Self-Selection into Corrupt Judiciaries

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Drawing on experimental games and a survey conducted with university students at an elite legal academy in Ukraine, this study compares the behavioral, attitudinal, and demographic traits of students aspiring to public sector legal careers as judges, prosecutors, and investigators with their counterparts aiming to pursue private sector legal careers as defense attorneys and commercial lawyers. I find evidence that students pursuing public sector legal careers display more willingness to cheat or bribe in experimental games as well as lower levels of altruism. These findings indicate that corruption in some societies may persist in part from the self-selection into government institutions of citizens with a higher propensity to seek profit from illicit activities. Moreover, the findings suggest that such corrupt self-selection can infect a country's judicial and law enforcement apparatus, with potentially dire implications for the rule of law.

(*JEL codes:* K42; D73).

1. Introduction

Do individuals with a propensity for corruption self-select into corrupt organizations? This question is of significant importance for understanding why corruption, with all of its negative political, social, and economic consequences, so frequently proves resilient even in the face of substantial institutional reforms. Moreover, if corrupt judicial systems attract individuals with a propensity for corruption, then corrupt self-selection may undermine the institutions that form the cornerstone of the rule of law and compromise the agencies responsible for combating corruption in society more broadly.

Whereas existing research on the persistence of public sector corruption predominantly emphasizes the incentives faced by state officials *once in office*, including factors such as low wages, ineffective monitoring, and low levels of transparency (for a review, see Olken and Pande 2012: 496–503), this article contributes to a newly emerging research agenda emphasizing

The Journal of Law, Economics, and Organization, Vol. 38, No. 2 doi:10.1093/jleo/ewab006

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^{1.} For reviews of the evidence regarding corruption's consequences, see Olken and Pande (2012: 491–495) and Svensson (2005: 36–39).

Advance Access Publication August 5, 2021

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the incentives that influence who chooses to become a state official. For example, theoretical models on corrupt self-selection developed by Barfort et al. (2015) and Klašnja et al. (2016) predict that where public sector corruption is limited, public officials and citizens recognize that those engaging in bribery or embezzlement are likely to face punishment. Individuals self-selecting into public office consequently do so for reasons other than self-enrichment, such as a desire to serve the public, thereby helping to maintain a society's low corruption levels. On the other hand, where public sector corruption is widespread, public officials are more likely to believe that practices such as bribery will go unpunished. Expecting to frequently encounter corrupt officials, citizens in turn become habituated to engaging in bribe transactions, thereby perpetuating corruption and contributing to a harmful yet durable cycle. Meanwhile, individuals motivated by self-enrichment rather than a desire to serve society come to perceive public office as a lucrative opportunity and seek to become public officials, cementing the cycle of corruption.

In line with these multiple equilibria frameworks, studies by Baneriee et al. (2015) and Hanna and Wang (2017) have found that aspiring civil servants in the high-corruption context of India are more likely to cheat or engage in corrupt acts, and less likely to display pro-social tendencies, in laboratory experiments than their peers aspiring to careers in the private sector. By contrast, Barfort et al. (2019) find that in the low-corruption context of Denmark, the opposite occurs: Students seeking to become civil servants are less likely to cheat in laboratory experiments and more likely to act altruistically than their counterparts with private sector career ambitions. Together, these findings offer suggestive evidence that patterns of self-selection play an important role in the persistence of cross-national variation in levels of corruption. However, India and Denmark differ in many respects other than corruption levels, and to date 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 parts of the world beyond this handful of studies featuring a high-corruption South Asian context and a low-corruption European context.²

The current study extends and builds on these studies in a novel highcorruption European setting: contemporary Ukraine.3 Drawing on experimental games and a survey with university students at a top legal academy, I find that Ukrainian law students who are more likely to aspire

^{2.} The only other study of which I am aware that examines similar issues, Alatas et al. (2009), was also conducted in the high-corruption South Asian context of Indonesia. They find no differences across Indonesian students aspiring to public and private sector careers in a laboratory corruption game. However, self-selection was a secondary focus of this study and the null result may reflect a small sample size.

^{3.} A companion study, discussed in greater detail below, employed a similar research design in Russia (see Gans-Morse et al. 2021). Like earlier works by Hanna and Wang (2017) and Barfort et al. (2019), the Russia study focused on self-selection into public sector institutions broadly, rather than on the judiciary.

to careers as judges, investigators, prosecutors, bailiffs, and government lawyers are also more likely to cheat and bribe and less likely to act altruistically. Meanwhile, I find no correlation between aspirations to become a private practice lawyer, an in-house commercial lawyer, or a private sector notary and tendencies to cheat, bribe, or make altruistic donations. The findings are robust to controlling for a number of factors that potentially could be correlated both with career preferences and with the propensity to cheat, bribe, or make altruistic donations, including ability, levels of risk aversion, pecuniary motivations, gender, students' academic specialization, and relatives' occupations. Moreover, the findings do not reflect heterogeneous effects across subgroups. For example, it is not simply the case that corrupt self-selection occurs primarily among lowerability individuals with less attractive private sector opportunities.

Investigating sensitive topics such as corruption presents challenges, many of which are related to the unreliability of respondents' selfreported preferences and attitudes. The experimental games employed in this study mitigate these challenges by utilizing incentive payments to reveal participants' preferences and elicit observable behavior. The first game employed measures propensity for dishonesty using an online dice task developed by Barfort et al. (2019). Respondents were asked to guess a number between 1 and 6 and then self-report whether their guess matched a randomly generated outcome of a dice roll, an exercise that was repeated 40 times. Participants received higher payoffs for correct guesses, creating an incentive to cheat. The multiple rounds of guesses then facilitated estimation of individuals' cheat rates based on a comparison of reported distributions to the expected distribution of successful guesses. The second game consists of a modified version of Barr and Serra's (2010) bribery experiment, in which participants are randomly assigned to the role of a citizen or a bureaucrat. The citizen is presented with a scenario in which she can increase her payoff by offering the bureaucrat a bribe to obtain a permit. Whether participants offer (in the role of citizen) or accept (in the role of bureaucrat) a bribe serves as an indicator for willingness to engage in corrupt behavior. Finally, to measure prosocial behavior, the study used a modified dictator game in which participants received a sum of money which could be retained or donated to a Ukrainian charity of their choice.⁴

The findings based on experimental indicators are partially confirmed when relying on non-experimental, survey-based measures. Similar to the results based on the dice task and corruption games, participants in the study who are more likely to aspire to public sector legal careers are more likely to agree that corruption can sometimes be justified. However, there is a positive correlation between preferences for a public sector legal career

^{4.} The pre-analysis plan documenting my research design and intended use of these three experimental games was pre-registered with the Open Science Framework. See Section E of the Online Appendix.

and higher levels of "public service motivation" (PSM)—a distinct set of pro-social 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 and Wise 1990; Perry 1996). This finding stands in contrast to the negative correlation between public sector career preferences and willingness to make a personal financial sacrifice in the dictator game in order to support charities, and points to the importance of utilizing indicators based on behavioral rather than self-reported measures. The discrepancy between the findings based on behavioral and selfreported measures may suggest that some aspiring judges, investigators, prosecutors, bailiffs, and government lawyers in the Ukrainian context perceive themselves to be public-service minded, even as their incentivized behavioral choices contradict this self-perception.

This article is most closely related to the aforementioned studies by Baneriee et al. (2015) and Hanna and Wang (2017) on India and Barfort et al. (2019) on Denmark, and reliance on some of the same experimental approaches ensures both that the methodology has been well-vetted and that the comparison of findings presented here with those of previous studies is informative. However, in extending the study of corrupt self-selection to post-communist Europe, this article makes several key contributions with both theoretical and policy implications. First, whereas previous studies of corrupt self-selection focus broadly on civil servants in general, this study is the first to employ experimental games to examine the next generation of judicial and law enforcement cadres in a high-corruption context. As noted above, understanding the roots of corruption in judicial systems is particularly critical given their central role in building the rule of law and fighting corruption in other institutional spheres. Second, the evidence presented here is particularly robust due to the use of two distinct games that separately measure dishonesty and corruption, in contrast to earlier studies' use of measures of either dishonesty (Hanna and Wang 2017) or propensity for corruption (Banerjee et al. 2015). The use of multiple games also facilitates analysis of the extent to which experimental indicators of dishonesty and corruption are similar or distinct. I find that the correlation between sectoral career preferences and dishonesty is robust to controlling for outcomes in the corruption game, and vice versa, suggesting that while the two indicators are closely related, the dice task and corruption games are measuring distinct phenomena. Third, this study was conducted in the wake of highprofile anti-corruption reforms carried out in the aftermath of Ukraine's 2014 Euromaidan Revolution. As such, the findings offer unique insights into the extent to which the self-perpetuating cycles that sustain corruption persist even in the face of anti-corruption campaigns. Finally, whereas existing evidence of corrupt self-selection comes nearly exclusively from South Asia, this study demonstrates that patterns of self-selection in high-corruption countries in Europe more closely resemble those of highly corrupt countries in other regions than those of low-corruption European countries.

Beyond the question of self-selection into public office, this study contributes to the broader literature on the roots of public sector corruption (for reviews, see Svensson 2005; Treisman 2007; Olken and Pande 2012), as well as to longstanding debates over the impact of PSM on career preferences (for reviews, see Wright and Grant 2010 and Perry et al. 2010). The study also is related to research on the buying and selling of public office, a phenomenon that points to an extreme form of corrupt self-selection in which aspiring civil servants pay current state officials to obtain public employment and then seek a return on this "investment" by collecting bribes (Wade 1985; Darden 2008; Zhu 2008; Engvall 2014; Weaver 2017). And finally, the article shares affinities with studies by Gächter and Schulz (2016) and Olsen et al. (2019), which show that in countries with high levels of corruption and other forms of rule breaking, students are more likely to display dishonesty in laboratory games. As discussed in the concluding section, such findings indicate that corruption may persist not only because of self-selection patterns into corrupt state bureaucracies but also because social norms countenancing corruption are passed from one generation to the next.

In short, this article provides novel evidence of corrupt self-selection into the judiciary, law enforcement agencies, and prosecutorial apparatus, the institutions responsible for mitigating corruption in society more broadly. The findings, particularly when considered in the context of earlier studies on India and Denmark, indicate that understanding corruption's persistence requires attention to the types of citizens that self-select into state agencies, not just the incentives of public employees once in office. Given that patterns of self-selection are already apparent among university students, it follows that scholars seeking to understand corruption may need to focus on how these attitudes develop at an early age, while policymakers seeking to combat corruption may need to formulate anticorruption policies specifically targeted at youth. This said, in the conclusion I return to the issue of whether corrupt self-selection into public office should be expected to appear in all contexts with widespread corruption and discuss evidence from a companion study conducted using a similar research design in Russia, a country in which corruption is also prevalent. This evidence suggests that the relationships between corruption and selfselection may be moderated by factors such as state capacity, geopolitical objectives, and opportunities for accumulating wealth in the private sector (Gans-Morse et al. 2021).

The following section provides context for the setting of the study. Section 3 then discusses issues of measurement, research design, and data collection. In Section 4, I present the primary analyses, while Section 5 discusses implications of the results and agendas for future research.

