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Corruption, Attitudes, and Education: Survey Evidence from Nepal

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Summary. — Social norms can reduce the costs of corrupt behavior and push a society toward a high-corruption equilibrium, but what determines individual attitudes toward corruption? How does acceptance vary across different types of corrupt behavior? An original survey of Kathmandu residents shows substantial variation in attitudes toward different types of corrupt behavior. Overall, respondents generally agreed that large-scale bribery was unacceptable, but there was relative discord over behaviors involving petty corruption, gift giving, and favoritism. Education consistently emerged as the primary determinant of these attitudes, with more educated respondents showing less accepting attitudes across the range of corrupt behaviors. These findings suggest that improving access to education in developing countries may reduce the presence of corruption norms and ultimately corruption itself, although further research is needed to test the strength of these relationships outside of Nepal.

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1. INTRODUCTION

Corruption and development are decisively linked. Corruption hinders economic growth by reducing investment (Lambdsdorff, 2003; Mauro, 1995; Wei, 2000), diverting public resources (Mauro, 1998; Olken, 2006), and increasing business costs (Ades & Di Tella, 1997; Kaufmann, 1997; Shleifer & Vishny, 1993). Conversely, underdevelopment creates environments conducive to corruption, environments where governments operate without the constraints of the rule of law and an empowered citizenry (Rose-Ackerman, 2004). Because of this interrelationship, measures that promote growth may contribute to good governance, and measures that improve governance may contribute to healthy growth (Holmberg, Rothstein, & Nasiritousi, 2009).

For those interested in the governance side of the equation, the first task is to understand the causes of corruption and poor governance more broadly. With the advent of Transparency International's Corruption Perceptions Index (CPI) and other perceptions-based indices, a number of studies have employed cross-national regressions to isolate various factors associated with lower levels of corruption. Some of these factors include: political competition (Montinola & Jackman, 2002), female representation in government (Swamy, Knack, Lee, & Azfar, 2001), Protestant traditions, histories of British rule, federalism, exposure to democracy (Treisman, 2000), low barriers to market entry (Broadman & Recanatini, 1999), trade openness (Ades & Di Tella, 1997, 1999), merit-based recruitment (Evans & Rauch, 2000), and high public wages (van Rijckeghem & Weder, 2001).¹ Recent analysis, using bribe experience data instead of perceptions-based corruption indices, has raised questions about the robustness of these findings (Treisman, 2007), but it is likely that certain macro-level economic and political institutions can limit the extent of corruption.

Another common argument, one that this article aims to explore, is that corruption is perpetuated by social norms. Fisman and Miguel (2007) utilize a natural experiment in New York City to show that UN diplomats from corrupt countries are more likely to park illegally, indicating the presence of a corruption norm.² Others have used laboratory experiments to simulate a corruption game, finding that participants from corrupt countries display more corrupt

behavior (Barr & Serra, 2006). Scholars and citizens of the developing world consistently describe a “culture of corruption” where corruption is the rule, not the exception (Smith, 2008).

This literature does well to establish the existence of corruption norms, but two aspects of the issue remain under researched. First, the term corruption is inherently multi-dimensional, capturing everything from bribery to extortion, from nepotism to embezzlement. Second, attitudes toward different corrupt behaviors are not uniform. Some citizens condone corruption, while others actively fight against it. The purpose of this article is to gain clarity on these two aspects of corruption norms. How do norms and societal acceptance vary across different types of corruption? What determines an individual's acceptance of corrupt behavior?

To address these questions, an original survey was developed to isolate attitudinal differences across seven dimensions of corruption. This “Corruption Acceptance Survey” (CAS) was administered in Kathmandu in June 2009 to 853 Nepali citizens. The results show substantial variation in attitudes toward different types of corrupt behavior. Kathmandu residents were significantly more accepting of behaviors involving favoritism and small-scale petty corruption, especially situations where a citizen was seeking access to deserved services. Overall, there was greater disagreement among citizens over behaviors outside of the typical bribery scenario, and the informal constraints against these forms of corruption may be weaker as a result.

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With respect to the second question, the determinants of individual attitudes, the article focuses on one potential answer: education. Education is commonly viewed as a driver of moral perspectives and actions (Hauk & Marti, 2002; Hyman & Wright, 1979). Research has shown that more educated citizens are more tolerant of non-conformist groups (Bobo & Licari, 1989), more committed to civil liberties, and more likely to be opposed to government repression (Hall, Rodegheir, & Useem, 1986). This article argues that education has similar benefits for reducing the presence of corruption norms. Regression analysis shows that more educated Nepalis are generally less accepting of corrupt behavior, and this effect is consistent across attitudes toward the different types of corruption captured in the CAS. These findings suggest that improving access to education in developing countries can reduce the presence of corruption norms and ultimately corruption itself, although further research is necessary to test the strength of these relationships outside of Nepal.

The remainder of the article is structured as follows. Section 2 provides background information on related literature and the nature of corruption in Nepal. Section 3 describes the survey design, and Section 4 details the empirical analysis and results for both research questions. In Section 5, I consider the limitations of the analysis. Section 6 concludes with a speculative note on the implications of the findings for patterns of corruption incidence.

2. BACKGROUND

(a) Existing literature

Formal theory provides a helpful framework for understanding how corruption norms relate to incidence. Cadot (1987) models a situation where bribe-seeking bureaucrats view their decision as a gamble, running the risk of being fired by a privy superior. After introducing the possibility that superiors may also be corrupted, Cadot finds that corruption at different levels feeds on itself; the probability of being fired diminishes with increased corruption throughout the civil service. Andvig and Moene (1990) report similar findings after examining the corruption game from a supply-demand perspective. When the level of corruption increases, government bureaucrats will in turn “supply” more corruption because the expected rate of detection and punishment decreases. On the demand side, an increase in the general incidence of corruption will lower the transaction costs of finding a corruptible official, resulting in more offering of bribes. The end result of both models is that small shifts in the relative costs of corruption can result in long-lasting, substantial changes in a country’s equilibrium level of corruption.

