

# **Perceptions or Experiences: Using Alternative Corruption Measures in a Multilevel Study of Political Support<sup>1</sup>**

Yuliya V. Tverdova  
University of California – Irvine  
tverdova@uci.edu

---

<sup>1</sup>The survey data used in the study are available as the International Social Survey Programme 2006 (Role of Government IV) at [www.issp.org](http://www.issp.org). The original collector of the data, ISSP, and the relevant funding agency bear no responsibility for uses of this collection or for interpretations or inferences based upon such uses. The Corruption Perception Index and the Global Corruption Barometer are available from Transparency International ([www.transparency.org](http://www.transparency.org)). All the variable transformations employed in the statistical analyses may be obtained directly from the author.

### **Abstract**

The field of corruption research is torn by measurement debates. Proponents of objective measures criticize perceptual indicators for overestimating corruption and being endogenous to the models, whereas supporters of subjective measures point to the limited nature of objective indicators based on experiences. The goal of the present study is not to solve the controversy, but to compare the various corruption measures and test their performance in models of political support. Using four corruption indicators – the Corruption Perception Index, a survey-based perceptual measure, and two survey-based experience measures – I analyze the relationship between corruption and two indicators of political support. The findings suggest that although the individual-level perceptual measure of corruption is the best predictor of political support, the direction of the casual relationship cannot be reliably determined. In contrast, individual-level corruption experiences perform less impressively, but are likely to be a direct causal factor behind support. Overall, I would urge scholars of corruption to proceed with caution when using various measures and employ multiple indicators whenever possible.

Scholarly interest in political corruption has been evident since the dawn of the third wave of democratization in the late 1960s and early 1970s. Economic globalization and apparent corruption in newly democratized states fueled a growing interest both in political science and in economics. The emergence of new democracies in Central and Eastern Europe was followed by a wave of new attempts to study and measure political corruption. In the subsequent two decades, researchers have proposed numerous corruption measures and employed them with various degrees of success.

The controversial issue of measurement lies at the heart of corruption research. Due to the illicit nature of corruption and its less than clear definition, the precise level of corrupt activities will never be known. Yet, there is a considerable disagreement in the academic field regarding the best option. Some choose to use international corruption indices put together by Transparency International, the World Bank Institute and other organizations (Sandholtz and Koetzle 2000; Montinola and Jackman 2002; Anderson and Tverdova 2003; You and Khagram 2005; Canache and Allison 2005; Kunicova and Rose-Ackerman 2005; Heywood 2007; Yu et al. 2008; Apaza 2009; Choi and Woo 2010). Others, mostly the critics of this approach, search for alternative ways to measure corruption (Reinikka and Svenson 2004; Golden and Picci 2005; Dreher et al. 2007; Warren and Laufer 2009; Razafindrakoto and Roubaud 2010; Xenakis 2010; Sharafutdinova 2010)

Measures of corruption can be classified most broadly as either *objective* or *subjective*. Objective measures seek to operationalize political corruption by using data on the frequency of corruption investigations, prosecutions and convictions by authorities or by using economic data on spending or trade to infer the amount of money that is siphoned off by bribes and rent-seeking behavior (Reinikka and Svenson 2004; Golden and Picci 2005; Olken 2009; Gorodnichenko and Peter 2007; Ferraz 2008; Richey 2010). Recently, some scholars used survey questions measuring reported experiences with corruption, whether as bribes paid or requests for bribes. (Seligson 2002; Seligson 2006; Treisman 2007; Kurtz and Schrank 2007; Gingerich 2009; Gerber and Mendelson 2008; Mocan 2008; Round et al. 2008). Subjective measures include surveys of the opinions of elites doing business within a given country or citizens' perceptions of corruption (Mishler and Rose 2001; Espinal, Hartlyn and Kelly 2006; Guerrero and Rodriguez-Oreggia 2008; Smith 2010; Tverdova 2011).

The debate over which measure is most appropriate as well as the relationship between the various measures is ongoing and rather heated. The cornerstone of this debate is that different indicators of corruption yield different results; thus inferences become artifacts of measurement rather than the representation of the social world around us. More often than not, each research study only employs one measure of corruption, and is consequently wide open to this criticism. A handful of studies that use multiple indicators focus on the technical aspects of the measures, but they rarely put them to test in substantive models of political phenomena (Yu et al. 2008; Kenny 2009; Mendez and Sepulveda 2010; Ko and Samajdar 2010; Razafindrakoto and Roubaud 2010).

The growing literature on corruption has consistently shown its detrimental role for economic development and democratic consolidation. Corruption creates economic inefficiencies, negatively affects investments, and thus hinders economic growth. It also undermines political and, some argue, interpersonal trust, and leads to political dissatisfaction as well as low political support. In the long run, corruption may escalate to the point when it becomes the ultimate norm of doing business and deeply divides the society into those included into and excluded from the corrupt networks. This inequality results yet in more dissatisfaction with the political system, distrust, political withdrawal or, alternatively, political protest. It is this close relationship between corruption and system performance that drives an avid academic interest in the subject. The debate over the measurement of corruption is thus an important preamble to the substantive debate.

This discussion also speaks to a broader inquiry on cognition regarding social and political phenomena. Scholars have long noticed a gap between people's perceptions versus their actual experiences as related, for instance, to racial discrimination, economic evaluations, terrorist threat or corruption. The discrepancy between perceptions and objective reality does not surprise social psychologists who argue that systematic mistakes in people's judgments are produced by erroneous extrapolations, generalizations and probability miscalculations (Kahneman et al. 1982; Gilovich et al. 2002; Schwartz 2005; Morewedge et al. 2010; Gilbert 2007; Ariely 2008). What complicates the matter is that individuals then base their actions on perceptions rather than the objective reality broadly defined. Yet many argue that perceptions are not completely detached from reality, which is the position I take in this study.

My objective in this study is twofold. First, I analyze four corruption measures from various sources. Second, I test their relative predictive power in multilevel models of political support. The next two sections present the controversial debate on the measurement of corruption. I follow with the discussion and a correlation analysis of four corruption measures – two objective and two subjective. Furthermore, I proceed with using three of the measures in models predicting political support, and finally end with a discussion of the results.

## **Measuring Corruption**

A universal definition of corruption is as elusive as a universal corruption measure. First, there are cultural differences among and even within countries. For example, what is viewed as a bribe in one society could be considered as a token of appreciation in another. Moreover, there are multiple groups (ethnic, socioeconomic, etc.) and subcultures within a given culture that may produce different views of what constitutes corruption (Holmes 2006). Second, many actions (or non-actions) that are not ruled as illegal may be still perceived as corrupt or at least unethical. Defined by Heidenheimer (1970) as "gray" corruption, these actions are interpreted differently by different members of the society.