2. Research Setting and Implications for Corrupt Self-Selection

This section provides context about the research setting and examines implications of this setting for the type of individual likely to be attracted to employment in Ukraine's judicial system. The discussion below first establishes that the public sector in Ukraine overall, and the judiciary and related institutions in particular, are marked by high levels of corruption and lower (official) wages relative to the private sector. In these circumstances, theories of corrupt self-selection would predict that Ukrainian students with a propensity to engage in corruption should be more likely to pursue public sector careers—and that if these students display low levels of altruism and high degrees of willingness to employ dishonesty for the sake of pecuniary gain, then their public sector aspirations most likely are motivated by expectations of illicit self-enrichment. However, the fact that Ukraine has recently engaged in extensive anti-corruption campaigns also deserves consideration, as these campaigns potentially could inspire students motivated by altruism and desire to improve society during a period of significant transformation to pursue public sector careers.⁵ Finally, this section offers background on legal sector career paths in Ukraine and the nature of the choice between public and private sector career paths faced by Ukrainian law students.

2.1 High Corruption Levels

Ukraine is a highly corrupt country, ranking 130th out of 180 countries on Transparency International's Corruption Perception Index (CPI) in 2017, the year this study was conducted. For the sake of comparison, Russia was ranked 135th; India, 81st; and the United States, 16th. New Zealand held the top spot for the lowest levels of corruption, followed by Denmark, Finland, and Norway. Transparency International's Global Corruption Barometer (GCB), which polls average citizens about their encounters with corruption, points to similar conclusions, finding that 38% of Ukrainians reported paying a bribe when accessing basic government services in 2016, the most recent year for which data are available. The comparable figure for Russia was 34%; for India, 69%. The United States and New Zealand showed much lower levels of bribery, with 7% and 3% of citizens paying a bribe, respectively.⁶

While corruption in Ukraine affects nearly all institutions, Ukrainians perceive the judiciary and related rule of law institutions to be among the worst. For example, 66% of Ukrainians in a 2015 national poll conducted by the Kyiv International Institute of Sociology considered courts to be "very corrupt," tied with the State Auto Inspectorate for the most corrupt

^{5.} Students, of course, may also aspire to public sector careers for pragmatic reasons, such as job security, rather than for the pursuit of personal gain or idealistic public service goals. Section 4.4 considers the role of such factors in sectoral career preferences.

^{6.} See www.transparency.org/cpi and www.transparency.org/research/gcb/overview. Data for India are from 2017; data for the United States and New Zealand are from 2013.

institution in the country, and followed by the police (*militsiva*)⁷ and prosecutors office, which 63.1% and 62.4% of respondents rated as "very corrupt," respectively. By comparison, 47.2% of respondents considered the tax authorities to be "very corrupt," while 47.0% of respondents gave this designation to universities, 42.2% to the process of acquiring government permits, 37.5% to agencies charged with business regulations and inspections, 26.8% to school administrators and teachers, and 20.2% to public utilities.8

The high level of corruption in Ukraine's public sector in general, and judicial system in particular, may dissuade high integrity candidates from seeking public sector work and attract candidates with a willingness to engage in corruption. Moreover, while the fact that public sector employees in Ukraine on average earn lower official wages than their private sector counterparts might serve as a disincentive for individuals motivated by pecuniary gain, Gorodnichenko and Peter (2007) show that despite their lower earnings state officials' expenditures and asset holdings are remarkably similar to private sector workers, indicating that Ukrainian civil servants receive substantial sources of unofficial income. This phenomenon has long been observable in the Ukrainian judiciary. While recent reforms have raised judges' and prosecutors' incomes, top private sector lawyers earn far more than even the highest paid judicial officials—for some, as much as several million US dollars annually. Yet journalists regularly report on judges who drive luxury cars costing several times their annual official salaries and whose wealth rivals that of their private sector peers. 10 In summary, the high levels of corruption and visible examples of judicial and law enforcement officials' illicit self-enrichment make the Ukrainian judicial system and related institutions likely targets for corrupt selfselection.

2.2 Anti-Corruption Efforts

In the wake of the 2014 Euromaidan Revolution, Ukraine undertook a series of ambitious anti-corruption reforms, including the creation of a national anti-corruption agency, mandatory electronic income declarations for public officials, an electronic procurement system for government purchases, and new rules governing civil service hiring. With respect to law enforcement and judicial institutions, reforms also included a major restructuring of the traffic police; the creation of new administrative bodies for selecting and disciplining judges; and an effort to select justices

^{7.} In July 2015, a newly reformed National Police Service replaced the militsiya, in large part with the aim of reducing corruption.

^{8.} Kyiv International Institute of Sociology, "Corruption in Ukraine: Comparative Analysis of National Surveys," 2015, p. 33. Available online at http://kiis.com.ua/.

^{9. &}quot;Ukraine's 'Top Lawyers' Can Be Worth Knowing," Kyiv Post (July 1, 2011).

^{10.} See, for example, Natalia Zinets, "Fighting corruption, Ukraine starts to judge its judges," Reuters (May 25, 2017).

to a newly reformed Supreme Court through an open, competitive, and transparent process (De Waal 2016).

The results of these anti-corruption efforts have been mixed (Lough and Dubrovskiy 2018). Even some of the most high-profile reforms, such as the selection of justices to the new Supreme Court, have underperformed: Civil society activists estimate that approximately one-third of justices ultimately approved by the Poroshenko presidential administration should have been disqualified for ethical violations ranging from corruption to lack of political independence. 11 Nevertheless, the massive publicity surrounding anti-corruption efforts may have sent a signal to younger generations that use of public office for illicit enrichment could soon become decidedly more difficult than in the past. Moreover, during the peak of the reform effort, a number of prominent businesspeople left the private sector and took significant pay cuts to serve in government positions, possibly providing inspiration for youth to consider the pursuit of public sector careers for idealistic, rather than self-interested, motivations. 12 In short, it is possible that recent anti-corruption campaigns in Ukraine weakened the cycle of corrupt self-selection into the judicial system and began to attract individuals motivated by a desire to further reform efforts; to the extent that reforms did not have such an effect, this finding would attest to the challenge of breaking cycles of corrupt selfselection.

2.3 Legal Profession Career Paths

Of relevance for the analysis below, students pursuing a legal degree which in Ukraine is an undergraduate degree, sometimes supplemented by the equivalent of an MA—face a starker choice between working within or outside of state institutions than their counterparts in the United States.

Ukraine, like many civil law systems, has what some legal scholars refer to as a "career judiciary": Aspiring judges often spend much of their early career working in courthouses as clerks to sitting judges, and then join the bench on the merits of this experience. Tenure is not linked to a specific position or court, and judges work their way up within courts or to higher courts via promotions within the judicial system. By contrast, Anglo-American common law systems usually exhibit a "recognition judiciary"

^{11.} See Oleg Sukhov, "Political Ties, Ethical Violations Sully Supreme Court Nominees," Kyiv Post (October 2, 2017). Efforts to reform Ukraine's Supreme Court are ongoing under Ukraine's current president, Volodymyr Zelensky, but continue to face opposition. See Olena Makarenko, "Ukraine's judicial reform stumbles with odd Constitutional Court rulings," Euromaidan Press (February 25, 2020).

^{12.} Rowland Manthorpe, "From the fires of revolution, Ukraine is reinventing government," Wired (August 20, 2018); author interviews with Oleg Starodubtsev, head of the Department of Public Procurement Regulation of Ukraine (November 11, 2016) and Denis Brodsky, former head of the National Agency for the Civil Service of Ukraine (February 22, 2017).

model: Judges are appointed or elected at later career stages based on broader experience in the legal profession, tenure is frequently tied to a specific court, and while judges from lower-courts may be reappointed to a higher court, promotions overall are rare (Georgakopoulos 2000). Consequently, a Ukrainian law student aspiring to be a judge is likely to pursue a distinctly different career path than a student aspiring to a private sector legal career.

The Ukrainian procuracy, meanwhile, is descended from institutions created by Peter the Great to facilitate control over the Russian Empire. As such, it is a much more authoritative institution than its counterparts throughout Europe or America, combining investigatory and prosecutorial powers, as well as responsibility for oversight of all other state institutions (Foglesong and Solomon 2001: 58–62, 70–71). 13 The Procuracy and the Ministry of Internal Affairs (MVS), which oversees the police, recruit both from legal departments within academies run by the MVS and from universities without immediate ties to law enforcement structures; some of these universities, including the research site discussed below, have subdepartments dedicated to producing such recruits. Public sector legal careers also include work in the Ministry of Justice, which oversees the penitentiary system and significant regulatory functions such as registering businesses, as well as work in the legal departments of other ministries or government agencies.

While private sector legal professions in Ukraine offer a distinctly different career path than those in the public sector, the private legal sector itself is highly fragmented. Lawyers are divided among advokaty and yuristy, a distinction that originated during Soviet times, with the former serving as the rough equivalent of defense attorney and the latter as the rough equivalent of in-house counsel. While contemporary advokaty compete with yuristy in the market for commercial litigation and legal advice, only advokaty are required to take the bar examination and, according to current Ukrainian law, only they can represent clients on criminal matters. ¹⁴ A final private sector legal path concerns notaries, a profession that in Ukraine requires a law degree and is regulated by the Ministry of Justice.

To be sure, career paths for some may involve crossing over from the public to private sector or vice versa. Prosecutors, for instance, may leave the Procuracy to become commercial or defense lawyers. And judicial reforms enacted after the Euromaidan Revolution include provisions to

^{13.} New laws in the aftermath of the Euromaidan uprisings curbed some of these powers, such as the procuracy's supervisory role over other state institutions. See William Pomeranz and Oksana Nesterenko, "Breaking the Ukrainian Procuracy," Kennan Cable No. 14 (January 2016).

^{14.} For background on the structure of the Soviet legal profession, see Hendley (2010: 8-9). For a discussion of similarities and differences between law students with public and private sector aspirations, albeit in the Russian rather than Ukrainian context and without a specific focus on corruption, see Hendley (2019).

further open the judiciary and Procuracy to lawyers with private sector experience as well as legal scholars from universities, though so far such efforts have had limited success. 15 For the time being, the conceptual and real-world distinction between a public or private sector legal career remains salient for Ukrainian law students.

3. Data Collection and Research Design

3.1 Implementation

The study was conducted with undergraduate and master students at one of Ukraine's top legal academies from October 25 to November 3, 2017. 16 Students were recruited with the assistance of the university administration. Working with a team of local research assistants, I created a sample frame based on the university's enrollment data and then conducted stratified random sampling by class year and academic specialization. Research assistants then visited classrooms and requested the participation of students from the sample. When students were not present, their names were replaced with the next person on the sample list until quotas for each academic specialization and class year were filled. Students were notified of the potential to earn money, but were given the option to refuse to participate. ¹⁷ Those who agreed to participate were then led by research assistants to the university's computer laboratories and directed to the instructions on the computer screens. 18 At any given time, we had access to between two and five laboratories, each of which had between 8 and 16 computers. Of the 576 participants recruited, 61% were women. 19 Twenty percent were first-years, 18% were second-years, 17% were third-years, 20% were fourth-years, and 25% were MA students.

