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Can a Higher Wage Attract Better-Quality Applicants Without Deteriorating Public Service Motivation? Evidence from the Bangladesh Civil Service

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Although the civil service plays a critical role in economic development, it performs poorly in many countries, partly due to civil servants' low salaries. Therefore, in 2015, the Bangladesh government doubled the salary of civil servants. However, the reform may worsen public service delivery by attracting those who have lower public service motivation (PSM). Using the data of applicants to the Bangladesh civil service (BCS), this study examines the effect of the 2015 pay-scale reform on PSM. Taking a difference-in-differences approach, this study finds that the BCS officers hired after the reform are both academically smarter and more motivated to public service than those hired before the reform. Our results suggest that salary increases can be an effective for recruiting higher-quality officers.

Keywords: Public service motivation, Pro-Social behavior, Civil service, Wage, Salaries, Applicants, Pay scale reform, Bangladesh

JEL classification: H1, H83, D73, J310, O20

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1. Introduction

A competent civil service, as a core element of state capacity, is essential for the efficient provision of public services and key to reducing poverty in developing countries (Rose-Ackerman & Palifka, 2016). However, the civil service in many developing countries is characterized by low productivity (Nunberg & Nellis, 1990; Shepherd, 2003). It is widely recognized that lower compensation in the public sector is one of the main reasons for this low productivity (Delfgaauw & Dur, 2010; Finan, Olken, & Pande, 2017). Therefore, offering greater financial incentives can be an effective policy instrument to motivate those who were already hired and/or to recruit higher-quality candidates for public sector jobs (De Ree, Muralidharan, Pradhan, & Rogers, 2018). Unlike private-sector jobs, however, it is often the case that the performance of civil servants is difficult to measure objectively.¹ This is why public sector does not normally adopt performance-based payment and instead tries to recruit people who are willing to work hard without financial incentives (Prendergast, 2007).

This desire to work unselfishly in the public sector is known as Public Service Motivation (PSM) (Perry, 1996). It is found that those with high PSM strongly aspire to join the public sector to serve the community (Delfgaauw & Dur, 2008; Francois, 2000). PSM is, therefore, an important predictor for productivity and service delivery in the public sector (Perry & Vandenabeele, 2015). However, whether higher wages attract workers with lower PSM to civil service depends on the correlation between PSM and productivity (Barigozzi, Burani, & Raggi, 2018). If these are positively (negatively) correlated, financial incentives attract (screen out) individuals with not only high quality but also high PSM. Therefore, it is possible that offering a higher wage can screen out those with high PSM from civil service

¹Empirical studies examining the effect of financial incentive on performance in public sector jobs are limited to frontline service providers such as school teachers (de Ree et al. 2018; Duflo et al. 2012) and community health providers (Ashraf et al. 2016; Banerjee et al. 2008).

jobs.

The existing empirical literature examining the effect of financial incentive on recruitment shows mixed results and is limited to the case community agents, not higher-level officers. With respect to positive effects, Dal Bo, Finan, & Rossi (2013) find that higher wages attract individuals with higher pro-social motivation for community development agent positions in marginalized municipalities in Mexico.² For negative effects, Deserrano (2019) finds that higher financial incentives attract more applicants but crowd out the most socially motivated people from community health promoter positions in Uganda. Based on a lab-in-the-field experiment with college students in Indonesia, Banuri and Keefer (2016) find that once a higher salary is offered, students with lower PSM are more likely to choose to join the public sector.³ Thus, in the recruitment for civil service positions with high promotion prospects, there have been no rigorous empirical studies thus far that examine whether higher financial incentives screen out those with higher PSM.

This study examines the role of financial incentives in recruiting Bangladesh civil service (BCS) officers. BCS plays a key role in preparing policy and executing, supervising, and monitoring the tasks of the government (Zafarullah, 2003). However, the performance of BCS has not been satisfactory. According to World Bank governance indicators, the efficiency of BCS is low and declining (Khan, 2015). This is believed to be because the quality of the civil servants is not high, particularly due to a low salary (Jahan & Sahan, 2012). In July 2015, the Bangladesh government doubled the civil service pay scales

² In a closely related study, Ashraf, Bandiera, and Lee (2018) find that, in the recruitment of community health workers in Zambia, career incentives to ascend the civil-service career ladder to better-paid positions help the public sector to attract candidates with higher PSM.

³ Using a lab experiment on Indian college students, Hanna and Wang (2017) find that those who cheat on a dice task and those with lower pro-social preferences are more likely to prefer entering government service after graduation, regardless of cognitive ability.

(Rhaman & Al-Hasan, 2018),⁴ after which the number of applicants increased dramatically (Hossain, 2019a; Islam, 2019).

This paper contributes to the literature by answering the question if the financial incentive attracts people with higher educational achievement but lower PSM to the public sector. Using the reform as a natural experiment, this study estimates the impact of the higher wage on the qualifications and the motivational profiles of BCS applicants and incumbent officers. It is based on the data collected by face-to-face interviews with applicants who took the BCS examination before the reform and those who took it after. The estimation results show that BCS officers who were hired after the reform are better, both in academic records and PSM, than those before the reform.

This study contributes to the broader literature on labor economics and on public sector personnel economics, which investigates the effect of higher wages on recruitment (Dal Bo et al., 2013; Deserranno, 2019; Ashraf et al., 2018). To the best of the authors' knowledge, no other study has investigated the effect of a national-level pay-scale increase on the applicant pool of the civil service in developing countries. This study provides new evidence regarding the effect of the national-level compensation policy on the type of civil service applicants.⁵

⁴ Just before the pay-scale reform, the average monthly wage was 17,969 BDT (\$ 225) in the private sector and 22,040 BDT (\$ 276) in the public sector. The wage differential between public and private wage increased from 10.6 percent in 2013 to 22.7 percent in 2015 (Rahman and Al-Hasan, 2018).

⁵ There are empirical studies examining the performance of civil service officers in developing countries. Bertrand et al. (2018) find that the Indian Administrative service (IAS) officers entering the civil service at a later age have lower promotion prospects, which results in lower performance as measured by stakeholders' evaluation and suspension records. Rasul and Rogger (2018), examining the Nigerian civil service, show that offices' use of more management practices on performance incentives is negatively correlated with the performance measure of the development projects' completion rate.

Following this introduction, this paper presents the institutional background of BCS and the pay scale reforms in the next section. The section that follows explains the conceptual framework and postulate hypotheses. The data and characteristics of the sample are presented in the next section, and the empirical methods and estimation results are discussed thereafter. The final section presents the summary and conclusions.

2. Institutional Background of Bangladesh Civil Service (BCS) and Pay Scale

Reforms

BCS is vertically divided into four classes (Class I to IV). Class-I officers conduct managerial and professional activities and are further divided into two categories: BCS cadre officers and Non-BCS gazette officers. In general, promotion prospects are higher for BCS cadre officers than for non-BCS gazette officers (Khan, 2015; Ferdous, 2015). BCS is vertically divided into 28 service cadres. The 28 cadres are divided into two main categories: managerial (general) cadres and technical cadres (Islam, 2016; Khan, 2015; Kim & Monem, 2009). Civil service officers' status and ranking are set by the grades (20 is the lowest and 1 is the highest).