Corrupt actors will weigh the benefits of corruption against its costs (Goel & Rich, 1989), and a personal and societal acceptance of corruption reduces those costs. If a citizen and her neighbors, friends, co-workers, aunts, uncles, and parents do not view corruption with disdain, the moral costs of behaving corruptly are reduced. Based on a series of interviews in four post-communist countries, Miller (2006) finds that accepting attitudes are correlated with corrupt behavior.³ Acceptance similarly reduces the real costs of corruption, namely the likelihood of detection and punishment. Citizens that accept corruption are less likely to file formal complaints when propositioned for a bribe or victimized through less direct means.⁴ Widespread acceptance of corruption only furthers its incidence, pushing a society toward the high-corruption equilibrium.

An important point, one frequently forgotten during abstract discussions of equilibrium and strictly dominant strategies, is that so-called “corruption norms” are perpetuated not because citizens believe corruption and malfeasance are desirable outcomes, but because the behaviors deemed legally and officially corrupt are often justified by local social practices. Holders of public office find themselves in a “schizophrenic situation” (de Sardan, 1999), caught between two conflicting values systems. Western bureaucratic norms emphasize public service and impartiality, but local social norms emphasize gift giving and the distribution of spoils to kinship and solidarity networks (Werner, 2000). Anthropologists consistently emphasize that corruption is socially constructed—what is viewed as corruption varies from context to context (Granovetter, 2007; Hasty, 2005; Scott, 1969) and, as the analysis here will show, from person to person.

Social scientists have begun to investigate the determinants of corrupt behaviors and norms by using data from the World Values Survey (WVS), a worldwide poll on values and cultural change. Respondents are asked to rate whether “someone accepting a bribe in the course of their duties” is justifiable on a scale of one to ten. Using responses from this question, a World Bank working paper finds that women, employed, less wealthy, and older individuals are less accepting of corruption (Gatti, Paternostro, & Rigolini, 2003). Swamy *et al.* (2001) also show that women are consistently less likely to condone bribery and participate in corruption.⁵

This line of research has begun to unravel the individual determinants of corrupt behavior, but there are two methodological concerns. First, the arguments rely on a single “corruption question” from the WVS, equating corruption with bribe-acceptance. As mentioned previously, corruption is multidimensional, capturing behaviors well beyond bureaucrats “accepting a bribe in the course of their duties.” Norms may differ across different types of corruption, with different consequences. A definition limited to bribery will fail to capture this important variation. Second, the use of cross-national data and comparisons may obscure trends and relationships specific to certain countries. The detailed micro-data in this study aim to complement the cross-national work by providing insight into the nature of corruption norms in a single place.

(b) Corruption in Nepal

Nepal continues to face endemic corruption despite its recent democratization. The latest Transparency International CPI rankings give Nepal a 2.2 rating, placing it in the bottom third of rated countries. These perceptions reflect the reality of corruption in everyday life. In a nationwide survey, Transparency International Nepal (TIN) found that nearly 20% of Nepalis faced some form of corruption in the process of being admitted to hospitals, 50% reported corruption in interactions with the police, and 25% experienced corruption in dealing with tax collectors (2002).⁶

The Nepali government has recently taken steps to combat corruption. The Anti-Corruption Act of 2002 established the National Vigilance Center (NVC), tasked with playing a preventative and promotional role in the fight against corruption. In 2007 Nepal’s Interim Constitution granted the Commission for the Investigation of Abuse of Authority (CIAA), another oversight body, the power to take legal action against public officials suspected of corruption. Despite these welcome changes, many Nepalis remain skeptical that the anti-corruption institutions will have success in prosecuting corrupt politicians and officials. Over 60% of Nepalis surveyed in this

Table 1. *Corruption dimensions*

Dimension	Description
1. Petty <i>versus</i> Grand	Do respondents have different standards for petty corruption and grand corruption? Does the scale of the transaction matter?
2. Gifts <i>versus</i> Cash	Do respondents have different standards for non-monetary and monetary bribes? Is gift-giving condoned?
3. Public <i>versus</i> Private	Do respondents have different standards for public and private actors? Is there a tendency to conflate public and private behavior?
4. Politician <i>versus</i> Bureaucrat	Do respondents have different standards for politicians and bureaucrats? Is political patronage condoned?
5. Deserved <i>versus</i> Illicit	Are respondents sympathetic toward citizens using bribes to obtain deserved services? Do respondents condone corruption involving illicit services?
6. Giver <i>versus</i> Receiver	Do respondents have different standards for givers and receivers of bribes? Do respondents only condemn the public servant?
7. Favoritism	Do respondents accept behaviors involving family and friends? Do respondents view favoritism as corruption?

study believed that the corruption problem would stay the same or continue to grow worse over the next 10 years.

3. SURVEY DESIGN

Societies like Nepal may have traditional norms that make it difficult to draw distinctions between appropriate and inappropriate, acceptable and unacceptable, legal and illegal (Rose-Ackerman, 1999, p. 91). To understand attitudes toward corruption beyond simple bribe-receiving behaviors, the CAS contained a series of questions to test for acceptance across seven dimensions of corruption. Scholars have argued that corrupt societies may have norms that blur the distinction between public and private roles, conflate gift-giving and bribery, promote favoritism and the distribution of spoils, condone practices that circumvent the formal bureaucracy, or overlook small-scale, petty corruption (de Sardan, 1999; Rose-Ackerman, 1999; Smith, 2001; Werner, 2000). The dimensions, presented in Table 1, reflect some of these central conceptual distinctions and claims made in the corruption literature.

The CAS asked participants a series of thirteen questions that contained short descriptions of behaviors. For each question, respondents gave their opinion of the behavior on a Likert scale of one to five, with one being "very acceptable," five being "very unacceptable," and three being the neutral point, "neither acceptable or unacceptable." Lower scores indicate greater acceptance of the behavior.

To isolate differences in attitudes, question groups presented identical situations with slight variations along a given dimension. The Gifts *versus* Cash pairing presented a situation where a shopkeeper offers a tax collector a bribe in order to avoid paying taxes. In Q2, the bribe was a small amount of money, while in Q3 the bribe was a small gift. In this way, any differences between the two answers are evidence that the respondent drew some distinction between monetary and non-monetary bribes. Similarly, Q11 and Q12 presented an identical situation and asked the respondent to rate the acceptance of bribe givers and bribe recipients. In Q11, a schoolteacher offers a government employee a small gift, and in Q12, the government employee asks for a small gift. Differences between the acceptance ratings on these behaviors indicate that the respondent makes a distinction along the Giver *versus* Receiver dimension. The survey employed a similar strategy along the other dimensions.