The survey and experimental games were conducted using Qualtrics. Average participation time was 49 minutes. (I address potential concerns

^{15.} See, for example, Balazs Jarabik and Thomas de Waal, "Ukraine Reform Monitor: March 2018," Carnegie Endowment for International Peace (March 27, 2018); Cono Giardullo, "Four Years After: The 'Long March' of Justice-Sector Reforms in Ukraine," IAI Papers 18/01 (January 2018).

^{16.} Prior to launching, a two-day pilot was conducted. Additionally, the research instrument had been previously employed at other universities in the post-Soviet region.

^{17.} Response rates varied by department from 14% to 41%, with an average response rate for the sample of 27%. Students rarely refused to participate, but on any given day for any given auditorium or classroom in which recruiting was conducted a number of students were either absent or in a different location than indicated by the university administration. See Section B of the Online Appendix for further discussion regarding the representativeness of the sample.

^{18.} One department was located in a different part of the city from the main campus. To ensure that all participants engaged the survey and experimental games in the same setting, we rented a bus and transported these students to the main campus.

^{19.} Data were also collected for use in another study from 117 students studying in recently created journalism and social science departments at the legal academy. These students were not asked questions related to legal sector professions and accordingly are excluded from the analyses presented here.

about participants' attentiveness in the section on robustness checks below.) The language of the survey was Russian.²⁰ All participants received a minimum of 50 Ukrainian hryvnia and had the opportunity to earn up to 200 hryvnia, depending on their responses during the experimental games. On average, participants received 106 hryvnia, approximately 4 USD at the time of the study, or approximately the cost of a movie theater ticket.²¹ 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. All 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.

3.2 Measuring Dishonesty and Corruption

Given that respondents may be unlikely to respond sincerely to survey questions pertaining to dishonesty or corruption, the study employed experimental games designed to elicit observable behavior and facilitate inferences about participants' preferences from the choices they make when confronted with decisions that lead to real-world financial loss or gain. To measure dishonesty and willingness to engage in corruption, the study utilized two games:

Dice Task Game: Drawing on the dice task game developed by Barfort et al. (2019) to measure dishonesty, respondents were asked to imagine a dice roll, guess a number between 1 and 6, and then click to the next screen.²² 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 1 hryvnia and 50 kopecks. For incorrect guesses, participants received 50 kopecks. Since there was no way for our research team to observe participants' guesses, an incentive existed to dishonestly

^{20.} The university at which the study was conducted is located in a region of Ukraine where Russian is the predominant language and one of the official regional languages.

^{21.} Conversion is based on the monthly average exchange rate for October 2017. These average incentive payments are highly comparable to the 4.80 USD average for Hanna and Wang's (2017) study in Bangalore, India, which has a cost of living index nearly identical to that of the Ukrainian city where this study was conducted. It is also worth noting that subjects' choices in many experimental games, including dishonesty experiments, are remarkably robust in both low-stakes and high-stakes settings. See Olsen et al. (2019: 575) and Abeler et al. (2019: 1123).

^{22.} Barfort et al.'s (2019) approach builds on Hanna and Wang (2017), who in turn employ a modification of the experimental approach pioneered by Fischbacher and Föllmi-Heusi (2013) in which subjects report the outcome of a privately observed random variable and receive incentive payoffs proportional to how they report; for a meta study of analyses using this paradigm, see Abeler et al. (2019).

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 60 hryvnia. An honest participant on average would guess between six and seven rolls correctly, resulting in a payoff of around 27 hryvnia. Comparison of a participant's number of successful guesses reported to the expected distribution of successful guesses under the assumption of honest reporting allows for estimation of the participant's cheat rate, as discussed in greater detail below. The full scripts for this and all other games can be found in Section A of the Online Appendix.

Corruption Game: The bribery game used in the study builds off of Barr and Serra (2010) (for similar games, see Abbink et al. 2002 and Cameron et al. 2009).²³ All participants were initially given 35 hryvnia at the outset of the game. They were then randomly assigned to the role of citizen or bureaucrat and the citizen was presented with a scenario in which she could receive an additional 45 hryvnia by obtaining a permit. When she seeks to obtain the permit, however, she is denied and informed that to avoid a long and burdensome reapplication process, she may offer a bribe to the bureaucrat of a value ranging from 5 to 35 hryvnia (only increments of 5 were allowed). Bribing entails a risk of punishment, so for offering a bribe the citizen loses 10 hryvnia, regardless of whether the bureaucrat accepts or rejects the offer. ²⁴ The bureaucrat then decides whether or not to accept the bribe, incurring a fine of 15 hryvnia for engagement in corruption, a cost larger than that imposed on the citizen to reflect the greater harm done to society when officials act corruptly. If the bureaucrat accepts the bribe, the citizen receives the permit and the correspondingly higher payoff.²⁵ If the citizen offers and the bureaucrat accepts a bribe, then two additional participants (chosen at random) each incur a loss of 5 hryvnia, representing the harm that corruption inflicts on society at large.

These payoffs were set up so that the bureaucrat is strictly better off accepting a bribe of 20 hryvnia or higher and indifferent between accepting and rejecting a bribe of 15 hryvnia. Conditional on the bureaucrat's acceptance of the bribe, the citizen is strictly better off offering a bribe of 30 hryvnia or less and indifferent between offering or not offering a bribe

^{23.} The study uses explicit corruption framing rather than neutral language (e.g., the study employs the term "bribes" rather than "transfers" and labels the players "citizen" and "bureaucrat" rather than Players A and B). As Alatas et al. (2009) note, explicit framing may offer more direct insights into participants' motivations for engaging or not engaging in corruption. For further consideration of framing effects, see Abbink and Hennig-Schmidt (2006) and Barr and Serra (2009).

^{24.} To avoid the conflation of risk aversion and aversion to corruption, I chose, following Barr and Serra (2010), not to make punishment probabilistic.

^{25.} For the bureaucrat role in the bribery game, I relied on strategy elicitation, 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.

of 35 hryvnia. From a purely strategic perspective, citizens maximize their earnings by offering 20 hryvnia, 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 25 hryvnia rather than the 35 hryvnia with which she began the game. The primary indicator of interest for the study was 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, the research instrument employed attitudinal questions culled from recent public opinion surveys in Ukraine. Participants were asked the extent to which they agreed with the statement that, "In certain situations, corruption can be justified," on a 1-5 scale where 1 indicates "strongly disagree" and 5 indicates "strongly agree."

3.3 Measuring Pro-Social Motivations

Dictator Game: To measure pro-social motivations, the study employed a variant of the dictator game in which participants were allotted 40 hryvnia and then could choose to donate any amount from 0 to 40 hryvnia (in increments of 5) to one of three Ukrainian charities, an approach in line with Banuri and Keefer (2016), Hanna and Wang (2017), and Barfort et al. (2019).²⁶ 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: The study also utilized 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

^{26.} The three charities were Blagodijnii fond dopomogi onkokhvorim dityam "Krab" (Childhood Cancer Foundation "Crab"); Mizhnarodnii blagodijnii fond "Dobrobyt gromad" (International Charity Fund "Community Wellbeing"), an NGO focused on rural community development; and Fond "Povernis zhivim" (Fund "Return Alive"), an organization that supports veterans of the ongoing conflict in eastern Ukraine. These were selected with the input of local Ukrainian researchers to represent a range of highly relevant charitable causes such that the decision of whether to donate would not reflect attitudes toward any specific cause. Of subjects who made a donation, 80% contributed to the Childhood Cancer Foundation, 17% to Fund "Return Alive," and 3% to International Charity Fund "Community Wellbeing."

^{27.} Barfort et al. (2019) employ the PSM index as a supplementary indicator of preferences for a public sector career, but in line with its use in the literature on public administration, I utilize PSM here as an alternative measure of pro-sociality (see Schott et al. [2019] for discussion of the relationships among PSM, pro-social motivations, and altruism). While PSM is correlated with preferences for public sector employment in many contexts, the index does not explicitly measure whether a subject would prefer to work in the public or private sector. Indeed, studies such as Christensen and Wright (2011) have shown that PSM is also positively correlated with preferences for certain types of private sector occupations that have a public service component, such as pro bono work.

Perry (1996) but was designed by an international team of scholars to account for cross-cultural distinctions. The index consists 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. For each item, participants were asked to indicate the extent to which they agreed with the statement on a 1–5 scale, where 1 represents "strongly disagree" and 5 represents "strongly agree." The PSM indicator used below is an unweighted average of the 16 items. The questions on which the index is based can be found in Section A.5 of the Online Appendix.

3.4 Measuring Career Preferences

The study measured career preferences by asking respondents to imagine they are free to choose any job, and then requesting them to rate their likeliness of choosing specific career paths on a scale of 1–7, where 1 represents "very unlikely" and 7 represents "very likely." Eight career paths tied to the legal profession were evaluated: prosecutor, investigator, judge, government lawyer, bailiff, private practice lawyer, in-house commercial lawyer, and notary.²⁸ As a robustness check, the survey also asked respondents to consider the distinction between the job they would like to have and the job they are most likely to have 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 1–7 scale. The research instrument also presented participants with a series of questions asking them to evaluate the importance of various job attributes, including attributes such as job security and high income.

3.5 Other Measures

To measure risk aversion, the study used a series of seven paired lottery choices in which participants chose 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 and 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.²⁹ The survey additionally collected data on demographic and attitudinal indicators that have been shown or hypothesized to influence career preferences, including gender, class year (i.e., firstyear, second-year, MA student), academic specialization, relatives' occupations, and ability (measured with self-reported GPA and Unified State Exam [ZNO] scores).

^{28.} Section A.6 of the Online Appendix provides in both Russian and English the precise phrasing used in the survey to measure legal career preferences.

^{29.} Participants' earnings for the game were then calculated as the sum of payoffs for all seven choices.

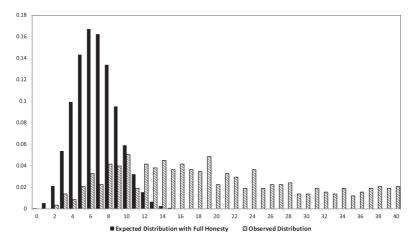


Figure 1. Distribution of Correct Guesses for 40 Dice Rolls. Notes: The histograms display the distribution of the observed number of correct guesses in the dice task game and the expected distribution with full honesty. N = 576.

4. Analysis

4.1 Descriptive Statistics: Dishonesty, Corruption, and Pro-Social Motivation

Evidence from experimental games conducted in the post-Soviet region is rare. Accordingly, before presenting the primary analyses, this section offers an overview of the results from the dice task, corruption, and dictator games. As can be seen in Figure 1, students displayed a wide range of propensities for dishonesty in the dice task game, including a notable amount of dishonest behavior. Eighty-two percent of respondents reported 10 or more correct guesses, despite the fact that the probability of honestly guessing right 10 or more times is around 12%. However, estimates of the full distribution of dishonesty, discussed in greater detail in Section C.7 of the Online Appendix, show that only around 1–1.5% of individuals are fully dishonest, as defined by cheating more than 98% of the time. On the other hand, between 5% and 12% of individuals are fully honest, as defined by cheating less than 2% of the time.³⁰ Following Barfort et al. (2019), I calculate cheat rates for each individual participant. Tor the sample, the mean number of correct

^{30.} In the sample, only 2% of subjects purely maximized their payoffs by reporting 40 correct guesses. Around 10% of the sample was fully honest, reporting 7 or fewer correct guesses (under fully honesty, an individual would be expected to guess correctly 6.7 times). However, unlike the maximum-likelihood estimator of the distribution of cheat rates discussed in Section C.7 of the Online Appendix, the distribution of reported correct guesses shown in Figure 1 may conflate variation resulting from dishonest behavior and variation resulting from chance.

