



MEASURING CORRUPTION IN MEXICO

Jose I. Rodriguez-Sanchez, Ph.D.

Postdoctoral Research Fellow in International Trade, Mexico Center

December 2018

© 2018 by the James A. Baker III Institute for Public Policy of Rice University

This material may be quoted or reproduced without prior permission, provided appropriate credit is given to the author and the James A. Baker III Institute for Public Policy.

Wherever feasible, papers are reviewed by outside experts before they are released. However, the research and views expressed in this paper are those of the individual researcher(s) and do not necessarily represent the views of the James A. Baker III Institute for Public Policy.

Jose I. Rodriguez-Sanchez, Ph.D.
“Measuring Corruption in Mexico”

Introduction

Corruption is a complex problem affecting all societies, and it has many different causes and consequences. Its consequences include negative impacts on economic growth and development, magnifying effects on poverty and inequality, and corrosive effects on legal systems and governance institutions. Corruption in the form of embezzlement or misappropriation of public funds, for example, diverts valuable economic resources that could be used on education, health care, infrastructure, or food security, while simultaneously eroding faith in the government. Calculating and measuring the impact of corruption and its tangible and intangible costs are essential to combating it. But before corruption can be measured, it must first be defined.

Decision-makers have often resorted to defining corruption in a certain area or location by listing specific acts that they consider corrupt. Such definitions, however, are limited because they are context-specific and depend on how individual governments decide to approach the problem. Measuring the costs and impacts of corruption given these kinds of definitions therefore becomes understandably difficult since decision-makers are often under pressure to fight it. This does not mean, however, that there are no theoretical approaches to defining corruption.

Two theoretical definitions of corruption have caught the eye of decision-makers involved in combating corruption. The first one is a definition crafted by Transparency International (TI), which defines corruption as the “abuse of entrusted power for private gain.”¹ The second definition was put forth by Johnston, who defines corruption as the “abuse of a trust, generally involving public power, for private benefit which often, but by no means always, comes in the form of money.”² These definitions have important limitations, but together they provide decision-makers with a framework to identify and classify a corrupt act. Moreover, they can be used to also include private sector corruption. Now, it is also important to remember that corrupt acts are contextual. One act of corruption may not be considered as such in a different setting, or its severity may be reduced in one place compared to another. Generally, however, most definitions include bribery, embezzlement, money laundering, illicit enrichment, influence peddling, obstruction of justice, and nepotism. Whatever the corrupt act, however, a main objective must be to measure the real costs of corruption based on a specific definition of it that can be agreed upon and used comparably across different societies.

Corrupt acts are not only difficult to define but also to identify and study. Measuring corruption and its tangible and intangible impacts has been challenging for researchers in recent years. Part of this is because corruption often occurs out of the public eye. Consequently, it is difficult to estimate its actual costs and the distribution of these costs. In many places, legislation clearly identifying corrupt acts does not even exist. In others, it is incomplete. Where the law is well developed, it is possible for decision-makers to estimate its cost with less bias or error. However, decision-makers may not consider the economic distortions and inefficiencies related to the corrupt act in broader society.

To demonstrate the problems of measuring corruption, this paper describes several surveys and methods used to measure it around the world and notes how many of these methods are flawed. Since developing countries are more likely to have higher levels of corruption than industrialized countries due to their weak rule of law systems, this paper also assesses corruption in Mexico as a case study. Mexico is a good test case because it has had a serious problem with corruption in recent years, and the country could benefit from a solid definition and an accurate measurement of corruption, not just to show the magnitude of the problem but also to develop strategies to reduce it. Finally, this paper analyzes the difference between the perceptions of corruption and experiences of it, as measured by objective gauges in Mexico.

Challenges in Measuring Corruption

To achieve an agreement on a universal definition of corruption is nearly impossible.³ The same happens with measuring it. Not surprisingly, academics interested in the phenomenon have used different methods to measure both corruption and its costs. Starting in the mid-1990s, most methods were based on surveys, many of which relied on perceptions of corruption. These indices and estimates have helped reveal the seriousness of the problem around the world. They have further provided the background to understand how and why corruption emerges and persists, its costs and effects, and what anti-corruption laws and regulations should be created and implemented to reduce, if not eliminate, it. Despite these efforts, there is no completely accurate measurement of the extent of corruption per se, and there is still scarce information on corrupt acts themselves—except for the occasional scandal or prosecution—and their real costs around the world.

This is not surprising because corruption is primarily a clandestine activity. Moreover, many corrupt acts do not leave a paper trail or are quickly forgotten, such as a quick one-time bribe for a faster building permit approval or forgiving a traffic violation. Systemic corruption is easier to detect but difficult to measure because people involved in these acts seek to hide them since they are aware they are illegal. Thus, identifying different acts of corruption requires a better understanding of the context in which it is taking place. Even so, attempts must be made to craft objective measures of corruption through both direct and indirect methods to have a better understanding of its features and costs. Several such methods to measure corruption have already been developed.

