Article

Self-Selection into Public Service When Corruption is Widespread: The Anomalous Russian Case

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Abstract

Drawing on experimental games and surveys conducted with students at two universities in Russia, we compare the behavioral, attitudinal, and demographic traits of students seeking public sector employment to the traits of their peers seeking jobs in the private sector. Contrary to similar studies conducted in other high-corruption contexts, such as India, we find evidence that students who prefer a public sector career display *less* willingness to cheat or bribe in experimental games as well as *higher* levels of altruism. However, disaggregating public sector career paths reveals distinctions between the federal civil service and other types of public sector employment, with federal government positions attracting students who exhibit some similarities with their peers aspiring to private sector careers. We discuss multiple interpretations consistent with our findings, each of which has implications for the creation of effective anti-corruption policies and for understanding of state capacity in contexts where corruption is widespread.

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Introduction

Over the past several decades, scholars have accumulated extensive evidence of corruption's negative consequences, ranging from reduced levels of investment to the undermining of political institutions.[1] Yet understanding of how corruption—defined here as the use of public office or resources for private gain—proves so resilient, even in the face of widespread reform efforts, has lagged far behind.

Recent research suggests that in countries where corruption is prevalent, public officials are more likely to believe they can engage in illicit practices without facing punishment. Citizens, in turn, expect to frequently encounter corrupt officials, and consequently become accustomed to offering bribes. As a result, aspiring bureaucrats and politicians motivated by self-enrichment rather than a call to public service will be more likely to seek public office, further raising the level of corruption and perpetuating a self-reinforcing cycle, a process formalized in models by Barfort et al. (2015) and Klašnja et al. (2018).

These theoretical frameworks suggest that *who chooses* to become a public official is of critical importance for understanding why corruption persists in some countries more than in others. However, nearly all prominent studies seeking to understand corruption's persistence instead emphasize incentives faced by public officials *once in office*, including factors such as low wages, ineffective monitoring, and low levels of transparency (for a review, see Olken & Pande, 2012, pp. 496–503). As a consequence, remarkably little is known about the extent to which individuals with a willingness to engage in corruption self-select into or out of the public sector in various countries.

This article offers empirical analysis of self-selection into public sector career paths in the high-corruption context of Russia. Drawing on experimental games and surveys with approximately 1200 Russian students at two research sites, one a top university located in Moscow and the second a major regional university, we compare the behavioral, attitudinal, and demographic traits of students seeking public sector employment to the traits of their peers seeking jobs in the private sector.[2]

Our use of experimental games helps to mitigate some of the challenges inherent in the study of sensitive topics such as corruption. Rather than relying on undependable self-reported attitudes, the experimental games employ incentive payments to elicit observable behavior and reveal participants' preferences. To measure individuals' willingness to act dishonestly in order

to increase one's earnings, we use an online dice task developed by Barfort et al. (2019). To measure individuals' propensity to engage in corruption, we develop a modified version of Barr and Serra's (2010) bribery game. Finally, to measure individuals' willingness to sacrifice personal financial gain for the benefit of society, we utilize a dictator game in which participants received a sum of money that could be retained or donated to Russian charities.[3]

Contrary to the theoretical frameworks introduced above, which predict that state institutions in a high-corruption setting should attract corruption-prone recruits, we find evidence that individuals in Russia with a propensity to act dishonestly or corruptly self-select *out* of public service and *into* the private sector, particularly into sectors such as finance. Among university students in the Moscow study, respondents aspiring to careers in the public sector are less likely to cheat and bribe in experimental games than students pursuing private sector careers. They are also more likely to engage in pro-social altruistic acts such as donating to charities in the dictator game. However, disaggregating public sector career paths reveals distinctions between the federal civil service and other types of public sector employment, with federal government positions attracting students who exhibit some similarities with their peers seeking private sector careers. Analyses based on non-experimental survey indicators of tolerance for corruption and of "public service motivation"—a distinct set of attitudinal traits such as commitment to public values, compassion, and self-sacrifice that public administration scholars have found to distinguish public employees from their private sector counterparts in many Western countries (Perry, 1996; Perry & Wise, 1990)—also support these findings.[4]

Given that alumni of our Moscow research site occupy important posts throughout the Russian government, our findings from the Moscow study in and of themselves are worthy of recognition. But beyond our initial study, we were able to replicate many of our results at a regional university, suggesting that our findings offer insights into a trend that extends beyond Russia's capital city. Moreover, the findings are not merely artifacts of differences across academic departments (e.g., economics versus public administration students), nor can they be explained by respondents' levels of risk aversion, gender, family income, or other factors that could potentially confound results.

The findings are all the more surprising given that they run counter not only to predictions of the theoretical frameworks discussed above but also to the findings from the handful of existing studies investigating self-selection into the civil service. In the high-corruption context of India, economists such as Banerjee et al. (2015) and Hanna and Wang (2017) find that university students aspiring to a career in the civil service are more likely to cheat or

engage in corrupt acts in laboratory experiments than their peers aspiring to careers in the private sector. Indian students intending to pursue a civil service career also display lower levels of altruism when playing a modified dictator game. By contrast, in the low-corruption context of Denmark, Barfort et al. (2019) find the opposite: Aspiring civil servants in Denmark are less likely than students who plan on pursuing a private sector career to cheat in laboratory experiments and display higher levels of altruism. Together, these earlier studies suggest that patterns of self-selection may provide insights into cross-national variation in corruption. From this perspective, however, Russia—a high-corruption setting in which self-selection trends seem more similar to Denmark than to India—stands out as anomaly.[5]

Several interpretations are consistent with our findings, each with important implications for the creation of effective anti-corruption policies and, more broadly, for understanding the nature of state capacity in contexts where corruption is widespread. A first interpretation is that in Russia corruption results more from the transformation of bureaucrats' behavior and attitudes after joining the civil service, rather than from a process of corrupt self-selection. A second interpretation is that for students who particularly value financial gain, Russia's private sector offers more appealing opportunities—some potentially illicit—than even a corrupt public sector. This perspective draws attention to the supply-side of corruption and the fact that corruption persists in part from private sector actors' willingness to engage in bribery. A third interpretation is that the universities where we conducted our study are outliers, or what other scholars have referred to as "islands of integrity"—government institutions or agencies within an otherwise corrupt system where social norms of probity prevail (see discussion in Prasad et al., 2019). A final interpretation is that despite widespread corruption, the state in Putin's Russia also pursues policies to improve the welfare of citizens and achieve geopolitical objectives (see Taylor, 2018; Treisman, 2018), which may attract some of the younger generation for idealistic reasons beyond personal enrichment. We return to these considerations in the article's concluding section.

Beyond extending the study of corrupt self-selection to the post-communist region, we make several contributions to this emerging line of research. First, unlike earlier studies, we investigate multiple measures of career preferences and disaggregate both public and private sector employment into distinct career paths. As noted, while clear differences between the public and private sectors are apparent, our analyses also reveal the importance of distinctions among different types of careers within each sector. Second, whereas earlier studies have employed experimental games either to measure dishonesty *or* propensity for corruption, we utilize two distinct games to measure both. Although indicators from these two games are highly correlated, the

results from our regional study, in which aspiring civil servants are less likely to bribe but more likely to cheat, suggest that in certain contexts substantive differences between these indicators may exist. Third, contrary to existing studies, we show that at least in some countries with widespread corruption, there are significant pockets of aspiring civil servants motivated by public service ideals rather than illicit self-enrichment. Finally, we draw attention to the important role that opportunities for private sector enrichment—both licit and illicit—play in the extent to which citizens with different propensities for corruption, dishonesty, or altruism self-select into the public sector.

The following section provides context for the setting of our study. We then discuss issues of measurement, research design, and data collection before presenting our primary analyses. The article's concluding section discusses interpretations of our findings.

The Potential for Corrupt Self-Selection in Russia

Russia is a highly appropriate research setting for a study on corrupt self-selection given its combination of high corruption levels and rising interest in public sector employment among the younger generation. In 2018, the year in which we completed data collection for this study, the watchdog agency Transparency International's Corruption Perception Index (CPI) ranked Russia 138th out of 180 countries and territories. For point of reference, India was ranked 78th, while the United States occupied 22nd place. Denmark topped the rankings as the least corrupt country in the world. Meanwhile, Transparency International's Global Corruption Barometer (GCB), which directly polls citizens about their encounters with corruption, shows that in 2016—the most recent year for which data are available—34% of Russians reported paying a bribe when accessing basic government services. Evidence of bribery was even more widespread in India, with 69% of Indian citizens reporting the payment of a bribe during the previous year, a stark contrast to 7% of US and 1% of Danish citizens.[6]

There is little evidence that corruption in Russia, which has consistently ranked in the bottom quartile of the CPI rankings since 2000, is declining over time. Yet substantial shifts have occurred with respect to government employment's allure. According to a periodic nationally representative omnibus survey conducted by Russia's Public Opinion Foundation (FOM), a non-governmental research organization, in 1998 just 6% of respondents perceived employment in public administration to be a popular career path for Russian youth. By 2011 this figure had risen to 19%.[7] Beyond survey data indicating a growing interest in government employment, in the late 2000s a number of journalists noted a significant increase in applications to

study public administration at universities throughout the country. In 2010, for example, Moscow State University's School of Public Administration received 18 applications for every position, compared to 11 per position in bioengineering, 10 per position in economics, and 10 per position in world politics, the next most popular departments.[8] (In Russia, students apply to specific departments at a university, rather than to the university itself.)