The recruitment of civil service officers is managed and administered by the Bangladesh Public Service Commission (BPSC), an independent constitutional body. All ministries apprise BPSC of their vacant posts through the Ministry of Public Administration. The civil service examination consists of (1) preliminary examination, (2) the written examination, and (3) the viva voce examination⁶ (Jahan, 2012 & Ministry of Public

⁶ BPSC members chair the viva board, which consists of a psychologist from a recognized university and higher government officials from a ministry nominated by the Ministry of Public Administration (Khan, 2015). The viva board members assess the candidates based on their intellectuality, emotional stability, smartness, leadership attributes, and involvement in other activities, such as sports, debate competitions, and hobbies. In 2013, the number of applicants

Administration, 2014). Until 2018, 56% of the positions were allocated according to quota provisions for privileged groups such as freedom fighters' descendants, women, people from backward districts and indigenous communities, and physically challenged individuals (Khan, 2015).

After the independence of Bangladesh, the government made several attempts to increase the civil servant pay-scales to align the salary with the cost of living. However, since the inflation rate was higher than the pay increases, the benefit from the increased pay eroded within a few months (Islam, 2016; Khan, 2015). In July 2015, the government reformed the civil servant pay structures, which was the first time this was done based on inflation and living costs. Previously, most applicants came from the arts and humanities, whereas after the 2015 pay scale reform, students from other departments, especially engineering, have begun to apply for civil service jobs (Azad, 2018; Mujumdar, 2017).

3. Conceptual Framework and Hypotheses

The research question of this paper is if the financial incentive attracts people with higher educational achievement but lower PSM to the public sector. Roy's (1951) model shows that candidates select a job if his/her expected return from the job is higher than the reservation wage. The expected return depends on the skills needed for a particular job and expected wage from the job. The expected returns include utility gains and satisfaction from the job. Therefore, even for the same job, the expected returns can differ based on the preference of job characteristics. Those who have higher PSM are expected to have higher satisfaction from public rather than the private sector jobs in a given wage. When the public sector wage was lower than that in private sector, those with high PSM and low reservation wage tend to apply

for the BCS exam was 221,575, of which 9,515 passed the written exam and 2,175 were selected for appointment. In 2015, 244,107 people applied for the BCS exam; 6,088 of them passed the written exam and 2,158 were selected for appointment (BPSC, 2015).

for the public sector jobs.

Since the 2015 reform drastically increased salaries in the public sector compared with the private sector, it can equally attract people with high PSM and high reservation wage and those with low PSM and high reservation wage. As long as the number of higher-qualified candidates with high PSM increases and the selection committee can detect candidates with low PSM, the quality of civil service officers is expected to improve after the reform without sacrificing PSM.

4. Data and Empirical method

4.1 Data and sample

From 2012 to 2015, the BPSC invited applications for the 33rd, 34th, and 35th BCS examinations (advertised in February 2012, February 2013, and September, 2014, respectively). The news about the pay scale reform that the government for civil servants had already been released before the advertisement of the 35th BCS examination,⁷ and thus, its applicants are considered as the post-reform cohort. Those who took the 33rd and 34th BCS examinations were pre-reform cohorts.

Data from both BCS personnel and the applicants who did not pass the BCS examination were collected by the authors. The survey was conducted from October 15 to December 20, 2017. As the information on the applicants for civil service examination is confidential, it was not possible to acquire a complete list of applicants. Therefore, to prepare a nationally representative sample, data were collected from three groups: (1) 303 junior-level BCS (administration cadre) officers who applied for the BCS examinations in

⁷ The news of the 2015 pay scale reform was published in August 2014 (Daily Nation, 2014). There was an analysis of the pay scales by the leading think tank of Bangladesh on September 8, 2014 (Centre for Policy Dialogue, 2015).

2012, 2013, and 2015; this sample size is the 40% of the total BCS (Administration cadre) officers⁸ (2) 108 applicants who attended a coaching center and applied for the BCS examinations held in 2012, 2013, and/or 2015, but did not pass; and, (3) 22 friends of group (1) above, who took the BCS examination in 2012, 2013, and/or 2015 but did not pass.

For the results to be nationally representative, data were collected from 32 districts covering all eight divisions of Bangladesh.⁹ Based on the number of officers in the district office, 8 to 15 BCS officers from each office were randomly sampled, to obtain a total of 303. Of these, the number of officers who took the examination in 2012, 2013, and 2015 was 90, 98, and 115, respectively. Interviewers were properly trained to explain the purpose of the study and the confidentiality of responses to the participants, so that they would be willing to provide honest answers to the questions. The interviews were conducted individually and separately.

The list of applicants who took the examination in 2012, 2013, and 2015 was collected from an established coaching center¹⁰ in Dhaka. From the list, 108 individuals were randomly selected. The interviews normally took place at the respondent's home or office, as requested by the respondent. The BCS officers in the sample were first interviewed and the list of their friends' names and cellphone numbers was collected by asking whether they have

⁸ In the BCS (Administration cadre), the number of officers recruited are 290, 279, and 280 in 2012, 2013, and 2015, respectively (BPSC, 2015). Only BCS (administration cadre) officers are selected as our sample. This is because there are few officers recruited for other cadre services in 2012, 2013, and 2015.

⁹ Based on the number of districts within the division, 2 to 5 district offices from each division were randomly selected.

¹⁰ In Bangladesh, there are a few coaching centers that offer intensive programs for the preparation of BCS exam. Generally, after graduation, a good number of applicants take the BCS examination after preparation via a coaching center. The coaching centers are few, and mostly located in Dhaka. Anyone can enroll in the coaching centers by paying around \$125. The course duration is 1-6 months (most commonly 3 months) for preliminary, written, and viva voce examinations.

friends who applied for the BCS examination in the same year but did not pass. Thereafter, 22 individuals were selected from the list.

4.2 Measures of qualities

To measure the raw qualities of the civil service applicants, both their cognitive and non-cognitive abilities were assessed. The cognitive abilities were measured by the highest grade (A+) on their Secondary School Certificate (SSC) examination and whether he/she is a graduate from an engineering university/department. The SSC examination is a centralized public examination held after 10 years of schooling (NUFFIC, 2012). In Bangladesh, those who apply to engineering university need to receive at least 90% marks both in the secondary and higher secondary public exams. Whether one studies in the engineering department is a good proxy of a good academic record. The monthly real gross income in the previous job is also used as a measure of work-related skills as a high grade in school does not guarantee that one has higher productivity in the workplace. As a measure of non-cognitive ability, the Big-Five Personality Traits are used to capture different dimensions of the sampled individuals' personalities, which are necessary to perform effectively in the workplace.