In a first approach, scholars count the number of corrupt acts that are either clearly corrupt or affected by corruption. The data are collected from internal business records, public information, and the news. Since information can come in different forms, researchers homogenize it and add up the number of corrupt acts to obtain a final measure of corruption. This method has obvious limitations, including the inability to account for hidden corruption due to a lack of records. In some cases, the lack of information on corruption can result from other acts of corruption, in which information is hidden. Furthermore, the data are sometimes so different that they cannot be homogenized into a single database to produce a single measure. Thus, this method is complex and hard to use given its reliance on data that can be difficult to obtain. Furthermore, this method can only

work in certain cases and under specific assumptions. Cole and Tran, for example, apply this method to calculate bribe payments using data from three bribe-paying firms in public and in private organizations to understand how and to whom bribe payments are systematically made.⁴ They find that corruption is not only pervasive among public and private entities; however, public firms tend to be more corrupt than private ones. This method is ideal if the corrupt act is happening in a sector with few participants who can provide information from their records. However, if corruption is more widely distributed among many firms and access to information is difficult, this method is almost impossible to use effectively.

A second, more indirect method to measure corruption is based on surveys of experts, households, and business enterprises and their perceptions and experiences with different types of corruption. Indeed, perception-based measures of corruption were the first attempts to calculate the extent of corruption. The most widely used measures of corruption perceptions are the Corruption Perceptions Index (CPI), the Bribe Payers Index (BPI), the International Country Risk Guide (ICRG), and the World Bank's Worldwide Governance Indicators (WGI).⁵

Transparency International (TI), a global nongovernmental organization, has published the CPI every year since 1995. It is based on surveys filled out by country experts, journalists, and business executives on corrupt practices in the public sector, and it is currently calculated for 180 countries. The data are collected using 13 different sources from 12 different institutions.⁶ Using this method, the CPI measures perceived levels of public sector corruption around the world and ranks it from 0 (highly corrupt) to 100 (not corrupt).

TI also developed the BPI, which focuses on bribery. Last issued in 2011, this index ranks 28 of the world's wealthiest economies by the likelihood their firms will use bribes abroad to gain favorable business. This survey asks more than 3,000 business executives worldwide about their perceptions of corruption, and it covers almost 80% of the world's total outflows of goods, services, and investments.⁷ Its representativeness makes it very reliable. It uses a scale from 0 to 10, where 0 means the certain use of bribes and 10 is the absolute absence of such bribes.

The Political Risk Services group, a private business consulting agency, developed the ICRG. It uses 22 variables to cover a broad set of political, financial, and economic categories, where each has a separate index of risk; one of these indices is the Political Risk Index. This index, which consists of 12 components, includes corruption as a key element in its formula⁸ and measures the demand for payments and bribes when firms are doing business in the public and private sectors. It ranges from 0 to 6, with low values indicating higher corruption. The ICRG has been released every month since 1984 for up to 140 countries, and the composite scores range from 0 to 100.⁹ If the score is between 0 and 49.9 points, the country is at "Very High Risk;" 50 to 59.9 indicates "High Risk;" 60 to 69.9 "Moderate Risk;" 70 to 79.9 "Low Risk;" and 80 to 100 points indicates "Very Low Risk."¹⁰ The World Bank Group (WBG) has estimated the WGI for 209 countries since 1996.¹¹ The WGI has six dimensions of governance, one of which is the "Control of Corruption (CC)"

dimension. The CC ranges from 0 to 100, where 0 corresponds to a high level of corruption and 100 to no corruption. The WGI, like the CPI, depends on crossnational data sources, including expert ratings, public opinion polls, and a variety of surveys from institutes, think tanks, nongovernmental organizations, and private sector firms, to generate a composite indicator of the perception of corruption in a country's public sector. The sources for the WGI are 32 indicators and surveys, and the WBG updates this index every year for all 209 countries.¹²

These indices are both reliable and valid enough to measure different aspects of corruption. For example, the CPI measures the perceived state of corruption in a country, while the BPI measures the bribes of companies doing business abroad. Using Pearson's correlation coefficient, there is a high correlation between these two indices with a value of 0.87.¹³ If we compare the relationships between other indices, the results show a high correlation between them as well. The CC shows a 0.97 correlation with the CPI.¹⁴ Meanwhile, the ICRG has a 0.75 correlation with the CPI.¹⁵ Despite using different methods for measuring perceptions of corruption, the measurements obtained are positively correlated.

A caveat on these indices is important. The main questions in all of these surveys are related to the honesty of politicians about public finances; the likelihood of firms paying bribes for access, favors, or public services; and citizens' perceptions of corruption among public officials.¹⁶ Perceptions, however, are subjective. Thus, a key aim of any study of corruption should be to identify a robust, objective measure of actual corruption, rather than relying on perceptions of corruption, which will always be imperfect. In this regard, some researchers have begun to develop new indices, and while some are still based on perceptions, others now include more objective measures. In all, the number of corruption indices has grown in recent years. Despite these developments, the CPI, BPI, ICRG, and WGI are still widely used around the world.

Even the more objective measures of corruption—that is, those that do not rely on perceptions—are imperfect, and scholars know that they have accuracy issues. Hence, both measures are vulnerable to reporting and sampling biases. For example, experts can misclassify corrupt activities or report them incorrectly. They can also voluntarily or involuntarily misreport perceptions and experiences of corruption. Furthermore, sampling biases can occur when a sector prone to corruption increases the exposure of a firm that may not be corrupt at all. This may make people believe that the firm is corrupt simply because it is interacting with other corrupt firms. Hence, measuring corruption must consider potential problems with each index to minimize biases.