Many observers of these trends have come to the conclusion that rising interest in public sector employment in Russia reflects, at least in part, the aspirations of young people to exploit public office for personal gain. Russia has longstanding bureaucratic traditions under which bureaucrats served not the people but whomever held power—first the Tsars and then the Communist Party—and subsisted on gifts, sometimes involuntary, from the local population (Ryavec, 2005). As Houston (2014, p. 847) writes, this history has led to a bureaucratic culture "devoid of a public service ethos" and a civil service that "did not function to serve the people, but to control and pilfer from them." Moreover, unlike most of the developing world, in which public sector employees frequently enjoy a wage premium over private sector counterparts, the opposite holds true throughout much of the post-communist world, including Russia (Finan et al., 2017; Gimpelson et al., 2015). From this vantage point, if Russian students motivated more by pecuniary gain than public service aspire to public sector careers, it follows that they may be galvanized by expectations of illicit sources of income supplementing official salaries. Indeed, in 2011 none other than Dmitry Medvedev, Russia's president at the time, expressed exactly this concern: "It worries me that young people want to become government officials. . .. [M]any questions arise when young people choose the route of government service. . .. Is it a prestigious profession? Not really. Does it pay well? It pays poorly. It means that they are choosing this route because it is a way to quickly get rich—corruption."[9]

There are, however, important considerations that may set Russia apart from other countries where corruption is widespread and where scholars have found evidence of corrupt self-selection. As noted above, petty corruption in Russia certainly exists, but bribe rates are much lower than in India, despite cross-national corruption indices rating Russia as more corrupt overall. This points to the possibility that high-level corruption plays an oversize role in Russia, an issue to which we return in the article's concluding section. A related issue is the extent to which different public sector careers in a large federal state apparatus such as Russia's may attract different types of individuals. As discussed in the following section, our analyses explicitly examine three types of public sector careers: the federal civil service, regional or municipal civil service, and a broad "budget sector" category of employees receiving salaries from the state in sectors such as public health, science,

education, and culture but who are not formally classified as part of the civil service. On average, the federal civil service offers higher salaries and is considered by many university students to be more elite.[10]

To date, however, there has been little effort to rigorously evaluate propositions about corrupt self-selection in Russia, and the evidence below indicates that Russian patterns of self-selection into the public sector do not fit neatly into the broader patterns of self-selection from previous studies in other parts of the world.

Data Collection and Research Design

Implementation—Moscow Study

Our first study was conducted in Moscow with undergraduate and masters students at one of Russia's top-five universities, with a focus on students in social science departments. Students were recruited using flyers, emails, and classroom announcements by research assistants. We also allowed students to invite other students to participate via a module at the end of the online survey.[11] Eight hundred and four students participated. We focused on social science students because this population contains a significant number of individuals both with an interest in and a realistic possibility of obtaining government employment yet also exhibits significant variation in career goals, both across but also within departments. (Details of the sample compositions for both the Moscow and regional study are presented in Section C of the Online Appendix.) Following a brief pilot, data were collected between May 27 and June 15 of 2016.

The survey and experimental games were conducted online using Qualtrics. Median participation time was 37 minutes. We chose to conduct the study online rather than in a laboratory to facilitate higher participation rates and because we were aiming to develop an approach that could be easily replicated at other universities. While an online study entails less control over the research environment and lower attentiveness on the part of research participants, we believe that higher participation rates, lower costs, and superior scalability outweigh these drawbacks. Moreover, recent research demonstrates the consistency of results across laboratory and online experiments (see Clifford & Jerit, 2014; Dandurand et al., 2008), and to further mitigate concerns about participants' attentiveness, we employed screener questions (Berinsky et al., 2014). As discussed below, the overall level of attentiveness was high, and results are robust to the exclusion of inattentive participants.

Students were required to appear in person to present a unique, randomly generated code received at the end of the online study in order to collect their

incentive payments. All participants received a minimum of 500 rubles and had the opportunity to earn up to 2000 rubles, depending on their responses during the experimental games. On average, participants received approximately 1050 rubles, or approximately 14 USD at the time of the study. It was made clear to participants that the payoffs for each of the experimental games were independent and that their total payoff would be the sum of their earnings from across the games. All experimental games were conducted at the outset of the study to ensure that responses to survey questions would not influence participants' choices.[12]

Implementation—Regional Study

To assess whether trends we identified in our first study extend beyond elite Moscow-based universities, we conducted a second study at a regional university in Russia's Ural Federal District, again with undergraduate and masters social science students. We used the same approach to recruitment as in the Moscow study, but recruiting in Russia's regions proved challenging. Three hundred seventy six students participated, lower than our pre-registered target of 700. Data were collected between December 8, 2017 and January 22, 2018.

The research instruments were identical to those used in Moscow, with the exception that, in accordance with the regional labor market, incentive payments for all games were reduced.[13] Median participation time was 36 minutes, approximately the same as in Moscow. Levels of attentiveness, however, were lower, an issue we return to below. Payments were made via participants' mobile phones following the study's completion. All participants received a minimum of 300 rubles and had the opportunity to earn up to 1000 rubles. On average, participants received approximately 590 rubles, or approximately 9 USD at the time of the study.

Measurement

Measuring Propensity for Dishonesty and Corruption. Measurement of illicit behavior presents significant challenges. Respondents may be unlikely to respond forthrightly to survey questions pertaining to dishonesty or corruption. Approaches developed in behavioral economics mitigate these challenges by using incentive payments to elicit observable behavior, from which participants' preferences can be inferred by the choices they make when actual financial loss or gain results from their decisions. To measure dishonesty and willingness to engage in corruption, we employed two games:

Dice Task Game We use the dice task game developed by Barfort et al. (2019) to measure dishonesty (see also Fischbacher & Föllmi-Heusi, 2013;

Hanna & Wang, 2017). Respondents were asked to imagine a dice roll, guess a number between 1 and 6, and then click to the next screen. On this screen a picture of a dice was shown with a randomly generated outcome. Participants were then asked to record the number they had imagined and then click to the next screen. For correct guesses, participants earned 15 rubles.[14] For incorrect guesses, participants received five rubles. Since there was no way for our research team to observe participants' guesses, an incentive existed to dishonestly report guesses that matched the randomly generated outcome in order to increase one's payoff. Participants engaged in 20 rounds of this exercise at two points in the study, for a total of 40 rounds. A participant who cheated in every round received 600 rubles. An honest participant on average would guess between 6 and 7 rolls correctly, resulting in a payoff of just over 265 rubles. Comparison of a participant's number of correct guesses reported to the expected distribution of correct guesses under the assumption of honest reporting allows for estimation of the participant's cheat rate. The full scripts in Russian and the English translation for this and all other games can be found in Sections A.1-A.3 of the Online Appendix.

Bribery Game Whereas the dice task game focuses narrowly on willingness to increase one's payoff by acting dishonestly, the bribery game encompasses multiple dimensions of a real-world bribery experience: the question of ethical norms, strategic uncertainty about whether a bribe will be accepted, and the potential harm to other members of society. Our bribery game builds off Barr and Serra (2010) (see also Abbink et al., 2002; Cameron et al., 2009).[15] All participants were given 350 rubles at the game's outset. We then randomly assigned participants to the role of citizen or bureaucrat and presented the citizen with a scenario in which she could receive an additional 450 rubles by obtaining a permit. When she seeks to obtain the permit, she is denied and informed that to avoid a long and difficult reapplication process, she may offer a bribe to the bureaucrat of a value ranging from 50 to 350 rubles. Bribing in the real-world entails a risk of punishment, so for offering a bribe the citizen loses 100 rubles, regardless of whether the bureaucrat accepts the offer.[16] The bureaucrat then decides whether to accept, incurring a fine of 150 rubles for engagement in corruption, a cost larger than that imposed on the citizen to reflect the greater societal harm that results when officials act corruptly. If the bureaucrat accepts the bribe, the citizens receives the permit and the correspondingly higher payoff.[17] A completed bribe transaction also results in two additional participants (chosen at random) each incurring a loss of 50 rubles, representing the harm that corruption inflicts on society at large.

Payoffs were set up so that the bureaucrat is strictly better off accepting a bribe of 200 or more rubles and indifferent between accepting and rejecting a

bribe of 150 rubles. Conditional on the bureaucrat's acceptance of the bribe, the citizen is strictly better off offering a bribe of 300 or less and indifferent between offering or not offering a bribe of 350 rubles. From a purely strategic perspective, citizens maximize their earnings by offering 200 rubles, an offer that a self-interested bureaucrat should accept. However, if the bureaucrat incorporates considerations other than financial payoffs into her decision and rejects the citizen's offer, the citizen is strictly worse off, receiving a payoff of 250 rubles rather than the 350 rubles with which she began the game. The indicators in which we were interested include whether an individual offers (in the role of citizen) or accepts (in the role of bureaucrat) a bribe.

Non-Experimental Measures In addition to the two games described above, we employed a World Values Survey question asking respondents to assess the extent to which accepting a bribe in the course of one's official duties can be justified on a 10-point scale, with higher values indicating more tolerance for corruption. Given that responses were highly skewed toward the lower end of the scale, in analyses below we transform the indicator into a dichotomous variable with 1 representing those above the median answer and 0 representing those at or below the median.

Measuring Propensity for Pro-Social Behavior. We employ both an experimental and a non-experimental approach to measuring pro-social behavior:

Pro-Social Preferences Game. Following Banuri and Keefer (2016), Hanna and Wang (2017), and Barfort et al. (2019), we measured pro-social preferences using a variant of the dictator game in which participants were allotted 400 rubles and then could choose to donate any amount from 0 to 400 rubles (in increments of 50) to one of four Russian charities. Actual donations were made in accordance with the participants' preferences. The game therefore places participants in a scenario that encompasses a direct tradeoff between personal financial gain and efforts to promote broader societal goals.

Non-Experimental Measures. While the dictator game offers data based on decisions with a direct financial impact on participants, it measures only a single dimension of pro-social behavior. We therefore also employed a 16-item version of the Public Service Motivation (PSM) index developed by Kim et al. (2013). This version of the index builds on the original index created by Perry (1996) but was designed by an international team of scholars to account for cross-cultural distinctions. The index consists of an unweighted average of a series of attitudinal questions measuring four dimensions of PSM: (1) attraction to public service, (2) commitment to public values, (3) compassion, and (4) self-sacrifice. The questions on which the PSM index is based can be found in Section A.4 of the Online Appendix. We additionally presented participants with a series of questions asking them to evaluate the importance of 10 job attributes, including intrinsic attributes, such as

valuing a job that improves society, helps others, or involves interesting work; extrinsic attributes, such as a high income, promotion opportunities, networking opportunities, or prestige; and pragmatic attributes, such as job security, good benefits, or a convenient schedule. After using factor analyses to confirm that intrinsic, extrinsic, and pragmatic attributes cluster into three groups, we created three job attribute indices based on unweighted averages.[18]

Measuring Career Preferences. We measured career preferences in multiple ways. The first is a dichotomous indicator for which respondents were asked to indicate which of the following best describes their career preferences: a job in the private sector (*chastnyi sektor*) or a job in the public sector (*gosudarstvennyi sektor*). The second approach asked respondents to rate their likeliness of choosing specific career paths on a scale of 1 to 7, where 1 represents "very unlikely" and 7 represents "very likely." Nine career paths were evaluated: federal government, regional or local government, the government "budget sector" (e.g., public health, science, education, culture), private corporations, small or medium-sized business, ownership of a private business, banking or finance, consulting, and the non-profit sector. As a robustness check, we also asked respondents to consider the distinction between the job they would like to have (i.e., career preferences) and the job they are most likely to have (i.e., career expectations) upon graduating. They were then asked to rate the likeliness of near-term employment in each of the previously stated career paths, again on a 1 to 7 scale.