Public Service Motivation (PSM) is considered to be an important characteristic for public-sector workers to provide public services effectively (Perry & Wise, 2005; Francois, 2000; Kwon, 2012; Naff & Crum, 1999). PSM is measured through Perry's (1996) PSM scale. Since PSM is closely related to pro-social behavior and social preferences, the pro-social behavior and the social preferences of the applicants are used in the analyses. For measuring pro-social behavior, the applicants are asked whether they participated in either volunteer or charity activities before applying for the civil service examination. By using non-incentivized hypothetical questions, social preference measures such as patience,

risk-aversion, and altruism are elicited.¹¹

4.3 Descriptive Statistics

This section presents the average characteristics of the civil service applicants and incumbent civil service officers who applied for the BCS examination before and after the pay scale reform (pre- and post-reform cohorts). Panel A consists of socio-demographic and parental characteristics while Panel B shows educational background. Panel C indicates variables related with personality traits. The first two columns of Table 1 show the average characteristics of applicants who took the exam before and after the reform. The third column shows the results of the t-test (p-value) if the mean characteristics are statistically different between these two groups. The fourth and fifth columns indicate the mean characteristics of BCS officers who took the exam before and after the reform, respectively. The last column indicates whether the means of these two groups are different.

The first three columns of Table 1 show that applicants who took the exam after the reform are less likely to be married, to have quota privilege, and to have experience in working in the private sector, and are more likely to have a father who owns a business, to obtain the highest grade in the SSC exam, and to have attended school in an urban area than applicants who took exam before the reform. According to the last three columns, BCS officers who took the exam after the reform are less likely to be married or agreeable, and are more likely to have the highest grade in SSC, to study engineering, and to have had a higher income in the previous job. In terms of parental education and labor-force participation, there is no difference between the post-reform and pre-reform cohorts. As shown in Panel C, there are no significant differences in personality traits of pre- and post-reform cohorts both in applicant pool and BCS officers.

¹¹ See appendix for how the Big-Five index, PSM, pro-social behavior, and pro-social preference are measured.

Table 2 presents the PSM (Panel A), pro-social behaviors (Panel B), and social preferences (Panel C). Regarding the applicant pool, there is no difference in PSM index between pre-and post-reform cohorts. Among civil service officers, however, the post-reform cohort has *higher* PSM than the pre-reform cohort. On average, pro-social behaviors of pre- and post-reform cohorts are comparable in both the applicant pool and among BCS officers. Panel C suggests mixed results. While applicants in the post-reform cohort tend to have worse social preferences than those in the pre-reform cohort, BCS officers in the post-reform cohort tend to be more patient and more altruistic to the poor than those in the pre-reform cohort, which are desirable characteristics for public servants.

5. Estimation Models and Results

The descriptive statistics showed that both in the applicant pool and among BCS officers, educational qualification measured by the SSC exam improved on average after the reform. In terms of PSM, there is no difference between the pre and post cohorts in the applicant pool, while the PSM of BCS officers after the reform is *higher* than in those before. It was also found that BCS officers who took the exam after the reform tend to have better social preferences than those before the reform. In this section, regression analyses are conducted to test if even after controlling for other characteristics, BCS officers after the reform are more motivated than those before the reform.

5.1 Estimation Model

The effect of financial incentive on the qualities and motivational profiles of the BCS applicant pool is estimated by the following Ordinary Least Square models, similar to those of Dal Bo et al. (2013), Deserranno (2019), and Donato et al. (2017):

$$Y_{it} = \alpha + \beta Post_t + \rho X_{it} + e_{it} \quad \dots\dots\dots Eq. 1$$

where Y_{it} is educational quality (highest grade in the SSC examination or engineering graduate), the income at the previous job, personality traits, PSM, pro-social behavior, or social preferences. $Post_t$ takes the value 0 if individual i took the BCS examination before the 2015 pay scale reform and 1 otherwise. X is a set of the individual i 's characteristics, determined before he or she took the SSC examination, including age, sex, location of childhood (whether raised in an urban area), schooling years, and occupation of parents. While α , β , and ρ are coefficients to be estimated, e is an error term.

The effect of the pay-scale reform on the applicant pool is estimated by β . This is because those who took the examination in 2012 and 2013 did not know that the pay scale would increase in 2015 and thus could not have intentionally postponed their application until 2015. Further, the increased pay scale is applied to all officers, not only to those in the post-reform cohort. There is no incentive to manipulate the timing of one's application. Since BCS officers were over-sampled, sampling weights are applied in all the analyses to represent the applicant pool accurately. The standard errors are clustered at the survey location (districts and training centers where interviews were conducted) and by interviewer.

The effect of the reform on BCS officers' qualities and motivation profiles is estimated by the difference-in-difference (DID) approach:

$$Y_{it} = \alpha + \beta Post_t + b Post_t \times O_i + c O_i + \rho X_{it} + e_{it} \dots \dots \dots eq. 2$$

where O_i takes the value 1 if the individual passed the examination (i.e., is a BCS officer) and 0 otherwise. While α , β , b , c , and ρ are coefficients to be estimated, e is an error term. If officers in the post-reform cohort have lower PSM (motivational profiles) on average, the coefficient of the interaction term, b , will be negative.

For identifying DID estimates, the common trend assumption must hold. Officers are of better academic quality than those who did not pass the examination, based on the fact that

they passed the examination. The pre-reform trend (2012-2013) in quality should be comparable for officers and non-officers, since there is no change in the labor market situation, educational policies (ADB & ILO, 2016; Hossain & Mohammad, 2015; Khan et al., 2014), or recruitment criteria of the civil service officers. It is tested whether the coefficient of an interaction term between the 2013 group and those who passed the examination (officers) is significantly different from zero by using the sample of those who took the examination either in 2012 or 2013. Both for the SSC examination grade and PSM index, the coefficients are not significant, suggesting that the common trend assumption is not violated.

5.2 Estimation Results on Applicant Pool

Table 3 shows the estimated coefficients of *Post* in Equation 1 for all the qualities and motivation profiles. In 18 out of 21 models, there is no evidence that the pay-scale reform affected the characteristics of the applicant pool. The results show that the higher wage attracted people who are more pro-social, less present-biased, and less risk-averse than those in the pre-reform cohort. These results are not expected but these characteristics are preferable for BCS officers.

To summarize, there is no evidence that the higher wage attracted applicants with higher quality and with lower motivational profiles. Rather, applicants in the post-reform cohort tend to be more engaged in volunteer and charity work, less present-biased, and less risk averse. More specifically, the effect of the 2015 pay-scale reform on the civil service applicant pool is not significant on average. The more important question is whether the reform changed the quality of BCS officers or not, which is discussed in the next section.