Due to these conceptualization difficulties, the two major approaches to defining corruption were to limit the definition to the formal rules and laws (a more objective approach) or, conversely, to broaden the definition to include any action that is simply

perceived as corrupt (a more subjective approach). One of the most popular definitions of corruption is the misuse of public office for private gain, which gives more room for interpretation than a legal definition, but is still more restrictive than saying that corruption lies in the eye of the beholder (Pope 2000).

Given the variety of the approaches to define corruption and the lack of scholarly consensus on the matter, this study conceptualizes corruption in several forms. First, corruption is broadly defined as public perceptions and is virtually non-restrictive. The risk with this definition is that substantial cross-national differences in people's understanding of corruption may produce a weak correlation with other measures of corruption used in the study, especially the ones based on corruption experiences. These measures represent the second conceptualization of corruption that deals with one specific act, namely the bribery. The third definition is borrowed from Transparency International together with its Corruption Perception Index. TI operationalizes corruption as the abuse of entrusted power for private gain ([www.Transparency.org](http://www.Transparency.org)).

Early work on corruption was largely theoretical due both to the lack of extant theories dealing with the definition of corruption, its causes and consequences and also the inherent difficulties in measuring the concept. The first wave of corruption literature was concerned with the effects of corruption on development (Leff 1964; Nye 1967; Lemarchand 1972). These early efforts were largely theoretical; even where they presented some empirical data, it primarily served as motivation for the development of new theoretical models (see Krueger 1974). The earliest systematic attempts to measure political corruption appeared in the late 1970s as case studies of specific nations (Krueger 1974; Rose-Ackerman 1978).

When measures of corruption appeared in these earliest works, they were uniformly objective. Soon after that, however, scholars (particularly economists) turned to expert evaluations and opinions of business elites who had on-the-ground knowledge of corruption in the area where they worked. In 1974, Krueger conducted an illustrative investigation of corruption in India and Turkey using primarily objective measures. In the case of India, she relied on the reports of an investigative committee and on data from the Reserve Bank of India, as well as expert estimates. Her Turkish estimates were derived from available data on the difference between wholesale prices of imported commodities. Krueger was able to calculate what fraction of the wholesale price could be attributed to the value of import licenses, which then, she inferred, indicated the level of corruption that took place during the importation of goods. Similarly, Bhagwati (1974) utilized data on import and export data to measure the value of corruption that occurred in international trading. Rose-Ackerman (1978), in contrast, relied on media reports of political corruption to estimate the absolute levels in her case studies.

With the introduction of the first international index of corruption in 1995, a German-based non-profit, Transparency International (TI), quickly won the hearts and minds of many scholars of corrupt behavior, especially comparativists. Yet others remained suspicious and much less enthused, voicing numerous concerns ranging from the uniqueness of the concept of corruption for different cultures to systematic biases in the expert estimates. TI's Corruption Perception Index is a "poll of polls" that draws on multiple sources of elite and mass opinions. Somewhat less frequently used, though

essentially relying on the same sources, the World Bank's Control of Corruption Index, attempts to improve on the former by weighing each survey component relative to its reliability. Although widely criticized, perception-based international indices have significantly grown in popularity since their introduction, and currently remain the most prominent and frequently used measures of corruption (see Sandholtz and Koetzle 2000; Montinola and Jackman 2002; Anderson and Tverdova 2003; You and Khagram 2005; Canache and Allison 2005; Kunicova and Rose-Ackerman 2005; Heywood 2007; Yu et al. 2008; Apaza 2009; Choi and Woo 2010).

Other subjective measures include individual surveys of citizen perceptions of corruption. Mishler and Rose (2001), for example, asked Russian respondents how often they think bribes occur in a number of different political institutions. Similarly, Espinal, Hartlyn and Kelly (2006) used a single survey question asking how serious of a problem respondents believe corruption to be in their government. Tverdova (2011) relied on a survey question that asked respondents how widespread political corruption was in their countries in her analysis of corruption perceptions across 30 nations.

In the recent years, scholars have attempted to reintroduce objective measures of corruption. This movement is primarily fueled by the dissatisfaction with perception-based indicators. In search of a better measure, Golden and Picci (2005) constructed a new objective indicator of corruption in Italy. Specifically, they looked at the difference between the amount of money spent on infrastructure and the actual value of the objects built with this money. The differences, they inferred, are the moneys lost to corruption. In the similar venue, Reinikka and Svenson (2004) looked at the differences in the value of education grants made versus the value of grants received at the local level, while Olken (2007) explored the differences between estimated and actual costs of road projects. Taking a different approach, Richey (2010) used state-level data on corruption convictions in the U.S.

Another alternative to perception-based measures are experiential measures of corruption (Seligson 2002; Seligson 2006; Treisman 2007; Kurtz and Schrank 2007; Gingerich 2009). Treisman (2007) has warned that perception-based measures are inferior because they reflect opinion rather than the actual presence of corruption. Additionally, he showed that the two measures definitely tap into two different phenomena because the correlates of perceived corruption differ substantially from the correlates of corruption experiences.

### **The Debate on the Measurement of Corruption**

This section presents in greater detail the major critical claims that the advocates of subjective and objective measures put forward against each other. As a step toward reconciling the differences between the two sides, I propose to analyze four different indicators of corruption – two subjective measures based on mass and expert perceptions, and two objective measures based on corruption experiences.

The debate on the measurement of corruption revolves around the central dichotomy – objective versus subjective measures. One serious objection against the latter is their reliance on people's perceptions. As a result, critics claim they may overestimate the level of corruption due to human propensity to overestimate the scope

and probability of events that are emotional or get into the focus of the news media. In other words, if one has personally been a victim of corruption or heard an emotional story from a friend or seen a feature report about a major corruption scandal on TV, s/he may easily extrapolate it to the whole society and report a highly negative perception of corruption at the national level (e.g. Miller et al. 2001). In fact, survey evidence and focus group studies have shown that personal encounters with corruption are much rarer than perceptual indicators would suggest (Miller et al. 2001). As a solution, we should use more objective indicators of corruption, such as corruption experiences or criminal case data to avoid the artificial inflation of corruption.