^{31.} Barfort et al. (2019: 105) derive an estimator for an individual's cheat rate, based on the fact that each participant's reported number of correct guesses Y_i is a function of the number of dice rolls K, the probability of a correct guess p, and individual i's true (unobserved) cheat rate θ_i , such that $Y_i = K(p + (1-p)\theta_i)$. Rearranging produces an estimated cheat rate $\hat{\theta}_i = \frac{1}{1-p} \frac{1}{K} Y_i - \frac{p}{1-p}$. Although unbiased, the downside of this estimator $\hat{\theta}$ is that

guesses—19.3—corresponds with a cheat rate of 0.38, as can be seen in Table 1. In other words, on average participants cheated on more than one of every three rolls.³²

Whereas the dice task game focuses narrowly on willingness to employ dishonesty in order to increase one's payoff, the bribery game encompasses multiple dimensions of a real-world bribery experience: the question of ethical norms, the strategic uncertainty about whether a bribe will be accepted or rejected, and the potential harm to other members of society. And whereas at least moderate levels of cheating were relatively common in the dice-task game, the majority of participants were unwilling to engage in an act explicitly labeled as corrupt. Thirty percent of participants randomly assigned to the role of citizen offered a bribe, while 24% of participants assigned to the role of bureaucrat were willing to accept a bribe. 33 In total, 27% of participants offered or accepted a bribe.

Finally, with respect to the dictator game, only 7% of participants kept all 40 hryvnia for themselves. A plurality of participants—31%—donated all 40 hryvnia to charity. On average, participants donated 24.8 hryvnia, or 62% of the initial endowment.

As can be seen in Table 2, cheating and bribing are positively correlated with each other and negatively correlated with pro-social tendencies. Panel A shows that those who engaged in a bribe transaction in the corruption game on average have an estimated cheat rate that is nearly 11 percentage points higher while donating 19 percentage points less of the

for a sufficiently small Y_i (i.e., for individuals who are both honest and unlucky), the estimated cheat rate will be negative.

^{32.} Cross-national comparisons warrant caution and may result from differences in sample composition (e.g., the current study includes only law students), among other factors. But as a point of reference, Barfort et al.'s (2019) preferred model of the distribution of cheat rates estimates a mean cheat rate of 0.42, quite similar to this study's estimated mean of 0.39 (this estimate is based on the maximum-likelihood estimator discussed in Section C.7 of the Online Appendix). For the Danish sample, 73% of subjects reported 10 or more correct guesses and 55% reported correct guesses above the 99th percentile of the expected distribution with honesty (more than 13 correct guesses); these figures for the Ukraine study were 82% and 67%, respectively. However, Barfort et al. (2019) estimate that 13% of individuals cheat nearly always in their Denmark study, compared with just 1% in the Ukraine study. Comparisons with Hanna and Wang's (2017) study of Indian students are more challenging, given that the format of their dice game differed and, critically, the game was conducted in-person with real dice rather than via an online module on a computer. In Section C.8 of the Online Appendix, I provide additional information about how the distribution of dishonesty in the Ukraine study compares to the distributions in Hanna and Wang (2017) and Barfort et al. (2019).

^{33.} Given the game's payoffs, the lower levels of willingness to accept than to offer bribes are counterintuitive, at least from a purely self-interested perspective. As long as the bureaucrat refused to accept a bribe of less than 15 hryvnia, 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. One possible interpretation is that participants felt a stronger moral obligation to avoid corruption when in the role of a public official.

Table 1. Descriptive Statistics

	Mean	Standard deviation	Min.	Max.	Ν
A. Experimental indicators					
Correct guesses	19.34	9.99	2	40	576
Cheat rate	0.38	0.30	-0.14	1	576
Gave/accepted bribe	0.27	0.44	0	1	575
Donations	0.62	0.33	0	1	576
B. Legal career preferences					
Public preferences index	4.44	1.20	1	7	568
Judge	5.15	1.85	1	7	568
Prosecutor	4.95	1.99	1	7	568
Investigator	4.31	2.04	1	7	568
Government lawyer	4.24	1.76	1	7	568
Bailiff	3.58	1.81	1	7	568
Private preferences index	4.84	1.26	1	7	568
Private practice lawyer	5.17	1.71	1	7	568
In-house commercial lawyer	4.72	1.72	1	7	568
Notary	4.65	1.84	1	7	568
C. Attitudinal and demographic su	ırvey indi	cators			
Corruption justifiable	0.47	0.50	0	1	576
PSM	3.88	0.60	1.25	5	575
GPA	5.21	0.87	1	6	576
Risk aversion	4.55	1.74	1	8	574
Job security	3.69	0.99	1	5	576
Job income	4.00	0.87	1	5	575
Male	0.39	0.49	0	1	576
Public law department	0.67	0.47	0	1	576
Family ties: Lawyers	0.19	0.39	0	1	576
Family ties: Courts	0.27	0.45	0	1	576

Notes: "Correct guesses" refer to the number of correct guesses in the dice task game and "Cheat rate" to the corresponding estimated cheat rate (see footnote 31 for explanation of why cheat rates can be negative). "Gave/accepted bribe" is a dichotomous indicator of whether a participant offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the corruption game. "Donations" refer to the proportion of the initial endowment a subject donated to charity in the dictator game. The "public preferences index" and "private preferences index" are comprised of unweighted averages of the preference scales for the five public sector legal professions and three private sector legal professions, respectively. For all career path variables, higher values indicate a stronger preference. "Corruption justifiable" is a binary indicator that takes a value of 1 for respondents rating justifiability of bribery above the median level of agreement with the statement "In certain situations, corruption can be justified" on the original five-point scale and 0 otherwise. "PSM" refers to the public service motivation index. "GPA" refers to self-reported cumulative university GPA measured on a six-point scale representing the categories: 2.0-2.4, 2.5-2.9, 3.0-3.4, 3.5-3.9, 4.0-4.4, and >4.5. The mean "Risk Aversion" score between 4 and 5 indicates that participants on average switched from preferring guaranteed money somewhere between the fourth lottery choice (50% chance of 2.5 times the guaranteed money, 50% chance of 0) and the fifth lottery choice (50% chance of three times the guaranteed money, 50% chance of 0). "Job security" measures the importance a subject places on job security in a career. "Job income" measures the importance a subject places on a high income in a career. "Male" takes a value of 1 for males and 0 for females. "Public law department" takes a value of 1 if the subject studies in a department specializing in the preparation of judges, prosecutors, or investigators and 0 if the subject studies in a department focused on preparation of defense attorneys or commercial litigators. The "Family ties: Lawyers" variable takes a value of 1 if a subject has a relative who is a lawyer and 0 otherwise; the "Family ties: Court" variable, a value of 1 if the subject has a relative employed in the court system or as a prosecutor and 0 otherwise.

Table 2. Correlations across Dishonesty, Corruption, and Pro-Social Motivation

	Cheat rate	Donations	Donations
	(1)	(2)	(3)
be	0.106***	-0.192***	
	(0.028)	(0.032)	
eat rate			-0.326^{***}
			(0.050)
mean	0.38	0.62	0.62
servations	575	575	576
	0.025	0.066	0.087

B. Correlations between experimental outcomes and non-experimental indicators

	Cheat rate (1)	(2)	Bribe (3)	(4)	Donations (5)	(6)
Corruption Justifiable	-0.003 (0.022)		0.170 ^{***} (0.040)		-0.005 (0.027)	
PSM		-0.013 (0.021)		-0.171*** (0.029)		0.140 ^{***} (0.022)
DV mean Observations <i>R</i> ²	0.38 576 0.000	0.38 575 0.001	0.27 575 0.037	0.27 574 0.053	0.62 576 0.000	0.62 575 0.063

Notes: OLS regressions with robust standard errors clustered at session level shown in parentheses. +p < 0.10, +p < 0.05, **p < 0.01 ***p < 0.001. "Cheat rate" refers to the estimated cheat rate in the dice task game. "Bribe" is a dichotomous indicator of whether a participant offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the corruption game. "Donations" represent the proportion of a subject's initial endowment donated to charity in the dictator game. "Corruption justifiable" is a binary indicator that takes a value of 1 for respondents rating justifiability of bribery above the median level of agreement with the statement "In certain situations, corruption can be justified" on the original five-point scale and 0 otherwise. "PSM" represents the public service motivation index.

initial endowment in the dictator game. Meanwhile, the -0.326 coefficient in Column 3 of panel A indicates that a standard deviation increase in the cheat rate is associated with approximately a 10 percentage point decrease in the initial endowment donated. Panel B shows that the nonexperimental measure of participants' attitudes about the justifiability of corruption is positively associated with the propensity to bribe—those inclined to believe bribes may sometimes be justifiable are 17 percentage points more likely to engage in a bribe transaction in the corruption game³⁴—yet uncorrelated with cheat rates in the dice task game and donations in the dictator game. The PSM index is negative correlated with propensity to engage in a bribe transaction and positively correlated with donations, though uncorrelated with cheat rates.

^{34.} The justifiability of corruption variable takes a value of 1 for respondents who are above the median level of agreement with the statement "In certain situations, corruption can be justified" on the original 5-point scale and 0 otherwise.

4.2 Descriptive Statistics: Legal Career Preferences

Table 1 shows average preference ratings for each legal career path, where respondents rated their likeliness of choosing each profession on a scale of 1–7, with 1 indicating "highly unlikely" and 7 indicating "highly likely." The most popular professions in the overall sample were private practice lawyer, with a mean rating of 5.17; judge, with a mean rating of 5.15; and prosecutor, with a mean rating of 4.95. Bailiff was the least appealing profession, with a mean rating of 3.58.

Preferences for different types of public sector legal careers are highly correlated, as are preferences for different types of private sector legal careers. Factor analysis, shown in Section C.1 of the Online Appendix, clearly shows this clustering of preferences across public and private sector legal careers, with the public and private sector careers loading cleanly onto distinct factors, with the possible exception of the government lawyer category. For the analyses below, I therefore created two indices, a public sector legal career preference index based on the unweighted average of the five career preference variables and a private sector legal career preference index based on the unweighted average of the three career preference variables. 35 Results are nearly identical if the indices are created using factor scores. Results also are substantively similar when all eight career preference variables are analyzed individually in place of the two index variables, as shown in Section C.1 of the Online Appendix.