5.3 Effect of the reform on BCS officers

Table 4 shows the estimated results on characteristics of BCS officers. As seen in the positive

coefficient of $Post_t \times O_i$, BCS officers recruited after the pay-scale reform have higher SSC examination scores and an engineering background. Furthermore, BCS officers in the post-reform cohort have higher PSM index, particularly committed to public service, than those in the pre-reform cohort. The results on pro-social behavior and social preference show that BCS officers who applied for the examination after the reform tend to be more patient and altruistic to the poor. Regarding the personality traits, it is found that BCS officers recruited after the reform are less extraverted and more conscientious. These traits are well suited to being a BCS officer.

In sum, BCS officers who joined the civil service after the pay scale reform have higher educational qualification, higher PSM, and better social preferences (patience and altruism) than those who joined before. Although there is no impact on the applicant pool on average, the increased number of applications from highly qualified individuals resulted in an improvement in the characteristics of BCS officers hired after the reform.

6. Conclusions

This study empirically examined whether financial incentives can be used as a policy instrument to recruit high-quality civil-service officers with high public-sector motivations by using the case of the 2015 pay scale reform in Bangladesh, which doubled the salaries of civil servants. Unlike the existing studies, this study examines the effectiveness of financial incentives on recruiting elite civil service officers. This is a main contribution of this study to the literature. The empirical results are encouraging: post-reform BCS officers have higher educational quality than pre-reform officers and higher PSM. Compared to pre-reform BCS officers, they are also more motivated to public service, more altruistic to the poor, and have higher social preferences. The results for the applicant pool show that applicants in the post-reform cohort are more engaged in volunteer and charity activities, less present biased,

and less risk averse than applicants in the pre-reform cohort. Although Dal Bo et al. (2013) found that financial incentive improved the educational qualification of the applicant pool by examining frontline public sector workers, there is no evidence that financial incentive can improve educational quality of applicant pool for elite civil service jobs examined in this study.

Since the performance of the work done by BCS officers is difficult to measure, this study did not examine the effect of the reform on the performance of the civil service per se. There is no guarantee that better quality individuals at the recruitment stage continuously perform in the long run, as Bertrand et al. (2018) find in the context of the Indian elite civil service, where those with lower promotion prospects are less motivated and inefficient in providing public service. As the promotion prospect in BCS is highly politicized and 84% of our sampled BCS officers expressed concerns about promotion, the government may need to introduce promotion criteria not based on lobbying and political choices. This can motivate officers to provide public service until retirement. This can also have a positive effect on recruiting better-quality individuals for the civil service, as also found in Morgan et al. (2012). Whether the performance of BCS has improved due to the reform and whether the effects of the reform on the applicant pool in other sectors (local government) and cadre services (such as Tax, Customs, and Foreign Affairs) are similar to those found in this study (on BCS administrative cadre) remains a topic for future research.

There can be a negative consequence of the pay scale reform. As was found in the estimation results, a larger portion of highly qualified professional graduates (engineers) are hired as a BCS general cadres jobs (administration) after the reform. As Islam (2016) rightly pointed out, it is good to build a strong and capable public sector human capital when a country is in the developing stage through incentives, but in the long run, this may hamper private sector development. Policy makers must consider this possibility in advance, so that

the public sector wage is not too high compared with private sector jobs.

Finally, as the civil service examination is conducted by the Bangladesh Public Service Commission, the list of applicants is confidential. Therefore, the list of applicants collected from the coaching centers may not perfectly representative to the actual applicant pool. It is important to keep this in mind as a caveat of this study.

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Table 1. Socio-demographic condition, educational background, and personality traits of the applicants and incumbent civil service officers who took BCS exam before and after the 2015 Pay Scale Reform

Variables	Applicants who took BCS before the reform	Applicants who took BCS exam after the reform	<i>p</i> -value	Incumbent BCS officers who took BCS exam before the reform	Incumbent BCS officers who took the BCS exam after the reform	<i>p</i> -value
Panel A: Mean Characteristics (Socio-demographic condition)						
Number of obs.	279	154		188	115	
Married	0.60 (0.49)	0.28 (0.45)	0.00	0.79 (0.41)	0.46 (0.50)	0.00
Male	0.80 (0.40)	0.73 (0.44)	0.11	0.69 (0.46)	0.68 (0.47)	0.84
Raised in urban area	0.58 (0.49)	0.64 (0.48)	0.23	0.74 (0.44)	0.70 (0.46)	0.48
Schooling years of father	12.25 (4.08)	12.38 (3.34)	0.72	13.3 (3.96)	13.4 (3.39)	0.82
Father does business	0.21 (0.41)	0.37 (0.48)	0.00	0.17 (0.38)	0.24 (0.43)	0.13
Father is 1 st /2 nd class government officer	0.19 (0.39)	0.26 (0.44)	0.10	0.27 (0.44)	0.34 (0.48)	0.13
Schooling years of mother	9.52 (3.39)	9.62 (2.26)	0.71	10.37 (3.49)	10.93 (3.46)	0.18
Mother has job	0.11 (0.31)	0.07 (0.25)	0.17	0.16 (0.37)	0.21 (0.41)	0.32
Previous Log Real Income	10.25 (0.39)	10.24 (0.45)	0.87	10.21 (0.43)	10.45 (0.43)	0.00
Enroll in coaching center	0.63 (0.63)	0.68 (0.68)	0.36	0.40 (0.49)	0.38 (0.49)	0.78
Quota privilege	0.22 (0.42)	0.11 (0.32)	0.00	0.46 (0.50)	.50 (0.50)	0.58
Did private sector job	0.33 (0.47)	0.18 (0.38)	0.00	0.34 (0.48)	0.27 (0.45)	0.17
Panel B: Mean Characteristics (Educational Background)						
Highest Grade in SSC exam	0.19 (0.47)	0.32 (0.39)	0.00	0.24 (0.43)	0.51 (0.50)	0.00
Schooling Years	16.90 (0.30)	16.92 (0.31)	0.38	16.87 (0.33)	16.84 (0.49)	0.52
Schooling in urban area	0.33 (0.47)	0.43 (0.50)	0.05	0.50 (0.50)	0.50 (0.50)	0.88
Engineering graduate	0.07 (0.26)	0.08 (0.28)	0.73	0.10 (0.30)	0.28 (0.45)	0.00

Table 1. Socio-demographic condition, educational background, and Personality traits of the applicants and incumbent civil service officers took BCS exam before and after the 2015 Pay Scale Reform, cont.

Variables	Applicants who took BCS exam before the reform	Applicants took exam after the reform	<i>p</i> -value	Incumbent BCS officers took BCS exam before the reform	Incumbent BCS officers took BCS exam after the reform	<i>p</i> -value
Panel C: Mean Characteristics (Personality traits)						
Big 5 Index	0.06 (0.37)	-0.00 (0.37)	0.09	0.09 (0.43)	0.04 (0.45)	0.43
Extraversion	3.80 (0.65)	3.84 (0.56)	0.54	3.79 (0.74)	3.64 (0.67)	0.07
Agreeableness	4.03 (0.46)	3.99 (0.54)	0.37	4.08 (0.46)	3.93 (0.56)	0.02
Conscientiousness	3.63 (0.55)	3.54 (0.65)	0.13	3.59 (0.62)	3.65 (0.68)	0.42
Neuroticism	2.67 (0.67)	2.69 (0.66)	0.87	2.67 (0.77)	2.67 (0.74)	0.99
Openness	3.19 (0.47)	3.26 (0.49)	0.14	3.22 (0.55)	3.16 (0.56)	0.32

Note: Numbers in brackets are standard deviations. Sampling weight is used during calculation.