Table 2 lists the 13 questions, their associated corruption dimensions, and their counterpoint questions for comparison. Some questions were used to measure two corruption dimensions and therefore have two counterpoint questions. Each question is also given a shorthand name that will be used for future reference.⁷

4. EMPIRICAL ANALYSIS AND RESULTS

(a) *Testing for the relative presence of corruption norms*

The first research question concerns variance in attitudes toward different types of corruption. In general, societal norms may promote corrupt behavior, but what specific behaviors do residents of Kathmandu deem more and less acceptable?

Figure 1 presents the average scores and 95% confidence intervals for the 13 different behaviors presented in the CAS. Lower scores indicate that the behavior was considered more acceptable. The confidence intervals offer a visual way of conducting a difference of means hypothesis test. For a given dimension, if the confidence intervals for the two relevant behaviors do not overlap, the differences in scores are statistically significant at the 5% level. Although all behaviors received average scores above three, a closer inspection reveals that certain behaviors are more acceptable than others, and certain dimensions are more relevant than others.

Perhaps the most salient distinction surrounds Dimension 1, Petty *versus* Grand. A comparison of Q1 and Q2 shows that the scale of corruption does indeed matter; recipients rated the petty corruption behavior as significantly more acceptable than the equivalent grand corruption behavior. The non-monetary, gift bribe in Q3 was even more acceptable on average, although the difference between Q2 and Q3 is not significant by conventional standards.

Moving to the Public *versus* Private dimension, the data imply that respondents did tend to hold different attitudes toward public and private behaviors. Awarding a job to a less qualified family member was a relatively acceptable behavior for a private businessman, but it seemed wholly unacceptable for a politician or bureaucrat to do the same. Interestingly, respondents rated the behavior roughly the same for politicians and bureaucrats, suggesting that these public actors are held to similar standards. Awarding a contract to a friend was also a more acceptable behavior for private than public actors, shown in the difference in scores for Q7 and Q8.

Out of the 13 behaviors presented in the CAS, the behavior presented in Q10 was the second most acceptable overall. Here, a schoolteacher offers a bribe to obtain a deserved service in response to a bureaucratic delay. Respondents rated this behavior significantly more acceptable than Q11, where a bribe was offered to gain an illicit service and advantage. Respondents seemed to excuse forms of corruption used to circumvent the unwieldy bureaucracy. However, the Giver *versus* Receiver dimension did not emerge as particularly salient. Respondents viewed the behaviors in Q11 and Q12 as equally unacceptable; both public servants and citizens are condemned for perpetuating corruption.

Table 2. *Questions and dimensions*

Question	Dimension (#)	Question Name	Comparison
Q1. A businessman offers a senior customs official a large amount of money in order to import goods without paying taxes	Grand (1)	Grand cash	Q2
Q2. A shopkeeper offers a tax collector a small amount of money in order to avoid paying taxes	Petty (1)/Cash (2)	Petty cash	Q1, Q3
Q3. A shopkeeper offers a tax collector a small gift in order to avoid paying taxes	Gift (2)	Petty gift	Q2
Q4. A politician gives a job to a family member even though other applicants are more qualified	Public (3)/Politician (4)	Politician job	Q5, Q6
Q5. A businessman gives a job to a family member even though other applicants are more qualified	Private (3)	Private job	Q4, Q6
Q6. A government employee gives a job to a family member even though other applicants are more qualified	Public (3)/Bureaucrat (4)	Bureaucrat job	Q4, Q5
Q7. A construction contractor gives a government employee a large gift in hopes of receiving a government construction contract	Public (3)	Public contract	Q8
Q8. A construction contractor gives a businessman a large gift in hopes of receiving a private construction contract	Private (3)	Private contract	Q7
Q9. A government employee awards a government construction contract to a friend's business because he is a friend	Favoritism (7)	Favoritism contract	Q13
Q10. Because of a delay, a schoolteacher gives a government employee a small gift in order to make sure that his passport gets processed	Deserved (5)	Deserved giver	Q11
Q11. A schoolteacher gives a government employee a small gift in order to obtain a passport without proper documentation	Illicit (5)/Giver (6)	Illicit giver	Q10, Q12
Q12. A government employee asks a schoolteacher for a small gift in exchange for giving him a passport without proper documentation	Receiver (6)	Illicit receiver	Q11
Q13. A police officer does not give a taxi-driver a traffic ticket because he is a friend	Favoritism (7)	Favoritism ticket	Q9

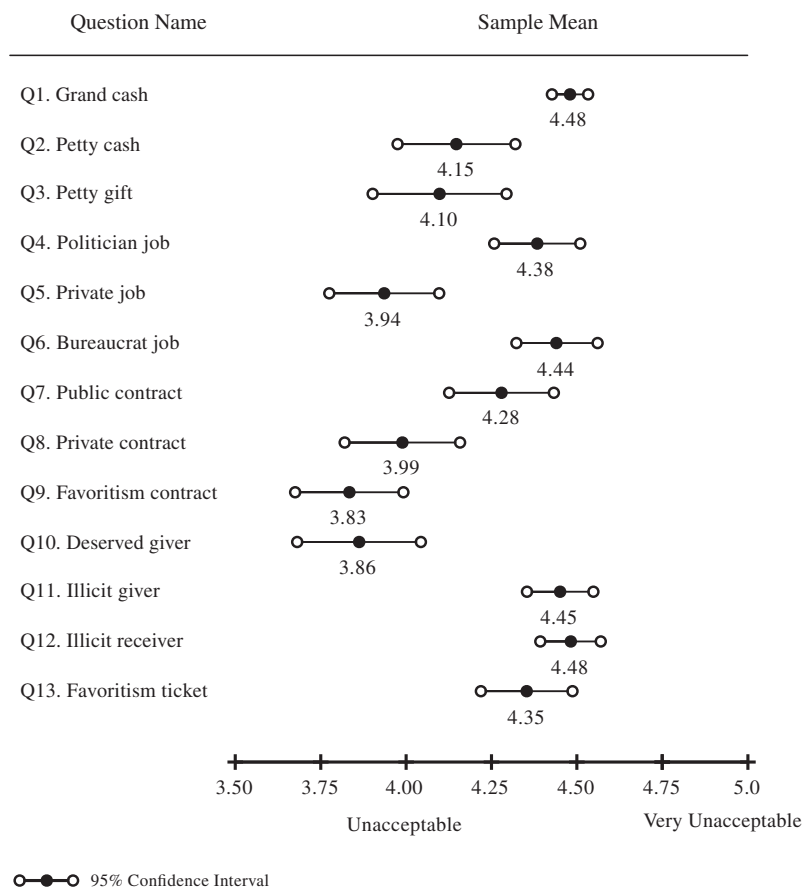


Figure 1. *Corruption acceptance survey summary.*

Respondents' attitudes toward favoritism may depend on the context. The behavior in Q9, where a government employee awards a contract to a friend, received an average score of 3.83, the "most acceptable" score of all behaviors. In contrast, the situation where a police officer chooses not to give a traffic ticket to a friend was viewed as relatively unacceptable, on the level of some of the bribery behaviors. Perhaps Nepalis condone the distribution of benefits to friendship networks but not if it results in inequality before the law.

