers’ orientation meeting. After identifying and agreeing with the schools where the CB program will be available, BRAC organize an orientation meeting in the participating schools. The primary objective of orientation meeting is to ensure that the SMC and teachers in a participating school are aware of the features of the CB program, so they can provide assistance in implementing the program activities. The meeting is also attended by parents, guardians, and elected representatives. The participants in the orientation meeting are urged to encourage local people to partake in the program as volunteer tutors. The target volunteer population are highly educated local individuals, particularly youths who are studying at colleges or have completed their high school.

In stage 2, students are selected. With the help of school teachers and SMC members, BRAC local program staff prepare a list of potential students currently enrolled in grade 6 and grade 7 for CB assignment. Program staff then survey or interview the parents to identify the socio-economic status of each student on the list. Students from low-income households are given priority.

In stage 3, CBs are selected and matching between CBs and students occurs. Anyone who expresses an interest to participate in the program and meets the minimum education qualification requirement of having the SSC is recruited as a CB. Thus, CBs include high school graduates, current college students, college graduates, housewives, and retired professionals. After program staff finalize the lists of CBs and students, they jointly meet with CBs, parents, teachers, and SMC members to perform matching. The majority of CBs are paired with one student, and some are paired with two students. Typically, CBs are matched to students that live not too far from them and the matching is done on the basis of mutual understanding among all parties involved to ensure that students, parents and CBs are at ease with the match.

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6 A participating school is always located in an area where BRAC has a local branch from where it can operate the program. BRAC branches are spread throughout all the districts and regions in Bangladesh.
In stage 4, CBs receive training. BRAC offers six days of training to familiarize CBs with the curricula and learning materials in the subjects of English and mathematics used in the various relevant grade levels. Retired or best performing school teachers from the area conduct the training with the aim to equip CBs with the best teaching practices as well as to ensure that they follow a common teaching guideline. Program staff also conduct a separate one day training to ensure that CBs are familiar with the goals and objectives of the program. Upon completing the training, CBs begin their two-year volunteer assignment.

4. Research Design and Hypotheses

4.1 Research Design
We embed a randomized controlled field experiment in BRAC’s existing CB program to test the effects of non-financial incentives on the dropout decision and performance of volunteers. In April 2014, we selected 495 non-government secondary schools from a list of schools that BRAC runs the CB program. The selected schools are located in 45 districts (78 sub-districts) where BRAC has the local resources to implement the field experiment. Among the 495 schools, 4162 CBs are included in our experiment. Between June and August of 2014, these CBs were matched with 5730 grade 6 or grade 7 students who came from disadvantaged families.

We conduct a baseline survey on these CBs to collect information about their socio-economic characteristics, past academic achievement, motivation for joining the program, aspiration, etc. between January and February of 2015. The survey also collects their students’ information, such as the students’ performance in grade 5 national public exam, financial status, relationship with the CB, and so on.

We then randomly assign the 495 schools into one of three treatment groups. The three treatment groups are: (T1) performance-contingent public-recognition award group; (T2) performance-contingent private-recognition award group; and (T3) participation-based certificate group. Table 2 presents the numbers of schools, CBs, and students by treatment group. The treatments were announced to the CBs in April 2015, roughly eight months after they began the two-year program. The announcement letters are shown in Appendix I.

Table 2

In the performance-contingent public-recognition award group (T1), CBs will either receive a “superior” certificate (certificate of excellence) in a public ceremony organized by BRAC or
receive a “regular” certificate (certificate of participation) in private depending on how well their students’ perform in the grade level examination at the completion of the program compared to the grade 5 national examination. The performance required for the superior certificate is at least one of the CB’s students must achieve an increase in average grade points between the two grade level examinations in the subjects of mathematics and English. Each CB received a formal letter from BRAC explaining the performance criteria and how they would be evaluated and rewarded based on their performance. Research assistants also called each CB separately to make sure that they understood the performance criteria and how the two types of certificates would be awarded.

In the performance-contingent private-recognition award group (T2), CBs will also receive a superior certificate if their students perform better than some thresholds, but the certificate will be given privately, rather than in a public ceremony. The condition to attain the superior certificate is exactly same as in T1. Thus, the only difference between T1 and T2 is that in T2 no public ceremony will take place for the award of the performance-contingent superior certificates.

In the participation-based certificate group (T3), all CBs will receive a regular certificate privately irrespective of how well their students perform upon completing the program. This third group is essentially the control group. The certificate is identical to the one for those who fail to meet the performance requirement in the other two treatment groups.

We conducted an end-line survey on CBs to collect information about their drop-out status in February and March of 2016. The dropout status was first provided by BRAC during the survey period and we cross checked with the information with CBs in the end-line survey. During this survey period, we also test the CBs’ students using a standardized test that we designed and collect students’ academic results from their schools. We collected both students’ in school examination results as well as their grade-8 public examination (JSC) results. The timeline of the program and experiment is shown in Appendix II.