Table 2. Public Service Motivation Score, Pro-Social behavior and Social Preferences of the applicants and incumbent civil service officers who took BCS exam before and after the 2015 Pay Scale Reform

Variables	Applicants took BCS exam before the 2015 pay scale reform	Applicants took BCS exam after the 2015 pay scale reform	<i>p</i> - value	Incumbent BCS officers took BCS exam before the 2015 pay scale reform	Incumbent BCS officers took BCS exam after the 2015 pay scale reform	<i>p</i> - value
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Public Service Motivation						
Number of obs	279	154		188	115	
PSM Index	-0.17 (0.45)	-0.23 (0.41)	0.14	-0.21 (0.51)	-0.04 (0.52)	0.02
Attraction to Policy Making	3.90 (0.50)	3.7 (0.63)	0.01	3.93 (0.52)	4.01 (0.57)	0.23
Commitment to the Public Interest	3.79 (0.52)	3.86 (0.45)	0.13	3.74 (0.54)	4.03 (0.56)	0.00
Social Justice	3.02 (0.35)	2.99 (0.35)	0.47	3.02 (0.42)	3.00 (0.52)	0.65
Civic Duty	3.96 (0.45)	3.95 (0.37)	0.74	3.91 (0.54)	3.98 (0.53)	0.26
Compassion	3.06 (0.46)	2.96 (0.40)	0.02	3.02 (0.56)	3.04 (0.57)	0.77
Self-Sacrifice	4.00 (0.42)	4.04 (0.31)	0.80	4.02 (0.46)	4.11 (0.59)	0.14
Panel B: Pro-social characteristics						
Participated in volunteer activities	0.65 (0.48)	0.70 (0.46)	0.27	0.63 (0.48)	0.66 (0.47)	0.59
Panel C: Social Preferences						
Least patient	0.75 (0.43)	0.82 (0.39)	0.09	0.72 (0.45)	0.54 (0.50)	0.03
Present bias	0.06 (0.24)	0.02 (0.14)	0.02	0.09 (0.28)	0.09 (0.28)	0.89
Risk averse (Most)	0.70 (0.46)	0.57 (0.50)	0.01	0.70 (0.46)	0.60 (0.49)	0.11
Altruism to the poor family	5.88 (2.82)	5.42 (2.63)	0.09	6.15 (3.24)	7.26 (2.83)	0.00

Note: Numbers in brackets are standard deviations. Sampling weight is used during calculation.

Table 3. Effect of the 2015 Pay Scale Reform on Applicant Pool

Outcome variables	Coeff. of Post (standard error)	# obs R2
=1 if grade of SSC exam is A+	0.06 (0.07)	433 0.09
Engineering graduate	0.03 (0.02)	433 0.12
log real income in previous job	-1.03 (1.01)	433 0.12
Big 5 index	-0.04 (0.05)	433 0.03
Extraversion	0.07 (0.07)	433 0.04
Agreeableness	-0.01 (0.15)	433 0.06
Conscientiousness	-0.03 (0.10)	433 0.05
Neuroticism	-0.05 (0.14)	433 0.09
Openness	0.03 (0.11)	433 0.07
PSM index	-0.01 (0.08)	433 0.09
Interested in Policy making	-0.09 (0.13)	433 0.13
Commitment to pub service	0.09 (0.10)	433 0.07
Social Justice	0.02 (0.07)	433 0.04
Civic duty	-0.04 (0.09)	433 0.04
Compassion	-0.03 (0.06)	433 0.05
Self-sacrifice	-0.01 (0.05)	433 0.07
=1 if Participated voluntary/charity activities	0.15*** (0.05)	433 0.13
=1 if Least Patient	-0.02 (0.06)	433 0.12
=1 if Present Bias	-0.07** (0.03)	433 0.08
=1 if Most risk- averse	-0.23** (0.11)	433 0.09
Altruism to poor (0-10)	-0.54 (0.49)	433 0.05

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Other controls are: age, male, urban, schooling years and occupation of father and mother.

Table 4. Effect of the 2015 Pay Scale Reform on BCS Officers

Outcome variables	Coeff. of Post x O (s.e)	Coeff. of Post (s.e)	Coeff. of O (s.e.)	# obs R2
=1 if grade of SSC exam is A+	0.17* (0.09)	0.02 (0.08)	0.07 (0.05)	433 0.10
Engineering graduate	0.21*** (0.04)	-0.02 (0.02)	0.02 (0.04)	433 0.13
log real income in previous job	-0.11 (1.12)	-0.74 (1.27)	2.41** (0.91)	433 0.09
Big 5 index	-0.02 (0.07)	-0.02 (0.04)	0.09 (0.08)	433 0.03
Extraversion	-0.30*** (0.11)	0.13 (0.08)	0.06 (0.11)	433 0.04
Agreeableness	-0.19 (0.14)	0.05 (0.16)	0.05 (0.09)	433 0.04
Conscientiousness	0.20* (0.12)	-0.10 (0.11)	-0.09 (0.09)	433 0.04
Neuroticism	0.02 (0.20)	0.02 (0.18)	-0.01 (0.14)	433 0.04
Openness	-0.21 (0.16)	0.10 (0.14)	0.11 (0.07)	433 0.04
PSM index	0.25** (0.10)	-0.10 (0.09)	0.01 (0.07)	433 0.08
Interested in Policy making	0.23 (0.16)	-0.19 (0.16)	0.19* (0.11)	433 0.15
Commitment to public service	0.29** (0.11)	0.02 (0.12)	-0.02 (0.10)	433 0.07
Social Justice	-0.05 (0.10)	0.01 (0.08)	0.03 (0.05)	433 0.03
Civic duty	0.12 (0.11)	-0.06 (0.11)	-0.11** (0.05)	433 0.03
Compassion	0.15 (0.11)	-0.07 (0.08)	-0.06 (0.08)	433 0.05
Self-sacrifice	0.12 (0.08)	-0.06 (0.06)	-0.00 (0.07)	433 0.04
=1 if Participated voluntary/charity activities	-0.07 (0.08)	0.15** (0.06)	0.00 (0.09)	433 0.12
=1 if Least Patient	-0.28*** (0.09)	0.09** (0.04)	0.01 (0.07)	433 0.11
=1 if Present Bias	0.04 (0.05)	-0.08* (0.03)	0.05 (0.04)	433 0.08
=1 if Most risk- averse	0.05 (0.11)	-0.21* (0.11)	0.07 (0.08)	433 0.08
Altruism to poor (0-10)	1.98** (0.67)	-1.01* (0.53)	0.52 (0.70)	433 0.07

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Other controls are: age, male, urban, schooling years and occupation of father and mother.