4.3 Self-Selection and Career Preferences

This section presents the study's main results. To enhance comparability with earlier studies utilizing the dice task game, I employ the empirical strategy used in Barfort et al. (2019). The initial analyses examine whether individuals who seek a career in the judiciary in high-corruption contexts are more prone or less prone to act dishonestly or corruptly, irrespective of whether this propensity toward dishonesty and corruption reflects fundamental personality traits or other individual attributes, such as gender or a willingness to accept risk. Accordingly, Table 3 first shows the unconditional correlations between sectoral career preferences and cheating, propensity to engage in corruption, and altruistic donations. Subsequent analyses then consider other factors that may jointly influence career preferences and propensities for dishonesty or corruption, thereby potentially offering additional insights into selection patterns in Ukraine. Additionally, given that the cheat rate estimates in the dice task game exhibit classical measurement error, I follow Barfort et al. (2019: 109) in employing the indicators for dishonesty as outcome variables to mitigate attenuation bias. For the sake of consistency, I also treat the indicators from other experimental games as outcome variables.

^{35.} I treat government lawyer as a public sector variable for the sake of conceptual clarity; all results are robust to excluding this variable from the analysis.

Table 3. Dishonesty, Corruption, Pro-Social Motivations, and Legal Career Preferences

	Experimen ^a	tal indica	tors	Non-experimen	tal indicators
	Cheat rate	Bribe	Donations	Corruption justifiable	PSM
	(1)	(2)	(3)	(4)	(5)
Public preference index	0.049***	0.048**	-0.045***	0.052**	0.044 [†]
	(0.009)	(0.015)	(0.013)	(0.016)	(0.024)
Constant	0.164***	0.052	0.817***	0.240**	3.684
	(0.044)	(0.065)	(0.055)	(0.076)	(0.112)
Observations	568	567	568	568	567
R^2	0.038	0.017	0.026	0.016	0.008

B. Private sector legal preferences

	Experimen	tal indicat	tors	Non-experiment	al indicators
	Cheat rate	Bribe	Donations	Corruption justifiable	PSM
	(1)	(2)	(3)	(4)	(5)
Private preference index		-0.016		0.004	0.028
Canadant	(0.009)	(0.012) 0.343***	(0.011) 0.597***	(0.017)	(0.026)
Constant	0.404 (0.050)	(0.061)	(0.055)	0.450 (0.080)	3.744 ^{^^} (0.132)
Observations	568	567	568	568	567
R^2	0.000	0.002	0.000	0.000	0.004

Notes: OLS regressions with robust standard errors clustered at session level shown in parentheses. Results in analyses with binary outcome variables—Columns 2 and 4—are robust when employing logit regressions, as shown in Section C.9 of the Online Appendix. $\uparrow p < 0.10$, $\uparrow p < 0.05$, $\uparrow p < 0.01$. "Cheat rate" refers to the estimated cheat rate in the dice task game. "Bribe" is a dichotomous indicator of whether a participant offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the corruption game. "Donations" represent the proportion of a subject's initial endowment donated to charity in the dictator game. "Corruption justifiable" is a binary indicator that takes a value of 1 for respondents rating justifiability of bribery above the median level of agreement with the statement "In certain situations, corruption can be justified" on the original five-point scale and 0 otherwise. "PSM" represents the public service motivation index. The "Public preference index" is an unweighted average of student preferences over careers as judges, prosecutors, investigators, bailiffs, and government lawyers; the "Private preference index," an unweighted average of student preferences over careers as private practice lawyers, in-house commercial lawyers, or private sector notaries. For both, higher values represent stronger preferences.

The results in Table 3 show substantial evidence of corrupt selfselection. In Column 1 of Panel A, the coefficient of 0.049 is highly significant and indicates that a one standard deviation increase in the public preference index (1.20 units on the 7-point scale) on average is associated with a 5.9 percentage point increase in the estimated cheat rate.³⁶ Similarly, the 0.048 coefficient in Column 2 is again highly significant and

^{36.} Whereas Barfort et al. (2019) find that selection patterns in their study of Danish students disproportionately reflect a specific set of subjects—those who are especially honest are particularly inclined to join the civil service—I estimate the joint distribution of dishonesty and career preferences in Section C.7 of the Online Appendix and show that across much of the distribution there is a nearly linear relationship between cheat rates and preferences for employment in the public sector. Preferences for public sector legal careers are

suggests that a one standard deviation increase in the public preference index on average is associated with a 5.8 percentage point increase in the probability of engaging in a bribe transaction in the corruption game. By contrast, the -0.045 coefficient in Column 3 indicates that a standard deviation increase in the public preference index is associated with a 5.4 percentage point decline in the proportion of the initial endowment donated in the dictator game. Together, these results point to self-selection of students with a propensity for dishonesty and corruption into the judiciary and other public sector legal careers, and the self-selection of students with a propensity for pro-social behavior out of the public sector.

The results of analyses based on non-experimental indicators in part correspond with the results based on the experimental games, as can be seen in Columns 4 and 5 of Panel A in Table 3. In line with the results based on the dice task and corruption games, the higher an individual's score on the public preference index, the more likely the individual to perceive corruption as defensible. The 0.052 coefficient in Column 3 indicates that a standard deviation change in the public preference index is associated with a 6.2 percentage point increase in the probability that a respondent agrees that corruption may sometimes be justifiable. However, the public preference index is also positively and statistically significantly correlated with the PSM index, a finding at odds with the results based on the indicator of pro-social behavior derived from charity donations in the dictator game. One interpretation of this finding is that students' selfperception of their public-service mindedness is correlated with a preference for public sector legal careers—but that this self-perception does not correspond with actual behavior when students are faced with incentivized real-world choices.

In contrast to the robust findings concerning preferences for public sector legal careers, Panel B of Table 3 shows that there are no robust correlations between the private preference index and any of the indicators, experimental or non-experimental. In short, students with stronger preferences for public sector legal careers such as judges, prosecutors, or investigators display higher levels of dishonesty, a greater propensity to engage in an act explicitly framed as corruption, lower levels of pro-social motivation, and more willingness to justify corruption. Student preferences for private sector legal careers such as employment as a private practice lawyer or in-house commercial lawyer, on the other hand, have no predictive power over the outcome indicators for dishonesty, corruption, and altruistic donations.

I next integrate analysis of variables that may potentially correlate with dishonesty, corruption, or pro-social motivations on the one hand and sectoral career preferences on the other to assess the extent to which other

lowest among fully honest students and then rise approximately linearly up through students who cheat around 75% of the time.

individual-level attributes may contribute to the patterns of corrupt selfselection apparent in Panel A of Table 3.

4.4 Self-Selection Conditional on Other Attributes

The first 10 columns of Table 4 present results while controlling for a single variable; the final two columns show specifications in which multiple control variables are included simultaneously. Given that there are no statistically significant relationships between the private sector preference index and the outcome indicators even in bivariate regressions, I consider only analyses for the public sector preference index.³⁷ Supplementary analyses in Section C.3 of the Online Appendix show the results of bivariate analyses regressing the experimental indicators for cheating, bribing, and donating on each of the covariates examined in this section, and as well as bivariate analyses regressing the career preference variables on each of these covariates.

I consider factors shown or hypothesized to be associated with career preferences and/or dishonesty and corruption. Column 1 of Table 4 examines ability, as measured by self-reported GPA. Hanna and Wang (2017: 266, 281) raise concerns that if higher ability individuals are more prone to act unethically, then efforts to screen out applicants with a propensity for corruption may inadvertently reduce the competence of public officials. However, I find to the contrary that high-ability individuals are less likely to cheat and bribe in the experimental games, although these correlations are not particularly robust. That said, if high ability is negatively correlated with unethical behavior and with a preference for public sector employment, this could partially account for the selection patterns introduced above.³⁸ But there is little evidence that controlling for ability affects the association between career preferences and the experimental games outcomes: As can be seen in the bottom row of Column 1 in each panel of Table 4, the coefficients on the public preference index are statistically indistinguishable from those in the bivariate models in Table 3.39 These results are in line with those of Barfort et al. (2019) and Hanna and

^{37.} Section C.2 of the Online Appendix shows similar analyses for the non-experimental indicators of whether an individual believes corruption may be justifiable and the PSM index. Results shown in Table 3 for these two indicators are robust to controlling for the correlates included in Table 4.

^{38.} As shown in Section C.3 of the Online Appendix, GPA is uncorrelated with the public preference index but is positively correlated with the private preference index. In Section C.4 of the Online Appendix, I additionally consider results utilizing a national university entrance examination, the ZNO, in place of GPA to measure ability. Results are consistent with those reported here. GPA is used as the primary indicator of ability because not all students take the ZNO, resulting in a number of missing observations.

^{39.} While it is theoretically plausible that the relationships between a preference for public sector careers and the propensity to cheat or bribe are driven primarily by low-ability individuals who perceive self-enrichment via a public sector career to be more lucrative than limited opportunities in the private sector, I find little evidence of this. Interacting the career preference indicators with the ability indicators shows few consistent heterogeneous effects across different levels of ability.

Table 4. Dishonesty, Corruption, Pro-Social Motivation, and Legal Career Preferences Conditional on Other Attributes

A. Estimated cheat rate												
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
Public preference index	0.049***	0.049***	0.049***	0.047***	0.050***	0.050	0.049***	0.049***	0.045***	0.038***	0.050	0.037***
	(0.00)	(00.00)	(0.010)	(0.010)	(600.0)	(0.010)	(600.0)	(600.0)	(600.0)	(0.008)	(0.010)	(600.0)
GPA	-0.009										-0.026^{\dagger}	-0.019
	(0.013)										(0.013)	(0.013)
Risk aversion		0.010									0.010	0.005
		(0.008)									(0.008)	(0.007)
Job security			0.001								-0.002	0.001
Job income			(0.015)	0.015							(0.015) 0.017	(0.014) 0.010
				(0.014)							(0.014)	(0.015)
Male					-0.049						-0.063	-0.084^{**}
					(0.029)						(0:030)	(0.029)
Public law dep.						-0.019					-0.018	0.003
						(0.031)					(0.031)	(0.028)
Family ties: Lawyer							0.028				0.004	900'0
							(0.033)				(0.035)	(0.034)
Family ties: Courts								0.042			0.037	0.029
								(0.034)	*		(0.037)	(0.036)
Bribe									0.091			0.052
Donations										-0.244***		-0.234
	•	=	;	-	*	*	*	:	*	(0.039)	-	(0.036)
Constant	0.214	0.1212^{T}	0.162	0.110 ^T	0.178	0.174	0.159	0.152	0.160	0.364	0.2172^{T}	0.398
:	(0.084)	(0.063)	(0.059)	(0.059)	(0.046)	(0.046)	(0.044)	(0.043)	(0.043)	(0.049)	(0.117)	(0.119)
Observations	268	999	268	799	268	899	899	899	799	268	965	564
ĬŒ.	0.039	0.041	0.038	0.039	0.044	0.039	0.039	0.042	0.056	0.108	0.058	0.133
<i>p</i> -value,	0.75	0.63	96.0	0.20	0.26	0.51	0.94	0.72	0.02	0.01	0.85	0.02
test of whether estimate in first row the same as in Column 1 of Panel A in Table	i first row th	ne same as	in Column	1 of Panel ⊬	\ in Table 3							