Figure 1 also illustrates the extent of disagreement over whether or not behaviors are acceptable. Questions with tight confidence intervals, like the bribery scenarios in Q1, Q11, and Q12, are situations where there was general consensus among respondents. Situations outside of this standard conception of corruption, such as the favoritism behavior in Q9, the gift giving behavior in Q3, and the patronage behavior in Q4, have much larger confidence intervals, indicating relative societal discord about the moral correctness of these behaviors.

To summarize, among Kathmandu residents, there is substantial variance in attitudes toward different types of corrupt behavior. Respondents were more accepting of small-scale, petty corruption, especially situations where a citizen was seeking access to deserved services. Relative to bribery, favoritism also emerged as more acceptable, although attitudes likely depend on the specific context. The aggregated survey responses suggest that respondents do draw distinctions between public and private behavior. In contrast, respondents made no significant distinctions between gift and cash bribes, receivers and givers of bribes, and nepotism involving politicians and bureaucrats. In general, behaviors outside of the

typical, large-scale bribery scenario proved more socially acceptable, a theme we will return to in Section 6.

(b) Education and corruption acceptance

We turn now to our second research question. Within a society, what explains variance in attitudes toward corrupt behaviors across individuals? To test whether education is related to acceptance of corruption, I employ standard OLS regression techniques to assess the explanatory power of education on an aggregate indicator of acceptance, controlling for other covariates.

The dependent variable is PUBSCORE, the respondent's average score for the eleven CAS behaviors involving public actors. This score excludes responses to Q5 and Q8, which do not involve public actors and therefore do not fall under the standard definition of corruption. The average PUBSCORE was 4.26, with higher scores again indicating less acceptance of corruption. Education, the independent variable of interest, was coded into five categories based on the respondents' highest level of schooling completed: no formal schooling, elementary school (years 1–5), middle school (years 6–8), high school (years 9–12), and university level (years 13 and beyond).

Table 3 summarizes the output of regressions of PUBSCORE on education. The first model includes only indicators for elementary school education, middle school education, high school education, and university level education. Respondents with no education represent the basis for comparison. Model 2 includes personal variables for gender, age, and region of origin. These represent covariates that are causally

Table 3. Effects of education on general corruption acceptance (OLS)

	(1)	(2)	(3)	(4)
Elem school	0.160** (0.0684)	0.185** (0.0705)	0.126** (0.0526)	0.111* (0.0509)
Middle school	0.180** (0.0612)	0.232*** (0.0610)	0.156*** (0.0478)	0.152** (0.0536)
High school	0.227*** (0.0664)	0.317*** (0.0603)	0.243*** (0.0686)	0.237*** (0.0746)
University	0.301*** (0.0495)	0.366*** (0.0405)	0.359*** (0.0454)	0.342*** (0.0520)
Female		−0.00931 (0.0495)	−0.0137 (0.0432)	−0.0265 (0.0354)
Age		0.00477*** (0.00137)	0.00145 (0.00133)	0.000637 (0.00134)
Mtn region		0.102 (0.0946)	0.0276 (0.106)	0.00676 (0.0909)
Terai region		−0.00513 (0.0505)	−0.00315 (0.0449)	−0.00293 (0.0443)
Village		0.0122 (0.0321)	0.0293 (0.0270)	0.0329 (0.0258)
High income				0.0155 (0.0316)
Bribe experience				−0.0321 (0.0371)
Constant	4.068*** (0.0719)	3.847*** (0.0739)	3.987*** (0.0971)	4.013*** (0.107)
Enumerator fixed effects	No	No	Yes	Yes
Occupation dummies	No	No	No	Yes
R ²	0.050	0.065	0.191	0.207

All regressions use OLS weighted for design effects. $N = 853$. The dependent variable is PUBSCORE, the respondent's average score for the eleven public behaviors on the CAS. Occupation dummies include indicators for farmer, housewife, businessperson, teacher, and government employee. Higher scores indicate less acceptance of corruption. Standard errors in parentheses.

* $p < 0.10$.
 ** $p < 0.05$.
 *** $p < 0.01$.

Table 4. *Effects of education on attitudes toward corrupt behaviors (ordered probit)*