The counterargument is based on the premise that corruption perceptions have a much broader basis than a simple reflection of personal experiences, and therefore only appear inflated. In turn, objective measures based on prosecution and conviction cases are likely to be biased as well. The underlying logic is simple: in more corrupt systems the prosecution and conviction rates may be low due to the participation of the law enforcement system in corrupt activities. As a result, there may be systematic underestimation of the corruption level in highly corrupt nations. In addition, only cases reported would be counted, which should potentially add to the underestimation bias in countries where people have very low trust in the legal system propagated by the perceived pervasiveness of corruption, and choose not to report it. Objective measures based on experiences have also received criticism for potentially capturing only one type of corruption – petty or street level corruption.

Another significant weakness associated with perceptual measures is endogeneity. Put simply, perceptions of corruption could often be viewed as both a cause and an effect of the studied phenomenon, whether it is political trust or foreign direct investments. When endogenous measures are employed in the same model, it becomes exceedingly hard to estimate the magnitude of the causal effect. In contrast, objective measures of corruption are much less vulnerable to the “endogeneity criticism”. It is hard to imagine why someone’s feelings about the government would influence their propensity to be asked for a bribe (as in experiential measures), for instance, or the level of bribery convictions in the state.

Advocates of perceptual indicators, however, argue that different research questions call for different measures. Perceptions, for example, have been known to be a driving force behind political decision-making and behavior (Morris 2008). Thus, public views about corruption may, in fact, be a more appropriate measure in studies of government support or voting behavior (similar to economic perceptions) than objective measures of corruption.

Both views are certainly justified, but unfortunately they do not bring us much closer to finding an universally acceptable measurement solution. At the aggregate level, international corruption indices, such as Transparency International’s Corruption Perception Index or World Bank’s Control of Corruption Index, remain the most popular measures. Realistically, there are simply no viable alternatives among the existing objective corruption indicators available for a long enough time span or a large enough

number of countries.<sup>2</sup> Another argument in support of international corruption indices is that they rely mainly on expert opinion rather than mass public surveys.<sup>3</sup> Although not without its own flaws, this method assures that people who do business internationally and are most likely to interact with politicians, state officials and domestic business partners, that is, those who are most likely to encounter corruption, have an overwhelming presence in the compilation of the indices. .

Keeping in mind the criticisms of objective and subjective corruption indicators, this study compares a number of measures based both on perceptions and actual corruption experiences. The two perceptual indicators are Transparency International's Corruption Perceptions Index (CPI) and a survey response measure based on the 2006 International Social Survey Programme study. One of the objective measures of corruption (based on individual experiences) comes from the same ISSP study; whereas the second one is a part of the Global Corruption Barometer (GCB) compiled by Transparency International. The latter is based on a massive survey, the Voice of the People (VoP), conducted annually by Gallup, and includes a series of questions pertaining to people's experiences with corruption aggregated by country. Because the CPI is based mostly on elite surveys, the ISSP study surveys the mass public, and the VoP measure is based on a different sample of individuals than the ISSP survey, the four indicators provide a good coverage of the existing measurement options. My objective is to explore the correlation among the indicators and further test their predictive power in multilevel models of political support. If there is high correlation among the measures and they perform similarly in multivariate models, this would suggest that perceptual and experience-based indicators can be used interchangeably in studies of political behavior.

#### **Four Corruption Measures**

Our analyses examine four basic cross-national measure of corruption. One of the most widely used international indicators is the Corruption Perception Index compiled annually by Transparency International. The CPI is the longest standing repeated cross-national indicator of corruption. It measures *perceived* corruption at the level of a country. The CPI is a so-called "poll of polls", in which a number of surveys conducted by different agencies are aggregated into one index to improve the

---

<sup>2</sup> One of the most successful objective measures based on corruption experiences known to me is the Global Corruption Barometer also compiled by Transparency International. It includes a large series of indicators taken from the annual Voice of People survey study administered by the Gallup Corporation. A number of these indicators ask respondents of their direct experiences with corruption in different public offices.

<sup>3</sup> This has become a point of contention as well. The argument here is that Transparency International and the World Bank Institute rely heavily on the opinion of international business elites who may have a different perspective on the situation with corruption than domestic elites or common citizens.

indicator's reliability. The question of measurement validity remains open with this methodology. Since the indicator is based on the questions about people's perceptions of the level of corruption, how much leverage do we have to claim it measures the true level of corruption? In other words, how confident are we that the perceptual measure accurately reflects the reality? The honest answer is that we do not know, because we do not have a good objective standard of national corruption against which the perceptual measure could be tested.

The CPI relies on "circumstantial evidence" to support the validity of the indicator. To begin with, the CPI draws mostly on the opinion of experts who presumably are more accurate than the general public in their evaluations of a country's corruption situation. Further, the indices for the same country display little variation over time. Given that the national level of corruption in reality should not drastically go up and down in the short run, the lack of volatility in the index is likely to signify its reliability.<sup>4</sup> However, it still may be the case that the index systematically overestimates or underestimates the actual level of corruption. Lastly, the CPI correlates highly with other international corruption indices, which also points to its reliability and validity, unless of course we believe that the other measures are equally invalid.

The second indicator focuses on mass perceptions of corruption. The 2006 ISSP study asked: "In your opinion, about how many politicians in [R's country] are involved in corruption?" "And in your opinion, about how many public officials in [R's country] are involved in corruption?" I constructed a perceptual indicator using the two questions by taking their average. Then, I calculated the proportion of the population in each country who score 3 or higher on the resulting scale to indicate high corruption.<sup>5</sup>

The third measure is based on public experiences with corruption. The 2006 ISSP asked: "In the last five years, how often have you or a member of your immediate family come across a public official who hinted they wanted, or asked for, a bribe or favour in return for a service?" I aggregated the survey responses to measure the proportion of those who answered that they had such experience *occasionally*, *very often* or *quite often*. I combined the three responses to indicate certain regularity of the encounters with corrupt behavior.

The fourth measure of corruption experiences is TI's Global Corruption Barometer (GCB). It consists of a series of survey responses to a wide variety of questions about corruption, aggregated by country. Among the available questions, I selected the ones pertaining to people's experiences with corruption only. In 2006, the GCB asked its respondents the following question: "In the past 12 months, have you or anyone living in your household paid a bribe in any form to any of the following institution/organization?" The list of the organizations and government institutions

---

<sup>4</sup> There are a few rare incidences where the CPI shows a significant change from year to year.

<sup>5</sup> On the original survey scale, the score of 3 reflects people's opinion that *some* politicians and public officials are corrupt, whereas 4 and 5 mean *many* and *almost all* respectively.

included education system, legal system/judiciary, medical services, police, registry and permit services, utilities, and tax revenue services.<sup>6</sup> The question about each organization/institution was only presented to those who on the preceding question indicated that they had had a contact with the respective organization in the same time period.