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7 There are two types of grade level examination at the completion of the program. The first type is the grade 8 national examination, taken by students of CBs who were in their grade 7 at the beginning of the program. The second type is the grade 7 school level examination, taken by students of CBs who were in their grade 6 at the beginning of the program.
2.2 Hypotheses

Based on the model and experimental design, we derive a set of hypotheses about how different types of performance-contingent non-financial incentives that we introduce in our experiment will influence the dropout decisions and performance of different types of individuals.

*H1.* Dropout rates will increase among those who are intrinsically motivated to help others, if the offering of performance-contingent certificate is effective in shifting the focal point from the intrinsic motivation to help others to the extrinsically motivated performance requirements. Moreover, public-recognition certificate treatment will more strongly increase dropout rates than private-recognition certification treatment as it is likely more effective in shifting the focal point.

*H2.* Dropout rates will decrease among those who are intrinsically motivated to pursue a teaching career, if the performance-contingent certificate provides signaling value for a teaching career. Public-recognition certificate treatment will more strongly decrease dropout rates than private-recognition certification treatment as it makes high performance more noticeable.

*H3.* The overall effect of performance-contingent certificate award on dropout rates is likely ambiguous. If the increased dropout rates under *H1* is greater than the decreased dropout rates under *H2*, and the share of those induced to drop out under *H1* is much larger than the share of those induced to stay under *H2*, then the performance-contingent certificate award leads to an overall increase in dropout rates.

*H4.* Performance will increase for volunteers who are not intrinsically motivated to help others, if the performance-contingent certificate award provides any signaling value for them. The effect on performance is likely stronger for the public-recognition certificate as it makes high performance more noticeable.

*H5.* Performance will decrease for volunteers who are intrinsically motivated to help others and choose not to drop out of the program, if the performance-contingent certificate shifts the focal point from the intrinsic motivation to help others to the extrinsically motivated performance
requirements. The negative effect on performance is likely stronger for the public-recognition certificate as it is likely more effective in shifting the focal point.

H6. The overall effect of performance-contingent certificate award on performance is ambiguous. If the (weighted average) increase in performance under $H4$ is greater than the (weighted average) decrease in performance under $H5$, then the performance-contingent certificate award leads to an overall increase in performance.

5. Data

5.1 Characteristics of CBs and Students and Verification of Randomization

In this section, we report the summary statistics of CBs and students by treatment and provide evidence that we successfully randomized the assignment of treatments. Our tests of balance concentrate on the characteristics of CBs and students that may likely influence the dropout (participation) decision and performance of CBs. For students, we focus on their past academic performance, age, gender, and poverty status, and whether the CB meets the family weekly. For CBs, we focus on their age, gender, educational attainment, prior experience in private tutoring, past academic achievement, other-regarding motive for volunteering, and intention to pursue a teaching career.

Based on the model and hypotheses, we are especially interested in how dropout decision and performance differs by volunteer’s motive for volunteering. We classify whether a CB has strong other-regarding motive for volunteering. In the baseline survey, CBs were asked 30 seven-point Likert scale questions regarding their reasons to join the program as a volunteer. We use three questions that may help measure a CB’s motive for volunteering as other regarding (i.e., to help other people) to construct her other-regarding motive score. These questions ask the CB to rate: (1) how much she is concerned about those who are less fortunate than herself; (2) how much she is concerned about poor students; and (3) how much she felt compassion towards people in need. CBs with score greater than the mean of 18 (out of 21) are considered as one with high other-regarding motive. Roughly two third of CBs fall into this high other-regarding motive category in the sample. We also classify whether a CB has a strong preference to pursue a teaching career. CBs were asked to rank their preference for teaching as a future occupation on a 1-5 Likert scale in the baseline survey. We classify CBs who chose 5 (very strong preference for being a teacher in the
future) as having high teaching-career motive. Roughly three quarter of CBs fall in this high teaching-career motive category in the sample.

[Table 3]

Table 3 reports the mean and standard deviation of CB’s and student’s characteristics by treatment and demonstrates that these characteristics are balanced across treatments. P-values for the joint tests of difference as well as the difference between T1 and T3 (control), and T2 and T3 (control) are all above 0.10. Briefly, CBs are on average 20 years old, majority females (56%), and have completed 11 years of education. About one third of CBs had prior experience in private tutoring before joining the program. The average grade points of students’ mathematics and English components of PSC are roughly 3.6 and 3.2 out of 5, respectively. Students are on average roughly 13 years old, majority girls (60%), majority poor (~80%) as reported by the CBs. Roughly 80% of CBs meet with the students’ families on a weekly basis.

5.2 Key Outcome Measures

We focus broadly on four main outcome variables: (1) whether the CB has dropped out of the program before completing the program; (2) the student’s average grade point in the national exam; and (3) the student’s standardized test scores.

All CBs included in the experiment were active when they were informed about the treatment in April 2015 (roughly 8 months after commencing the program). By the time of the end-line survey in February 2016 (roughly 1.5 years after commencing the program), approximately 21 percent of the CBs had dropped out of the program.