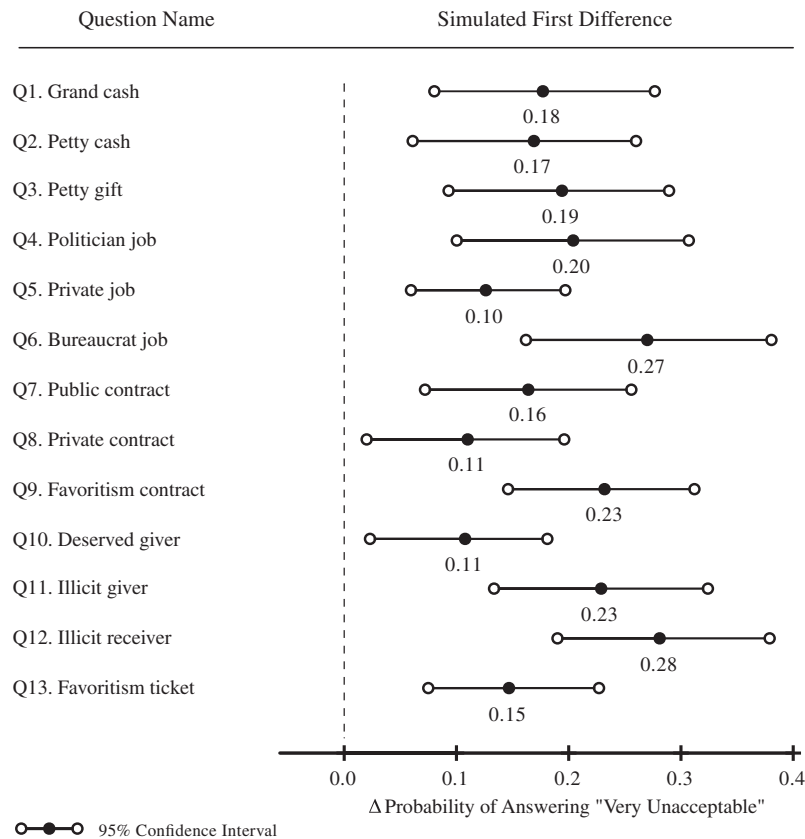
	Q1 Grand cash	Q2 Petty cash	Q3 Petty gift	Q4 Politician job	Q5 Private job	Q6 Bureaucrat job	Q7 Public contract	Q8 Private contract	Q9 Favoritism contract	Q10 Deserved giver	Q11 Illicit giver	Q12 Illicit receiver	Q13 Favoritism ticket
Elem school	0.138 (0.202)	0.0162 (0.264)	0.160 (0.177)	0.188 (0.197)	0.158 (0.152)	0.288 (0.191)	0.221 (0.133)	0.244* (0.116)	0.0262 (0.136)	0.245 (0.158)	0.406* (0.202)	0.228 (0.161)	0.135 (0.152)
Middle school	0.107 (0.154)	0.139 (0.124)	0.207 (0.153)	0.324** (0.142)	0.302** (0.136)	0.188 (0.131)	0.164 (0.137)	0.239 (0.146)	0.300* (0.152)	0.183* (0.100)	0.145 (0.171)	0.328* (0.151)	0.319** (0.141)
High school	0.347* (0.159)	0.272 (0.154)	0.308* (0.163)	0.372* (0.186)	0.319** (0.136)	0.365** (0.148)	0.333** (0.147)	0.451** (0.154)	0.387** (0.133)	0.280** (0.124)	0.393** (0.158)	0.520*** (0.129)	0.281** (0.121)
University	0.518*** (0.155)	0.476*** (0.139)	0.523*** (0.111)	0.591*** (0.120)	0.498*** (0.136)	0.662*** (0.093)	0.469*** (0.115)	0.318* (0.155)	0.638*** (0.110)	0.309*** (0.090)	0.660*** (0.198)	0.736*** (0.124)	0.464*** (0.107)
Female	-0.121** (0.050)	-0.0785 (0.122)	-0.0204 (0.107)	-0.0332 (0.058)	-0.0608 (0.130)	-0.0360 (0.086)	-0.118 (0.141)	-0.0811 (0.081)	-0.00568 (0.112)	-0.0706 (0.053)	0.109 (0.114)	0.0463 (0.084)	-0.0175 (0.0751)
Age	0.00079 (0.004)	0.00087 (0.005)	0.0035 (0.006)	-0.0042 (0.003)	-0.0006 (0.005)	0.0025 (0.004)	0.0043 (0.006)	0.0032 (0.006)	0.0106** (0.0045)	-0.0034 (0.0041)	0.00443 (0.005)	0.0058* (0.003)	0.0020 (0.004)
Mtn region	-0.494 (0.288)	-0.331 (0.212)	0.0227 (0.287)	0.278 (0.258)	-0.166 (0.210)	0.247 (0.279)	0.144 (0.212)	-0.0164 (0.148)	-0.00993 (0.161)	0.146 (0.322)	-0.250 (0.285)	0.198 (0.291)	0.0688 (0.344)
Terai region	0.0503 (0.118)	0.0286 (0.081)	0.0817 (0.073)	-0.0684 (0.103)	-0.0401 (0.086)	0.151 (0.148)	0.0215 (0.058)	-0.0159 (0.056)	-0.0221 (0.0979)	-0.0378 (0.0657)	0.0471 (0.093)	-0.0337 (0.120)	-0.221 (0.137)
Village	0.0455 (0.057)	-0.0158 (0.067)	0.0584 (0.072)	-0.0199 (0.067)	0.0840 (0.078)	-0.0995 (0.088)	0.141 (0.092)	0.201* (0.106)	-0.0563 (0.107)	0.252*** (0.070)	0.112 (0.104)	0.0566 (0.044)	0.137 (0.097)

All regressions use ordered probit, weighted for design effects, with dummies to account for enumerator fixed effects. $N = 853$. The dependent variables are the scores for different questions in the CAS, which range in a five point scale from 1 to 5. Higher scores indicate less acceptance of corruption. Constants and cutoff points not shown. Standard errors in parentheses.

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.01$.



Note: Points represent the mean simulated first difference between respondents with no education and respondents with university education in the probability of answering "Very Unacceptable" (score 5) to a given question. Simulations derived from ordered probit regressions, shown in Table 4.

Figure 2. First differences between uneducated and university-educated respondents in the probability of answering "very unacceptable".

prior to education, our independent variable of interest. Model 3 includes dummies for "enumerator fixed effects" to account for enumerator influences on respondents' answers. This will be used as the baseline specification for further analysis. Model 4 includes additional controls for income level, occupation, and personal experiences with corruption.⁸

In all four specifications, respondents with higher levels of education showed less accepting attitudes. This attitudinal effect continues at each additional level of education, with university graduates less tolerant than high school graduates, high school graduates less tolerant than middle school graduates, and so forth. This effect was robust to the inclusion of the personal covariates, which generally had relatively little explanatory power. Overall, there is evidence that education does indeed have positive benefits on reducing tolerance of corrupt behaviors, and that these effects continue at higher levels of schooling.

The PUBSCORE index is a richer conception of a respondent's attitudes toward corruption than a single bribery question, yet the value of the CAS is to showcase variance in attitudes across different types of behaviors. The positive effects of education may extend to many different corrupt behaviors, or the findings may be driven by responses to only a few of the questions.