Appendix: Variables

- Age: Calculated from self-reported birthdate
- Male (male=1, 0 otherwise),
- Married (married=1, 0 otherwise)
- Raised in an urban area: equals 1 if the applicant raised in the district and capital area up to secondary education.
- Years of schooling: Measured by years. In the context of Bangladesh education system, completed primary school=5 years, completed secondary school=10 years, College graduate=12 years, university graduate=16 years, and post graduate=17 years.
- Father's education: Schooling years of father
- Mother's education: Schooling years of mother
- Father's occupation (business): equals 1 if the father of the respondent is in business.
- Father's occupation (government): equals 1 if the father is a first/second class government officer
- Mother has job: equals 1 if mother work outside the home for a wage.
- Highest grade in the Secondary School Certificate (SSC) examination: equals 1 if the individual got grade A+ (90-100% marks) in the secondary school certificate examination.
- Enrolled in coaching center: equals 1 if the applicants/officers took BCS examination preparation in the coaching center.
- Engineering major: equals 1 if the individual graduated from the engineering faculty of a technical university.
- Quota Privilege: This variable takes 1 if the applicants have quota privilege for getting BCS job and zero otherwise.
- Took BCS exam in 2013: It equals 1 if one applied for BCS exam in 2013 and zero otherwise.
- Experience in Private sector jobs: It equals 1 if the applicants/officers worked for private sector jobs before applying to the civil service examination and zero otherwise.
- The Big-Five factor model developed by John (1990) contains 44 items, which are in turn divided into five dimensions of personality: extraversion; agreeableness; conscientiousness; neuroticism, and openness (Almlund et al., 2011). The responses were collected on 5-point Likert scales, showing the extent to which the applicants and officers agreed or disagreed with the statements. In this study, we use a shorter list of questions containing 10 questions, with 2 questions per dimension, following Donato et al. (2017) and Rammstedt & John (2007).
- Extraversion: Extravert represents the traits of an individual related to activity and energy, mainly sociable (Benet-Martínez & John, 1998). Computed as the average response to the two questions related to extraversion.
I like to interact and talk with people.
I am sometime shy and unable to communicate with other easily. (reversed)
Cronbach's alpha for these two questions: 0.4

- Agreeableness: Agreeableness represents the traits of an individual related to altruism, tender mindedness, trust and modesty (Benet-Martínez & John, 1998). Computed as the average response to the two questions related to Agreeableness.

I like to cooperate with others although it is difficult.

I tend to find fault with others (reversed).

Cronbach's alpha for these two questions: 0.12
- Conscientiousness: Conscientiousness represents the traits of an individual related to hardworking, organized, responsible and goal directed behavior (Benet-Martínez & John, 1998). Computed as the average response to the two questions related to extraversion.

I do any task with regard to every detail: not superficial and partial.

Anybody can depend on me (in general).

Cronbach's alpha for these two questions: 0.4
- Neuroticism: Neuroticism represents the traits of the individual related to anxiety, sadness, irritability, nervousness, emotional instability. Computed as the average response to the two questions related to Neuroticism.

I can be tensed a lot in any matter.

I am emotionally stable, not easily upset (reversed).

Cronbach's alpha for these two questions: 0.3
- Openness: Individual having openness behavior shows openness to new aesthetic, cultural and intellectual experiences (Dal Bo et al., 2013). Computed as the average response to the two questions related to Openness.

I like to think deeply or carefully about any task.

I Prefer work that is routine (reversed).

Cronbach's alpha for these two questions: 0.4
- Big-Five Personality Index: It is an equally weighted average of the z-score of each module of the Big-Five Personality inventory. In the case of Neuroticism module, we consider the reverse score as it is a negative trait.
- PSM index: To construct PSM index we elicit 12 statements from the 40 statements from Perry's 1996 scale of Public service motivation (Perry, 1996), and created an equally weighted average of the z-scores of each module of the PSM.
- Attraction to Policy Making: Computed as the average response to the following two questions.

I am interested in making public programs and policies which are beneficial for the country.

I like to share my views on public policies with others.
- Participated in volunteering or charity activities: equal 1 if the individual did voluntary works or charity activities before applying in the civil service, 0 otherwise.
- Commitment to the Public Interest: Computed as the average response to the following two questions.

An official's obligation to the public should always come before loyalty to superiors.

I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.
- Social Justice: Computed as the average response to the following two questions.

I am not afraid to go to bat for the rights of others even if it means I will be ridiculed.
I do not believe that government can do much to make society fairer (reversed).

- Civic Duty: Computed as the average response to the following two questions.
I believe everyone has a moral commitment to civic affairs no matter how busy they are.
I have an obligation to look after those less well off.
- Compassion: Computed as the average response to the following two questions.
I have little compassion for people in need who are unwilling to take the first step to help themselves (reversed).
It is difficult for me to contain my feelings when I see people in distress.
- Self-Sacrifice: Computed as the average response to the following two questions.
I believe in putting duty before self.
Making a difference in society means more to me than personal achievements.
- Patience and Present Bias: To measure the patience and present bias, we asked hypothetically 4 questions. *Q1*: If he buys a shirt and wins a prize, he can receive the prize money 2000 BDT instantly or 2500 BDT after one month. Would he like to wait for one month? Yes/No. *Q2*: If *Q1*=No, The respondent is asked if he is offered 3000 BDT after one month, would he like to wait for one month? Yes/No. *Q3*: If he buys a shirt and wins a prize, he can receive the prize money 2000 after one month or 2500 after two months. Would he like to wait for two months? Yes/No. *Q4*: If *Q3*=No, The respondent is asked if he is offered 3000 BDT after two months, would he like to wait for two month? Yes/No. By using the response to *Q2*, if one did not agree to wait for two months, we consider them “least patient”. If one answered Yes in *Q1* and No in *Q3*, or Yes in *Q2* and No in *Q4*, they were identified as “present bias”.
- Most-risk averse: To measure the risk taking behavior, the respondents were asked 3 lottery questions to choose (A) or (B): (1) (A) 2000 BDT with certainty or (B) 50% chance of winning 4000 and 50% chance of zero, (2) (A) 2000 BDT with certainty or (B) 50% chance of winning 8000 and 50% chance of zero, (3) (A) 2000 BDT with certainty or (B) 50% chance of winning 10000 and 50% chance of zero. Those who did not want to take the risk in lottery 3 are identified as the most risk-averse.
- Altruism: In this article, we define altruism as the level of the unselfishness of the respondents to a poor family. To do so, the respondent is asked a hypothetical question: if the respondent is given 10 tokens (1 token values 100 BDT), how many tokens does he want to give to poor families and how many tokens does he want to keep for himself. Those who agreed to give more tokens to poor families are considered as more altruistic.
- Price Index (CPI) of Bangladesh: CPI data were collected from World Bank (2017). We converted the previous wages of the last job to real value at the price level of 2017. BCS officers who applied for the exam in 2012, 2013, and 2014 were appointed to the first post 2.5 years later. So the income of previous job before joining to BCS was measured at price level of 2014, 2015, and 2017, respectively. CPI in 2014, 2015, and 2017 is 136.05, 152.32, and 161.14, respectively.