We also measure the performance of CBs using standardized test scores of their students. We designed the standardized test based on materials drawn from the relevant textbooks. Separate tests were conducted for grade seven and grade eight students. Program staff administered the tests in the classrooms in schools.\(^8\) We randomly selected one student for each CB to sit the tests (note that some CBs have two students). 3027 of these students participated in the tests. The main reasons for test-day absenteeism include students could not be traced, students were on leave, and students dropped out or moved elsewhere. As a result, we check whether response rates of student in the

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\(^8\) One of the main reason for administering separate test is that there is no standard exam for class 7 students. There is also concern about using test scores from JSC examination which was marred by allegations of question leak, and less variation in test scores as most students achieved GPA 5 out of 5 point scale.
6. Results

6.1 Dropout Decision

We examine the treatment effects on the likelihood of CB’s dropping out of the program. We first show graphically how dropout rates differ across the three treatment groups before we test for treatment differences using regressions.

We are particularly interested in understanding how the dropout decision of different types of volunteers respond to the incentive scheme offered. Hypothesis $H1$ presented above suggests that individuals with high other-regarding (OR) motive for volunteering (i.e., intrinsically motivated to help others) are mostly likely to drop out when offered performance-contingent non-financial incentives that shift their focal point to the externally determined performance threshold. Hypothesis $H2$ presented above suggests that individuals with strong teaching-career (TC) motive (i.e., intrinsically motivated to pursue a teaching career) are less likely to drop out when offered performance-contingent non-financial incentives that can be used to signal their teaching quality. Because these two motives may overlap for individuals, we code them into four types and compare dropout rates by treatment and the four types: (type A) high other-regarding and high teaching-career motive; (type B) high other-regarding and low teaching-career motive; (type C) low other-regarding and high teaching-career motive; and (type D) low other-regarding and low teaching-career motive.

[Figure 1]

Figure 1 presents the different treatment effects on dropout rates across the four groups. The patterns support the hypotheses. Specifically, panel (B) shows that performance-contingent public-recognition award treatment (T1) significantly increases the dropout rates of individuals with high other-regarding motive for volunteering and low teaching-career motive. The 90% confidence interval for T1 does not overlap with the 90% confidence intervals for T2 and T3. The results indicate that the treatment effectively shifts their focal point from the intrinsic motivation of help
others to the extrinsic motivation of achieving the performance requirements. However, panel (A) shows that if they have high other-regarding motive as well as high teaching-career motive, the effect of the performance-contingent public-recognition award treatment on dropout rates is significantly attenuated, presumably because the award can help signal their teaching quality. The 90% confidence interval for T1 overlaps with the 90% confidence intervals for T2 and T3. The results are consistent with H1 and H2. Lastly, Figure 1 also shows that the performance-contingent private-recognition award (T2) does not have a significant effect on dropout rates for all types of individuals. The result is consistent with the hypothesis that the extra public ceremony is effective in shifting the focal point or adding signaling value.

[Figure 2]

Figure 2 shows that the average effect of the treatment on the dropout rates of CBs by treatment group. Overall, the performance-contingent public-recognition award treatment (T1) leads to higher dropout rates than the performance-contingent private-recognition award treatment (T2) and the participation-based control group (T3). The 90% confidence interval for T1 does not overlap with the 90% confidence intervals for T2 and T3. The dropout rates of CB do not differ much between T2 and T3, as the 90% confidence intervals for T2 and T3 almost overlap entirely. Thus, offering performance-contingent public-recognition award treatment increases dropout rates. The results are consistent with hypothesis H3.

[Table 4]

Table 4 reports regression results that confirm the patterns shown in Figure 1 and Figure 2. We report estimates based on specifications without control variables in panel A and specifications with additional control variables in panel B. Column 1 to column 4 report the estimates for each type of CBs, respectively, and column 5 report the results for all types of CBs. Column 2 shows that the effect of the performance-contingent public-recognition treatment on the likelihood of type-B CBs is statistically positive. The results are similar whether we include control variables or not. The offering of that treatment increase the dropout rates of CBs with high other-regarding and low teaching-career motive for volunteering to increase by 18.6 percentage points (column 2 in panel B). Because of this sharp increase in dropout rates among this sub group of CBs, this treatment also increases the overall dropout rates by 4.2 percentage points (column 5 in panel B). The results confirm those presented in Figure 1 and Figure 2.
Overall, the results support the hypothesis that CBs with high other-regarding motive and low teaching-career motive for volunteering are more likely to drop out of the program when they are incentivized to perform. The dropout effect is only observed for the performance-contingent public-recognition certificate treatment, indicating that this non-financial incentive scheme is effective in shifting the focal point of CBs from the intrinsic motivation to help others to the extrinsically motivated performance requirements. The results also show that the CBs with high other-regarding motive for volunteering are less likely to experience the motivation crowding-out effect of the performance-contingent public-recognition certificate award if they also have a high teaching-career motive. The results are consistent with the hypothesis that the non-financial incentives may provide signaling value for these individuals to use for future employment purpose.