Table 4 investigates these possibilities with ordered probit regressions of attitudes toward specific corrupt behaviors on the respondents' education, including the baseline set of controls in Model 3. Although the magnitude of the effect varies somewhat across the questions, the results show that education is consistently associated with less accepting attitudes across

different types of corrupt behavior. The effect is smallest for the situation in Q10, where the schoolteacher employs bribery to obtain a deserved service, possibly because more educated respondents were sympathetic to this situation. The "favoritism contract" question (Q9), where an official awards a contract to a friend, shows a considerably larger effect. Education is strongly associated with less accepting attitudes toward this behavior, which falls outside of the typical bribery scenario.

It is helpful to translate the results of the ordered probit regressions into more meaningful quantities of interest. Using simulation techniques (King, Tomz, & Wittenberg, 2000), we can find the expected probability of a university educated respondent rating a given behavior as "very unacceptable" and compare this to the probability of an uneducated respondent answering the same. Figure 2 presents these simulated first differences, the change in probability of rejecting a behavior associated with moving the hypothetical respondent from the uneducated to the university-educated category.⁹ In expectation, a university-educated respondent has a 0.27 higher probability of viewing the bureaucrat's nepotism in Q6 as "very unacceptable," relative to an uneducated respondent with identical values for the other covariates. The figure again illustrates that the effect of education is relatively constant across behaviors, and statistically and substantively significant.

5. DISCUSSION

The article argues that Nepali citizens hold different attitudes toward different types of corrupt behaviors—with small-scale,

petty corruption involving deserved services being generally more acceptable than grand corruption or malfeasance involving illicit services, among other findings. With respect to determinants of individual attitudes, the analysis shows that acceptance of corruption continually decreases with increased education. The general robustness of the relationships gives some confidence in the validity of these arguments, but it is important to assess the strength of the findings and acknowledge the limitations of the analysis and research design.

Survey responses are notoriously susceptible to bias, and the findings presented here could potentially be vulnerable to social desirability bias (SDB). SDB occurs when respondents alter their answers to be perceived as more socially desirable and acceptable (Arnold & Feldman, 1981; Chung & Monroe 2003). Studies have shown that respondents downplay violence in their marriages (Szinovacz & Egle, 1995) while inflating church attendance (Presser & Stinson, 1998), all in an effort to be liked. Respondents may have reported biased answers on certain CAS questions, leading to the variance in attitudes across questions shown in Figure 1. It is also possible that more educated respondents were not inherently less accepting of corruption—they may have rated corruption as unacceptable not because they actually believed it is so, but because they knew that “unacceptable” was the socially correct answer.

With respect to the variance in attitudes across different types of corruption, there are theoretical reasons to believe that SDB need not jeopardize the substantive findings. As Fisher and Katz (2000) note, the degree to which social desirability bias affects responses is related to the “relative importance of values within a culture.” Thus, if a respondent biases her answer on the grand corruption behavior in Q1, it is because she recognizes that there is societal value against such behavior. If she does not bias her answer in the petty corruption situation in Q2, it is because she does not feel societal pressure to say that she views the behavior as unacceptable. In other words, the magnitude of social desirability bias itself is likely based on the recognition of societal values. As the survey is aimed at measuring such norms, this bias would not distort the findings concerning the relative acceptance of different behaviors.

If more educated respondents were more likely to bias their answers, SDB would essentially represent an omitted variable, confounding the theorized relationship between education and corruption attitudes. This story is certainly possible, but there is no *a priori* reason for believing that education is positively correlated with SDB. Educated respondents, more independent and empowered, may in fact be less affected by the need to impress the enumerators. For the findings to be completely spurious, it would also have to be the case that SDB continually increases with increasing levels of education, with university educated respondents more biased than high school educated respondents, high school educated respondents more biased than middle school respondents, and so on. It seems more plausible that further education changes the way a respondent evaluates civic norms than her need to be liked by enumerators, although the reader must weigh the relative merits of the possible stories herself.

6. CONCLUSION

In his classic discussion of the causes of low state capacity among developing countries, Migdal argues that the state is just “one organization among many” and must compete with existing social institutions to control the rules that govern citizens’ behavior (1988, p. 29). Anti-corruption norms confront a similar challenge. Values emphasizing impartiality and an ethic of public service clash with traditional values of gift-giving, favoritism, and distributing benefits to kinship and solidarity networks. In Kathmandu, Nepal, and places like it, the definitions of right and wrong, acceptable and unacceptable are actively debated and continually refined. The analysis here has suggested that education, as the key driver of social norms, plays a central role in the debate. This gives cause for cautious optimism—as Nepal continues to develop and improve its education system, more and more citizens will have access to education, and patterns of social norms may tip further away from corruption acceptance.

Still, some norms may be “stickier” than others. In general, survey respondents agreed that it was unacceptable for a businessman to bribe a customs official to avoid paying taxes, or for a government employee to request a gift in exchange for awarding a passport without proper documentation. There was less agreement over whether it was unacceptable for an official to award a construction contract to a friend, or for a shopkeeper to offer a tax collector a small gift to avoid paying taxes. More generally, the survey findings suggest that there is relative consensus that the standard, large-scale bribery scenario is unacceptable, but there is more discord about behaviors involving favoritism, patronage, and small-scale petty bribes. These norms may be more resistant to change, and the informal, social constraints surrounding these behaviors more lax as a result.

Despite the wealth of research on the causes of corruption, we know surprisingly little about how patterns of corruption incidence change through the processes of economic development and modernization. Societies may gradually move toward cleaner government, from a high-corruption equilibrium to a low-corruption equilibrium, but what types of corruption are eliminated first? What sorts of government abuses tend to persist despite improvements in the rule of law?

The analysis in this article is certainly too limited in scope to answer these questions, but it does hint at a potentially relevant factor. If some norms are indeed “stickier” than others, and if norms help perpetuate actual behavior, patterns of corruption incidence over time should mirror the stickiness of the norms themselves. Grand corruption and embezzlement may be quickly socially condemned and subsequently controlled, but petty gift giving, nepotism, and the exchange of favors may continue long after, accepted and unabated. This is mere speculation, and a full analysis of the question requires a deeper understanding of both the patterns of corruption incidence and changes in social norms over time. If the findings here serve as a modest contribution to this more ambitious research effort, the article will have achieved its purpose.