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Table 4. Continued

B. Gave/accepted bribe												
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
Public preference index	0.047**	0.048**	0.048**	0.043**	0.045**	0.050**	0.048**	0.048**	0.038*	0.033*	0.043**	0.025
GPA	(0.013) -0.044 [†]	(0.0.0)	(0.0.0)	(+10.0)	(0.0.0)	(5.0.0)	(5.0.0)	(0.0.0)	(0.0.0)	(6.0.)	(0.013) -0.034	(0.018) -0.025
Risk aversion	(0.020)	-0.011									(620.0)	(0.024) -0.015
Job security		(0.011)	-0.003								(0.011)	(0.010) 0.003
Job income			(0.0.0)	0.062**							0.066	(0.019) 0.059*
Male				(0.022)	0.115**						(0.023) 0.096 [*]	(0.022) 0.085 [*]
Public law dep.					(0.042)	-0.057					(0.041) -0.049	(0.040) -0.027
						(0.040)					(0.040)	(0.037)
Family ties: Lawyer							0.007				-0.035	-0.035
Family ties: Courts							(0.047)	0.060			(0.033) 0.089 [†]	(0.033) 0.082 [†]
Choatrato								(0.041)	**0000		(0.049)	(0.045) 0.115
(בוביונים מוביים מוביים									(0.065)	;		(0.071)
Donations										-0.319 (0.056)		-0.262 (0.065)
Constant	0.283	0.105	0.061	-0.177	0.021	0.081	0.051	0.035	0.020	0.314***	0.011	0.195
	(0.165)	(0.081)	(0.088)	(0.108)	(0.063)	(0.069)	(0.065)	(0.067)	(0.063)	(0.076)	(0.197)	(0.189)
Observations R ²	0.024	0.018	0.017	0.031	0.033	0.021	0.017	0.021	367 0.035	367 0.073	0.061	364 0.110
<i>p</i> -value,	0.75	0.84	0.86	60.0	0.08	0.13	0.95	0.73	0.01	0.00	0.38	0.01
test of whether estimate in first row the same as in Column 2 of Panel A in Table 3	first row the	same as ii	n Column 2	of Panel A	in Table 3							

Table 4. Continued

C. Donations												
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
Public preference index	-0.044***	-0.043**	-0.048***	-0.043**	-0.043**	-0.048***	-0.045***	-0.045^{***}	-0.036**	-0.030^{*}	-0.046***	-0.026
(0.013) GPA 0.026	(0.013) 0.026	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)	(0.012)	(0.013) 0.024	(0.012) 0.012
Risk aversion	(0.016)										(0.016)	$(0.016)_{**}$ -0.021
Job security		(0.00)	0.017								(0.009) 0.016	(0.008) 0.015
Job income			(0.015)	-0.019							(0.014) -0.020	(0.013) -0.005
Male				(0.018)	-0.081**						(0.016) -0.069	(0.016) -0.074
Public law deb.					(0.025)						(0.027)	(0.027) 0.067
Family tipe: Lawyer						(0.033)	0000				(0.034)	(0.029)
							(0.035)	((0.040)	(0.038)
Family ties: Courts								0.003			-0.009 (0.037)	0.013 (0.033)
Bribe								(0)	-0.179***			-0.137
Cheat rate									(0.033)	-0.300***		(0.034) -0.272
Constant	0.678***		0.768***	0.887***	0.839***	0.777	0.817***	0.817***	0.827***	(0.050),		(0.040 <u>),</u> 0.852
Observations	(0.102) 568	(0.067) 566	(0.069) (0.083) (0.055) (C 568 567 568 56	(0.083) 567	(0.055) 568	(0.058) 568	(0.055) 568	(0.055) 568	(0.052) 567	(0.052) 568	(0.144) 565	(0.131) 564
<i>R</i> ² <i>p</i> -value,	0.031 0.76	0.037 0.32	0.029 0.24	0.028 0.16	0.041 0.12	0.040 0.05	0.026 0.99	0.026 0.93	0.082 0.01	0.097 0.00		0.171 0.00
test of whether estimate in first row the same as	n first row t	he same as	in column 3	3 of Panel 4	A in Table 3							

Notes OLS regressions with robust standard errors clustered at session level shown in parentheses. Results in analyses with binary outcome variables—Panel B—are robust when employing logit regressions, as shown in Section C.9 of the Online Appendix. $^{\dagger}v > 0.10$, $^{*}v > 0.05$, $^{*}v > 0.05$, $^{*}v > 0.05$, $^{*}v > 0.001$ "Estimated cheat rate" refers to the estimated cheat rate in the dice task game. "Gave/accepted bribe" is a dichotomous indicator of whether a participant offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the corruption game. "Donations" represent the proportion of a subject's initial endowment donated to charity in the dictator game. The "Public preference index" is an unweighted average of student preferences over careers as judges, prosecutors, investigators, bailiffs, and government lawyers; the "Private preference index," an unweighted average of student preferences over careers as private practice lawyers, in-house commercial lawyers, or private sector notaries. For both, higher values represent stronger preferences. See notes to Table 1 for descriptions of other variables.

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Wang (2017) in Denmark and India, respectively, which both find that ability plays little role in selection patterns. 40

In Columns 2 and 3 of Table 4, I next examine risk aversion, measured first using the incentivized lottery indicator discussed in the measurement section above and second using a variable representing the extent to which respondents believe job security to be an important attribute of a career. Neither measure is associated with cheating or bribing. And while the lottery indicator is negatively correlated with donations in the dictator game, there is no statistically significant difference between the public preference index coefficient in the bivariate model in Column 3 of Panel A in Table 3 versus the coefficients in Columns 2 and 3 of Panel C in Table 4 when controlling for risk aversion.

Column 4, meanwhile, examines the potential effects on selection patterns of the extent to which respondents consider a high income to be an important attribute of a career. Placing value on a high income is uncorrelated with cheat rates and donations. But subjects who place more value on income are more likely to engage in a bribe transaction in the corruption game, and the difference in the magnitude of the public preference index coefficient in Panel B of Table 4 relative to the bivariate models in 3 is statistically significant at the 0.10 level.

These findings are again similar to those in Barfort et al.'s (2019) study, which found risk aversion to be a poor predictor of selection patterns among Danish students but produced evidence that pecuniary motivations may play a role in self-selection. 41 That said, results concerning pecuniary motivations appear less robust in the Ukrainian context, given that they emerge only with the corruption game indicator, not with the dice task game indicator. 42 It also deserves emphasis that the decline in the magnitude of the correlation between public sector preferences and outcomes in the corruption game when controlling for pecuniary motivations is substantively small—0.005—and the coefficient remains highly significant.

The analyses in Column 5 consider the role of gender. Whereas males in Barfort et al.'s (2019) study of Danish students and Hanna and Wang's (2017) study of Indian students were more likely to cheat, in the Ukrainian study males are less likely to cheat, though the correlation is statistically significant only in specifications including other control variables (Columns 11 and 12 in Panel A). Males are, however, more likely to

^{40.} Banerjee et al. (2015) also find that their measure of ability, based on a matrix problem task, is uncorrelated with corrupt earnings in their corruption game, though ability in their sample is negatively correlated with public sector preferences. It should be noted, however, that their embezzlement game is not directly comparable to the bribery game employed in this study.

^{41.} Hanna and Wang (2017) did not examine risk aversion or pecuniary motivations in their study of Indian students.

^{42.} Additionally, as shown in Section C.3 of the Online Appendix, placing value on a high income is not a particularly robust predictor of a public sector preference.

bribe in the corruption game, as well as less likely to donate in the dictator game. Males are also more likely to prefer a public sector legal career, as shown in Section C.3 of the Online Appendix, and there is a substantively small but statistically significant (at the 0.10 level) difference in the magnitude of the correlation between career preferences in bivariate regressions shown in Table 3 relative to the analyses in Column 5 of Panel B of Table 4 that control for gender. In short, the results concerning gender are contradictory. Those based on the corruption game suggest that gender may play some role in self-selection patterns in Ukraine, but those based on the dice task game do not support this conclusion.

I additionally consider several factors relevant to the context of the university where the study was conducted, and to Ukraine more broadly. Students at the legal academy self-select into different departments, some of which are dedicated to training judges, prosecutors, or investigators and others of which focus on the training of defense lawyers or commercial litigators. If selection patterns reflect academic specializations, then this would indicate that sorting at the stage of choosing a field of study or socialization within different academic departments may account for the observed trends. If academic specializations do not play a role, then selection patterns are likely to reflect individual-level preferences beyond and within fields of study. Column 6 in Table 4 shows no correlation between being enrolled in a department with a public sector orientation and outcomes in the dice task or corruption game, though students from departments with a public sector orientation do on average make higher donations in the dictator game. Given that such students are more likely to prefer a public sector career (per the results in Section C.3 of the Online Appendix), department-level factors do not appear to account for the selection patterns in Table 3, which show that students with higher pro-social motivations are *less* likely to prefer a public sector career. That the selection patterns introduced above reflect individual-level preferences is further confirmed in Section C.6 of the Online Appendix, where I show that the selection patterns persist in both sub-samples when students enrolled in public sector-oriented departments and students enrolled in private sector-oriented departments are analyzed separately.⁴³

In the context of widespread corruption, a pertinent question is the extent to which family ties and connections play a role in students' career preferences; many Ukrainians, for example, assume nepotism to be rife within the judiciary and to be a contributor to corruption in the legal

^{43.} Due to space constraints, Table 4 does not include analyses controlling for class year. In Section C.5 of the Online Appendix, I show that older students are slightly less likely to bribe and cheat, and also less likely to prefer public sector careers, which could contribute to the selection patterns introduced in Table 3. But the correlation between the experimental games outcomes and preferences for public sector legal careers remains highly robust to controlling for class year.

system. 44 I therefore consider the effects of having a relative employed in the private sector legal profession or in the judicial system in Columns 7 and 8, respectively. Other than some suggestive evidence that students with relatives employed in the court system are more likely to bribe in the corruption game, a finding that is statistically significant only in specifications including other control variables (Columns 11 and 12 of Panel B), these family ties are poor predictors of the experimental game outcomes. They also have almost no effect on the association between career preferences and cheating, bribing, or donations when included as control variables.

Column 9 provides evidence that despite being highly correlated, the outcomes from the dice task and corruption games are measuring distinct phenomena. While the magnitude of the correlation between the public preference index and cheat rate declines when controlling for bribing, the correlation remains highly statistically significant. The same holds true when regressing the bribe variable on the public preference index while controlling for cheat rate (see Column 9 in Panels A and B, respectively).

Finally, Column 10 of Panels A and B shows that pro-social motivation not only is strongly negatively correlated with dishonesty and a propensity for corruption, but that controlling for donations has a far larger effect than any of the other variables analyzed on the magnitude of the association between career preferences and cheat rates or the probability of engaging in a bribe transaction in the corruption game. This is fully in accordance with Barfort et al.'s (2019) finding that pro-social motivation can account for a significant portion of the self-selection of more dishonest students out of public sector employment in Denmark. Of course, the findings here are the mirror image of findings based on the low-corruption Danish context, for law students with high levels of pro-social motivation are self-selecting out of careers as judges, prosecutors, and investigators. It also reinforces the findings in Hanna and Wang (2017) that students who donate more in the high corruption Indian context are less likely to prefer public sector career paths.