Other Measures. To measure risk aversion, we used a series of seven paired lottery choices in which participants selected between a series of fixed payoffs and lotteries with a 50% chance of receiving no payment and a 50% chance of receiving a higher payment (see Holt & Laury, 2002). The indicator of interest is the number of certain payoffs an individual chooses before switching to a riskier—though potentially higher paying—lottery. We additionally collected a wide variety of data on demographic indicators that have been shown or hypothesized to influence career preferences, including gender, age, class year (i.e., first-year, second-year, MA student), field of study, home region, relatives' occupations, family income, and ability (measured with self-reported grade point average and Unified State Exam (EGE) scores).

Analysis

Descriptive Statistics from Experimental Games

Given that studies using incentivized experimental games in Russia and the former Soviet Union are rare, we provide a brief descriptive overview of
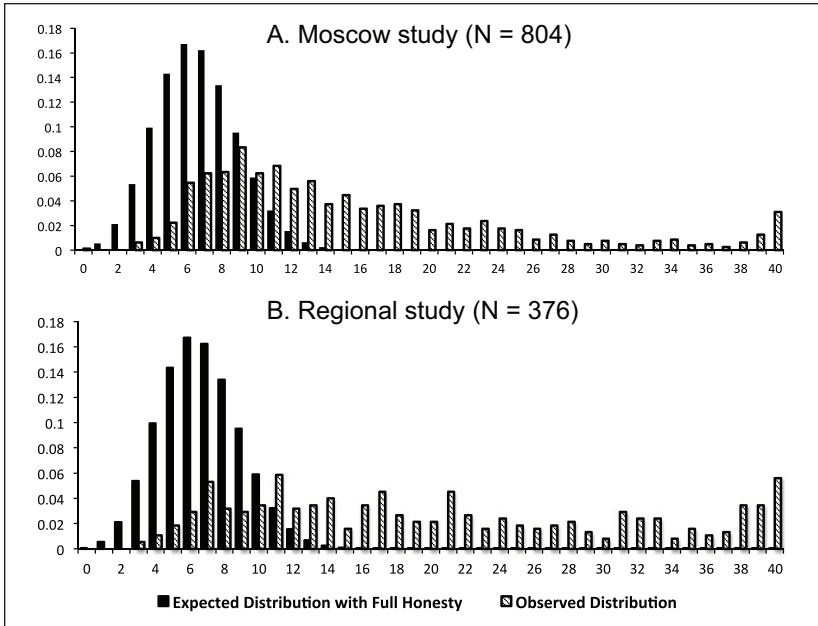
Figure 1. Distribution of correct guesses for 40 dice rolls.
Note. The histograms in Figure 1 display the distribution of the observed number of correct guesses in our dice task game and the expected distribution with full honesty.

the findings before turning to the primary analyses. As can be seen in Panel A of Figure 1, only three percent of the sample in the Moscow study purely maximized payoffs by reporting 40 correct guesses in the dice task game. Sixteen percent reported 7 or fewer correct guesses—the amount of or lower than the number of correct guesses an honest individual would be expected to make by chance. Approximately 70% of respondents reported 10 or more, despite the fact that the probability of honestly guessing right 10 or more times is around 12%. The sample mean of 15.4 correct guesses (see Panel I of Table 1) is equivalent to a cheat rate of 0.26—in other words, on average participants cheated on about every fourth guess.[19] Levels of cheating were higher in the regional study. Panel B of Figure 1 shows that approximately 6% of the sample in the regional study maximized payoffs by reporting 40 correct guesses; around 12% of the sample reported 7 or fewer correct guesses; and just over 82% reported 10 or more correct guesses. The mean number of correct guesses—21—corresponds to an average cheat rate of 0.42.

Table 1. Descriptive Statistics.

	Moscow Study					Regional Study				
	Mean	SD	Min.	Max.	N	Mean	SD	Min.	Max.	N
I. Experimental variables										
Bribe	0.61	0.49	0	1	803	0.47	0.50	0	1	375
Correct guesses	15.36	8.92	0	40	804	20.61	10.99	3	40	376
Donations	200.19	129.41	0	400	804	105.12	64.05	0	200	376
II. Non-experimental variables										
Bribe justifiable	0.42	0.49	0	1	804	0.36	0.48	0	1	376
PSM index	3.62	0.56	1.75	5	803	3.68	0.61	1.63	5	375
Intrinsic job attrib.	3.61	0.75	1.33	5	804	3.60	0.74	1.33	5	376
Extrinsic job attrib.	3.63	0.64	1.25	5	803	3.60	0.76	1.33	5	376
Pragmatic job attrib.	3.36	0.71	1	5	804	3.70	0.68	1.25	5	376
III. Dependent variables										
Pub. sector preference	0.23	0.42	0	1	804	0.30	0.46	0	1	376
Public sector index	3.67	1.41	1	7	803	4.03	1.46	1	7	376
Federal government	4.17	2.04	1	7	804	4.55	1.92	1	7	376
Budget sector	3.60	1.79	1	7	804	3.39	1.87	1	7	376
Regional government	3.25	1.83	1	7	803	4.16	1.90	1	7	376
Private sector index	5.02	0.99	1	7	804	4.93	0.94	1	6.8	376
Corporate	5.74	1.25	1	7	804	5.52	1.48	1	7	376
Business owner	5.34	1.62	1	7	804	5.70	1.41	1	7	376
Small business	5.10	1.43	1	7	804	5.24	1.41	1	7	376
Consulting	4.66	1.76	1	7	804	3.92	1.66	1	7	376
Finance	4.27	1.90	1	7	804	4.26	1.81	1	7	376
Non-profit sector	3.67	1.62	1	7	803	3.64	1.46	1	7	376

Bribe is a binary indicator that takes a value of 1 if a subject offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the corruption game and 0 otherwise. *Correct Guesses* refers to the number of correct guesses reported in the dice task game. *Donations* refers to rubles donated to charity in the modified dictator game. *Bribe Justifiable* is a binary indicator that takes a value of 1 for respondents rating justifiability for bribery above the median rating on the original 10-point scale and 0 for respondents rating justifiability at or below the median. *PSM* refers to the Public Service Motivation index. *Intrinsic Job Attrib., Extrinsic Job Attrib.*, and *Pragmatic Job Attrib.* refer to the extent to which a respondent values the intrinsic, extrinsic, or pragmatic attributes of a career. *Pub. Sector Preference* is a binary indicator that takes a value of 1 for students preferring public sector and 0 for students preferring private sector employment. For all other career preference indicators, higher values represent stronger preferences for the noted career path. The *Public Sector Index* and *Private Sector Index* are unweighted averages of the public and private sector career preference variables, respectively.

In the corruption game, 56% of participants in the Moscow study assigned to the role of citizen offered a bribe, while 65% of participants assigned to the role of bureaucrat were willing to accept a bribe.[20] In total, 61% of participants offered or accepted. Meanwhile, while regional students cheated more than the Moscow students, they bribed less. Forty-five percent of participants assigned to the role of citizen offered a bribe, while 49% of participants

assigned to the role of bureaucrat were willing to accept. In total, 47% of participants offered or accepted a bribe.

Finally, with respect to donations made to charity in the dictator game, only 11% of the Moscow study sample kept all rubles for themselves. Eighteen percent gave away their full initial endowment. The average donation was approximately 200 rubles, half of the 400 rubles with which each subject began the game. Similarly, in the regional study just under 10% of participants kept all rubles for themselves; just over 19% donated their full endowment; and the mean donation was 105 rubles, approximately half of the 200 rubles with which regional participants started.

There is a robust positive correlation between the indicators of dishonesty and corruption, and both of these indicators are negatively correlated with donations in both the Moscow and regional studies. For example, at both research sites, those who engaged in a bribe transaction in the bribery game had a cheat rate between 10 and 11 percentage points higher in the dice game but donated 12 to 13 percentage points less of the initial endowment than those who did not, differences that are statistically significant at $p < 0.001$. Additionally, experimental and non-experimental indicators are strongly correlated. Those more willing to view bribes as justifiable cheated more in the dice game, bribed more frequently in the corruption game, and donated less in the dictator game. Conversely, higher PSM scores are associated with a lower probability of bribing and more donations. In the Moscow study, higher PSM scores are also correlated with lower cheat rates, but for the regional study there was no correlation between cheating and PSM.

Descriptive Statistics on Career Preferences

When presented with a dichotomous choice, just under 23% of the sample for the Moscow study expressed a preference for public sector employment over a private sector career. Public sector preferences were more pronounced in the regional study, with 30% of the sample expressing a preference for public sector employment.

However, as can be seen in Panel III of Table 1, students expressed a much stronger preference for employment in the federal government than in regional or local governments or in the state budget sector, particularly in Moscow. On a scale of 1 to 7, where 1 represents "highly unlikely" and 7 represents "highly likely," students on average rated their likeliness of choosing a career in the federal government a 4.17, compared to 3.60 for the budget sector and 3.25 for regional or local government jobs. For the regional study, students on average rated their likeliness of choosing a career in the federal

government a 4.55, compared to 4.16 for regional or local government and 3.39 for the budget sector.

To facilitate analysis of the factors predicting sectoral career preferences, we adopted several approaches for aggregating the public and private sector career ratings. The analyses that follow rely on the dichotomous indicator discussed above, as well as on a public sector preference index and private sector preference index. Factor analyses show that the three public sector variables load cleanly onto one factor while the five private sector variables load cleanly onto a separate factor. Accordingly, we construct the public sector index as the unweighted average of the public sector variables and the private sector index as the unweighted average of private sector variables. (Creating the indices using factor scores rather than averages produces similar results.)[21] To emphasize the importance of examining distinctions among career paths within the public and private sectors, we present results using aggregate indicators side-by-side with analyses of disaggregated job preference indicators.

Self-Selection and Career Preferences

We now turn to our primary analyses. For the binary career preference measure, which takes a value of 1 for students expressing a preference for the public sector and 0 for students expressing a preference for the private sector, we employ linear probability models. Logit models produce nearly identical results. All other analyses utilize OLS regressions for which the dependent variables are measured on a 1 to 7 scale, with higher values representing stronger preferences. In tables below, odd-numbered columns present results from bivariate regressions while even-numbered columns present results controlling for a full set of potentially confounding factors, including gender, field of study, class year, ability (measured by GPA), risk aversion, family ties in the public sector, family income, and home region.