NOTES

1. See Lambsdorff (2006) for a comprehensive review of cross-national studies employing the CPI.

2. The phrase “social norm” is a fuzzy concept, with many complementary and competing definitions. Norms may refer to societal conventions, like driving on the right side of the road, that represent certain behavioral

regularities (Lewis, 1969). Other definitions have a moral dimension, viewing norms as “social attitudes of approval and disapproval, specifying what ought to be done and what ought not to be done” (Sunstein, 1996). This investigation asked Nepalis their moral attitudes toward corruption, their approval or disapproval of behavior, and the use of the phrase “corruption norm” here refers to the moral definition of the term.

3. While noting the importance of internal values, Miller argues that the effect of external pressures on corrupt behavior is even more significant.
4. In this survey, respondents with greater acceptance of corruption were less likely to say that they would file a formal complaint if victimized in the future.
5. Other studies have confirmed (Dollar, Fisman, & Gatti, 2001) and denied (Sung, 2003) the notion that women are inherently less corrupt.
6. Percentages are based on the number of respondents who reported an interaction with the relevant public actor, not all respondents.
7. After completing the corrupt behaviors section, respondents answered questions on their general attitudes toward corruption in Nepal, as well as a set of standard demographic questions. They were asked to assess the severity of Nepal's corruption problem, the likelihood that corruption will

decrease in the future, the effectiveness of government anti-corruption institutions, and the likelihood that they would file a formal complaint in the event they encountered corruption. A proportion of respondents were also read a small message from a public awareness campaign prior to taking the survey as part of a framing experiment. This treatment had no detectable effects on any of the empirical results presented here, and these individuals were kept in the sample in the interest of efficiency.

8. Because these additional controls are not causally prior to education, they were not included in the baseline specification in Model 3. The robustness of the findings given these additional controls gives us confidence that education exerts a direct effect on attitudes.

9. The simulations require us to set values for the other independent variables in the model. As is customary, the values are set to their respective means/medians, with the result being that the simulation is for a 35-year-old male from the Kathmandu valley area.

REFERENCES

- Ades, A., & Di Tella, R. (1997). National champions and corruption: Some unpleasant interventionist arithmetic. *The Economic Journal*, 107, 1023–1042.
- Ades, A., & Di Tella, R. (1999). Rents, competition, and corruption. *The American Economic Review*, 89(4), 982–993.
- Andvig, J. C., & Moene, K. O. (1990). How corruption may corrupt. *Journal of Economic Behavior and Organization*, 13, 63–76.
- Arnold, H. J., & Feldman, D. C. (1981). Social desirability response bias in self-report choice situations. *Academy of Management Journal*, 24(2), 377–385.
- Barr, A., & Serra, D. (2006). Culture and corruption. CSAE, Department of Economics, University of Oxford. Oxford.
- Bobo, L., & Licari, F. C. (1989). Education and political tolerance. Testing the effects of cognitive sophistication and target group affect. *Public Opinion Quarterly*, 53, 285.
- Broadman, H.G., Recanatini, F. (1999). Seeds of corruption—Do market institutions matter? Washington: World Bank Policy Research Working Paper 2368.
- Cadot, O. (1987). Corruption as a gamble. *Journal of Public Economics*, 33, 223–244.
- Chung, J., & Monroe, G. S. (2003). Exploring social desirability bias. *Journal of Business Ethics*, 4(4), 291–302, June.
- de Sardan, J. P. O. (1999). A Moral economy of corruption in Africa. *The Journal of Modern African Studies*, 37, 25–52.
- Dollar, D., Fisman, R., & Gatti, R. (2001). Are women really the “fairer” sex? Corruption and women in government. *Journal of Economic Behavior and Organization*, 46, 423–429.
- Evans, P. B., & Rauch, James. E. (2000). Bureaucratic structures and economic performance in less developed countries. *Journal of Public Economics*, 75, 49–71.
- Fisher, R. J., & Katz, J. E. (2000). Social desirability bias and the validity of self-reported values. *Psychology and Marketing*, 17(2), 105–120.
- Fisman, R., & Miguel, E. (2007). Corruption, norms, and legal enforcement: Evidence from diplomatic parking tickets. *Journal of Political Economy*, 115(6), 1020–1048.
- Gatti, R., Paternostro, S., & Rigolini, J. (2003). *Individual attitudes toward corruption: Do social effects matter?* Washington: World Bank Policy Research Working Paper.
- Goel, R. K., & Rich, D. P. (1989). On the economic incentives for taking bribes. *Public Choice*, 61(3), 269–275.
- Granovetter, M. (2007). The Social construction of corruption. In V. Nee, & R. Swedberg (Eds.), *On capitalism*. Stanford: Stanford University Press.
- Hall, R. L., Rodegheir, M., & Useem, B. (1986). Effects of education on attitude to protest. *American Sociological Review*, 51(4), 564–573.
- Hasty, J. (2005). The Pleasures of corruption: Desire and discipline in Ghanaian political culture. *Cultural Anthropology*, 20(2), 271–301.
- Hauk, E., & Marti, M. S. (2002). On the cultural transmission of corruption. *Journal of Economic Theory*, 107(2), 311–335.
- Holmberg, S., Rothstein, B., & Nasiritoussi, N. (2009). Quality of government: What you get. *Annual Review of Political Science*, 12, 135–161.
- Hyman, H. H., & Wright, C. R. (1979). *Education's lasting influence on values*. Chicago: University of Chicago Press.
- Kaufmann, D. (1997). The Missing pillar of growth strategy for Ukraine: Institutional and policy reforms for private sector development. In P. K. Cornelius, & P. Lenain (Eds.), *Ukraine: Accelerating the transition to market* (pp. 234–275). Washington: IMF.
- King, G., Tomz, M., & Wittenberg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science*, 44(2), 335–341.
- Lambsdorff, J. G. (2003). How corruption affects persistent capital flows. *Economics of Governance*, 4, 229–243.
- Lambsdorff, J. G. (2006). Consequences and causes of corruption – What do we know from a cross-section of countries?. In S. Rose-Ackerman (Ed.), *International handbook on the economics of corruption*. Northampton, MA: Elgar.
- Lewis, D. K. (1969). *Convention: A philosophical study*. Cambridge: Harvard University Press.
- Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics*, 110, 681–712.
- Mauro, P. (1998). Corruption and the composition of government expenditure. *Journal of Public Economics*, 69, 263–279.
- Migdal, J. (1988). *Strong societies and weak states: State-society relations and state capabilities in the Third World*. Princeton: Princeton University Press.
- Miller, W. L. (2006). Corruption and corruptibility. *World Development*, 34(2), 371–380.
- Montinola, G. R., & Jackman, R. W. (2002). Sources of corruption: A cross-country study. *British Journal of Political Science*, 32(1), 147–170.
- Nepal Central Bureau of Statistics (2008). *Statistical yearbook*. <www.cbs.gov.np/statistical_year_book_content.php>.
- Olken, B. (2006). Corruption and the costs of redistribution: Micro evidence from Indonesia. *Journal of Public Economics*, 90(4–5), 853–870.
- Presser, S., & Stinson, L. (1998). Data collection mode and social desirability bias in self-reported religious attendance. *American Sociological Review*, 63(1), 137–145.
- Rose-Ackerman, S. (1999). *Corruption and government: Causes, consequences, and reform*. Cambridge: Cambridge University Press.
- Rose-Ackerman, S. (2004). Governance and corruption. In B. Lomborg (Ed.), *Global crises, global solutions* (pp. 301–362). Cambridge, UK: Cambridge University Press.
- Scott, J. (1969). The analysis of corruption in developing nations. *Comparative Studies in Society and History*, 11(3), 315–341.
- Shleifer, A., & Vishny, R. W. (1993). Corruption. *The Quarterly Journal of Economics*, 108(3), 599–617.
- Smith, D. J. (2001). Kinship and corruption in contemporary Nigeria. *Ethnos*, 66(3), 344–364.
- Smith, D. J. (2008). *A Culture of corruption: Everyday deception and popular discontent in Nigeria*. Princeton, NJ: Princeton University Press.
- Sung, H. E. (2003). Fairer sex or fairer system? Gender and corruption revisited. *Social Forces*, 82(2), 703–723.