In the end, subjective measures (perceptions) may complement objective measures (statistical data on corruption obtained from different databases). The good news is that scholars have begun to develop different methods to collect more accurate data on corruption, which can complement the existing perception-based indices. They have also redesigned questionnaires to obtain data on both the perceptions of corruption as well as the actual experiences of corruption using representative samples from the whole

population. Examples of these surveys include the Enterprise Survey (ES), the International Crime Victim Surveys (ICVS), and the Rule of Law Index (RLI).¹⁷

The WBG developed the ES as a firm-level survey to measure corruption using data gathered from business owners and top managers. The WBG has conducted this survey since the 1990s, mainly in the manufacturing and service sectors in 139 countries. It focuses on 12 areas of business, such as finance, infrastructure, corruption (bribery), crime, and performance measures.¹⁸ In the case of corruption, this survey collects firm-level survey data on both corruption experiences and perceptions. The questions about these two items differ. In the first case, the question is designed to obtain a proxy measure of corruption using the amount a firm paid to public officials as a percent of total revenue. In the case of perceptions of corruption, the question asks firms to rank barriers to their operations from 0 (no obstacle) to 4 (very severe obstacle).¹⁹

The United Nations Inter-Regional Crime and Justice Research Institute (UNICRI) developed the ICVS, which provides individual data on crime and victimization. This survey has been conducted six times since 1989, with intervals of four to five years, and it asks individuals about their experiences with victimization and related corrupt acts in 78 countries.²⁰ For example, this survey asks if government officials have requested bribes for services. In addition, the UNICRI measured perceptions of corruption in the year 2000 by assessing the likelihood of offering money, a present, or a favor to obtain help from a government official.

Since 2008, the World Justice Project has published the RLI, which measures countries based on the strength of their rule of law. Every year, the World Justice Project reduces the measure into eight dimensions based on the views of national experts and citizens in the three most populous cities in 113 different countries.²¹ The “Absence of Corruption (AC)” factor constitutes one of these components, and it asks individuals about the extent to which government officials use public office for private gain. The AC factor ranks their answer on a scale from 0 (high corruption) to 1 (low corruption), and this result is used in both the CPI and CC. The World Justice Project also asks about individual experiences with corruption in the past 12 months.

The Case of Corruption in Mexico

All of these surveys except the ICVS collect data for Mexico. In addition, three major institutions collect more detailed data on perceptions and experiences of corruption in Mexico using national surveys and internal public records. The National Institute of Statistics and Geography (INEGI), an autonomous public agency in Mexico, conducts two national surveys:²² the National Survey of Quality and Governmental Impact (ENCIG) and the National Survey on Regulatory Quality and Government Impact on Enterprises (ENCRIGE). Transparencia Mexicana (TM), a Mexican nongovernmental agency, also carries out the National Survey on Corruption and Good Governance (NSCG).²³ In 2017, TM decided to calculate the TAI (Transparency, Anticorruption, and Zero Impunity) index and stop conducting the NSCG. Finally, the Mexican Institute of Competitiveness (IMCO), a Mexican

nongovernmental institution, analyzes the risk of corruption in public organizations through public records and constructs in its Index of Corruption Risks (ICRM).

The ENCIG collects information on the experiences and perceptions of Mexicans with public procedures and services offered at different levels of government and in different regions of the country. This information includes the corruption experiences of people in Mexico when they are in contact with the government or its bureaucrats, which most people consider as a serious national problem. With this information, scholars are able to estimate the number of victims of corruption and corrupt acts when people are making payments, procedures, and requests for public services, among other interactions with the government. Furthermore, this survey asks people about their perceptions of corruption in Mexico's public sector. The first version of this survey was in 2011, and since then INEGI has conducted it every two years.²⁴

The ENCRIGE obtains information from firms in different industries across Mexico to measure their experiences and perceptions with the regulatory framework and public services offered by the government. One common problem in these contexts is corruption—nearly all Mexicans complain about it. The ENCRIGE estimates the number of corrupt acts by private firms when making payments, procedures, requests for public services, and during other contact with the authorities. This survey also asks how Mexican firms perceive corruption in their relationships with the government. The INEGI conducted this survey only once in 2016.²⁵

The NSCG records yearly household experiences and perceptions of corruption in 35 public services for each of the 32 states of Mexico. The main objective is to estimate how frequently bribery occurs to speed up, modify, or hinder the provision of public services. The NSCG can be used to estimate the cost of corruption for Mexican households as a share of their income. In addition, this survey identifies household perceptions regarding public sector corruption. This survey was first conducted in 2001 and again every two years until 2010.²⁶ With these results, TM constructed the National Index of Corruption and Good Governance by Public Service. This index allows TM to analyze the relationship between public officials and corruption and track the evolution of corruption within the country. The national index value goes from 0 to 100, with a lower value indicating less corruption.