Previous studies found a weak correlation between perception-based measures and individual corruption experiences. Particularly, personal experiences with corruption are much less widespread than people's perceptions of the severity of the problem. This, the critics of perceptual measures claim, may indicate at least two things. It may mean that international indicators measure grand corruption, whereas experience-based measures capture street-level or petty corruption. Alternatively, the discrepancy between the two types of measures may lead us to believe that perceptions are exaggerations of the reality and should not be used as a proxy for the actual level of a country's corruption. If, however, we assume that experience-based measures are likely to be limited to petty corruption, the latter argument may not necessarily be true.

### **Correlation Analysis of the Corruption Measures**

This section presents an aggregate distribution of the four corruption measures across 33 nations used in the ISSP study and performs a simple correlation analysis among them. It furthermore provides a brief outlook on the relationship between the corruption indicators and two measures of political support: government expectations, evaluations of government performance (dissatisfaction with government) and confidence in government.

Figure 1 shows the CPI across the nations. According to the Transparency International's ratings, Venezuela leads the group of most corrupt countries with the score of 2.3.<sup>7</sup> The Philippines, Russia and Dominican Republic follow all with the scores of less than 3. On the other end of the spectrum are the Scandinavian nations, Switzerland and New Zealand. The overall sample is somewhat skewed with the overrepresentation of the relatively uncorrupt countries, whereas only 30 percent of the sampled nations score below the midpoint (5) on the Transparency International's scale. The remaining 70 percent are distributed almost evenly: 30 percent score between 5

---

<sup>6</sup> Because I intended to match the GCB data to the ISSP fieldwork dates in each country as closely as possible, I had to use the GCBs from different years. Unfortunately, Gallup slightly changed the VoP questionnaire every year, which resulted in some minor complications with my measure. Compared to 2006, in 2007 the questionnaire listed separate categories for utilities: telephone, electricity provider, water provider, and gas provider. I simply averaged over these categories along with the other categories for institutions/organizations overlapping in both years to construct my measure of corruption experiences. In 2005, the survey asked a more general question: "In the past 12 months, have you or anyone in your household paid a bribe in any form?"

<sup>7</sup> Transparency International rates nations on the scale from 0 to 10, where 10 indicates complete absence of corruption, and 0 means corruption is pervasive.

and 7.5, whereas 40 percent score above 7.5 and represent the least corrupt countries in the sample.

Figure 1 about here

Unsurprisingly then, given the sample is unevenly balanced towards less corrupt nations, we observe a coordinating pattern in the distribution of aggregate corruption experiences (based on Transparency International's Global Corruption Barometer). Seventy percent of the countries report that less than 5 percent of their respondents (including their immediate social circle) were asked to pay a bribe in the previous year. Among the remaining 30 percent of the sample, this range is widespread and varies from 7.8 percent in Croatia to 27.6 percent in the Dominican Republic.

Figure 2 about here

Figure 3 depicts the distributions of two corruption variables derived from the ISSP survey – perceptions and experiences aggregated by county. The chart is sorted by the perceptions variable: from the least to the most negative perceptions. People's perceptions of corruption vary dramatically with less than 4 percent of the respondents seeing corruption as widespread in Denmark to almost 85 percent asserting it is widespread in Russia. In eighteen of the sampled nations, less than 50 percent of the public believes corruption is widespread, whereas in the remaining fifteen countries – it is the majority of the population.

As is clearly seen from Figure 3, corruption experiences do not trace corruption perceptions precisely. The fifteen nations where most people believe corruption is widespread also report a higher frequency of corruption encounters. However, there are noticeable exceptions. For instance, in Spain more than 56 percent of the respondents view corruption as widespread, but only 4 percent report having any direct experience with corruption. In contrast, the Czech Republic, where 56 percent believe corruption is also widespread relates almost 18 percent of the respondents who have experienced corruption first hand. This "imperfection" in the chart is to be expected, given that the correlation between corruption perceptions and experiences is .77 (high, but not perfect).

How do the rest of the corruption measures correlate? The CPI is highly correlated with all the other three indicators used in the study (please refer to Table 1). Specifically, it has an impressively strong correlation of -.89 with the ISSP-based corruption perceptions variable, and is correlated at -.75 and -.76 with the ISSP-based corruption experiences and the GCB experiences measure respectively. The latter, in turn, is correlated more modestly with the ISSP perceptions (.60) and experiences indicators (.59). Overall, it is safe to infer that the four corruption indicators all tap into a common factor (or factors), and if we consider them valid measures of corruption – this factor is some type of corruption.

Table 1 about here

## **Corruption and Political Support**

Since the early work on corruption, scholars have theorized about a possible link between corruption and citizens' support for the political system (see Nye 1967). In contrast to the economic effects of corruption, which some suggested could be beneficial for transitional economies, Nye offered a theoretical exploration of the adverse effects of political corruption. He maintained that political corruption may threaten the level of support for the political system even to the point of revolution. The empirical work investigating the link between corruption and system support has become more common in the past two decades. Despite the proliferation of new measures and conceptualizations of corruption and system support, the eroding effect of corruption on political legitimacy has successfully held amidst heavy empirical scrutiny.

The most robust finding in the literature is that corruption undermines support in political institutions, often measured as trust. Overwhelmingly in this body of literature, corruption is measured by an indicator of perceived corruption either at the mass or elite level. The degree of scholarly agreement is nevertheless impressive, given the breadth of modeling techniques and geographic areas in the analyses, ranging from Latin American (Espinal, Hartlyn and Kelly 2006; Morris and Klesner 2010) to East Asian (Chang and Chu 2006), African (Lavallée, Razafindrakoto, and Roubaud 2008), European (Mishler and Rose 2001) and even global samples (Anderson and Tverdova 2003).

In one of the most comprehensive studies of trust and corruption, Mishler and Rose (2001) used structural equations to tackle complex reciprocal relationships among perceived corruption, interpersonal trust, institutional trust, and support for political regime. Their results suggest that perceived corruption has a strong direct negative effect on institutional trust, while it is only weakly related to regime support and interpersonal trust. Morris and Klesner (2010), almost a decade later, confirmed Mishler and Rose's finding about the strong eroding effect of perceived corruption on institutional trust, yet cautioned about a significant degree of reciprocity between the two. Interestingly, Morris and Klesner failed to establish any effect of reported experiences with corruption on institutional trust, but found that those with lower trust are likely to experience more corruption. The latter finding is certainly perplexing unless we are willing to assume that trust has some psychological effect on the readiness to pay a bribe or, alternatively, that less trusting individuals tend to see more corruption in their interactions with public officials, whereas more trusting individuals would not interpret the same types of interactions as corrupt.