6.2 Performance Effects of Performance-Contingent Non-Financial Incentives
6.2.1 Selection Bias and Implications
Given the selection effects reported above, the estimated average effect of the performance-contingent public-recognition certificate treatment (T1) on CBs’ and students’ performance will likely to be biased. In particular, the theoretical model indicates that individuals self-select out of the program if they lose out from the introduction of the non-financial incentive scheme. Following this logic, differential dropout rates indicate that individuals staying in the performance-contingent public-recognition certificate treatment group are positively selected into the treatment.\(^9\)

First, there is no evidence of differential selection across treatments among CBs with: high other-regarding and high teaching-career motive for volunteering (type A); low other-regarding and high teaching-career motive for volunteering (type C); and low other-regarding and low teaching-career motive for volunteering (type D). The average effect of treatment on performance estimated for these three types of CBs in an Ordinary Least Squares (OLS) regression will be unbiased.

\(^9\) As we can never observe the counterfactual performance of treated CBs who drop out of the program, there is no formal way of testing whether dropouts negatively selected into it. Nonetheless, we can informally test if other-regarding motive for volunteering negatively predicts performance of CBs who stay in the control group to see if in the absence of treatment, whether there is even any support for the claim. The estimates reported in Appendix IV show that there is a negative relationship between whether a CB met the performance threshold and the CB’s high other-regarding motive for volunteering. Thus, CBs who drop out do have characteristics associated with poorer performance.
Second, because CBs who have high other-regarding motive and low teaching-career motive for volunteering (type B) and self-select out of the performance-contingent public-recognition award treatment group are likely to be those with poorer performance, the sample of CBs who remain in the performance-contingent public-recognition certificate treatment group is likely overrepresented by individuals who have better performance. Thus, we will likely overestimate the effect of the treatment on performance for this type of CBs (type B) in an OLS regression. Similarly, we will likely overestimate the overall average effect of the performance-contingent public-recognition award treatment on performance in an Ordinary Least Squares regression because the overall treatment effect on dropout rates is positive. To draw valid causal inferences, we need to ensure that the individuals in the control group (T3) are comparable to the individuals in the performance-contingent public-recognition certificate treatment group for CBs with high other-regarding motive and low teaching-career motive for volunteering (type B) as well as for the overall sample of CBs. Hence, we use Lee’s (2009) sharp bound estimation method to estimate the lower-bound effect of treatment on performance for these two samples by trimming the excess proportion of observations in the bottom end of the performance distribution for the control group. This method essentially removes the negatively-selected individuals in the control group and correct for the positive selection in the treatment group.

6.2.1 Treatment Effects on Students’ Performance

We first graphically compare the average performance by treatment and type of volunteers ignoring the positive selection into the performance-contingent public-recognition award treatment among CBs with high other-regarding motive and low teaching-career motive for volunteering (type B). We then perform regression analysis and address the positive selection problem in the performance-contingent public-recognition award treatment group by using Lee’s (2009) sharp bound estimation method. We focus on four performance measures: (i) standardized test performance in mathematics; (ii) standardized test performance in English; (iii) grade point in mathematics examination; and (iv) grade points in English examination.

[Figure 3]
[Figure 4]

Figure 3 and Figure 4 show the differential treatment effects on the student’s standardized test score by the four types of volunteers who remain in the program for math and English.
respectively. First, the effect on student’s standardized test performance appears to be positive for CBs with low other-regarding motive in the performance-contingent public-recognition certificate treatment group. These results are broadly consistent with the hypothesis H4 that the non-financial incentives are more effective in improving the performance of volunteers with low other-regarding motive for volunteering as the award may have signaling value for them in the labor market. Note that because CBs with high other-regarding and low teaching-career motive are positively selected into the performance-contingent public-recognition certificate treatment group, we do not use the average effects for the individuals who stay in the program to make causal inferences.

[Figure 5]
[Figure 6]

Figure 3 and Figure 4 show the differential treatment effects on the student’s grade point in examination by the four types of volunteers who remain in the program for math and English respectively. The effect appears to be similar across treatments and types of volunteers, although the effect seems more positive on student’s performance in the math examination for CBs with low other-regarding and low teaching-career motive in the performance-contingent public-recognition certificate treatment group, as well as on student’s performance in the English examination for CBs with low other-regarding and high teaching-career motive in the private-recognition treatment group. These results are again broadly consistent with the hypothesis H4 that the non-financial incentives are more effective in improving the performance of volunteers with low other-regarding motive for volunteering as the award may have signaling value for them in the labor market.

To more rigorously examine hypotheses H4, H5 and H6, as well as addressing the positive selection of type-B individuals (with high other-regarding and low teaching-career motive for volunteering) into the program, we estimate the effects of treatments on performance using OLS and Lee’s (2009) sharp bound estimators. Specifically, the effects of treatment of the performance of type-B (high other-regarding and low teaching-career motive) volunteers are estimated using the Lee’s (2009) lower-bound estimator, whereas the effects of treatment on the performance of other types of volunteers are estimated using OLS estimator.