Table 2a provides evidence of a robust negative association between bribing or cheating, as well as a robust positive association between donation levels in the dictator game, and a preference for the public sector at the Moscow research site. Subjects who offered or accepted a bribe in the corruption game on average have a public sector index score that is nearly one-third of a point on the career preference scale's 7-point range lower than subjects who refused to partake in a bribe transaction (see Panel I, Column 1 in Table 2a). Similarly, each additional correct guess reported in the dice game is correlated with a 0.011 decline on the public sector preference index, meaning that a subject who reported 40 correct guesses in the dice game on average has a rating of a more than a third of a point lower on the

Table 2. Experimental Indicators—Moscow Study.

a. Predictors of public sector career preferences.

| | Public Sector Index | | Binary Career Preference | | Disaggregated Indicators | | | | | | | |
| | | | | | Federal | | Regional | | Budget Sector | | Non-Profit | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Corruption game												
Bribe	-0.320**	-0.177†	-0.087**	-0.033	-0.173	-0.010	-0.363**	-0.257†	-0.429***	-0.266*	-0.616***	-0.610***
	(0.102)	(0.101)	(0.031)	(0.030)	(0.148)	(0.141)	(0.133)	(0.134)	(0.129)	(0.135)	(0.116)	(0.122)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	802	786	803	787	803	787	802	786	803	787	802	786
R^2	0.012	0.153	0.010	0.186	0.002	0.182	0.009	0.111	0.014	0.073	0.035	0.089
II. Dice task game												
Correct Guesses	-0.011*	-0.008	-0.002	-0.001	-0.001	0.003	-0.011	-0.008	-0.020**	-0.020**	-0.014*	-0.014*
	(0.005)	(0.005)	(0.002)	(0.001)	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.007)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	804	788	804	788	803	787	804	788	803	787
R^2	0.005	0.152	0.002	0.185	0.000	0.182	0.003	0.108	0.010	0.076	0.006	0.064
III. Pro-social preferences game												
Donations	0.062**	0.058**	0.012*	0.008	0.040	0.030	0.035	0.043†	0.112***	0.099***	0.096***	0.094***
	(0.019)	(0.019)	(0.006)	(0.006)	(0.028)	(0.028)	(0.025)	(0.026)	(0.024)	(0.025)	(0.023)	(0.024)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	804	788	804	788	803	787	804	788	803	787
R^2	0.013	0.160	0.006	0.187	0.003	0.184	0.002	0.110	0.026	0.085	0.024	0.078

(continued)

Table 2. (continued)

b. Predictors of private sector career preferences.

	Private Sector Index		Disaggregated Indicators									
			Finance		Corporate		Consulting		Owner		Small Business	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Corruption game												
Bribe	0.294***	0.209**	0.582***	0.348*	0.146	0.153	0.435***	0.308*	0.272*	0.208†	0.033	0.026
	(0.073)	(0.075)	(0.137)	(0.135)	(0.091)	(0.093)	(0.128)	(0.133)	(0.120)	(0.124)	(0.104)	(0.110)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	803	787	803	787	803	787	803	787	803	787
R^2	0.021	0.099	0.022	0.171	0.003	0.032	0.015	0.087	0.007	0.072	0.000	0.037
II. Dice task game												
Correct Guesses	0.013**	0.012**	0.023**	0.017*	0.007	0.007	0.010	0.012†	0.016*	0.016*	0.008	0.007
	(0.004)	(0.004)	(0.007)	(0.007)	(0.005)	(0.005)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	804	788	804	788	804	788	804	788	804	788	804	788
R^2	0.013	0.100	0.012	0.171	0.002	0.031	0.002	0.084	0.008	0.076	0.002	0.038
III. Pro-social preferences game												
Donations	-0.040**	-0.030*	-0.112***	-0.069**	-0.024	-0.038*	-0.026	-0.015	-0.031	-0.020	-0.005	-0.008
	(0.013)	(0.013)	(0.026)	(0.025)	(0.017)	(0.018)	(0.024)	(0.025)	(0.021)	(0.022)	(0.019)	(0.021)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	804	788	804	788	804	788	804	788	804	788	804	788
R^2	0.011	0.095	0.023	0.173	0.002	0.034	0.001	0.081	0.002	0.070	0.000	0.037

Note. Columns (3) and (4) in Table 2a present results from linear probability models; all other columns, from OLS regressions. Robust standard errors are in parentheses. †significant at $p < 0.10$; *$p < 0.05$; **$p < 0.01$; and ***$p < 0.001$. The binary career preference indicator takes a value of 1 for students preferring public sector and 0 for students preferring private sector employment. For all other outcome variables, higher values represent stronger preferences for the noted sector or career path. The *Bribe* variable takes a value of 1 if the subject offered (in the role of citizen) or accepted (in the role of public official) a bribe in the corruption game and 0 otherwise. *Correct Guesses* refers to the number of correct guesses a subject reported in the dice task game, while *Donations* measures rubles donated to charity in the modified dictator game. Even-numbered specifications include controls for gender, field of study, class year, ability (measured by GPA), risk aversion, family ties in the public sector, family income, and home region.

public sector preference index than a subject who reported 7 correct guesses, the number an honest individual would be expected to make by chance (Panel II, Column 1). Finally, each additional 50 rubles donated to charities is associated with approximately a 0.06 point increase on the public sector preference index (Panel III, Column 1). In other words, on average participants who donated all 400 rubles of their initial endowment had a public sector preference rating of around one-half a point higher than those who donated nothing. With the exception of the result concerning cheating and public sector career preferences, these results are robust controlling for the wide range of factors noted above.[22]

Disaggregated analyses, however, show that results concerning specific career paths disproportionately influence the overall sectoral trends. For both the corruption and dice task games, point estimates for preferences for a federal government position are close to zero, particularly in specifications including control variables (Panels I and II, Columns 5 and 6 of Table 2a). By contrast, the negative correlation between public sector preferences and propensity for corruption is readily apparent in the analyses of preferences for regional government and budget sector careers. There also is a particularly large and robust negative association between cheating and budget sector career preferences: the −0.02 coefficient in Panel II, Column 9 indicates that a student reporting 40 correct guesses in the dice game on average has a rating two-thirds of a point lower on the 7 point public sector preference index than a student reporting seven correct guesses.[23] To put the substantive significance of these associations in perspective, the effect of gender—frequently shown to be a major predictor of career paths (see Lewis & Frank, 2002)—on preferences for public sector careers ranges from approximately 0.30 to 0.60 points (see Table D.1 in Section D.1 of the Online Appendix). Similarly, although the correlations between donations and every type of public sector career examined are positive, the largest and most robust associations emerge for the budget sector (Panel III, Columns 9 and 10).[24]

Results of linear probability models using the dichotomous career preference variable offer a similar picture, although findings are less robust. As shown in Column 3 of Table 2a, the probability of subjects who gave or accepted a bribe in the corruption game preferring a public sector career is approximately 9 percentage points lower; subjects who reported 40 correct guesses on average have a probability of preferring a public sector career that is more than 6 percentage points lower than that of subjects reporting seven correct guesses (0.2 percentage points lower per each correct guess); and on average a subject who donated all of her money would have a probability of preferring public employment that is around 9.6 percentage points higher than a subject who donated nothing

(1.2 percentage points higher for each additional 50 rubles donated). However, while these unconditional correlations for the corruption game and dictator game are statistically significant at the 5% and 1% levels, respectively, they are no longer statistically significant when controlling for the full set of control variables.

In contrast to the results concerning public sector preferences, Table 2b shows that cheating and bribing are positively correlated, and donations negatively correlated, with a preference for the private sector at the Moscow site. Bribers have a private sector index score that is nearly one-third of a point higher than non-bribers (Panel I, Column 1 in Table 2b), while each additional correct guess reported in the dice game is associated with a 0.013 increase on the private sector preference index, meaning that a subject who reported 40 correct guesses in the dice game on average has a rating of approximately 0.43 points higher on the private sector preference index than a subject who reported 7 correct guesses (Panel II, Column 1). Meanwhile, each additional 50 rubles donated to charities is associated with approximately a 0.04 decrease on the private sector preference index (Panel III, Column 1), indicating that on average participants who donated all 400 rubles of their initial endowment had a private sector rating of approximately one-third of a point lower than those who donated nothing. Although cheat rates and propensity to bribe in the corruption game are positively correlated, and donations in the dictator game negatively correlated, with all private sector careers, these associations are particularly pronounced for students seeking to pursue careers in the finance sector (Columns 3 and 4).

Table 3 presents results using non-experimental indicators of corruption attitudes, public service motivation, and respondents' evaluations of the importance of extrinsic and intrinsic job attributes when choosing a profession. Results are similar to those based on experimental indicators and offer additional evidence that pro-socially motivated students by and large are self-selecting in, and students motivated by pecuniary gain primarily self-selecting out, of public sector employment. The higher subjects score on the PSM Index, the higher their preference for public sector careers (Panel II in Table 3a). Respondents who value intrinsic job attributes—the opportunity to help others, benefit society, and do interesting work—are on average more likely to express a preference for the public sector (Panel III). Yet important distinctions are again apparent among career paths within the public sector. While there is a positive and statistically significant association between PSM and a public sector preference for all three types of public sector careers examined, the magnitude of the correlation for budget sector career preferences is approximately twice as large as the correlation for federal government preferences. Attraction to the budget sector is strongly positively correlated with

Table 3. Non-Experimental Indicators—Moscow Study.

a. Predictors of public sector career preferences.