Chang and Chu (2006) found that East Asian publics are not exceptional in their dissatisfaction with corrupt politicians. Controlling for media exposure (which may alter or inflate perceptions of corruption), they showed that perceived corruption decreases institutional trust. Espinal, Hartlyn and Kelly (2006) found a similar result in the Dominican Republic with three years of survey data. Respondents' perceptions of the severity of political corruption are strongly related to decreased institutional trust. Anderson and Tverdova (2003) opted for a system-level measure of corruption, utilizing the Corruption Perception Index from Transparency International and employing a

multilevel model to account both for country level and individual level characteristics. Their indicator of trust is more specific than in most other studies, measuring trust in civil servants. In a related study, Canache and Allison (2005) found that perceived corruption decreases support both for the political system and for the incumbent government. They measure system support as an index of the confidence respondents report having in various state institutions. Again, despite significantly different samples, a variety of measures and modeling choices, the relationship between corruption and institutional trust has been largely robust.

As Nye noted more than five decades ago, the erosion of political trust may result in the loss of government legitimacy and ultimately lead to anti-system protests. This concern has been echoed in the work of Seligson (2002; 2006) who showed that experiences with corruption in several Latin and Central American countries decreased the perceived legitimacy of the political regime. He also argued that the frequency of corrupt encounters significantly weakened interpersonal trust, which Seligson sees as a precursor to legitimacy. The relationship between corruption and interpersonal trust, however, has rarely been a primary focus of the study and still appears more debatable than the airtight link between corruption and institutional trust. Mishler and Rose (2001) found only a weak connection between the two, while Richey's (2010) study turned in intriguing evidence that US states with more corruption convictions have decreased levels of interpersonal trust.

Overall, past research has consistently documented a negative relationship between corruption and political support. Whether conceptualized as institutional trust, confidence in government or regime satisfaction, political support suffers when corruption is widespread.

### **Evaluations of Political Support**

There is a general consensus among corruption scholars that corruption undermines trust in the political system and government support. Corruption, which negatively affects transparency, political accountability, democratic equality and often involves embezzlement of state funds, leads to public disillusionment and mistrust. In other words, citizens become highly critical of corrupt politicians and public servants, and as a result, become dissatisfied with the overall political system. Measures of political support vary vastly from study to study and often depend on the availability of a certain question in survey studies. Given differences in the measures, there is no uniformity in the findings, and consequently the inferential conclusions. However, the majority of the studies, as the previous section indicates, report a negative relationship between corruption and political support.

The 2006 ISSP survey provides a few opportunities for constructing measures of political support. It includes a battery of 6 questions asking respondents to evaluate how successful the government is dealing with issues. The general question reads: "How successful do you think the government in [Country] is nowadays in each of the following areas?" This question is followed by the list of 6 different areas: providing health care for the sick; providing a decent standard of living for the old; dealing with threats to country's security; controlling crime; fighting unemployment; and protecting

the environment. Response options range from “very successful” to “very unsuccessful”. The results of a factor analysis revealed a common component underlying all six questionnaire items, allowing for the construction of a composite index of government performance evaluations.<sup>8</sup> To construct the measure, I simply averaged across the six categories. The higher number on the scale indicates more *dissatisfaction* with the government.

Another indicator of political support – a more general one – is confidence in government. In the 2006 ISSP survey, respondents were asked to evaluate two statements: “People we elect as MPs try to keep the promises they have made during the election”, and “Most civil servants can be trusted to do what is best for the country”. The response categories vary from “strongly agree” to “strongly disagree”. As previously, I averaged the response scores for the two questions to construct an indicator of confidence. Higher numbers on the scale show high confidence and trust in government.

### **Modeling Political Support**

Following a well-established tradition in the literature, my models of political support include a number of socio-demographic indicators, a variable measuring government loyalty (based on party identification), generalized (interpersonal) trust as a measure of social capital, and two individual-level measures of corruption (my primary research focus) – corruption perceptions and experiences. In addition, I incorporate a series of system-level or contextual measures – namely, the level of democracy, economic wealth, and Transparency International’s Corruption Perception Index.<sup>9</sup> Please refer to the Appendix for a detailed list of all the variables and their descriptive statistics.

With the variables measured at two different levels of analysis (individual and country), the most appropriate estimation procedure is multilevel modeling (Bryk and Raudenbusch 1992; Gelman and Hill 2007). It accounts for a non-zero correlation among individual observations clustered within nations, whereas OLS imposes the assumption of zero correlations among all observations in the analysis, consequently leading to biased estimates. Because both dependent variables are indices and could

---

<sup>8</sup> Factor 1 eigenvalue is 2.30 with the factor loadings ranging from .56 to .69 among the six components.

<sup>9</sup> Because of missing data, I decided not to use the aggregate level corruption measure derived from the Global Corruption Barometer. Although there is little reason for me to suspect any specific pattern (or bias) in the missing data, the inclusion of this variable would automatically delete five countries from the analysis. Given a relatively modest number of nations in the analysis to begin with – thirty – losing more than 15% of the sample decreases the reliability of multilevel statistical results. The estimates obtained with all four corruption variables are available directly from the author.

be treated as approximations of continuous variables, I used random-effects GLS regression in STATA to estimate the models.<sup>10</sup>

## Results

### *Estimating Dissatisfaction with Government*

To test the relationship between corruption and political dissatisfaction, I first ran three separate regressions with each of the corruption variables before estimating the full model. The corruption variables performed as expected and most achieved conventional levels of statistical significance. Individuals who perceive widespread corruption, had direct encounters with corruption, or live in corrupt systems are more likely to be dissatisfied with their government. Substantively, individual perceptions of corruption have the largest negative effect on government evaluations. The major issue with the perceptions variable, however, as outlined in the theoretical part of this study, is its potential reciprocity with the dependent variable. Theoretically, it is difficult to argue that negative perceptions of corruption lead to more critical evaluation of the government, but not vice versa. Statistically, in a cross-sectional setting, it is often impossible to disentangle the causal mechanism as well. Besides a strong association between the two variables, then, any causal claim would lie in the realm of speculation.

Table 2 about here

The estimates for the individual corruption experiences support the argument that more corruption in fact causes dissatisfaction with the regime, and thus allow us to assume that, at least partially, the coefficient of the corruption perceptions variable reflects its direct causal effect on government dissatisfaction. The coefficients for CPI do not achieve statistical significance, yet remain with the expected sign in both the reduced and full models.