Table 5 reports the estimated effects of treatments on students’ academic performance for each type of volunteers and also for all volunteers. Panel A reports the performance in the standardized tests while panel B reports the performance in the public examination. Columns 1 to 5 show performance in mathematics and columns 6 to 10 show performance in English. Note that
because there is likely to be positive selection among CBs who stay in the performance-contingent public-recognition certificate treatment group as well as among the overall sample of CBs who stay, the relevant estimated coefficients for the performance-contingent public-recognition certificate treatment group reported in columns 2 and 5 are the lower sharp-bound estimates. The differences between OLS estimates and the lower sharp-bound estimates reflect the extent of the bias due to positive selection.

[Table 5]

The estimates in panel A of Table 5 indicate that the performance-contingent public-recognition certificate treatment crowds in the motivation of CBs who have low other-regarding motive for volunteering to perform, and it crowds out the motivation of CBs who have high other-regarding motive. Specifically, among CBs who stay in the performance-contingent public-recognition certificate treatment group, their students’ standardized test scores increase if they have low other-regarding motive. For example, average standardized test score in math increases by 0.7 points for students of CBs with low other-regarding and low teaching-career motive for volunteering (column 4). Similarly, average standardized test score in English increases by 0.36 points for students of CBs with low other-regarding and high teaching-career motive for volunteering (column 8). The results support hypothesis H4. In contrast, average standardized test score in math decreases by and their students’ standardized test scores decrease by 0.57 points in mathematics (column 2) and by 0.41 points in English (column 6) if they have high other-regarding and low teaching-career motive. The results support hypothesis H5. Although the performance effect is stronger for CBs with low other-regarding motive for volunteering, the net effect of the treatment on performance is statistically not different to zero as they only constitute roughly one third of the sample of remaining CBs.

The estimates in panel B of Table 5, on the other hand, indicate that the treatments are not effective in incentivizing the CBs who remain in the program to improve students’ performance in the public national examination. The motivation crowding-out effect seems particularly strong for CBs with high other-regarding and low teaching-career motive for volunteering. Their students perform significantly worse in both mathematics and English. In contrast, the treatment has an insignificant effect on the other types of CBs’ students’ performance. The net effect is negative for the average effect of the performance-contingent public-recognition certificate treatment on performance, especially for English. We emphasize more on the performance measured by the
standardized tests that we designed, as there is concern about using test scores from the public examination which is often marred by allegations of question leak and lack of variation (with a large number of students achieving GPA 5 out of 5).

[Table 5]

7. Conclusion

This is the first study to use a large-scale randomized controlled field experiment to examine how the use of non-financial incentives affect the participation decisions as well as performance of volunteers. Building upon Frey’s (1994) seminal work, we first show theoretically that the negative effect of incentives on performance shown in the behavioral economics literature depends critically on whether agents who self-select into a program are predominantly those who experience a motivation crowding-in effect or a motivation crowding-out effect of incentives. We then embed a randomized control experiment in BRAC’s existing volunteer tutor program to test the effects of performance-contingent public-recognition certificate award and the effects of performance-contingent private-recognition certificate award on dropout rates and performance of volunteer tutors.

Our results show that the offering of performance-contingent public-recognition certificate award leads to increased dropout rates among volunteers who are intrinsically motivated to help others. The performance of these volunteers who remain in the performance-contingent public-recognition certificate treatment group decreases significantly relative to similar volunteers in the other treatment groups. Nonetheless, the treatment is effective in incentivizing volunteers who have relatively low motivation to help others. Because a relatively large share of volunteers who are intrinsically motivated to help others remain the program, the net effect of this non-financial incentive scheme on performance is negative in some cases. If the share of volunteers who are not intrinsically motivated to help others is larger among the remaining volunteers, it is possible for the net effect on performance to be positive. Thus, whether an incentive scheme leads to an overall increase in performance depends crucially on the composition of different types of individuals who self-select into the organization.
References


Volunteering in America: 2007 State Trends and Rankings in Civic Life, the Corporation for National and Community Service (the Corporation)
Figure 1: Dropout Rates by Treatment and Type of Volunteers

(A) High-OR & High-TC Motive

(B) High-OR & Low-TC Motive

(C) Low-OR & High-TC Motive

(D) Low-OR & Low-TC Motive

Figure 2: Dropout Rates by Treatment
Figure 3: Math Standardized Test Performance by Treatment and Type of Volunteers

Figure 4: English Standardized Test Performance by Treatment and Type of Volunteers
Figure 5: Math Exam Performance by Treatment and Type of Volunteers

Figure 6: English Exam Performance by Treatment and Type of Volunteers
### Table 1: CB Program Coverage 2011-2015

<table>
<thead>
<tr>
<th>Variables</th>
<th>Dec-11</th>
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<th>Dec-13</th>
<th>Dec-14</th>
<th>Jun-15</th>
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<td>800</td>
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<td>1400</td>
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<td>7896</td>
<td>23416</td>
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<td>55</td>
<td>56</td>
<td>52</td>
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<td>51</td>
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Source: BRAC Education Program (2016)