- Sunstein, C. R. (1996). Social norms and social roles. *Columbia Law Review*, 96, 903–968.
- Swamy, A., Knack, S., Lee, Y., & Azfar, O. (2001). Gender and corruption. *Journal of Development Economics*, 64, 25–55.
- Szinovacz, M., & Egley, L. C. (1995). Comparing one-partner and couple data on sensitive marital behaviors: The case of marital violence. *Journal of Marriage and Family*, 57(4), 995–1010, Nov.
- Transparency International Nepal. (2002). *Household survey on corruption*. Kathmandu, Nepal: Org-Marg Nepal Pvt. Ltd.
- Treisman, D. (2000). The causes of corruption: A cross-national study. *Journal of Public Economics*, 76, 399–457.
- Treisman, D. (2007). What have we learned about the causes of corruption from ten years of cross-national empirical research?. *Annual Review of Political Science*, 10, 211–244.
- van Rijckeghem, C., & Weder, B. (2001). Bureaucratic corruption and the rate of temptation: Do wages in the civil service affect corruption, and by how much?. *Journal of Development Economics*, 65(2), 307–331.
- Wei, S. J. (2000). How taxing is corruption on international investors?. *Review of Economics and Statistics*, 82(1), 1–11.
- Werner, C. (2000). Gifts, bribes, and development in post-Soviet Kazakhstan. *Human Organization*, 59(1).

APPENDIX A

A.1 Sampling design

The Corruption Acceptance Survey (CAS) was administered in Kathmandu, Nepal, in June 2009 using a non-probability form of two-stage cluster sampling. The city is divided into 35 wards, which constituted the Primary Sampling Units (PSUs). Enumerators were randomly assigned to a subset of the wards and rotated between wards over the course of the enumeration period. This method distributed the enumerators throughout Kathmandu in neighborhoods of varying composition. Twelve wards were covered in total.

To attain a random sample of Nepalis in Kathmandu, the enumerators remained standing in one location and asked every fifth person if she would be willing to partake in a survey on attitudes toward public behaviors. The enumerators did not reveal that the survey was related to corruption, as doing so would have resulted in response bias, with people holding

strong attitudes on the subject being more likely to participate. Overall roughly one-third of solicitations resulted in participation. This method was used to collect a sample of 853 Nepalis in Kathmandu.

This sampling method resulted in a degree of selection bias toward younger, male respondents. Older respondents and female respondents were less likely to be walking along the street and therefore less likely to be solicited to participate in the survey. Overall, 64% of respondents were male, compared to 54% of the actual population in Kathmandu. The age discrepancy was less marked; 51% of the sample was between the ages of 18 to 30 years, while only 45% of the true population falls in this age bracket (Nepal Central Bureau of Statistics, 2008).

This selection bias is preferable to biases that would have been encountered with alternative sampling methodologies. It is possible to have selected participants based on phone listings, but this would have limited the sample to Nepalis with landline, listed telephone numbers, a high socio-economic group. Similarly, a door-to-door method would have biased the sample toward respondents with homes in Kathmandu and toward women, who are more likely to be home during the day. Using these alternative methods, it would be impossible to poll Kathmandu's poorer homeless and transient populations, effectively limiting variation in the primary independent variable. The sample here contains individuals of all educational backgrounds, and in this regard, it closely approximates the Kathmandu population. According to the 2001 census, 18% of Nepalis in Kathmandu over the age of six years cannot read or write, while 16% of CAS respondents received no formal education (Nepal Central Bureau of Statistics, 2008).

Table 5 presents the summary of statistics and descriptions for the personal variables used in the analysis. To correct for selection bias, post-stratification weights were applied based on the four age group strata and the two gender strata, with eight separate weights calculated in total. These weights make the data more representative of the Kathmandu population.

(b) Additional tables

See Table 5.

Table 5. Variable definitions and descriptive statistics

Variable	Description	Mean	SE
No education	Has not completed any formal schooling	0.205	0.180
Elem school	Elementary school is highest education attained	0.095	0.008
Middle school	Middle school is highest education attained	0.171	0.018
High school	High school is highest education attained	0.231	0.010
University	Has completed Bachelor's/graduate degree	0.297	0.021
Female	Female	0.461	0.000
Age	Years of age	34.5	0.181
Village	Originally from a village area	0.621	0.027
Mtn region	Originally from Nepal's mountainous region	0.031	0.007
Terai region	Originally from Nepal's Terai (plains) region	0.301	0.032
High income	Makes more than 100K NPR per year	0.316	0.025
Bribe experience	Has been asked for a bribe in the past year	0.168	0.020

All statistics weighted for design effects and use post stratification weighting by age and gender.