### *Estimating Confidence in Government*

Finally, I tested the relationship between corruption and confidence in government – another measure of political support. As in the previous case, I expected this relationship to be negative. The results for the individual corruption variables in separate regressions and all the three variables combined are consistent with the estimates for the dissatisfaction with government models. Similarly, corruption perceptions appear to have the largest predictive power relative to the other two corruption measures. This model, however, as the previous one, suffers from the same potential threat of endogeneity or reciprocity, which I am unable either to test or treat in the existing methodological setting. Thus the issue of causality still remains unresolved with regard to the relationship between corruption perceptions and confidence in government. The overall results, however, indicate that either experiencing or

---

<sup>10</sup> The models are estimated by the *xtreg* command in STATA.

perceiving more corruption decreases individuals' confidence in government, although the corruption experiences variable loses its statistical significance in the full model. Consistent with the previous model the CPI remains statistically insignificant, but with the expected sign.

Table 3 about here

## Discussion and Conclusions

As with any illicit activity, corruption is difficult to measure. Disagreement about measurement ultimately breeds distrust about the results and inferences of a study. If we never develop a unifying measure of corruption – it would not be for the lack of trying. In this analysis, I compared four different measures of corruption with two objectives in mind. First, my goal was to explore whether the subjective and objective indicators of corruption tap into the same variance of the latent variable measuring the true level of corruption. Put simply, how much do various measures of corruption correlate? If they do, then the argument that subjective and objective indicators measure different types of corruption and do not overlap loses at least some of its potency. Moreover, it further refutes the argument that individual perceptions of corruption are not grounded in reality.

My second goal was to analyze the performance of different corruption measures in the models of political support. It is widely believed that corruption and political support are negatively related. However, the causal mechanism of this relationship is hard to test in a cross-sectional setting. Theoretically, it is easy to imagine that negative perceptions or frequent encounters of corruption lead to decreased political support. It is equally plausible, however, that critical evaluations of the political system in general may become a cause or negative projection onto specific aspects of political life – in this case, the quality of institutions and honesty of political actors. The latter scenario is less likely when corruption is measured by an objective indicator, such as corruption experiences.<sup>11</sup> Having an objective measure of corruption in a cross-sectional design thus effectively eliminates the pervasive problem of endogeneity. As a downside, objective measures are commonly more inferior predictors of political support than perceptual indicators. The availability of multiple corruption indicators – both objective and subjective – allowed me to probe the causal link between corruption and political performance evaluations as well as compare their predictive capabilities.

The correlation analysis of the four corruption measures points to the existence of a substantial common factor among them. This could mean they successfully capture some common meaning of corruption. A much more pessimistic view would be that they do have a common factor, but it has little to do with the true level of corruption. Because the measures come from a large number of sources, coded by different agencies and

---

<sup>11</sup> It could be argued that political views in general may affect a person's decision to pay or not to pay a bribe. However, it would be much harder to imagine that a person's feelings towards the political system would affect whether s/he is asked for a bribe.

advocated by many experts on corruption, I lean towards supporting the former point of view. High correlation between the indicators may also give us some justification to use them interchangeably in studies of corruption depending on their availability.

My analysis of political support, however, shows that different measures do not necessarily yield similar results. The survey based measure of individual-level corruption perceptions has the largest impact on political support, yet the causal flow between the two is ambiguous. The Corruption Perception Index – another perceptual measure – has a much weaker link with individual-level political evaluations perhaps in part due to its aggregate nature. The CPI remains insignificant in the models with the two individual-level corruption variables present. The individual-level measure of corruption experiences performs consistently with the perceptual measure; yet it is a weaker predictor as well. The biggest advantage of this measure is that it is likely less affected by the endogeneity problem. The magnitude of the true relationship between corruption and political support probably lies somewhere in between the estimates for corruption experiences and corruption perceptions.

The question about which indicator of corruption is the best approximation of the latent phenomenon remains largely unresolved. The latest advances in the study of corruption, its correlates and consequences, include a relative comparison of various corruption measures alongside each other. Similar to Ko and Samajdar (2010), I have found that expert evaluations are closely correlated with experiential measures of corruption and with citizen perceptions of corruption. In some contrast to Morris and Klesner (2010), who claimed that the effects of experiences with corruption differ from the effects of perceived corruption, my evidence indicates that both experiences and perceptions directly negatively affect political support. The magnitudes of these effects differ, with mass perceptions being the strongest correlate of support. This should not be too surprising, as Morris (2008) famously notes, perceptions – not experiences – are in the heart of our causal stories about corruption. Not surprisingly, international corruption indices seem to be much more inferior predictors of individual-level political support than disaggregated survey measures. It is similar to economic voting models, where the effect of economic perceptions on voting behavior is consistently strong unlike the shifting effect of the objective economy. This, however, should not preclude scholars from using aggregate measures of corruption – it just makes it increasingly harder to find systematic relationships.

The goal of this project was not to solve the inherent flaws of the existing corruption measures, but to demonstrate that, although flawed, the various measures are reliable enough to be used for social inquiries about corruption. Given the contention surrounding the definition and measurement of corruption, researchers should make considerable effort to include multiple indicators of corruption in their studies when possible. In cases where alternative measures are unavailable, the drawbacks of the chosen measure should be openly addressed to increase the credibility of scholarly inferences.

## References

- Anderson, Christopher J. and Yuliya V. Tverdova. 2003. "Corruption, Political Allegiances, and Attitudes Toward Government in Contemporary Democracies." *American Political Science Review* 47(1): 91-109.
- Apaza, Carmen R. 2009. "Measuring Governance and Corruption through the Worldwide Governance Indicators: Critiques, Responses, and Ongoing Scholarly Discussion." *PS: Political Science and Politics* 42(1): 139-143.
- Ariely, Dan. 2008. *Predictably Irrational, Revised and Expanded Edition: The Hidden Forces That Shape Our Decisions*. NY: Harper Perrenial.
- Bhagwati, Jagdish. 1974. *Illegal Transactions in International Trade*. Amsterdam: North-Holland.
- Bryk, Anthony and Stephen W. Raudenbusch. 1992. *Hierarchical Linear Models*. Newbury Park, CA: Sage Publications.
- Canache, Damaris and Michael E. Allison. 2005. "Perceptions of Political Corruption in Latin American Democracies." *Latin American Politics and Society* 47(3): 91-111.
- Chang, Eric and Yun-Han Chu. 2006. "Corruption and Trust: Exceptionalism in Asian Democracies?" *Journal of Politics* 68(2): 259-71.
- Choi, Eunjung and Jongseok Woo. 2010. "Political Corruption, Economic Performance, and Electoral Outcomes: A Cross-National Analysis." *Contemporary Politics* 16(3): 249-262.
- Dreher, Axel, Christos Kotsogiannis, and Steve McCorrison. 2007. "Corruption Around the World: Evidence from a Structural Model." *Journal of Comparative Economics* 35(3): 445-466.
- Espinal, Rosario, Jonathan Hartlyn, and Jana Morgan Kelly. 2006. "Performance Still Matters: Explaining Trust in Government in the Dominican Republic" *Comparative Political Studies* 39(2): 200-223.
- Ferraz, Claudio and Frederico Finan. 2008. "Exposing Corrupt Politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes." *Quarterly Journal of Economics* 123(2): 703-745.
- Gelman, Andrew and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge: Cambridge University Press.