In 2017, TM and Impunidad Cero, another nongovernmental agency, decided to calculate the TAI index. The idea was to create a more robust index that measures three elements for all states in Mexico: transparency, corruption, and impunity. The TAI encompasses these three main elements to strengthen the rule of law in Mexico using the most recent indices and metrics for each of these elements. The first element is represented by the Open Government Metric, created by the Center for Economic Research and Teaching, which measures the level of transparency and citizen participation in different federal and local agencies from the executive, legislative, and judicial branches in 2017. The second element uses the ENCIG to estimate the corruption prevalence rate for 2015 by calculating the number of victims of corruption in different public services for every 100,000 inhabitants. The third element uses the 2016 Global Impunity Index for Mexico created by the

University of the Americas in Puebla. This is an aggregate index with 19 variables and information on unreported crimes and the functioning and capacity of the justice and security systems. The TAI ranges from 0 to 100, with 100 being the worst score.²⁷

In 2018, the IMCO issued a report called the “ICRM: the Mexican System of Public Procurement.” This index analyzes the risk of corruption in the public procurements made by federal dependencies and entities, and it uses 43 variables that evaluate the level of competition, transparency, and anomalies in these procedures.²⁸ Hence, this index shows the weak elements of the public procurement system from 2012 to 2017.

Evaluating Corruption in Mexico

By most international and national measures, Mexico has ranked increasingly worse on corruption and impunity in recent years. Its overall rule of law has dramatically deteriorated as well. In 2017, TI ranked Mexico 135 out of 180 countries using its CPI. Astonishingly, Mexico had dropped 40 places on this index between 2015 and 2017. Moreover, the CPI shows that Mexico scored 29 out of 100, ranking it as the most corrupt country in both the Organisation for Economic Co-operation and Development (OECD) and the G-20. Furthermore, Mexico’s CPI is below the average CPI of Latin American and Caribbean countries. In fact, Mexico is only ranked higher than Guatemala, Nicaragua, Venezuela, and Haiti.²⁹

Using the 2011 BPI, the results for Mexico are discouraging too. Mexican companies were the third most likely to pay bribes. Furthermore, Mexico scored 7 out of 10, and it ranked 26 out of 28 countries, only above China and Russia.³⁰ Results given by the Political Risk Services group tell a similar story. In 2017, Mexico scored 1.5 out of 6 and was ranked 126 out of 140 countries using the corruption component of the ICRG. Mexico dropped 25 places from 2012 to 2017, and it had high-to-moderate risk in its political risk rating, with a value close to 60.³¹ These figures coincide with the result given by the WBG for the CC. In 2017, Mexico scored 16 out of 100 on this indicator, and the WBG ranked it 175 out of 209 countries, which again indicates that Mexico is one of the most corrupt countries in the world.³²

The WBG further estimated the corruption levels for Mexico in 2010 using the ES, and 17.6% of Mexican firms experienced at least one bribe request during their transactions with public officials. This percentage was higher than the average (8.7%) for all Latin American and Caribbean countries included in this survey. In Mexico, approximately 35% of establishments made informal payments to ensure government contracts, and this figure is higher than that of all Latin America and Caribbean countries (14.4%). The WBG also found that 50% of Mexican firms identified corruption as a major hindrance to business, which is higher than for all Latin American and Caribbean countries (36.3%) and for all surveyed countries (32.7%).³³ Finally, the value of the gift used to secure a government contract was approximately 4.5% of the contract value. This figure was approximately six times greater than the gift value that firms in other Latin American and Caribbean countries had to pay. This corruption by public officials places major administrative and financial burdens on

Mexican companies. Moreover, it creates a negative business environment by weakening the operational efficiency of firms and increasing the risks and costs of doing business in Mexico.

The results from the 2017-2018 RLI also show the same increase in corruption in Mexico. The RLI places Mexico among the top 10 corrupt countries, along with Venezuela, Liberia, Afghanistan, and Cameroon. Indeed, Mexico scores 0.31 out of 1.0 and ranks 102 out of 113 countries.³⁴ This figure has dropped heavily since 2014, when Mexico was ranked 78 with a score of 0.37.³⁵ The World Justice Project has only recently realized the problem of corruption in Mexico. Hence, it estimates the RLI for each state in Mexico, including both urban and rural areas. This is the first subnational index focusing on the perceptions of corruption, sense of security, access to justice, and experiences with government officials in Mexico. This index shows that the states of Quintana Roo, Mexico, Guerrero, and Mexico City have the most public sector corruption in Mexico.³⁶

National institutions have also added valuable information about the problem of corruption in Mexico. The INEGI and its ENCIG of 2017, for example, showed that Mexicans considered corruption to be the second-most important national concern, just below security. Approximately 59.5% of individuals also experienced corruption when dealing with public security authorities.³⁷ The prevalence rate of corruption increased by 16.2%, from 12,590 victims per 100,000 inhabitants in 2015, to 14,635 victims in 2017.³⁸ The states with the highest prevalence rate of corruption were San Luis Potosi, Morelos, Quintana Roo, and Mexico City. Regarding the frequency of corrupt acts within Mexico, 91% of inhabitants believed that these acts were either frequent or very frequent in their states. Furthermore, the estimated total cost of corruption in the public sector was 7.2 billion pesos (approximately 380 million dollars).³⁹