### Table 2: Sample Size by Treatment Group

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<tr>
<th>Treatment groups</th>
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<th>Number of CBs</th>
<th>Number of students</th>
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</thead>
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<td>Performance-contingent public-recognition certificate (T1)</td>
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<td>1886</td>
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<td>Performance-contingent private-recognition certificate (T2)</td>
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<td>1384</td>
<td>1947</td>
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<tr>
<td>Participation-based certificate (T3)</td>
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<td>1380</td>
<td>1897</td>
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<td>Total</td>
<td>495</td>
<td>4164</td>
<td>5730</td>
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Table 3: Summary Statistics by Treatment and Verification of Randomization

<table>
<thead>
<tr>
<th></th>
<th>T1 Mean (Std. err.)</th>
<th>T2 Mean (Std. err.)</th>
<th>T3 Mean (Std. err.)</th>
<th>T1-T3 Mean</th>
<th>T2-T3 Mean</th>
<th>F-statistics (p-value)</th>
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<tbody>
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<td><strong>A. CB’s characteristics</strong></td>
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<tr>
<td>Age</td>
<td>20.08 (0.16)</td>
<td>20.31 (0.17)</td>
<td>20.08 (0.16)</td>
<td>5.88 (0.00)</td>
<td>0.23 (0.36)</td>
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<td>Male (=1)</td>
<td>0.44 (0.01)</td>
<td>0.45 (0.01)</td>
<td>0.44 (0.01)</td>
<td>0.50 (0.00)</td>
<td>0.01 (0.03)</td>
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<tr>
<td>Years of schooling</td>
<td>11.01 (0.04)</td>
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<td>11.03 (0.04)</td>
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<td>(0.65)</td>
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<td>Past exam performance</td>
<td>0.02 (0.03)</td>
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<td>0.01 (0.03)</td>
<td>1.03 (0.01)</td>
<td>-0.04 (0.42)</td>
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<tr>
<td>Private tuition experience (=1)</td>
<td>0.36 (0.01)</td>
<td>0.37 (0.01)</td>
<td>0.35 (0.01)</td>
<td>0.48 (0.01)</td>
<td>0.01 (0.23)</td>
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<tr>
<td>High past academic achievement (=1)</td>
<td>0.51 (0.01)</td>
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<td>0.50 (0.01)</td>
<td>0.50 (0.01)</td>
<td>-0.03 (1.00)</td>
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</tr>
<tr>
<td>High other-regarding motive (=1)</td>
<td>0.64 (0.01)</td>
<td>0.65 (0.01)</td>
<td>0.63 (0.01)</td>
<td>0.48 (0.01)</td>
<td>0.02 (0.27)</td>
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<tr>
<td>High teaching-career motive (=1)</td>
<td>0.76 (0.01)</td>
<td>0.77 (0.01)</td>
<td>0.75 (0.01)</td>
<td>0.43 (0.01)</td>
<td>0.02 (0.30)</td>
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<td><strong>B. Student’s characteristics</strong></td>
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<tr>
<td>PSC math grade</td>
<td>3.59 (0.03)</td>
<td>3.61 (0.02)</td>
<td>3.56 (0.03)</td>
<td>1.09 (0.03)</td>
<td>0.05 (0.21)</td>
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<tr>
<td>PSC Eng. grade</td>
<td>3.17 (0.02)</td>
<td>3.18 (0.02)</td>
<td>3.12 (0.02)</td>
<td>1.05 (0.05)</td>
<td>0.06 (0.44)</td>
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<tr>
<td>Age</td>
<td>12.79 (0.02)</td>
<td>12.82 (0.02)</td>
<td>12.80 (0.02)</td>
<td>0.74 (0.00)</td>
<td>-0.01 (0.16)</td>
<td>(0.85)</td>
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<tr>
<td>Male(=1)</td>
<td>0.40 (0.01)</td>
<td>0.40 (0.01)</td>
<td>0.40 (0.01)</td>
<td>0.49 (0.00)</td>
<td>0.00 (0.02)</td>
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<tr>
<td>CB met student’s family at least once per week</td>
<td>0.81 (0.01)</td>
<td>0.81 (0.01)</td>
<td>0.81 (0.01)</td>
<td>0.39 (0.00)</td>
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<td>0.78 (0.01)</td>
<td>0.42 (0.00)</td>
<td>-0.02 (0.18)</td>
<td>(0.83)</td>
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Notes: The number of schools, CBs, and students by treatment group are reported in Table 2. The F-statistics reported in the last column test whether the characteristics in T1, T2, and T3 are jointly different to zero.
Table 4: The Effect of Treatment on the Likelihood of Dropping Out of the Program