- Gerber, Theodore P., and Sarah E. Mendelson. 2008. "Public Experiences of Police Violence and Corruption in Contemporary Russia: A Case of Predatory Policing?" *Law and Society Review* 42(1): 1-43.
- Gilbert, Daniel Todd. 2007. *Stumbling on Happiness*. NY: Vintage.
- Gilovich, Thomas, Dale Griffin and Daniel Kahneman. 2002. *Heuristics and Biases: The Psychology of Intuitive Judgment*. Cambridge: Cambridge University Press.
- Gingerich, Daniel W. 2009. "Corruption and Political Decay: Evidence from Bolivia." *Quarterly Journal of Political Science* 4(1): 1-34.
- Golden, Miriam A. and Lucio Picci. 2005. "Proposal for a New Measure of Corruption, Illustrated with Italian Data." *Economics and Politics* 17(3): 37-75.
- Gorodnichenko, Yuriy, and Klara Sabirianova Peter. 2007. "Public Sector Pay and Corruption: Measuring Bribery from Micro Data." *Journal of Public Economics* 91(5-6): 963-991.
- Guerrero, Manuel Alejandro, Eduardo Rodriguez-Oreggia. 2008. "On the Individual Decisions to Commit Corruption: A Methodological Complement." *Journal of Economic Behavior and Organization* 65(2): 357-372.
- Heywood, Paul M. 2009. "The Politics of Perception: Use and Abuse of Transparency International's Approach to Measuring Corruption." *Political Studies* 57(4): 746-767.
- Kahneman, Daniel, Paul Slovic and Amos Tversky. 1982. *Judgment under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.
- Kenny, Charles. 2009. "Measuring Corruption in Infrastructure: Evidence from Transition and Developing Countries." *Journal of Development Studies* 45(3): 314-332.
- Ko, Kilkon and Ananya Samajdar. 2010. "Evaluation of International Corruption Indexes: Should We Believe Them or Not?" *The Social Science Journal* 47(3): 508-540.
- Krueger, Anne O. 1974. "The Political Economy of a Rent-Seeking Society." *American Economic Review* 64: 271-303.
- Kunicova, Jana, and Susan Rose-Ackerman. 2005. "Electoral Rules and Constitutional Structures as Constraints on Corruption." *British Journal of Political Science* 35: 573-606.
- Kurtz, Marcus J. and Andrew Schrank. 2007. "Growth and Governance: Models, Measures, and Mechanisms." *Journal of Politics* 69(2): 538-554.

- Lavallée, Emmanuelle, Mireille Razafindrakoto, and François Roubaud. 2008. "Corruption and Trust in Political Institutions in sub-Saharan Africa" DIAL (Développement, Institutions & Analyses de Long terme) working paper.
- Leff, Nathaniel. 1964. "Economic Development through Bureaucratic Corruption." *American Behavioral Scientist* 8(3): 8-14.
- Lemarchand, Rene. 1972. "Political Clientelism and Ethnicity in Tropical Africa: Competing Solidarities in Nation-Building." *American Political Science Review* 66(1): 68-90.
- McMann, Kelly M. 2009. "Market Reform as a Stimulus to Particularistic Politics." *Comparative Political Studies* 42(7): 971-994.
- Mendez, Fabio, and Facundo Sepulveda. 2010. "What Do We Talk About When We Talk About Corruption?" *Journal of Law, Economics and Organization* 26(3): 493-514.
- Miller, William L., Ase B. Grodeland and Tatyana Y. Koshechkina. 2001. *A Culture of Corruption: Coping with Government in post-Communist Europe*. Budapest and New York: Central European University Press.
- Mishler, William and Richard Rose. 2001. "What Are the Origins of Political Trust? Testing Institutional and Cultural Theories in Post-Communist Societies." *Comparative Political Studies* 34(1): 30-62.
- Mocan, Nanci. 2008. "What Determines Corruption: International Evidence from Microdata." *Economic Inquiry* 46(4): 493-510.
- Montinola, Gabriella R. and Robert W. Jackman. 2002. "Sources of Corruption: A Cross-Country Study." *British Journal of Political Science* 32: 147-170.
- Morris, Stephen D. and Joseph L. Klesner. 2010. "Corruption and Trust: Theoretical Considerations and Evidence from Mexico." *Comparative Political Studies* 43(10): 1258-1285.
- Morris, Stephen D. 2008. "Disaggregating Corruption: A Comparison of Participation and Perceptions in Latin America with a Focus on Mexico." *Bulletin of Latin American Research* 27(3): 388-409.
- Morewedge Carey K., Daniel T. Gilbert and Kristian Ove R. Myrseth. 2010. "Consuming Experience: Why Affective Forecasters Overestimate Comparative Value." *Journal of Experimental Psychology* 46(6): 986-992.