In 2016, the INEGI conducted the ENCRIGE for the first time. This survey found that economic agents carried out corrupt acts to speed up procedures (64.6%), to avoid fines or sanctions (39.4%), and to obtain permits or licenses (30.7%) from public officials. On average, 561 out of 10,000 firms experienced at least one corrupt act, and this rate was higher for larger firms. For example, the corruption rate increased to 1,317 per 10,000 large firms. The states with the highest prevalence rate of corruption were Mexico, Morelos, Tlaxcala, and Quintana Roo. The costs of corruption for Mexican firms were estimated to be 1.6 billion pesos (approximately 84 million dollars). Finally, the ENCRIGE found that firms experience more corruption when dealing with public safety authorities.⁴⁰

TM conducted the NSCG five times from 2001 to 2010, and its main results reinforce the conclusion that Mexico has a major corruption problem. In 2010, 200 million corrupt acts were identified in public services, and a “mordida” (bribe) cost Mexican households 165 pesos (8.7 dollars) on average. The aggregated bribe cost to access or ease procedures for public services was approximately 32 billion pesos (1.68 billion dollars), an increase of 18.5% compared to 2007. Even more overwhelming was that Mexican households spent 14% of their income on “mordidas,” and households earning the minimum wage spent 33%, demonstrating that corruption acts as a regressive tax for the poor. At the national level, this index set Oaxaca, Guerrero, Mexico, and Mexico City as the most corrupt states in

Mexico.⁴¹ Furthermore, the TAI's average for all Mexican states was 60.59 out of 100 in 2017. The states with the highest scores (e.g., those with low levels of transparency and high levels of corruption and impunity) were Durango, Querétaro, Sinaloa, and Morelos. This coefficient reinforces the idea that Morelos is one of the worst states in terms of transparency, corruption, and impunity. As pointed out before, Morelos also has high levels of corruption, as reported in almost every survey.⁴²

The ICRM also analyzed 700,000 federal public contracts in 1,537 purchasing entities. These contracts represented approximately 2.3 billion pesos (121 million dollars), or 10% of total government spending from 2012 to 2017 in Mexico. The IMCO determined that three institutions had the highest risk of corruption: the Federal Electricity Commission, the Institute of Security and Social Services for State Workers, and the Mexican Institute of Social Security.⁴³

Mexico is also losing billions of dollars due to corruption according to several different measures. These measures are controversial since they do not have clear methodologies. As a percentage of annual Gross Domestic Product (GDP), estimates of the cost of corruption range from 2% to 10%. In 2015, México: ¿Cómo vamos?, a Mexican think tank, determined that corruption cost 2% of the GDP based on the productivity of capital.⁴⁴ According to calculations from the IMCO for the same year, corruption cost 5% of GDP using estimates from other institutions.⁴⁵ In 2012, the Center for the Economic Study of the Private Sector, a Mexican think tank, estimated that corruption cost 10% of GDP.⁴⁶ The Organization of American States also calculated the same value in 2016.⁴⁷ The ENCIG determined that the total cost of corruption in public service transactions represents 0.3% of GDP.

Clearly, measuring the cost of corruption is very complex. National institutions are working on analyzing the problem of corruption more precisely, as well as the developing new methods, but they must clearly indicate the assumptions used to calculate the costs of corruption. Without clearly identifying assumptions and biases, there can be confusion and errors. For example, the International Finance Corporation (IFC) (a member of WBG) calculated the cost of corruption in Mexico to be as high as 9% of GDP. However, when Verificado 2018, an initiative to verify Mexican fake news, checked this result, both the IFC and WBG communicated that they never even conducted a study to obtain this value.⁴⁸

Perceptions versus Experiences of Corruption

As previously noted, most studies of corruption rely on asking citizens and especially economic agents about their perceptions of corruption. Starting in the mid-1990s, researchers asked only about the perceptions of corruption, and then they moved to surveys collecting information on experiences as well. These two measures allowed researchers to show if experiences with corruption determine perceptions of it, and it was assumed that these indicators should be very highly correlated. However, this is not always the case. The recent use of questions in the same survey to obtain corruption perception and experience data has helped researchers analyze the relationship between these factors and evaluate if perception data are reliable.

The following two studies test the link between the perceptions and experiences of corruption for a sample of countries. These studies determined that perceptions of corruption depend not only on experiences but also on individual and national characteristics. Gutmann et al. estimated the relationship between corruption perceptions and experiences in the public sector using a linear representation where perceptions depend on experiences, the characteristics of the individual, and country characteristics.⁴⁹ Their results are statistically significant, and they confirm that there is a positive relationship between corruption experiences and perceptions. However, other characteristics also affect perceptions, such as age, gender, education, income, economic growth, inequality, religion, and democracy. Hence, the variation in perceptions of corruption is not only explained by experiences, as both individual and national characteristics can also bias these perceptions.

On the other hand, Donchey and Ujhelyi determined that actual corruption experiences are a weak estimator of corruption perceptions.⁵⁰ Perceptions are affected by absolute levels of corruption and other variables (e.g., economic development or democratic institutions) that cause corruption perceptions to be biased, and these perceptions therefore exhibit diminishing sensitivity to experiences. They found that individual- and firm-level characteristics influence perceptions when experiences of corruption are held constant. These two studies reinforce the importance of being cautious when using the perception of corruption as a proxy for actual corruption.