Columns 11 and 12 conclude the analysis by including all correlates simultaneously in regression models. The results make clear that demographic and attitudinal correlates have a minimal influence on selection patterns. For all three experimental indicators, the difference in the magnitude of the coefficient on the public preference index in the bivariate models in Table 3 and the coefficient in the fully saturated model in Column 11 of Table 4 is the same or smaller than the difference in magnitude when control variables are entered separately in Columns 1–9. Only when the other experimental indicators are included in the saturated

^{44.} See, for example, Natalia Mamchenko, "Semeinyi sud. Sudi Ukraini privetstvuyut 'sudebnye dinastii'" [Family Court: Ukrainian Judges Welcome "Judicial Dynasties"], Ukraina Kriminalnaya (October 1, 2013).

model, as in Column 12, does the magnitude of the public preference index coefficient noticeably decline.

In summary, while there is modest evidence that pecuniary motivations and gender play some role in selection patterns, the most fundamental trends are those already apparent in the unconditional correlations shown in Table 3. Students who are more dishonest and more willing to engage in corruption are more likely to prefer public sector legal careers; students with high levels of pro-social motivation are less likely. Table 4 shows that these results remain highly robust to controlling for a wide range of demographic and attitudinal factors.

4.5 Robustness Checks

The primary findings that students expressing higher preferences for public sector legal careers display a higher propensity to bribe and cheat, and a lower propensity to make charitable donations, in the experimental games remain robust when taking into account a variety of potential concerns. First, with respect to the dice-task game, I conducted the analyses using only the first 10 rounds of rolls to ensure that results are not affected by fatigue or boredom resulting from the multiple rounds of (virtual) dice rolling. Results remain robust, as shown in Section D.1 of the Online Appendix. Second, I analyzed results for the corruption game separately for subjects assigned to the role of citizen (i.e., a potential bribe giver) and bureaucrat (i.e., a potential bribe receiver). Section D.2 of the Online Appendix shows that while the correlation between the public preference index and engagement in a bribe transaction is larger for those in the role of citizen, there is a statistically significant correlation in both subsamples.

A second potential point of concern is whether some of the participants already possessed knowledge related to the types of experimental games employed, which could influence their choices. At the conclusion of the survey, students were asked whether they were familiar with the games they played (or similar games). Approximately 16% expressed some familiarity. There are no statistically significant relationships between familiarity with the games and bribe rates or donation levels, though students with knowledge of experimental games did cheat more often. However, excluding the 94 participants who expressed familiarity with the games does not affect the results, as shown in Section D.3 of the Online Appendix.

A third set of issues pertains to attentiveness, given that low levels of attentiveness have been shown to influence respondents' choices in some types of experiments (Berinsky et al. 2014). I accordingly employed two attention-check questions to sort out attentive from non-attentive participants. Seventy-two percent of respondents answered the first attention check (which was in the early part of the research instrument) correctly,

whereas 53% answered the second attention check (which was near the end of the research instrument) correctly. 45 Since all games and the career preference questions were in the first third of the research instrument, the first screener question is of more importance. There is some evidence that less attentive subjects cheat and bribe more, and donate less, than their more attentive peers, but the primary results remain robust when conducting analyses that exclude subjects who answered the first screener incorrectly as well as analyses that exclude subjects who answered both screeners incorrectly (see Section D.3 of the Online Appendix). As an alternative check on attentiveness, I examined the amount of time each subject required to complete the games and survey. There is no association between study duration and bribe rates and donation levels, but those who finished more quickly did on average cheat more often. Nevertheless, when removing the bottom decile of subjects with respect to the time taken to complete the study, results again remain robust.

4.6 External Validity

An important consideration is whether students' career preferences are indicative of students' expectations about actual career paths. Some students, for example, might strongly wish to pursue a specific profession yet recognize that this choice is unlikely or infeasible. However, ratings of career preferences and subjects' evaluations regarding how likely they are to be employed in a given profession following graduation (again measured on a 1–7 scale, where 1 indicates "highly unlikely" and 7 indicates "highly likely") are highly correlated. Correlation coefficients between the preferences and expectations ratings range from 0.55 for judgeships to 0.76 for investigators. I then conducted all analyses from the preceding sections using the expectation indices in place of preference indices. As shown in Section D.4 of the Online Appendix, results concerning the dice task game are nearly identical when employing the expectation indices. Meanwhile, though the magnitude of the correlation between public legal sector expectations and propensity to engage in corruption or donate is marginally smaller in magnitude than the correlation between preferences and these experimental outcomes, the results remain statistically and substantively significant. A second consideration is that, as in other countries, students in Ukraine who study law may in fact end up employed in unrelated professions. In Section D.4 of the Online Appendix, I replicate the primary analyses excluding 141 students who had low preferences (below the mean) for both public sector and private sector legal preferences. Results remain robust. Finally, it should be emphasized that other studies on selfselection employing similar career preference indicators, including Barfort

^{45.} Based on "screener" questions devised by Berinsky et al. (2014), these attention checks required respondents to carefully read instructions telling them to provide specific answers to the question below rather than answering truthfully. See Section D.3 of the Online Appendix for details about the attention checks.

et al.'s (2019) study in Denmark and Gans-Morse et al.'s (2021) study in Russia, have validated this approach by using administrative data or follow-up surveys to confirm that career preferences are highly predictive of post-graduation career paths.⁴⁶

A related issue to consider is the extent to which subjects' choices in experimental games reflect choices they make in real life. However, such concerns should not be overstated, for previous studies have offered striking evidence of these games' external validity. Hanna and Wang (2017) test their dice game on government employees in India for whom they had administrative data on fraudulent absenteeism, the claiming of a paycheck for time not worked. They found a strong correlation between cheating in the dice game and willingness to defraud the government. Other studies have shown that dishonesty in dice task games is correlated with various forms of cheating and rule breaking in schools and prisons (Cohn et al. 2015; Cohn and Maréchal 2018). 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 lowcorruption countries. Likewise, a number of studies show that donations in laboratory games are strong predictors of real-world pro-social behavior such as charitable giving (see, e.g., Benz and Meier 2008; Franzen and Pointner 2013).

A final set of considerations concerns the generalizability of the results, both from the sample to the university's broader student body and to other universities. It deserves emphasis that the use of random sampling sets this study apart from studies of corrupt self-selection conducted in India (Banerjee et al. 2015; Hanna and Wang 2017), Indonesia (Alatas et al. 2009), and Russia (Gans-Morse et al. 2021), which relied on convenience samples, a common practice when employing experimental games. Only Barfort et al. (2019), operating in the data-rich context of Denmark, implemented random sampling. As discussed in greater detail in Section B of the Online Appendix, the types of administrative data that Barfort et al. (2019) use to compare participants and non-participants in their study do not exist in Ukraine, but the available evidence indicates that selective non-participation should not be of concern. For example, 60.9% of participants were female, compared with 58.3% of non-participants, and a test for equality of proportions shows that the difference in the ratio of females to males across the participants and non-participants is

^{46.} Similar efforts were made to conduct follow-up surveys for this study but were unsuccessful due to a number of factors, including the unwillingness of some participants to provide contact information, the fact that some participants have entered post-graduate studies and are not yet in the workforce, and overall low response rates to follow-up survey invitations sent by email and SMS.

statistically insignificant.⁴⁷ Meanwhile, like other studies in the emerging research agenda on corrupt self-selection, this study's focus on a single research site leaves open the question of whether results generalize to other universities in other locations throughout Ukraine. 48 The results at this specific university, however, are substantively important in and of themselves, given that this legal academy is a prominent training ground for many of Ukraine's future judges, prosecutors, and investigators. Approximately 10% of judges in the district courts of Ukraine's capital city, Kyiv, and the city in which this university is based—two of Ukraine's largest cities—are alumni, 49 and the university has formalized internship programs with the Office of the Prosecutor General of Ukraine and with the recently created National Police.

5 Discussion

Based on experimental games and a survey with Ukrainian university students at an elite legal academy, this article offers the first evidence of corrupt self-selection in the judicial sector, a critical set of institutions for building the rule of law and fighting corruption, and also expands the study of corrupt self-selection to the post-communist region. The findings show that students with stronger preferences for careers as judges, prosecutors, investigators, and government lawyers display higher propensities for dishonesty, more willingness to engage in a corrupt act, and lower levels of pro-social behavior. Evidence that dishonest or corrupt individuals self-select into public office in the high-corruption European context of Ukraine, combined with earlier findings that such individuals self-select into public office in the high-corruption South Asian context of India (Baneriee et al. 2015; Hanna and Wang 2017) yet self-select out of public office in the low-corruption European context of Denmark (Barfort et al. 2019), indicates that the question of who chooses to become a public official plays a significant role in explaining cross-national variation in levels of corruption.

The findings have implications for both scholars and policymakers. For scholars, evidence of corrupt self-selection potentially offers new insights into corruption's persistence by drawing attention away from the traditional focus on incentives public officials face once in office and placing

^{47.} In the absence of administrative data, these gender ratios were derived from analyzing the patronymics—for Ukrainian names, with few exceptions, male patronymics end in "ch" and female patronymics in "na"—on the hard copy lists of students used to create the original sample frame.

^{48.} Barfort et al. (2019) was conducted at a single university in Denmark. Banerjee et al. (2015) drew on students from just two universities in India, one with a student body exclusively focused on business and the other with students exclusively preparing for a civil service career. And while Hanna and Wang (2017) recruited 669 students from seven Indian universities, all seven were located in a single city.

^{49.} Author's calculations based on court websites and publicly available government archives.

emphasis on incentives shaping aspiring officials' decision to seek public sector employment in the first place. Recognition of corrupt self-selection additionally speaks to the extent to which corruption may become a selfreinforcing phenomenon, with corrupt bureaucracies attracting applicants with a higher propensity to engage in corruption, thereby ensuring that corruption continues to expand. Evidence that corrupt self-selection has survived a multi-year anti-corruption campaign in Ukraine offers insights into how deeply entrenched this cycle may become.

For policymakers, the existence of corrupt self-selection suggests the need for public sector institutions to develop strategies for attracting candidates with integrity, and for filtering out candidates with unfavorable traits. Furthermore, evidence of corrupt self-selection in sectors such as the judiciary indicates that in high-corruption environments many of the institutions most critical for combating corruption are likely to remain unreliable partners in this effort until effective recruiting and screening policies are developed. And, finally, confronted with corruption as a selfreinforcing cycle—a cycle durable enough to withstand anti-corruption campaigns—policymakers must identify novel approaches aimed at changing social norms, particularly among younger generations. Although rigorous evaluation remains limited, policies worthy of consideration include education and informational campaigns, as well as study abroad programs that expose students from high-corruption countries to daily life in low-corruption countries (Gans-Morse et al. 2018: 181–182).