- Nye, J. S. 1967. "Corruption and Political Development: A Cost-Benefit Analysis." *American Political Science Review* 61(2): 417-427.
- Olken, Benjamin A. 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy* 115(2): 200-249.
- Razafindrakoto, Mireille, and Francois Roubaud. 2010. "Are International Databases on Corruption Reliable? A Comparison of Expert Opinion Surveys and Household Surveys in Sub-Saharan Africa." *World Development* 38(8): 1057-1069.
- Reinikka, Ritva, and Jakob Svensson. 2004. "Local Capture: Evidence from a Central Government Transfer Program in Uganda." *Quarterly Journal of Economics* 119(2): 679-706.
- Richey, Sean. 2010. "The Impact of Corruption on Social Trust." *American Politics Research* 38(4): 676-690.
- Rose-Ackerman, Susan. 1978. *Corruption: A Study in Political Economy*. New York: Academic Press.
- Round, John, Colin C. Williams and Peter Rogers. 2008. "Corruption in the post-Soviet Workplace: the Experiences of Recent Graduates in Contemporary Ukraine." *Work, Employment and Society* 22(1): 149-166.
- Sandholtz, Wayne, and William Koetzle. 2000. "Accounting for Corruption: Economic Structure, Democracy and Trade." *International Studies Quarterly* 44(1): 31-50.
- Schwartz, Barry. 2005. *The Paradox of Choice: Why More Is Less*. NY: Harper Perrenial.
- Seligson, Mitchel A. 2002. "The Impact of Corruption on Regime Legitimacy: A Comparative Study of Four Latin American Countries." *Journal of Politics* 64(2): 408-433.
- Seligson, Mitchel A. 2006. "The Measurement and Impact of Corruption Victimization: Survey Evidence from Latin America." *World Development* 34(2): 381-404.
- Sharafutdinova, Gulnaz. 2010. "What Explains Corruption Perceptions? The Dark Side of Political Competition in Russia's Regions." *Comparative Politics* 42(2): 147-166.
- Smith, Michael L. 2010. "Perceived Corruption, Distributive Justice, and the Legitimacy of the System of Social Stratification in the Czech Republic." *Communist and Post-Communist Studies* 43(4): 439-451.

Treisman, Daniel. 2007. "What Have We Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science* 10: 211-44.

Tverdova, Yuliya V. 2011. "See No Evil: Heterogeneity in Public Perception of Corruption." *Canadian Journal of Political Science* 44 (1): 1-2.

Warren, Danielle E., and William S. Laufer. 2009. "Are Corruption Indices a Self-Fulfilling Prophecy? A Social Labeling Perspective of Corruption." *Journal of Business Ethics* 88: 841-849.

Xenakis, Sappho. 2010. "Pride and Prejudice: Comparative Corruption Research and the British Case." *Crime, Law and Social Change* 54: 39-61.

You, Jong-Sung, and Sanjeev Khagram. 2005. "A Comparative Study of Inequality and Corruption." *American Sociological Review* 70(1): 136-157.

Yu, Chilik, Chun-Ming Chen, Wen-Jong Juang and Lung-Teng Hu. 2008. "Does Democracy Breed Integrity? Corruption in Taiwan During the Democratic Transformation Period." *Crime, Law and Social Change* 49(3): 167-184.

**Table 2: Random Effects Generalized Least Squares Regression Results for Dissatisfaction with Government**

Independent Variable	Model 1: CPI	Model 2: Corruption Experiences	Model 3: Corruption Perceptions	Model 4: All Corruption Indicators
<b>MICRO-Level</b>				
Gender	.045*** (.01)	.049*** (.01)	.032** (.01)	.035*** (.01)
Education	.008* (.004)	.008* (.004)	.009* (.004)	.01** (.004)
Age	.001*** (.0004)	.001*** (.0004)	.002*** (.0004)	.002*** (.0003)
Income Quartile	.007 (.005)	.006 (.005)	.007 (.005)	.007 (.005)
Gov Supporter	-.267*** (.01)	-.267*** (.01)	-.247*** (.133)	-.248*** (.197)
Political Interest	-.017*** (.004)	-.02*** (.004)	-.013** (.004)	-.013*** (.004)
Gov Worker	-.021 (.012)	-.019 (.012)	-.013 (.012)	-.01 (.012)
Econ Disadvantaged	-.033* (.014)	-.031* (.014)	-.029* (.014)	-.026 (.014)
Interpersonal Trust	-.087*** (.005)	-.086*** (.005)	-.055*** (.005)	-.056*** (.005)
<b>Corruption Experiences</b>		.054*** (.007)		.022*** (.007)
<b>Corruption Perceptions</b>			.183*** (.005)	.181*** (.006)
<b>MACRO-Level</b>				
<b>CPI</b>	-.063 (.034)			-.023 (.031)
GDP	.000002 (.000006)	-.000006 (.000004)	-.000002 (.000003)	.000001 (.000005)
Democracy	.001 (.034)	.04 (.046)	.03 (.04)	.009 (.048)

Constant	3.68*** (.214)	3.317*** (.15)	2.639*** (.133)	2.716*** (.197)
R-Squared	.10	.095	.159	.146
N	21977	21315	20309	19871

---

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

*Note.* Entries are unstandardized random-effects GLS regression coefficients with standard errors in parentheses.

**Table 3: Random Effects Generalized Least Squares Regression  
Results for Confidence in Government**

Independent Variable	Model 1: CPI	Model 2: Corruption Experiences	Model 3: Corruption Perceptions	Model 4: All Corruption Indicators
<b>MICRO-Level</b>				
Gender	.022 (.012)	.021 (.012)	.028* (.012)	.028* (.013)
Education	-.013** (.005)	-.011* (.005)	-.018*** (.005)	-.017*** (.005)
Age	.001** (.0004)	.001** (.0005)	.0007 (.0005)	.0006 (.0005)
Income Quartile	.0008 (.006)	-.002 (.006)	.0003 (.006)	-.002 (.006)
Gov Supporter	.089*** (.013)	.089*** (.013)	.072*** (.013)	.073*** (.013)
Political Interest	.049*** (.005)	.051*** (.006)	.044*** (.015)	.045*** (.006)
Gov Worker	.104*** (.015)	.104*** (.016)	.089*** (.016)	.09*** (.016)
Econ Disadvantaged	.036* (.018)	.029 (.018)	.044* (.017)	.042* (.018)
Interpersonal Trust	.095*** (.006)	.095*** (.007)	.059*** (.007)	.06*** (.007)
<b>Corruption Experiences</b>		-.056*** (.009)		-.013 (.009)
<b>Corruption Perceptions</b>			-.268*** (.009)	-.263*** (.007)
Dissatisfaction w/ Gov	-.454*** (.009)	-.453*** (.009)	-.377*** (.009)	-.38*** (.009)
<b>MACRO-Level</b>				
<b>CPI</b>	.057 (.034)			.009 (.033)
GDP	-.000006 (.000006)	.0000001 (.000004)	-.000005 (.000004)	-.000007 (.000006)

Democracy	.015 (.054)	-.014 (.046)	-.007 (.043)	.006 (.052)
Constant	3.368*** (.22)	3.71*** (.155)	4.499*** (.148)	4.465*** (.216)
R-Squared	.192	.191	.251	.255
N	21403	20797	19889	19474

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Note. Entries are unstandardized random-effects GLS regression coefficients with standard errors in parentheses.