Given the differing results of these two studies, it is important to demonstrate if perceptions of corruption are related to the experiences of it in the specific context of Mexico. It is possible to estimate this relationship using the ENCIG to verify if perceptions of corruption in public sector bribery depend on factors beyond just experiences with it. This latter factor is based on the experiences Mexicans have had with public sector bribery in the past year, which is defined as when a public official or a government worker has asked for money, gifts, or favors in exchange for carrying out, avoiding, or expediting procedures or payments in the public sector. For every individual, I use a simple dummy variable to reflect whether an individual had any corruption experiences at all, and I name it “Experience with corruption (E).”

The ENCIG asks individuals to evaluate the degree of corruption in the public sector going from 1 (“very frequent”) to 4 (“not at all”). I name this variable “Perception of corruption (P).”⁵¹ I also add other independent variables to analyze the differences between perceptions and experiences of corruption, including individual sociodemographic characteristics (C), such as age, gender, and education. Hence, the linear function is defined as: $P=f(E, C)$. For this analysis, I use only the ENCIG of 2017 and Ordinary Least Squares (OLS) to estimate this function. I would have a more consistent estimator if I used more years, other economics factors, and Instrumental Variables (IV). The problem of using simple OLS could be that a range of unobserved individual- and state-level factors can directly affect both corruption experiences and perceptions. However, this simple OLS

estimation can provide insight into some factors that can affect corruption perceptions and verify that they are related to experiences, as indicated by Gutmann et al.

The results of my analysis show that experiences with corruption affect perceptions of it in the public sector. The experience with corruption increases the perception level, and this is statistically significant (Figure 1). After controlling for experience, individuals over 30 years old report higher corruption perceptions than younger respondents. Female respondents also report higher perceptions than their male counterparts, with a statistically significant coefficient estimate. Furthermore, higher levels of education are correlated with higher perceptions of corruption in Mexico. In contrast, the perception of corruption is not affected by unemployment or retirement. Finally, individuals that live in Morelos have higher perceptions of corruption than in other states. Hence, perceptions of corruption are affected by experiences and other variables in Mexico. Since there is a positive relationship between experiences and perceptions of corruption, it is possible to use perception data when analyzing corruption with the ENCIG. However, it is important to understand that other factors influence these perceptions and they do not fully explain the actual problem of corruption. In other words, the perception of corruption can be used as a proxy of corruption, but it does not measure corruption completely.

Figure 1. Table of individual determinants of corruption perceptions

Variable	Estimated Coefficient	Robust Standard Error
Experience with corruption	0.1894***	0.0098
Age: Over 30	0.0970***	0.0084
High School Education	0.0851***	0.0090
University Education	0.1468***	0.0084
High-level Education	0.1438***	0.0201
Female	0.0170**	0.0071
Unemployed	-0.0242	0.0299
Retired	-0.0021	0.0153
Residence in Morelos	0.1216***	0.0181
Constant	3.2306***	0.0099
R ²	0.0201	
N	37,855	

Source: Author's analysis

Note: Asterisks denote statistical significance at ** 5%, and *** 1% levels.

Summary and Policy Recommendations for Mexico

Mexico has a severe corruption problem that has increased rapidly in recent years. Its international ranking has dropped dramatically in the last few years, and Mexico is now at the bottom in lists of corrupt countries in almost every international survey. National surveys also confirm that corruption is a major problem in Mexico, and it is worse in certain states. In all of these assessments, the main indicators of corruption use perception data, which are subjective. If perceptions are not affected at all by experiences of corruption, researchers should not use this data as a proxy for studying corruption. Hence, researchers should verify that the perception of corruption is indeed affected by the experience of corruption. In this paper, I find that for the ENCIG, the experience of corruption influences the perception of corruption. Any analysis of corruption in Mexico using this survey can therefore be conducted with data on either the perceptions or the experiences of corruption.

While these surveys have created greater awareness of the seriousness of corruption, particularly in Mexico, they have not helped reduce it in recent years. Indeed, corruption has increased over time. The problem is that these surveys have only been used to highlight the problem, but researchers have not analyzed the reported causes and consequences of corruption or the potential drawbacks that these surveys and indices have. However, such surveys are important first steps in addressing corruption. We need now to take a second step and analyze these surveys and improve them. In addition, we have to analyze corruption in other areas of the public and private sectors, other corrupt acts, and the relationship of corruption with other key variables in Mexico in order to develop appropriate and efficient public policies. We also need to better examine the real costs of corruption in Mexico by developing better definitions of corruption and tools to analyze it.

In order to combat corruption, prevent it from being systematized, and diminish its negative impact on Mexico's development, it is important to develop effective public policies. The success of these policies depends on making an accurate diagnosis of the problem, establishing clear objectives, and identifying the instruments or incentives used to alleviate corruption, including evaluations of their results. Any proposed policies must be comprehensive; for example, education programs that highlight the negative impacts of corruption could be linked to incentives that help change the behavior of individuals. Punishing corruption is also a key element of any effective anticorruption policy. The public and private sectors need to increase the probability of being caught, as well as the penalties for corrupt acts. In addition, incentives must be provided to insiders that report corrupt acts, and their protection must be ensured. Transparency is also required for lowering corruption, and although Mexico has improved its transparency laws and access to public information in recent years, it has not improved in prosecuting corruption, and many corrupt acts remain unpunished.