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Appendix: Full Estimation Results

Appendix Table 1. Effect of the 2015 pay scale reform on the educational qualifications, market skill, & personality of applicant pool

	=1 if grade of SSC exam is A+	Engineering graduate	log real income in previous job	Big 5 index	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Post	0.06 (0.07)	0.03 (0.03)	-1.03 (1.01)	-0.04 (0.04)	0.03 (0.07)	-0.01 (0.13)	-0.03 (0.09)	0.03 (0.14)	0.03 (0.11)
age	-0.02 (0.01)	0.01 (0.01)	0.49*** (0.18)	0.00 (0.01)	-0.01 (0.02)	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)
male	-0.06 (0.07)	0.08** (0.03)	1.27** (0.57)	0.07 (0.05)	0.12 (0.08)	-0.05 (0.10)	-0.00 (0.08)	-0.12 (0.08)	0.05 (0.08)
Raised in urban	0.13** (0.06)	0.10*** (0.03)	0.90* (0.53)	-0.03 (0.04)	-0.13* (0.07)	-0.02 (0.09)	0.06 (0.05)	-0.10 (0.06)	-0.05 (0.07)
Father's education	-0.01 (0.01)	0.00 (0.00)	0.03 (0.10)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)	0.00 (0.01)	0.01 (0.01)
Mother's education	0.01 (0.01)	0.01 (0.01)	0.16 (0.12)	0.01 (0.01)	0.01 (0.02)	0.02* (0.01)	-0.02 (0.02)	0.02 (0.01)	-0.00 (0.02)
Father's occupation (government)	0.08 (0.08)	0.05 (0.04)	-0.11 (1.03)	-0.03 (0.05)	0.04 (0.09)	-0.01 (0.06)	0.08 (0.06)	-0.16 (0.14)	-0.03 (0.08)
Father's occupation (business)	0.06 (0.08)	0.02 (0.03)	0.29 (0.85)	-0.07 (0.06)	0.07 (0.11)	-0.03 (0.06)	-0.08 (0.07)	-0.11 (0.12)	0.10** (0.05)
Mother has job	0.19** (0.09)	-0.01 (0.06)	-0.24 (0.66)	0.04 (0.09)	0.08 (0.12)	0.19 (0.12)	0.21 (0.13)	-0.39*** (0.13)	0.06 (0.12)
Constant	0.67* (0.36)	-0.46** (0.20)	-12.66** (5.35)	-0.04 (0.32)	3.92*** (0.52)	3.68*** (0.51)	3.53*** (0.41)	2.53*** (0.64)	3.42*** (0.43)
Observations	433	433	433	433	433	433	433	433	433
R-squared	0.09	0.09	0.12	0.03	0.03	0.04	0.03	0.04	0.03

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 2. Effect of the 2015 pay scale reform on the PSM, pro-social behavior, & social preferences of applicant pool

	PSM index	Interested in Policy making	Commitment to pub service	Social Justice	Civic duty	Compassion	Self-sacrifice	=1 if Participated voluntary and charity activities	=1 if Least Patient	=1 if Present Bias	=1 if Most risk-averse	Altruism to poor (0-10)
Post	-0.03 (0.08)	-0.14 (0.13)	0.10 (0.10)	-0.01 (0.07)	-0.01 (0.09)	-0.02 (0.06)	-0.03 (0.04)	0.13** (0.05)	0.01 (0.06)	-0.07** (0.03)	-0.20* (0.10)	-0.50 (0.53)
age	0.00 (0.01)	-0.01 (0.02)	0.01 (0.02)	-0.00 (0.01)	0.00 (0.01)	0.02* (0.01)	-0.01 (0.01)	0.02** (0.01)	-0.02 (0.01)	-0.01* (0.01)	-0.03** (0.01)	0.01 (0.07)
male	0.17*** (0.05)	0.35*** (0.12)	0.08 (0.06)	0.03 (0.04)	0.04 (0.05)	-0.02 (0.05)	0.05 (0.04)	0.35*** (0.04)	-0.09 (0.08)	-0.04 (0.04)	-0.04 (0.07)	0.02 (0.44)
Raised in urban	-0.11*** (0.04)	0.04 (0.04)	-0.15*** (0.05)	-0.07* (0.03)	0.00 (0.07)	-0.07 (0.05)	-0.11** (0.04)	-0.01 (0.07)	-0.08* (0.05)	0.01 (0.02)	-0.09 (0.08)	0.72** (0.33)
Father's education	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.01** (0.00)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01** (0.00)	0.01 (0.01)	-0.03 (0.05)
Mother's education	0.01 (0.01)	0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.02)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.02 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.02 (0.09)
Father's occupation (government)	0.12* (0.07)	-0.00 (0.07)	0.08 (0.09)	0.07 (0.05)	0.11 (0.07)	0.01 (0.07)	0.07 (0.05)	-0.06 (0.06)	-0.12 (0.08)	-0.05 (0.03)	-0.14** (0.06)	0.37 (0.40)
Father's occupation (business)	0.05 (0.07)	-0.12 (0.10)	0.17*** (0.06)	-0.02 (0.05)	0.05 (0.06)	0.02 (0.08)	0.07 (0.06)	0.08 (0.05)	-0.00 (0.05)	-0.03 (0.03)	-0.15*** (0.06)	0.06 (0.44)
Mother has job	0.04 (0.08)	-0.04 (0.08)	-0.14* (0.08)	0.10* (0.06)	0.02 (0.08)	0.03 (0.10)	0.11 (0.10)	0.17* (0.09)	-0.16 (0.12)	0.07 (0.05)	-0.17 (0.16)	0.11 (0.58)
Constant	-0.35 (0.30)	3.96*** (0.52)	3.25*** (0.45)	3.04*** (0.33)	3.88*** (0.31)	2.54*** (0.42)	4.31*** (0.28)	-0.29 (0.30)	1.52*** (0.35)	0.33** (0.17)	1.68*** (0.41)	5.85*** (2.19)
Observations	433	433	433	433	433	433	433	433	433	433	433	433
R-squared	0.07	0.10	0.06	0.03	0.02	0.04	0.04	0.12	0.09	0.06	0.07	0.02

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 3. Effect of the 2015 pay scale reform on the educational qualifications, market skill, & personality of BCS officers