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<tr>
<th></th>
<th>(1) High-OR High-TC</th>
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<th>(3) Low-OR High-TC</th>
<th>(4) Low-OR Low-TC</th>
<th>(5) All Types</th>
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<tr>
<td>Public-recognition certificate (T1)</td>
<td>0.037 (0.025)***</td>
<td>0.183 (0.053)***</td>
<td>0.003 (0.033)***</td>
<td>-0.010 (0.048)</td>
<td>0.041 (0.021)*</td>
</tr>
<tr>
<td>Private-recognition certificate (T2)</td>
<td>-0.003 (0.025)</td>
<td>0.020 (0.051)</td>
<td>-0.001 (0.034)</td>
<td>-0.000 (0.049)</td>
<td>0.000 (0.022)</td>
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<td>Observations</td>
<td>2138 516</td>
<td>1033 475</td>
<td>4162</td>
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<tr>
<td>R-squared</td>
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<td>0.000</td>
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B. With control variables

<table>
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<th>(3) Low-OR High-TC</th>
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<tr>
<td>Public-recognition certificate (T1)</td>
<td>0.038 (0.025)***</td>
<td>0.186 (0.054)***</td>
<td>0.006 (0.033)***</td>
<td>-0.010 (0.048)</td>
<td>0.042 (0.021)**</td>
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<td>Private-recognition certificate (T2)</td>
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<tr>
<td>R-squared</td>
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<td>0.042</td>
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Notes: All specifications are a linear probability regression model with a constant term. Control variables include CB’s age, CB’s gender, CB’s education, CB’s prior private tutoring experience, CB’s past academic achievement, and average of students’ PSC performance. Standard errors clustered at the school level are reported in parentheses. 

*p<0.10  **p<0.05  ***p<0.01
Table 5: The Effect of Treatment on Students’ Academic Performance

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<td>(0.183)</td>
<td>(0.292)</td>
<td>(0.222)</td>
<td>(0.311)**</td>
<td>(0.157)</td>
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<td>(0.304)**</td>
<td>(0.126)</td>
<td>(0.237)**</td>
<td>(0.086)</td>
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<td></td>
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A. Standardized tests

- Public-recognition certificate (T1) 0.086 -0.065 0.142 0.315 0.107 -0.025 -0.018 -0.032 0.150 -0.006
  (0.135) (0.223) (0.154) (0.190)** (0.105) (0.119) (0.201) (0.147) (0.197) (0.094)
- Private-recognition certificate (T2) 0.005 -0.011 0.134 0.091 0.037 0.016 0.036 0.128 0.185 0.060
  (0.125) (0.223) (0.159) (0.220) (0.105) (0.118) (0.179) (0.140) (0.208) (0.097)

B. Public Examination

- Public-recognition certificate (T1) 0.086 -0.065 0.142 0.315 0.107 -0.025 -0.018 -0.032 0.150 -0.006
  (0.135) (0.223) (0.154) (0.190)** (0.105) (0.119) (0.201) (0.147) (0.197) (0.094)
- Private-recognition certificate (T2) 0.005 -0.011 0.134 0.091 0.037 0.016 0.036 0.128 0.185 0.060
  (0.125) (0.223) (0.159) (0.220) (0.105) (0.118) (0.179) (0.140) (0.208) (0.097)

Observations 1926 423 880 417 3646 1926 423 880 417 3646
Lower sharp-bound T1 -0.743 -0.114 -0.673 -0.219
(0.25)** (0.085) (0.23)*** (0.08)**

Notes: Standard errors clustered at the school level are reported in parentheses. *p<0.10 **p<0.05 ***p<0.01
Appendix I

Letter for Non-performance Treatment

Date:
Dear X,
School:
Welcome to the BRAC Chatrabandhu program.
As a chatrabandhu in our program, you volunteer time to provide free after-school tutoring as underprivileged students’ “off school companions” by helping them comprehend and internalise difficult concepts and lessons of Mathematics and English. The support that you provide to these students will hopefully not only improve their performance in school and external public exams, such as Junior School Certificate (JSC) and Secondary School Certificate (SSC) examinations, but also raise their confidence to continue their education and motivate their parents to support their education.
By signing with us, you are committed to provide your service at the BRAC Chatrabandhu Program.

Thank you very much for volunteering with BRAC Chatrabandhu program. We look forward to working with you in helping underprivileged students in our community. We wish you best of luck as you embark on your new journey as a Chhatrabandhu with BRAC what we hope will be a very rewarding experience for you.

Certificates will be awarded!!!

You will be awarded with a certificate for your participation in the Chatrabandhu program

With Thanks,

Dr. Abdul Malek,
Senior Research Fellow and Coordinator
BRAC Research and Evaluation Division,
BRAC
Letter for Performance Ceremony Treatment

Date:
Dear X,
School:
Welcome to the BRAC Chatrabandhu program.
As a chatrabandhu in our program, you volunteer time to provide free after-school tutoring as underprivileged students’ “off school companions” by helping them comprehend and internalize difficult concepts and lessons of Mathematics and English. The support that you provide to these students will hopefully not only improve their performance in school and external public exams, such as Junior School Certificate (JSC) and Secondary School Certificate (SSC) examinations, but also raise their confidence to continue their education and motivate their parents to support their education.