In the case of the public sector, officials must lose monopoly power over services and goods. In addition, the Mexican bureaucracy must be restructured and processes must be made clear, fast, easy, and efficient. To achieve this, technology can be implemented in

many government procedures. Finally, public officials must earn attractive wages commensurate with their experience and responsibilities so that they have less financial motivation to accept bribes.

The power and role of civil society are vital to reduce the problem of corruption in Mexico.⁵² Mexicans must also continue to pressure their government to identify and punish corrupt acts. Furthermore, researchers must also continue to analyze this problem to provide valuable information and potential solutions to this issue. This analysis will help to better study and understand corruption, with the ultimate goal of reducing this challenging problem.

Endnotes

¹ Transparency International, “What is Corruption?” 2018, <https://www.transparency.org/what-is-corruption>.

² Michael Johnston, *Syndromes of Corruption: Wealth, Power, and Democracy* (Cambridge: Cambridge University Press, 2005).

³ Jose I. Rodriguez-Sanchez, *Understanding the Problems and Obstacles of Corruption in Mexico*, Rice University’s Baker Institute for Public Policy Issue Brief no. 09.13.18 (2018), <https://www.bakerinstitute.org/media/files/files/dae461e7/bi-brief-091318-mex-corruption.pdf>.

⁴ Shawn Cole and Anh Tran, “Evidence from the firm: a new approach to understanding corruption,” in *International Handbook on the Economics of Corruption*, ed. Susan Rose-Ackerman and Tina Soreide (Northampton: Edward Elgar, 2011), 408-427.

⁵ There are more surveys than the ones discussed here, but I am listing the main surveys and measures of corruption used around the world and in Mexico.

⁶ Transparency International, “Corruption Perceptions Index 2017: Short Methodology Note,” October 15, 2018, https://www.transparency.org/news/feature/corruption_perceptions_index_2017.

⁷ Transparency International, “Bribe Payers Index 2011,” October 15, 2018, https://www.transparency.org/whatwedo/publication/bpi_2011.

⁸ The PRS Group, “International Country Risk Guide Methodology,” October 15, 2018, <https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf>.

⁹ The composite risk encompasses political risk, financial risk, and economic risk indicators.

¹⁰ This index is one of the 13 sources used to obtain the CPI.

¹¹ World Bank Group, “Worldwide Governance Indicators,” 2018, <http://info.worldbank.org/governance/wgi/#home>.

¹² World Bank Group, “Worldwide Governance Indicators: Documentation,” 2018, <http://info.worldbank.org/governance/wgi/#doc>.

¹³ Transparency International, *Bribe Payers Index (BPI) 2006: Analysis Report* (Berlin: Transparency International, 2006), https://www.ti-austria.at/wp-content/uploads/2016/02/2006-10-04_Bribe-Payers-Index-2006-Report.pdf.

¹⁴ Jakob Svenson, “Eight Questions about Corruption,” *Journal of Economic Perspectives* 19 no. 3 (2005): 19-42,

[http://www1.worldbank.org/publicsector/anticorrupt/Svensson%20Eight%20Questions%20About%20Corruption%20\(JEP%20Vol%2019,%20No%203%202005\).pdf](http://www1.worldbank.org/publicsector/anticorrupt/Svensson%20Eight%20Questions%20About%20Corruption%20(JEP%20Vol%2019,%20No%203%202005).pdf).

¹⁵ Svenson, “Eight Questions about Corruption,” 19-42.

¹⁶ Sandra Sequeira, “Advances in Measuring Corruption in the Field,” in *New Advances in Experimental Research on Corruption*, ed. Danila Serra and Leonard Wantchekon (Emerald Publishing, 2012), 145-175.

¹⁷ The ES is also known as the Business Environment and Enterprise Performance Surveys (BEEPS).

¹⁸ World Bank Group, “Enterprise Surveys Data,” 2018, <http://www.enterprisesurveys.org/data>.

¹⁹ This survey is one of the sources used to obtain the CC.