| | Public Sector Index | | Binary Career Preference | | Disaggregated Indicators | | | | | | | |
| | | | | | Federal | | Regional | | Budget Sector | | Non-Profit | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Justifiability of bribing												
Bribe Justifiable	-0.019	0.031	-0.000	0.009	0.191	0.212	-0.091	-0.045	-0.163	-0.076	-0.271*	-0.213†
	(0.099)	(0.095)	(0.030)	(0.028)	(0.144)	(0.134)	(0.129)	(0.126)	(0.129)	(0.128)	(0.115)	(0.117)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	804	788	804	788	803	787	804	788	803	787
R²	0.000	0.150	0.000	0.185	0.002	0.185	0.001	0.106	0.002	0.067	0.007	0.062
II. Public service motivation (PSM)												
PSM	0.582***	0.539***	0.118***	0.090***	0.366**	0.338**	0.586***	0.581***	0.795***	0.698***	0.851***	0.873***
	(0.086)	(0.083)	(0.025)	(0.024)	(0.133)	(0.124)	(0.116)	(0.114)	(0.108)	(0.113)	(0.102)	(0.104)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	803	787	803	787	803	787	803	787	803	787
R²	0.053	0.192	0.025	0.197	0.010	0.190	0.031	0.136	0.061	0.111	0.085	0.142
III. Importance of intrinsic career attributes												
Intrinsic	0.301***	0.279***	0.066**	0.050**	-0.060	0.046	0.276**	0.274**	0.684***	0.609***	0.591***	0.586***
	(0.069)	(0.068)	(0.020)	(0.019)	(0.099)	(0.093)	(0.093)	(0.093)	(0.083)	(0.087)	(0.079)	(0.082)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	804	788	804	788	803	787	804	788	803	787
R²	0.025	0.170	0.014	0.192	0.000	0.182	0.013	0.118	0.082	0.128	0.075	0.126
IV. Importance of extrinsic career attributes												
Extrinsic	0.084	0.044	0.018	-0.004	0.658***	0.586***	0.081	0.047	-0.487***	-0.500***	-0.348***	-0.313**
	(0.076)	(0.074)	(0.024)	(0.023)	(0.112)	(0.110)	(0.102)	(0.101)	(0.098)	(0.097)	(0.093)	(0.096)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	803	787	803	787	803	787	803	787	803	787
R²	0.001	0.150	0.001	0.184	0.043	0.214	0.001	0.106	0.031	0.097	0.019	0.072

(continued)

Table 3. (continued)

b. Predictors of private sector career preferences.

| | Private Sector Index | | Disaggregated Indicators | | | | | | | | | |
| | | | Finance | | Corporate | | Consulting | | Owner | | Small Business | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Justifiability of bribing												
Bribe Justifiable	0.219**	0.180**	0.331*	0.239†	0.162†	0.141	0.251*	0.228†	0.242*	0.184	0.107	0.106
	(0.070)	(0.069)	(0.135)	(0.127)	(0.087)	(0.087)	(0.125)	(0.124)	(0.115)	(0.115)	(0.102)	(0.104)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	804	788	804	788	804	788	804	788	804	788	804	788
R²	0.012	0.097	0.007	0.169	0.004	0.032	0.005	0.084	0.005	0.072	0.001	0.038
II. Public service motivation (PSM)												
PSM	-0.131†	-0.062	-0.348**	-0.192†	-0.087	-0.088	-0.175	-0.089	-0.057	0.037	0.013	0.024
	(0.071)	(0.070)	(0.123)	(0.113)	(0.092)	(0.094)	(0.116)	(0.114)	(0.108)	(0.107)	(0.102)	(0.105)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	803	787	803	787	803	787	803	787	803	787
R²	0.005	0.089	0.010	0.166	0.002	0.030	0.003	0.078	0.000	0.069	0.000	0.037
III. Importance of intrinsic career attributes												
Intrinsic	-0.248***	-0.191***	-0.590***	-0.468***	-0.259***	-0.256***	-0.168*	-0.107	-0.110	-0.021	-0.111	-0.103
	(0.050)	(0.049)	(0.087)	(0.084)	(0.067)	(0.066)	(0.084)	(0.084)	(0.084)	(0.083)	(0.072)	(0.073)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	804	788	804	788	804	788	804	788	804	788	804	788
R²	0.035	0.109	0.054	0.197	0.024	0.051	0.005	0.082	0.003	0.069	0.003	0.039

(continued)

Table 3. (continued)

b. Predictors of private sector career preferences. (continued)

	Private Sector Index		Disaggregated Indicators									
			Finance		Corporate		Consulting		Owner		Small Business	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
IV. Importance of extrinsic career attributes												
Extrinsic	0.482***	0.457***	0.575***	0.529***	0.538***	0.511***	0.430***	0.370***	0.727***	0.710***	0.139†	0.166†
	(0.058)	(0.057)	(0.103)	(0.102)	(0.080)	(0.081)	(0.097)	(0.100)	(0.097)	(0.096)	(0.084)	(0.087)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	803	787	803	787	803	787	803	787	803	787	803	787
R^2	0.097	0.172	0.038	0.193	0.077	0.095	0.025	0.095	0.084	0.145	0.004	0.042

Note. Columns (3) and (4) in Table 3a present results from linear probability models; all other columns, from OLS regressions. Robust standard errors are in parentheses. †significant at $p < 0.10$; *$p < 0.05$; **$p < 0.01$; and ***$p < 0.001$. The binary career preference indicator takes a value of 1 for students preferring public sector and 0 for students preferring private sector employment. For all other outcome variables higher values represent stronger preferences for the noted sector or career path. *Bribe Justifiable* is a binary indicator that takes a value of 1 for respondents rating justifiability for bribery above the median rating on the original 10-point scale and 0 for respondents rating justifiability at or below the median. *PSM* refers to the Public Service Motivation index. *Intrinsic* and *Extrinsic* refer to the extent to which a respondent values the intrinsic or extrinsic attributes of a career, respectively. Even-numbered specifications include controls for gender, field of study, class year, ability (measured by GPA), risk aversion, family ties in the public sector, family income, and home region.

placing value on intrinsic job attributes and strongly negatively correlated with placing value on extrinsic attributes, whereas attraction to federal government career paths is not only uncorrelated with valuing intrinsic attributes but also positively correlated with valuing extrinsic attributes. And while there is no overall correlation between willingness to justify bribery and preferences for public sector employment, attraction to federal government career paths again stands out as an exception, with a positive coefficient of moderately large magnitude that borders on statistical significance ($p = 0.11$) in specifications including control variables.

These results concerning public sector preferences again stand in contrast to results concerning private sector preferences. Participants indicating a willingness to justify bribery express a higher preference for private sector careers (Panel I of Table 3b), a trend that is particularly noticeable in the disaggregated analyses of preferences for careers in finance or consulting. Higher PSM scores are uncorrelated with private sector careers, or, in the case of attraction to the finance sector, negatively correlated (Panel II). And respondents who value intrinsic job attributes are on average less likely to express a preference for the private sector (Panel III), while respondents who value extrinsic attributes—income, networking and promotion opportunities, prestige—are more likely to express a preference for the private sector (Panel IV). These latter trends are particularly pronounced for the indicators measuring attraction to working in the finance or corporate sectors and, with respect to value placed on extrinsic job attributes, for the indicator measuring attraction to owning a business.

In short, evidence from the Moscow study indicates that students who are more prone to dishonesty and corruption, and less likely to demonstrate altruism, primarily self-select out of the public sector and into the private sector. Specific career paths exemplify these trends, with the most noteworthy public sector results emerging for budget sector careers and the most noteworthy private sector results emerging for finance sector careers. Meanwhile, students attracted to federal government careers are in some ways similar to counterparts attracted to the private sector in that they appear to be motivated more by extrinsic than intrinsic considerations.

To assess whether trends we identified in our first study extend beyond elite Moscow-based universities, we conducted a follow-up study at a regional university. Due to the challenges of recruiting subjects, our sample at the regional site was smaller. Nevertheless, the evidence at the regional site is consistent with many of the findings from the Moscow site. As can be seen in Panel I of Table 4a, participants who gave or accepted a bribe in the corruption game were less likely to express a preference for

Table 4. Experimental Indicators—Regional Study.

a. Predictors of public sector career preferences.

	Public Sector Index		Binary Career Preference		_Disaggregated Indicators_							
					Federal		Regional		Budget Sector		Non-Profit	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Corruption game												
Bribe	−0.333*	−0.301*	−0.077	−0.079	−0.191	−0.202	−0.348†	−0.335†	−0.459*	−0.366†	0.002	0.025
	(0.150)	(0.152)	(0.047)	(0.048)	(0.197)	(0.200)	(0.197)	(0.200)	(0.190)	(0.192)	(0.151)	(0.157)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	375	364	375	364	375	364	375	364	375	364	375	364
R^2	0.013	0.107	0.007	0.064	0.002	0.097	0.008	0.095	0.015	0.108	0.000	0.030
II. Dice task game												
Correct Guesses	0.016*	0.015*	0.004†	0.004	0.020*	0.016†	0.017†	0.013	0.010	0.016†	−0.009	−0.010
	(0.007)	(0.007)	(0.002)	(0.002)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.014	0.105	0.009	0.059	0.013	0.101	0.010	0.092	0.004	0.104	0.005	0.036
III. Pro-social preferences game												
Donations	0.063*	0.039	0.011	0.008	0.073†	0.048	0.022	0.004	0.093*	0.065	0.096**	0.101**
	(0.030)	(0.030)	(0.009)	(0.010)	(0.038)	(0.039)	(0.039)	(0.040)	(0.037)	(0.040)	(0.031)	(0.033)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.012	0.097	0.004	0.054	0.010	0.096	0.001	0.086	0.016	0.103	0.028	0.059

Table 4. (continued)

b. Predictors of private sector career preferences.

	Private Sector Index		Disaggregated Indicators									
			Finance		Corporate		Consulting		Owner		Small Business	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Corruption game												
Bribe	0.004	0.003	0.268	0.261	−0.215	−0.192	−0.109	−0.115	0.045	0.003	0.031	0.055
	(0.098)	(0.097)	(0.186)	(0.189)	(0.154)	(0.158)	(0.171)	(0.174)	(0.146)	(0.150)	(0.144)	(0.149)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	375	364	375	364	375	364	375	364	375	364	375	364
R^2	0.000	0.102	0.006	0.072	0.005	0.081	0.001	0.086	0.000	0.045	0.000	0.036
II. Dice task game												
Correct Guesses	−0.001	−0.001	0.004	0.004	−0.006	−0.004	−0.009	−0.008	0.006	0.004	0.001	0.002
	(0.004)	(0.004)	(0.009)	(0.009)	(0.007)	(0.007)	(0.008)	(0.008)	(0.006)	(0.007)	(0.006)	(0.007)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.000	0.097	0.001	0.063	0.002	0.079	0.003	0.088	0.002	0.043	0.000	0.034
III. Pro-social preferences game												
Donations	−0.005	−0.004	0.006	0.023	−0.039	−0.054†	0.013	0.004	0.002	0.005	−0.010	0.004
	(0.019)	(0.019)	(0.037)	(0.040)	(0.028)	(0.029)	(0.034)	(0.036)	(0.029)	(0.029)	(0.029)	(0.030)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.000	0.097	0.000	0.063	0.004	0.086	0.000	0.085	0.000	0.042	0.000	0.034

Note. Columns (3) and (4) in Table 4a present results from linear probability models; all other columns, from OLS regressions. Robust standard errors are in parentheses. †significant at $p < 0.10$; *$p < 0.05$; **$p < 0.01$; and ***$p < 0.001$. The binary career preference indicator takes a value of 1 for students preferring public sector and 0 for students preferring private sector employment. For all other outcome variables, higher values represent stronger preferences for the noted sector or career path. The *Bribe* variable takes a value of 1 if the subject offered (in the role of citizen) or accepted (in the role of public official) a bribe in the corruption game and 0 otherwise. *Correct Guesses* refers to the number of correct guesses a subject reported in the dice task game, while *Donations* measures rubles donated to charity in the modified dictator game. Even-numbered specifications include controls for gender, field of study, class year, ability (measured by GPA), risk aversion, family ties in the public sector, family income, and home region.