Patterns of self-selection into public office are, of course, not the only factor potentially contributing to the persistence of high-corruption equilibria. The findings of studies such as Gächter and Schulz (2016) and Olsen et al. (2019) that university students in countries with high levels of corruption and other forms of rule breaking are more likely to act dishonestly in laboratory games suggest that the extent to which corrupt behaviors are socially acceptable influences the propensity of younger generations to mimic such behaviors, thereby potentially reproducing patterns of variation in cross-national corruption. These considerations point to the fact that corruption is not just a public sector issue but rather a two-sided problem, at times initiated and encouraged by private sector bribe givers. It is therefore unlikely that the results presented here imply that those self-selecting into private sector legal careers in Ukraine are particularly virtuous. A fruitful agenda for future research would be to examine how these different types of self-perpetuating cycles interact and possibly reinforce each other. Nevertheless, self-selection into public sector institutions of individuals more prone to corruption relative to their peers may be especially problematic, as it would seem both normatively undesirable and particularly harmful for good governance to have individuals driven by pecuniary rather than pro-social motivations seek selfenrichment from abuse of public resources rather than from enterprise in the private sector. This is especially the case when focusing on public sector legal professions—judges, prosecutors, and investigators—who are critical to curbing corruption in other spheres of society.

Overall, more research is also needed on the scope and scale of corrupt self-selection. It is tempting to assume that the phenomenon of corrupt self-selection exists in all countries where corruption is widespread. However, evidence from recent research conducted in Russia suggests this may not be the case. As shown in Gans-Morse et al. (2021), a study using a similar approach to the current study, university students with a propensity to act dishonestly or corruptly appear more likely to self-select out of the public sector, despite the prevalence of corruption in Russia. This finding suggests that other factors, such as levels of state capacity, a country's geopolitical objectives, and opportunities for private sector enrichment both licit and illicit—may moderate the extent to which aspiring civil servants are motivated by the aim of self-enrichment as opposed to public service ideals or pragmatic career considerations even in countries with endemic corruption.

The study of corrupt self-selection, therefore, offers a rich agenda for future research with relevance for scholars seeking to understand corruption's persistence and policymakers seeking to develop viable anticorruption strategies.

Conflict of interest statement. None declared.

Notes

The author thanks participants at the PONARS New Voices on Russia Workshop (Washington, DC, April 11 and 12, 2019), Midwest Eurasian Political Economy Workshop (Chicago, IL, April 4, 2019), Northwestern University Global Capitalism and Law Regional Colloquium (May 31-June 1, 2018), Institute for Corruption Studies Inaugural Workshop on Corruption (Chicago, IL, May 4–5, 2018), and Northwestern University Buffett Institute for Global Studies Faculty and Fellows Colloquium (March 2, 2018), as well as Simeon Nichter, Nicola Persico, and Jason Seawright, for helpful comments; Dmitry Roy for coordinating onsite data collection; and Evgeniia Mikriukova for research assistance. This study was approved by the Northwestern University Institutional Review Board [STU00205974].

References

Abbink, Klaus, and Heike Hennig-Schmidt. 2006. "Neutral versus Loaded Instructions in a Bribery Experiment," 9 Experimental Economics 103-21.

Abbink, Klaus, Bernd Irlenbusch, and Elke Renner. 2002. "An Experimental Bribery Game," 18 Journal of Law, Economics, and Organization 428-54.

Abeler, Johannes, Daniele Nosenzo, and Collin Raymond. 2019. "Preferences for Truth-Telling," 87 Econometrica 1115-53.

- Alatas, Vivi, Lisa Cameron, Ananish Chaudhuri, Nisvan Erkal, and Lata Gangadharan. 2009. "Subject Pool Effects in a Corruption Experiment: A Comparison of Indonesian Public Servants and Indonesian Students," 12 Experimental Economics 113–32.
- Banerjee, Ritwik, Tushi Baul, and Tanya Rosenblat. 2015. "On Self Selection of the Corrupt into the Public Sector," 127 Economics Letters 43-6.
- Banuri, Sheheryar, and Philip Keefer. 2016. "Pro-Social Motivation, Effort and the Call to Public Service," 83 European Economic Review 139-64.
- Barfort, Sebastian, Nikolaj Harmon, Frederik Hjorth, and Asmus Leth Olsen. 2019. "Sustaining Honesty in Public Service: The Role of Selection," 11 American Economic Journal: Economic Policy 96-123.
- Barfort, Sebastian, Nikolaj Harmon, Asmus Olsen, and Frederik Hjorth. 2015. "A Formal Model of Corruption, Dishonesty and Selection into Public Service." Working Paper, University of Copenhagen, Department of Economics.
- Barr, Abigail, and Danila Serra. 2009. "The Effects of Externalities and Framing on Bribery in a Petty Corruption Experiment," 12 Experimental Economics 488-503.
- -. 2010. "Corruption and Culture: An Experimental Analysis," 94 Journal of Public Economics 862-9.
- Benz, Matthias, and Stephan Meier. 2008. "Do People Behave in Experiments as in the Field? Evidence from Donations," 11 Experimental Economics 268–81.
- Berinsky, Adam, Michele Margolis, and Michael Sances. 2014. "Separating the Shirkers from the Workers? Making Sure Respondents Pay Attention on Self-Administered Surveys," 58 American Journal of Political Science 739–53.
- Cameron, Lisa, Ananish Chaudhuri, Nisvan Erkal, and Lata Gangadharan. 2009. "Propensities to Engage in and Punish Corrupt Behavior: Experimental Evidence from Australia, India, Indonesia and Singapore," 93 Journal of Public Economics 843-51.
- Christensen, Robert K., and Bradley E. Wright. 2011. "The Effects of Public Service Motivation on Job Choice Decisions: Disentangling the Contributions of Person-Organization Fit and Person-Job Fit," 21 Journal of Public Administration Research and Theory 723-43.
- Cohn, Alain, and Michel André Maréchal. 2018. "Laboratory Measure of Cheating Predicts School Misconduct," 128 The Economic Journal 2743-54.
- Cohn, Alain, Michel André Maréchal, and Thomas Noll. 2015. "Bad Boys: How Criminal Identity Salience Affects Rule Violation," 82 The Review of Economic Studies 1289–308.
- Darden, Keith. 2008. "The Integrity of Corrupt States: Graft as an Informal State Institution," 36 Politics & Society 35-59.
- De Waal, Thomas. 2016. "Fighting a Culture of Corruption in Ukraine." Carnegie Endowment for International Peace, Reforming Ukraine Project (April 19).
- Engvall, Johan. 2014. "Why Are Public Offices Sold in Kyrgyzstan?," 30 Post-Soviet Affairs
- Fischbacher, Urs, and Franziska Föllmi-Heusi. 2013. Lies in Disguise—An Experimental Study on Cheating," 11 Journal of the European Economic Association 525-47.
- Foglesong, Todd, and Peter Solomon. 2001. Crime, Criminal Justice and Criminology in Post-Soviet Ukraine. NCJ 186166 Issues in International Crime (https://www.ncjrs.gov/ pdffiles1/nij/186166.pdf).
- Franzen, Axel, and Sonja Pointner. 2013. "The External Validity of Giving in the Dictator Game," 16 Experimental Economics 155-69.
- Gächter, Simon, and Jonathan F. Schulz. 2016. "Intrinsic Honesty and the Prevalence of Rule Violations across Societies," 531 Nature 496–9.
- Gans-Morse, Jordan, Mariana Borges, Alexey Makarin, Theresa Mannah-Blankson, Andre Nickow, and Dong Zhang. 2018. "Reducing Bureaucratic Corruption: Interdisciplinary Perspectives on What Works," 105 World Development 171–88.
- Gans-Morse, Jordan, Alexander Kalgin, Andrei Klimenko, Dmitriy Vorobyev, and Andrei Yakovlev. 2021. "Self-Selection into Public Service When Corruption Is Widespread: The Anomalous Russian Case," 54 Comparative Political Studies 1086–128.

- Georgakopoulos, Nicholas. 2000. "Discretion in the Career and Recognition Judiciary," 7 University of Chicago Law School Roundtable 205-25.
- Gorodnichenko, Yuriy, and Klara Sabirianova Peter. 2007. "Public Sector Pay and Corruption: Measuring Bribery from Micro Data," 91 Journal of Public economics 963-91.
- Hanna, Rema, and Shing-Yi Wang. 2017. "Dishonesty and Selection into Public Service: Evidence from India," 9 American Economic Journal: Economic Policy 262–90.
- Hendley, Kathryn. 2010. "The Role of in-House Counsel in Post-Soviet Russia in the Wake of Privatization," 17 International Journal of the Legal Profession 5-34.
- 2019. "Nature versus Nurture: A Comparison of Russian Law Graduates Destined for State Service and for Private Practice," 41 Law & Policy 147-73.
- Holt, Charles, and Susan Laury. 2002. "Risk Aversion and Incentive Effects," 92 American Economic Review 1644-55.
- Kim Sangmook, Wouter Vandenabeele, Bradley E. Wright, Lotte Bøgh Andersen, Francesco Paolo Cerase, Robert K. Christensen, Céline Desmarais, et al. 2013. "Investigating the Structure and Meaning of Public Service Motivation across Populations: Developing an International Instrument and Addressing Issues of Measurement Invariance," 23 Journal of Public Administration Research and Theory 79-102.
- Klašnja, Marko, Andrew Little, and Joshua Tucker. 2016. "Political Corruption Traps," 6 Political Science Research and Methods 413-28.
- Lough, John, and Vladimir Dubrovskiy. 2018. "Are Ukraine's Anti-Corruption Reforms Working?" Chatham House Russia and Eurasia Programme Working Paper (November).
- Olken, Benjamin, and Rohini Pande. 2012. "Corruption in Developing Countries," 4 Annual Review of Economics 479–509.
- Olsen, Asmus Leth, Frederik Hjorth, Nikolaj Harmon, and Sebastian Barfort. 2019. "Behavioral Dishonesty in the Public Sector," 29 Journal of Public Administration Research and Theory 572–90.
- Perry, James, Annie Hondeghem, and Lois Wise. 2010. "Revisiting the Motivational Bases of Public Service: Twenty Years of Research and an Agenda for the Future," 70 Public Administration Review 681–90.
- Perry, James, and Lois Wise. 1990. "The Motivational Bases of Public Service," 50 Public Administration Review 367-73.
- Perry, James L. 1996. "Measuring Public Service Motivation: An Assessment of Construct Reliability and Validity," 6 Journal of Public Administration Research and Theory 5-22.
- Schott, Carina, Oliver Neumann, Muriel Baertschi, and Adrian Ritz. 2019. "Public Service Motivation, Prosocial Motivation and Altruism: Towards Disentanglement and Conceptual Clarity," 42 International Journal of Public Administration 1200–11.
- Svensson, Jakob. 2005. "Eight Questions about Corruption," 19 The Journal of Economic Perspectives 19-42.
- Treisman, Daniel. 2007. "What Have We Learned about the Causes of Corruption from Ten Years of Cross-National Empirical Research?," 10 Annual Review of Political Science 211-44.
- Wade, Robert. 1985. "The Market for Public Office: Why the Indian State Is Not Better at Development," 13 World Development 467-97.
- Weaver, Jeffrey. 2017. "Jobs for Sale: Bribery and Misallocation in Hiring." Working Paper, University of California, San Diego, Department of Economics.
- Wright, Bradley, and Adam Grant. 2010. "Unanswered Questions about Public Service Motivation: Designing Research to Address Key Issues of Emergence and Effects," 70 Public Administration Review 691-700.
- Zhu, Jiangnan. 2008. "Why Are Offices for Sale in China? A Case Study of the Office-Selling Chain in Heilongjiang Province," 48 Asian Survey 558-79