By signing with us, you are committed to provide your service at the BRAC Chatrabandhu Program. We are very pleased to announce that BRAC will award a “superior certificate” to you if your students achieve a high standard. Superior certificates will be awarded in a grand ceremony with BRAC high officials from its head office as chief guest. Your performance will be evaluated every year on the basis of your students’ performance.

Thank you very much for volunteering with BRAC Chatrabandhu program. We look forward to working with you in helping underprivileged students in our community. We wish you best of luck as you embark on your new journey as a Chhatrabandhu with BRAC what we hope will be a very rewarding experience for you.

Excellent performers will be awarded superior certificates in a ceremony jointly organized by BRAC and Monash University of Australia in the presence of BRAC high officials!!!!

You will be considered as a “superior” performer if the following performance condition is met:
If any of your students achieves an increase in average grade between class 5 and the current class level exams of the subjects- Mathematics and English.

Example
Suppose you have a student named Sabina in class 7. Sabina’s grade in the class 5 National Exam for Mathematics and English are 3 and 4 respectively. Thus, Sabina’s average grade (for Math and English) in class 5 is 3.5. For you to be considered as a superior performer, Sabina’s average grade for Mathematics and English in class 7’s exams must be higher than 3.5. For example, if Sabina’s grade for Mathematics is 3 and for English it is 4.2 in the class 7’s exams, then you are a superior performer and you will be awarded with a superior certificate by BRAC high officials in a ceremony jointly organized by BRAC and Monash University of Australia.

Only superior certificate recipients will be awarded in a grand ceremony. If the above performance condition is not met, then you will just receive a normal certificate for your participation in the Chatrabandhu program but not in the grand ceremony.

Please note that if your student is in class 7 in 2015, then his/her performance in class 7 school final exams will be used; if he/she is in class 8 in 2015, then his/her performance in the Junior School Certificate (JSC) exam in 2015 will be used for evaluation purpose.

Thank you very much for volunteering with BRAC Chatrabandhu program. We look forward to working with you in helping underprivileged students in our community. We wish you best of luck as you embark on your new journey as a Chhatrabandhu with BRAC what we hope will be a very rewarding experience for you.

With Thanks,

Dr. Abdul Malek,
Senior Research Fellow and Coordinator
BRAC Research and Evaluation Division, BRAC
Letter for Performance without ceremony Treatment

Date:
Dear X,
School:
Welcome to the BRAC Chatrabandhu program.
As a chatrabandhu in our program, you volunteer time to provide free after-school tutoring as underprivileged students’ “off school companions” by helping them comprehend and internalise difficult concepts and lessons of Mathematics and English. The support that you provide to these students will hopefully not only improve their performance in school and external public exams, such as Junior School Certificate (JSC) and Secondary School Certificate (SSC) examinations, but also raise their confidence to continue their education and motivate their parents to support their education.

By signing with us, you are committed to provide your service at the BRAC Chatrabandhu Program. We are very pleased to announce that BRAC will award a “superior certificate” to you if your students achieve a high standard. Your performance will be evaluated every year on the basis of your students’ performance.

Thank you very much for volunteering with BRAC Chatrabandhu program. We look forward to working with you in helping underprivileged students in our community. We wish you best of luck as you embark on your new journey as a Chhatrabandhu with BRAC what we hope will be a very rewarding experience for you.

Excellent performers will be awarded superior certificates!!!
You will be considered as a “superior” performer if the following performance condition is met:

If any of your students achieves an increase in average grade between class 5 and the current class level exams of the subjects- Mathematics and English.

Example
Suppose you have a student named Sabina in class 7. Sabina’s grade in the class 5 National Exam for Mathematics and English are 3 and 4 respectively. Thus, Sabina’s average grade (for Math and English) in class 5 is 3.5. For you to be considered as a superior performer, Sabina’s average grade for Mathematics and English in class 7’s exams must be higher than 3.5. For example, if Sabina’s grade for Mathematics is 3 and for English it is 4.2 in the class 7’s exams, then you are a superior performer and you will be awarded with a superior certificate.

If the above performance condition is not met, then you will just receive a normal certificate for your participation in the Chatrabandhu program.
Please note that if your student is in class 7 in 2015, then his/her performance in class 7 school final exams will be used; if he/she is in class 8 in 2015, then his/her performance in the Junior School Certificate (JSC) exam in 2015 will be used for evaluation purpose.

With Thanks,

Dr. Abdul Malek,
Senior Research Fellow and Coordinator
BRAC Research and Evaluation Division,
BRAC
Appendix II

Timeline of the Project

Program Implementation

SMC and teachers’ orientations
Student selection
CB selection
Matching CBs and students

Subject based orientation of CBs

June 2014

Research Implementation

Baseline Survey
Announcement of treatments

End-line survey and standardized tests
JSC results

Jan 2015
Feb 2015
April 2015
Feb 2016
Mar 2016