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public sector careers. The magnitude of the effect is similar to that in the Moscow sample and is again more pronounced with respect to regional government or budget sector careers relative to federal government career paths. Likewise, Panel III of Table 4a shows that there is also a clear positive relationship between donations in the modified dictator game and preferences for public sector careers, with coefficients that are again similar in magnitude to the results in the Moscow sample. As at the Moscow site, the relationship between altruism and public sector careers is strongest with respect to budget sector careers paths. However, in contrast to the Moscow study, there is a positive, and in some specifications statistically significant, relationship between cheating in the dice game and a preference for the public sector, per Panel II of Table 4a, a point to which we return shortly. Also unlike the Moscow study, there is only evidence that subjects more likely to engage in bribery in the corruption game are more likely to self-select out of the public sector, not that they are more likely to self-select into the private sector. As can be seen in Table 4b, there are few robust relationships between propensity to engage in bribery, cheating, or donating and private sector preferences.

Results using non-experimental indicators are also consistent with the findings from the Moscow study, as can be seen in Table 5. Participants who were more willing to justify bribery expressed a lower preference for public sector careers (Panel I of Table 5a). As in Moscow, PSM scores and placing weight on intrinsic job attributes were positively associated with public sector preferences, and these results were most pronounced for regional government and budget sector career paths (Panels II and III). Also similar to Moscow, valuing extrinsic job attributes is robustly associated with private sector preferences—particularly a preference for finance or corporate sector work, or business ownership—as well as with preferences for federal government employment. In the regional study, however, valuing extrinsic job attributes also is positively correlated with a preference for employment at the regional government level (Panel IV of Tables 5a and 5b, respectively).

Overall, the results of the regional study are similar to the results of the Moscow study, the prominent exception pertaining to the positive relationship between cheating in the dice game and a public sector employment preference. The divergent findings when using the cheating and bribery indicators suggest that previous studies' use of the former as a proxy for willingness to engage in corruption may be problematic. Measures of financially motivated dishonesty, while certainly a component of corruption, fail to account for the normative considerations involved when engaging in an act openly labeled as "bribery," the implications of harming

Table 5. Non-Experimental Indicators—Regional Study.

a. Predictors of public sector career preferences.

| | Public Sector Index | | Binary Career Preference | | Disaggregated Indicators | | | | | | | |
| | | | | | Federal | | Regional | | Budget Sector | | Non-Profit | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Justifiability of bribing												
Bribe Justifiable	-0.325*	-0.276†	-0.163***	-0.158**	-0.382†	-0.362†	-0.200	-0.152	-0.394*	-0.315	-0.202	-0.087
	(0.156)	(0.158)	(0.046)	(0.048)	(0.206)	(0.205)	(0.206)	(0.206)	(0.197)	(0.196)	(0.160)	(0.167)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R²	0.011	0.100	0.029	0.078	0.009	0.100	0.003	0.088	0.010	0.102	0.004	0.031
II. Public service motivation (PSM)												
PSM	0.559***	0.495***	0.096*	0.091*	0.360*	0.275†	0.773***	0.677***	0.543**	0.533**	0.497***	0.431**
	(0.120)	(0.126)	(0.042)	(0.044)	(0.162)	(0.164)	(0.154)	(0.161)	(0.169)	(0.176)	(0.135)	(0.147)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	375	365	375	365	375	365	375	365	375	365	375	365
R²	0.055	0.131	0.017	0.065	0.013	0.100	0.062	0.129	0.032	0.123	0.044	0.060
III. Importance of intrinsic career attributes												
Intrinsic	0.494***	0.410***	0.116***	0.106***	0.296*	0.198	0.546***	0.447**	0.640***	0.586***	0.419***	0.359**
	(0.097)	(0.104)	(0.033)	(0.035)	(0.130)	(0.138)	(0.129)	(0.137)	(0.135)	(0.137)	(0.105)	(0.113)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R²	0.063	0.132	0.035	0.079	0.013	0.098	0.045	0.114	0.064	0.146	0.045	0.061
IV. Importance of extrinsic career attributes												
Extrinsic	0.083	0.071	-0.014	-0.012	0.352**	0.290*	0.376**	0.365**	-0.478***	-0.442**	-0.185†	-0.198†
	(0.098)	(0.103)	(0.034)	(0.035)	(0.131)	(0.136)	(0.126)	(0.131)	(0.130)	(0.137)	(0.099)	(0.102)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R²	0.002	0.094	0.000	0.052	0.019	0.105	0.022	0.106	0.037	0.125	0.009	0.040

Table 5. (continued)

b. Predictors of private sector career preferences.

| | Private Sector Index | | Disaggregated Indicators | | | | | | | | | |
| | | | Finance | | Corporate | | Consulting | | Owner | | Small Business | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I. Justifiability of bribing												
Bribe Justifiable	0.032	0.013	−0.074	−0.129	−0.125	−0.144	−0.133	−0.150	0.225	0.169	0.266†	0.317*
	(0.101)	(0.100)	(0.194)	(0.194)	(0.165)	(0.171)	(0.184)	(0.182)	(0.148)	(0.148)	(0.145)	(0.155)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.000	0.097	0.000	0.063	0.002	0.080	0.001	0.087	0.006	0.045	0.008	0.045
II. Public service motivation (PSM)												
PSM	0.121	0.087	0.094	0.106	0.100	0.030	0.223	0.164	0.058	0.079	0.130	0.058
	(0.087)	(0.087)	(0.173)	(0.180)	(0.123)	(0.125)	(0.140)	(0.144)	(0.134)	(0.135)	(0.144)	(0.141)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	375	365	375	365	375	365	375	365	375	365	375	365
R^2	0.006	0.100	0.001	0.063	0.002	0.078	0.007	0.089	0.001	0.043	0.003	0.034
III. Importance of intrinsic career attributes												
Intrinsic	−0.053	−0.069	−0.294*	−0.269*	−0.120	−0.168	−0.021	−0.069	0.104	0.156	0.063	0.006
	(0.069)	(0.071)	(0.130)	(0.130)	(0.105)	(0.109)	(0.114)	(0.121)	(0.104)	(0.109)	(0.107)	(0.107)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.002	0.100	0.014	0.073	0.004	0.085	0.000	0.086	0.003	0.048	0.001	0.034

(continued)

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Table 5. (continued)

b. Predictors of private sector career preferences. (continued)

	Private Sector Index		Disaggregated Indicators									
			Finance		Corporate		Consulting		Owner		Small Business	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
IV. Importance of extrinsic career attributes												
Extrinsic	0.261***	0.254***	0.233†	0.258*	0.318**	0.291**	0.275*	0.242*	0.383***	0.360***	0.095	0.117
	(0.066)	(0.065)	(0.124)	(0.126)	(0.098)	(0.095)	(0.116)	(0.116)	(0.092)	(0.101)	(0.102)	(0.104)
Controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
N	376	365	376	365	376	365	376	365	376	365	376	365
R^2	0.044	0.135	0.009	0.073	0.026	0.099	0.016	0.097	0.042	0.077	0.003	0.037

Note. Columns (3) and (4) in Table 5a present results from linear probability models; all other columns, from OLS regressions. Robust standard errors are in parentheses. †significant at $p < 0.10$; *$p < 0.05$; **$p < 0.01$; and ***$p < 0.001$. The binary career preference indicator takes a value of 1 for students preferring public sector and 0 for students preferring private sector employment. For all other outcome variables higher values represent stronger preferences for the noted sector or career path. *Bribe Justifiable* is a binary indicator that takes a value of 1 for respondents rating justifiability for bribery above the median rating on the original 10-point scale and 0 for respondents rating justifiability at or below the median. *PSM* refers to the Public Service Motivation index. *Intrinsic* and *Extrinsic* refer to the extent to which a respondent values the intrinsic or extrinsic attributes of a career, respectively. Even-numbered specifications include controls for gender, field of study, class year, ability (measured by GPA), risk aversion, family income, and home region.

others in society, and the strategic calculations required to navigate a bribe transaction—all of which are explicitly captured in our corruption game. Along these lines, a plausible interpretation is that, particularly in a regional economy where private sector opportunities are more limited than in Moscow, students might perceive civil service employment as more lucrative with respect to *official* salaries. Accordingly, students most motivated by pecuniary considerations (to the point of being willing to cheat), yet who also see explicitly corrupt acts as crossing a line, might be more likely to express a public sector preference. Some evidence in favor of this interpretation is that, as discussed above, there is a positive association between preferences for federal and regional civil service careers and placing weight on extrinsic job attributes. Similarly, as we show in Section D.2 of the Online Appendix, there is also a positive association in the regional study between preferences for federal and regional civil service careers and placing weight on pragmatic job attributes, such as job security and good benefit packages.

In summary, for two of the three experimental indicators, and for all non-experimental indicators, the results in the regional and Moscow studies largely converge. At neither site is there evidence of corrupt self-selection into the public sector, though at both sites there are noteworthy distinctions among different types of public sector careers. Federal government employment at both sites, and to a lesser extent regional government employment at the regional site, attract students whose focus on extrinsic career attributes bears some resemblance to that of their peers drawn to private sector employment.

Other Predictors of Career Preferences

Although secondary to our analysis of corrupt self-selection, we recognize that numerous considerations—levels of risk aversion, family connections, field of study—as well as a number of demographic traits may influence career preferences. In Section D.1 of the Online Appendix we discuss findings related to these covariates. Overall, we find some evidence that male students are more likely to aspire to federal or regional government positions, while female students are more likely to express a preference for budget sector employment. We also find some evidence that lower-ability subjects (as measured by university entrance exam scores), students with relatives in the public sector, and students from families with lower incomes are more likely to prefer public sector employment, although the robustness of these correlations varies across research sites and across different types of career paths within the public and private sectors.[25]

Career Preferences versus Actual Career Paths

Career paths depend not only on the preferences of individuals entering the labor market, but also on recruitment and screening by employers. Accordingly, we utilized several approaches to ascertain that career preferences reflect actual career paths. First, as noted in the Measurement section above, we asked participants to evaluate both career preferences and the likeliness of being employed in a given career. Not only are career *preferences* and career *expectations* for the three public sector positions highly correlated, but our results are robust when we conduct our analyses using expectations indices in place of the preferences indices.