	=1 if grade of SSC exam is A+	Engineering graduate	log real income in previous job	Big 5 index	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Post x O	0.17* (0.09)	0.21*** (0.06)	-0.11 (1.12)	-0.02 (0.07)	-0.30*** (0.11)	-0.19 (0.14)	0.20* (0.12)	0.02 (0.20)	-0.21 (0.16)
Post	0.02 (0.08)	-0.02 (0.03)	-0.74 (1.27)	-0.02 (0.04)	0.13 (0.08)	0.05 (0.16)	-0.10 (0.11)	0.02 (0.18)	0.10 (0.14)
O	0.07 (0.05)	0.02 (0.04)	2.41*** (0.91)	0.09 (0.08)	0.06 (0.11)	0.05 (0.09)	-0.09 (0.09)	-0.01 (0.14)	0.11 (0.07)
age	-0.02 (0.01)	0.01 (0.01)	0.37** (0.15)	-0.00 (0.01)	-0.00 (0.02)	0.01 (0.02)	0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)
male	-0.04 (0.06)	0.09*** (0.03)	1.64*** (0.54)	0.08** (0.04)	0.13* (0.07)	-0.04 (0.09)	-0.01 (0.08)	-0.12 (0.08)	0.07 (0.08)
Raised in urban	0.12** (0.06)	0.09*** (0.03)	0.50 (0.59)	-0.04 (0.04)	-0.14* (0.08)	-0.03 (0.08)	0.07 (0.05)	-0.10 (0.07)	-0.07 (0.07)
Father's education	-0.01 (0.01)	0.00 (0.00)	0.03 (0.10)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)	0.00 (0.01)	0.01 (0.01)
Mother's education	0.00 (0.01)	0.01 (0.01)	0.13 (0.13)	0.01 (0.01)	0.01 (0.02)	0.02* (0.01)	-0.02 (0.02)	0.02 (0.01)	-0.00 (0.02)
Father's occupation (government)	0.07 (0.07)	0.04 (0.04)	-0.17 (0.86)	-0.04 (0.06)	0.05 (0.09)	-0.00 (0.06)	0.08 (0.06)	-0.16 (0.14)	-0.03 (0.08)
Father's occupation (business)	0.06 (0.08)	0.02 (0.02)	0.40 (0.85)	-0.06 (0.05)	0.06 (0.12)	-0.04 (0.06)	-0.07 (0.07)	-0.11 (0.12)	0.10** (0.05)
Mother has job	0.15* (0.09)	-0.04 (0.06)	-0.86 (0.70)	0.02 (0.10)	0.10 (0.12)	0.20* (0.11)	0.21* (0.12)	-0.39*** (0.12)	0.06 (0.12)
Constant	0.83** (0.40)	-0.34 (0.22)	-10.00** (4.72)	0.05 (0.33)	3.84*** (0.53)	3.65*** (0.55)	3.53*** (0.37)	2.53*** (0.61)	3.44*** (0.40)
Observations	433	433	433	433	433	433	433	433	433
R-squared	0.10	0.13	0.16	0.03	0.04	0.04	0.04	0.04	0.04

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 4. Effect of the 2015 pay scale reform on the PSM, pro-social behavior, & social preferences of BCS officers

	PSM index	Interested in Policy making	Commitment to pub service	Social Justice	Civic duty	Compassion	Self-sacrifice	=1 if Participated voluntary and charity activities	=1 if Least Patient	=1 if Present Bias	=1 if Most risk-averse	Altruism to poor (0-10)
Post x O	0.26** (0.10)	0.23 (0.16)	0.29*** (0.11)	-0.05 (0.10)	0.12 (0.11)	0.15 (0.11)	0.12 (0.08)	-0.07 (0.08)	-0.28*** (0.09)	0.04 (0.05)	0.05 (0.11)	1.98*** (0.67)
Post	-0.10 (0.09)	-0.19 (0.16)	0.02 (0.12)	0.01 (0.08)	-0.06 (0.11)	-0.07 (0.08)	-0.06 (0.06)	0.15** (0.06)	0.09** (0.04)	-0.08** (0.03)	-0.21* (0.11)	-1.01* (0.53)
O	0.01 (0.07)	0.19* (0.11)	-0.02 (0.10)	0.03 (0.05)	-0.11** (0.05)	-0.06 (0.08)	-0.00 (0.07)	0.00 (0.09)	0.01 (0.07)	0.05 (0.04)	0.07 (0.08)	0.52 (0.70)
age	-0.00 (0.01)	-0.02 (0.02)	0.01 (0.02)	-0.00 (0.01)	0.00 (0.01)	0.02* (0.01)	-0.01 (0.01)	0.02** (0.01)	-0.01 (0.01)	-0.01** (0.01)	-0.03** (0.01)	-0.05 (0.08)
male	0.17*** (0.05)	0.38*** (0.11)	0.08 (0.05)	0.03 (0.04)	0.02 (0.05)	-0.03 (0.05)	0.05 (0.04)	0.35*** (0.04)	-0.09 (0.07)	-0.03 (0.04)	-0.03 (0.06)	0.13 (0.35)
Raised in urban	-0.12** (0.05)	0.00 (0.05)	-0.14*** (0.05)	-0.07** (0.03)	0.02 (0.08)	-0.06 (0.05)	-0.11** (0.04)	-0.01 (0.06)	-0.08* (0.05)	0.00 (0.02)	-0.10 (0.07)	0.63** (0.32)
Father's education	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.01** (0.00)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01*** (0.00)	0.01 (0.01)	-0.03 (0.05)
Mother's education	0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.02)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.01* (0.01)	0.00 (0.01)	-0.04 (0.10)
Father's occupation (government)	0.11 (0.07)	-0.02 (0.07)	0.08 (0.09)	0.07 (0.05)	0.11* (0.06)	0.01 (0.07)	0.07 (0.05)	-0.06 (0.06)	-0.11 (0.08)	-0.05* (0.03)	-0.14** (0.06)	0.31 (0.42)
Father's occupation (business)	0.06 (0.07)	-0.11 (0.10)	0.18*** (0.06)	-0.02 (0.05)	0.05 (0.06)	0.02 (0.08)	0.07 (0.06)	0.08 (0.05)	-0.01 (0.05)	-0.02 (0.03)	-0.15** (0.06)	0.14 (0.45)
Mother has job	0.01 (0.09)	-0.11 (0.09)	-0.16* (0.09)	0.10 (0.07)	0.04 (0.08)	0.03 (0.10)	0.10 (0.10)	0.18* (0.09)	-0.14 (0.12)	0.05 (0.04)	-0.19 (0.14)	-0.22 (0.58)
Constant	-0.22 (0.29)	4.29*** (0.51)	3.36*** (0.45)	3.05*** (0.35)	3.81*** (0.33)	2.55*** (0.43)	4.36*** (0.29)	-0.32 (0.29)	1.40*** (0.38)	0.41** (0.16)	1.78*** (0.45)	7.39*** (2.50)
Observations	433	433	433	433	433	433	433	433	433	433	433	433
R-squared	0.09	0.15	0.07	0.03	0.03	0.05	0.04	0.12	0.11	0.08	0.07	0.07

Notes: We clustered the standard error at the survey locations (districts and training center where interviewed were undertaken) and enumerators are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.