Second, one year and two years after the Moscow study we contacted students who had graduated (and had agreed to participate in future research) to inquire about current employment. We received 224 responses, of whom 41 were either not working or had decided to pursue post-graduate studies, leaving a sample size of 183. Of these, 20% (37 individuals) reported employment in the public sector, a figure remarkably similar to the 23% in the original sample who expressed a preference for public sector over private sector careers.[26] Moreover, the career preference variables in the original study are robust predictors of actual employment two years later. For example, of the 183 students in the panel, 138—75%—ended up in the sector they preferred when given a dichotomous choice between public and private sectors in the original survey. Those expressing a preference for the public sector were approximately 30 percentage points more likely to be employed in the public sector at the time of the 2018 follow-up survey, as can be seen in Section E of the Online Appendix.

We additionally show in Section E of the Online Appendix that cheating in the dice game and bribing in the corruption game, as well as willingness to justify bribery and placing value on extrinsic job attributes, are negatively associated with actual employment in the public sector, while donating in the dictator game, PSM scores, and placing value on intrinsic job attributes are positively associated. Despite the small sample size, cheating and donating are statistically significant in some model specifications, and the PSM indicator is statistically significant in nearly all. In short, the available evidence strongly indicates that our career preference measures offer insights into students' actual career paths following graduation.

Robustness Checks and External Validity

We conduct a number of robustness checks, which are discussed in greater detail in Section F of the Online Appendix. Our results in the dice game are

not driven by extreme cheaters (those who cheat in all rounds) or by increased cheating, possibly due to fatigue or boredom, as participants engage in multiple rounds of the game. Nor are results affected by variation in participants' previous knowledge of the types of experimental games we employed.

We additionally address potential concerns about our use of an online research instrument. Following Berinsky et al. (2014), we employed screener questions—questions that ask respondents to follow a precise set of instructions—to sort out attentive from non-attentive participants. Levels of attentiveness for the Moscow study were relatively high: 91% answered at least one screener question correctly, while 73% of subjects answered both screeners correctly. Most importantly, our primary results remain robust when we exclude subjects who failed to answer both screeners correctly, who finished the games and survey abnormally quickly (i.e., two standard deviations faster than the mean), or who participated via a computer or device in a public setting.

For the regional study, levels of attentiveness were lower than in Moscow: 80% answered at least one screener question correctly, but only 62% answered both correctly.[27] But limiting analysis to the most attentive participants—those who answered both screeners correctly—has little effect on the correlation between cheating and public sector preference, while notably increasing the magnitude of the negative correlation between bribing and public sector preference and the magnitude of the positive correlation between donating and public sector preference, as shown in Section F.2 of the Online Appendix. Similarly, compared to Moscow, a much higher percentage of subjects in the regional study participated via a smartphone rather than a computer—23% compared to 3%—despite instructions requesting that this be avoided due to concerns about attentiveness. Removing smartphone users from the sample has similar effects to removing inattentive students. In short, there is no evidence that inattentiveness accounts for our key findings; if anything, our results become more robust when focusing on the most attentive subjects.[28]

A final question pertains to the extent to which subjects' choices in experimental games reflect choices they make in real life. While an important consideration, previous studies have offered striking evidence of these games' external validity. Several studies have found that dishonesty in dice-task games is correlated with real-world cheating, fraud, and rule breaking in schools, the workplace, and prisons (Cohn et al., 2015; Cohn & Maréchal, 2018; Hanna & Wang, 2017). Meanwhile, Barr and Serra (2010) demonstrate a remarkable connection between real-world conditions and outcomes in their bribery games conducted at Oxford University: Oxford students from foreign countries that rank poorly on global corruption indicators were significantly more likely to engage in corruption in the laboratory than students

from low-corruption countries. Finally, a number of studies show that donations in laboratory games are strong predictors of real-world pro-social behavior such as charitable giving (see Benz & Meier, 2008; Franzen & Pointner, 2013).

Discussion

Drawing on surveys and experimental games, this article has shown that students aspiring to public sector employment at two Russian universities display higher levels of altruism, less willingness to engage in acts labeled as corrupt, and—at one of our research sites—lower tendencies for dishonesty relative to their peers seeking careers in the private sector. This finding runs counter to the existing literature showing that in countries where corruption is widespread, such as India, citizens with low levels of altruism and a tendency for dishonesty self-select into state bureaucracies, presumably with the the aim of illicit self-enrichment (Banerjee et al., 2015; Hanna & Wang, 2017). Rather, our findings mirror the results of similar studies in the low-corruption environment of Denmark (Barfort et al., 2019). Our results also point to the importance of disaggregating career paths within both the public and private sectors when considering patterns of self-selection.

Given that Russia's overall levels of corruption remain high, these results present a puzzle: How is it possible that individuals most likely to engage in corruption self-select out of the public sector and into the private sector, yet public sector corruption continues to be widespread? We present and briefly evaluate the plausibility of four interpretations consistent with our findings. All four interpretations demonstrate that our findings merit attention, but each has distinct implications for the effectiveness of particular anti-corruption strategies, the understanding of state capacity in regimes like Russia, and the interactions among corruption, public service, and state capacity more broadly. Each interpretation also points to potentially fruitful topics for future research agendas.

One interpretation consistent with our results is that our research sites are outliers. In a country as vast as Russia, it would be reasonable to expect different trends across regions, as well as distinctions between elite and less competitive universities. But even a finding that pertains uniquely to our research sites is of substantive importance: Our first site, where our findings are strongest, is a large and prestigious educational institution whose graduates regularly go on to influential positions within the government. As of July 2018, alumni included two current ministers and three deputy ministers.[29] Any patterns pertaining to these students offer insights into the workings of Russia's bureaucracies and are important in their own right.

Moreover, determining that our sites are outliers would also have important theoretical implications. A number of scholars have identified "islands of integrity," institutions and agencies that are remarkably uncorrupt, even in societies where corruption is widespread (see Prasad et al., 2019).[30] The identification of such pockets of probity would provide a foundation for a fruitful research agenda to further address the question of why aspiring civil servants at some universities are motivated by public service ideals even as self-enrichment motivates their peers at other institutions. This all said, the relatively similar results at our second research site—a regional university—suggest that our findings are indicative of trends that extend beyond top-tier universities located in Russia's capital city, and that an interpretation focused narrowly on islands of integrity is unlikely to provide a comprehensive explanation for our results.

A second interpretation is that our results attest less to the scrupulousness of individuals self-selecting into the public sector and more to the lack of scruples of those pursuing private sector careers, possibly with the aim of engaging in illicit rent-seeking opportunities.[31] If true, it would still seem normatively desirable to have *relatively* more dishonest citizens—and citizens relatively more motivated by personal enrichment than desire to improve society—seek profit in the private sector rather than from direct abuse of public resources. But this interpretation also suggests that anti-corruption efforts should focus not only on bureaucrats' extortion of bribes but also on the supply side of bribe transactions: that is, on the role of private sector actors as willing collaborators in, or possibly even proactive initiators of, corrupt transactions with public officials. We do note, however, that as discussed at the outset of this article, private sector salaries in Russia are on average higher than official public sector salaries, and that the self-selection of students motivated by pecuniary gain into the sectors such as finance could indicate expectations of lawful earnings rather than prospective illicit behavior. Regardless, the finding of corrupt self-selection into the private sector points to the importance of future research investigating how private sector opportunities—both legal and illegal—can prevent individuals who care foremost about personal enrichment from perpetuating cycles of corruption by self-selecting into state agencies.

A third interpretation consistent with our findings is that idealistic youth in Russia join the civil service but then over time either leave or become less optimistic about improving society, and perhaps more willing to engage in corruption. Buurman et al. (2012) provide some evidence of declining pro-social tendencies among public sector employees even in the low-corruption context of the Netherlands. Early in their careers Dutch bureaucrats are more likely to sacrifice personal financial gain to make a donation to charity, but later in their careers these bureaucrats exhibit lower levels of pro-social

behavior than their private sector counterparts. However, as shown in Section G of the Online Appendix, data from the World Values Survey and the International Social Survey Programme offer little evidence of such trends in Russia. Not only are public sector employees less tolerant of bribery than private sector employees, even controlling for gender, age, and education levels, but also tolerance for bribery in the public sector (as well as in the private sector) is lowest among older respondents. Public sector workers in Russia also are more likely to value the job attributes of helping others or benefiting society. And while there is some evidence that public service motivation is lower among older respondents, the rate of decline appears to be similar among both public and private sector employees. However, these preliminary analyses are based on self-reported survey indicators and should be interpreted with caution, given that they may be subject to social desirability bias and because they are not panel data, and therefore facilitate only comparison of age or cohort effects, not the tracing of changes in individuals' beliefs over time. These analyses also do not rule out the possibility that public officials maintain a distaste for corruption throughout their careers but nevertheless feel compelled to engage in corrupt practices, perhaps due to pressure from high-level officials or the need to supplement official income. Future research undertaking the challenging task of acquiring data on how bureaucrats' attitudes and behavior evolve over time would be valuable, particularly for assessing whether anti-corruption efforts should place relatively more focus on screening efforts for selecting public sector employees, or on incentive structures for bureaucrats once in office.

A final interpretation that reconciles the coexistence of a corrupt bureaucracy with the self-selection of public service oriented civil servants draws on recently emerging research about the nature of the Russian state and emphasizes distinctions among different types of careers within the public sector. This research depicts a system in which elites simultaneously engage in corrupt, self-enriching behavior while also implementing policies designed to improve society. As noted earlier, petty corruption in Russia certainly exists, but bribe rates are much lower than in India, despite cross-national corruption indices' rating of Russia as more corrupt overall. This points to the possibility that high-level corruption plays an oversize role in Russia. But while such corruption has been extensively documented (see Dawisha, 2014), scholars such as Treisman (2018, p. 4) have noted that "if corruption and theft are all the Kremlin cares about, it is puzzling how and why some difficult tasks, such as the reform and modernization of the Russian armed forces. . . still get done." Taylor (2018, pp. 136–137) similarly observes that "decisions clearly sometimes are motivated by the desire to make real improvements in the lives of average Russians," and that "[t]his expectation among both the population

and elites that the state must continue to provide certain services of a welfare state distinguishes Russian misrule from more authentic versions of kleptocracy." This interpretation is in line with our finding that the strongest correlations between altruistic motivations and public sector employment appear for the budget sector, while students aspiring to federal government careers appear to be motivated more by extrinsic than intrinsic factors in a way that resembles their peers who are drawn to private sector careers. Potentially, idealistic youth may be drawn to street-level bureaucratic roles in Russia's welfare, public health, scientific, educational or cultural sectors despite of— rather than because of—public sector corruption.[32] Finding ways to rigorously assess the validity of this interpretation in the Russian case, as well as the extent to which such findings might generalize to other cases, suggests another promising topic for future research.

Overall, further examination of all four of these interpretations is critical for better understanding of state capacity in high-corruption contexts, the effectiveness of anti-corruption strategies, and the broader interactions among corruption, public service, and state capacity. In addition, a number of fruitful research agendas emerge from our study, including questions pertaining to the existence of islands of integrity, the interaction between private sector rent seeking and public sector corruption, the evolution of bureaucrats' attitudes and behavior over time, and the nature of corruption at different levels of government in regimes such as Russia. But most importantly, our findings show that to understand why corruption persists, much more attention needs to be paid to who chooses to become a public official, not just the incentives public officials face once in office.

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Supplemental Material

Supplemental material for this article is available online at the *CPS* website http://journals.sagepub.com/doi/suppl/10.1177/0010414020957669

Notes

1. On corruption's consequences, see Olken and Pande (2012, pp. 491–495) and Svensson (2005, pp. 36–39).
2. For a broader discussion of who seeks to become a civil servant in Russia, see Rosenfeld (2020).
3. Our research design, intended use of these three experimental games, and hypotheses were pre-registered with EGAP (for the Moscow study) and with the Open Science Framework (for the regional study).
4. We recognize that many students aspire to government employment for pragmatic reasons, such as job security or family connections, rather than for the pursuit of personal gain or idealistic public service goals. We examine these issues in our Analysis section and at greater length in Sections D.1 and D.2 of the Online Appendix.
5. See Section B of the Online Appendix for discussion of similarities and differences between the experimental games we employ and the games utilized in Banerjee et al. (2015), Hanna and Wang (2017), and Barfort et al. (2019). The one other study on corrupt self-selection of which we are aware, Alatas et al. (2009), finds no differences in a laboratory corruption game across Indonesian students aspiring to public and private sector careers. However, self-selection was not the primary focus of this study, and the null result may reflect a small sample size.
6. For CPI data, see transparency.org/cpi2018; for GCB data, see transparency.org/research/gcb/overview. GCB data for India are from 2017; for the US and Denmark, from 2013.
7. The surveys posed the question: "In your opinion, which professions today are the most popular among young people?" See Public Opinion Foundation,

"Bazovye temy obshchestvennogo mneniya" [Basic public opinion themes] (March 3, 2011), p. 11, available at bd.fom.ru/pdf/d09pp11.pdf.

8. Irina Bogdanov, "Vypuskniki mechtayut o kreslakh chinovnikov?" [Graduates are dreaming about bureaucrats' jobs?], *72diplom.ru* (December 3, 2010).

9. "Medvedev: Popularnost professii chinovnika svidetelstvuet o vysokom urovne korruptsii" [Medvedev: Popularity of the profession of bureaucrats attests to a high level of corruption], *Vedomosti* (July 14, 2011).

10. See Maria Podtserob, "Molodezh predpochitaet gosstruktury chastnym kompani-yam" [Young people prefer government to private companies], *Vedomosti* (June 7, 2016); Anastasiya Manuilova, "Gossluzhbe ukazali na povyshenie" [The civil service slated for a promotion], *Kommersant* (June 25, 2019); Aleksandr Sokolov and Igor Terentev, "Skolko v Rossii chinovnikov i mnogo li oni zarabatyvayut" [How many bureaucrats are in Russia and do they earn a lot?], *RBK* (October 15, 2014).

11. We adopted this recruiting approach because of concerns about the feasibility of recruiting a sufficient number of students, given that studies using student subject pools are relatively novel in Russia.

12. Participants first engaged in a modified dictator game, then in 20 rounds of the dice task game, then in the bribery game, then in a lottery game measuring risk aversion, and then in another 20 rounds of the dice task game. Survey questions then followed.

13. Payoffs for the bribery and donation games were reduced by exactly half, while in the dice task game participants received three times more for a correct guess (9 rubles versus 3), directly proportional to the Moscow study (15 rubles versus 5).

14. All references to monetary amounts in this section refer to the Moscow study. See footnote 13 for specifics about payoffs for the regional study.

15. We use explicit framing rather than neutral language (e.g., we refer to "bribes" rather than "transfers" and label the players "citizen" and "bureaucrat" rather than Player A and Player B). As Alatas et al. (2009) note, explicit framing may offer more direct insights into participants' motivations for engaging in corruption. Banerjee et al.'s (2015) corruption game in India, discussed above, also employed what they refer to as "loaded terms" to "impose a sense of 'immorality' on the subjects" with the aim of improving external validity (p. 44). For additional discussion of framing effects in experimental games, see also Abbink and Hennig-Schmidt (2006) and Barr and Serra (2009).

16. To avoid conflating measurement of risk aversion and aversion to corruption, we chose, following Barr and Serra (2010), not to make punishment probablistic.

17. We use strategy elicitation for the bureaucrat role, in which the participant indicates whether she would accept or reject each possible bribe amount. After the study concluded, payoffs were determined by randomly sorting participants into pairs of citizens and bureaucrats. This process was made explicit to participants.

18. For the regional study, promotion opportunities loaded onto the pragmatic rather than extrinsic factor and accordingly were included in the pragmatic attributes index.

19. Following Barfort et al. (2019), each participant's reported number of correct guesses Y_i is a function of the number of dice rolls $K = 40$, the probability

of a correct guess $p = \dfrac{1}{6}$, and individual i's (unobserved) cheat rate θ_i, such

that $Y_i = K(p + (1-p)\theta_i)$. Rearranging produces the estimated cheat rate:

$\hat{\theta}_i = \dfrac{6}{5}(\dfrac{Y_i}{40} - \dfrac{1}{6})$. Note that cheat rates are perfectly correlated with the number

of reported correct guesses, the variable we use in the regression analyses below.

20. The disparity across roles is at least partly the result of the game's setup: As long as the bureaucrat refused to accept a bribe of less than 150 rubles, she retained at least the earnings with which she started the game. The citizen, by contrast, faced the risk of encountering an honest bureaucrat, in which case the citizen's bribe offer of any amount would be rejected, resulting in lower payoff.

21. We proposed the use of metric multi-dimensional scaling (MDS) to aggregate job preference ratings in our pre-analysis plan but choose to present a more conventional approach, as well as to present disaggregated results, based on feedback received on working paper versions of this article and on input received from reviewers. Note, however, that our results are *more* robust when using the MDS approach.

22. All hypothesis tests reported are two-tailed.

23. Although not part of the public sector, we include results concerning preferences for employment in the non-profit sector in Columns (11) and (12) of Tables 2a to 5a, given that scholars of public service motivation in western contexts often perceive affinities between the public and non-profit sectors (see Perry, 2000). Our analyses show that in the Russian context, the profile of students attracted to non-profit work strongly resembles that of peers aspiring to budget sector careers.

24. While our study cannot rigorously distinguish between the effects of individuals' propensities prior to entering university and socialization via university education, we note that not only are nearly all results robust to controlling for field of study, but our findings are robust even in analyses focusing on variation *within* departments. As we show in Section D.3 of the Online Appendix, within both the economics and public administration departments, the fields of study with the weakest and strongest public sector preferences, respectively, students who cheat and bribe more are less likely to express preferences for the public sector and more likely to express preferences for the private sector, while the converse is true for students who donate more. That these correlations hold within fields of study suggests that socialization by academic specialization cannot offer a comprehensive explanation for our findings.

25. We emphasize that all findings presented above control for the demographic factors discussed in this section. Thus, while it may be the case that women are more likely to prefer certain public sector career paths, and also are less likely to bribe or more likely to donate in the experimental games, these trends cannot offer a comprehensive explanation for our findings concerning self-selection. Additionally, as we show in Section D.3 of the Online Appendix, for many public sector careers, the relationships identified between bribing, cheating, donating, and career preferences persist even when disaggregating the sample by gender.

26. Of these 37 subjects, 11 reported working for the federal government, 3 for the regional government, and 22 for the budget sector; an additional 5 reported working in the non-profit sector. If the same subject responded to both the 2017 and 2018 follow-up surveys, then our analyses employ the more recent information provided.

27. The first screener question was identical in both studies, but the second, which was about media usage, differed. A week prior to launching the regional study, a Russian newspaper reported on the results of our Moscow study based on a working paper found online. To ensure that this did not affect our results, we asked participants whether they had previous knowledge of the study and, if so, from what source. Less than 2% of the sample—seven participants—indicated some prior knowledge based on newspapers. We also asked in general about students' newspaper reading habits. Only 7% of the sample reported being a regular reader of the newspaper in question, and our results are robust when excluding these participants. But because we included these questions about media usage, we replaced the second screener used in the Moscow study to avoid confusion.

28. Removing inattentive participants or participants using smartphones does not change the distribution of job preferences in the sample, as job preferences are uncorrelated with attention levels and device used.

29. Authors' calculations based on government websites and publicly available archives.

30. Strictly speaking, our research sites would not be islands of integrity per se but rather islands in which aspiring civil servants—though not necessarily the entire student body—show unusual levels of probity. We also cannot rule out the possibility that students at these universities who did not participate in our study act differently than those in the sample. Bear in mind, however, that our results are not contingent on *levels* of cheating, bribing or altruism, but on the *correlation* between these behavioral traits and career preferences. It is therefore unlikely that our findings simply are an artifact of sampling.

31. One might think that low ability students who value wealth might see a corrupt public sector as more appealing than the private sector, but we find limited evidence of this when interacting the cheating and bribing variables with measures of ability, such as GPA and university entrance exam scores.

32. This is by no means to say that petty corruption in Russia is minimal. Russians certainly perceive corruption in sectors such as public health and education to be extensive, but ethnographic research shows that some of this bribery is perceived as justified informal payments for underpaid public employees (see Rivkin-Fish, 2005). This type of bribe-taking plausibly is compatible with idealistic motivations for joining the budget sector.

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