- ²⁰ Jan van Dijk, John van Kesteren, and Paul Smit, *Criminal Victimization in International Perspective: Key findings from the 2004-2005 ICVS and EU ICS* (Meppel: WODC, 2007), http://www.unicri.it/services/library_documentation/publications/icvs/publications/ICVS2004_05report.pdf.
- ²¹ World Justice Project, *Rule of Law Index 2017-2018* (Washington, D.C.: World Justice Project, 2018), https://worldjusticeproject.org/sites/default/files/documents/WJP-ROLI-2018-June-Online-Edition_0.pdf.
- ²² The INEGI has three other surveys related to the perception and prevalence of corruption: National Survey on Business Victimization, National Survey of Victimization and Perception of Public Security, and National Survey on Populations Deprived of Liberty.
- ²³ Transparencia Mexicana, “Índice Nacional de Corrupción y Buen Gobierno” 2018, <https://www.tm.org.mx/indice-nacional-de-corrupcion-y-buen-gobierno-incbg/>.
- ²⁴ Instituto Nacional de Estadística y Geografía, “Encuesta Nacional de Calidad e Impacto Gubernamental (ENCIG) 2017,” 2017, <http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/encig/2017/>.
- ²⁵ Instituto Nacional de Estadística y Geografía, “Encuesta Nacional de Calidad Regulatoria e Impacto Gubernamental en Empresas (ENCRIGE) 2016,” 2016, <http://www.beta.inegi.org.mx/proyectos/encestablecimientos/especiales/encrige/2016/>.
- ²⁶ Transparencia Mexicana, *Índice Nacional de Corrupción y Buen Gobierno: Informe Ejecutivo* (México, 2011), <https://www.tm.org.mx/wp-content/uploads/2013/05/01-INCBG-2010-Informe-Ejecutivo.pdf>.
- ²⁷ Transparencia Mexicana, *Coficiente TAI 2017* (México, 2018), <https://www.tm.org.mx/wp-content/uploads/2017/12/Informe-Ejecutivo-TAI-2017.pdf>.
- ²⁸ Instituto Mexicano para la Competitividad, “Índice de Riesgos de Corrupción: El sistema mexicano de contrataciones públicas,” 2018, https://imco.org.mx/articulo_es/indice-riesgos-corrupcion-sistema-mexicano-contrataciones-publicas/.
- ²⁹ Transparency International, “Corruption Perceptions Index 2017,” 2017, https://www.transparency.org/news/feature/corruption_perceptions_index_2017.
- ³⁰ Transparency International, *Bribe Payers Index 2011* (Berlin, 2011), http://issuu.com/transparencyinternational/docs/bribe_payers_index_2011?mode=window&backgroundColor=%23222222.
- ³¹ World Bank Group, “Worldwide Governance Indicators: Data Sources,” 2018, <http://info.worldbank.org/governance/wgi/#doc>.
- ³² World Bank Group, “Worldwide Governance Indicators: Full Data,” 2018, <http://info.worldbank.org/governance/wgi/#home>.
- ³³ World Bank Group, “Enterprise Surveys: Mexico,” 2018, <http://www.enterprisesurveys.org/data/exploreconomies/2010/mexico>.
- ³⁴ World Justice Project, *Rule of Law Index: 2017-2018* (Washington, D.C.: World Justice Project, 2018), https://worldjusticeproject.org/sites/default/files/documents/WJP-ROLI-2018-June-Online-Edition_0.pdf.
- ³⁵ World Justice Project, *Rule of Law Index: 2014* (Washington, D.C.: World Justice Project, 2014), https://worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2014_report.pdf.
- ³⁶ World Justice Project, *Índice de Estado de Derecho en México 2018: Perspectivas y Experiencias en los 32 estados del país* (Washington, D.C.: World Justice Project, 2018), <https://drive.google.com/file/d/1GEvaXFPLHAmOnIaNhHT4aukgj15urlq4/view>.
- ³⁷ Instituto Nacional de Estadística y Geografía, *Resultados de la Encuesta Nacional de Calidad e Impacto Gubernamental 2017* (México, 2018), http://www.beta.inegi.org.mx/contenidos/saladeprensa/boletines/2018/EstSegPub/encig2018_03.pdf.
- ³⁸ The prevalence rate of corruption is the rate at which people suffered at least one corrupt act with a public official.
- ³⁹ Instituto Nacional de Estadística y Geografía, *Encuesta Nacional de Calidad e Impacto Gubernamental 2017: Principales Resultados* (México, 2018), http://www.beta.inegi.org.mx/contenidos/proyectos/enchogares/regulares/encig/2017/doc/encig2017_principales_resultados.pdf.

- ⁴⁰ Instituto Nacional de Estadística y Geografía, *Encuesta Nacional de Calidad Regulatoria e Impacto Gubernamental en Empresas 2016* (México, 2017), <http://www.beta.inegi.org.mx/contenidos/proyectos/encestablecimientos/especiales/encrige/2016/doc/presentacion.pdf>.
- ⁴¹ Transparencia Mexicana, *Índice Nacional de Corrupción y Buen Gobierno: Informe Ejecutivo 2010* (México, 2011), <https://www.tm.org.mx/wp-content/uploads/2013/05/01-INCBG-2010-Informe-Ejecutivo.pdf>.
- ⁴² Transparencia Mexicana, *Coeficiente TAI 2017: Transparencia, Anticorrupción, Impunidad Cero* (México, 2017), <https://www.tm.org.mx/wp-content/uploads/2017/12/Informe-Ejecutivo-TAI-2017.pdf>.
- ⁴³ Instituto Mexicano para la Competitividad 2018.
- ⁴⁴ México ¿cómo vamos?, *Por un México sin corrupción* (México, 2015), http://www.mexicocomovamos.mx/wp-content/uploads/2015/04/Presentacion_Por-un-mexico-sin-corrupcion.pdf.
- ⁴⁵ Instituto Mexicano para la Competitividad, *Índice de Competitividad Internacional 2015* (México, 2015), http://imco.org.mx/wp-content/uploads/2015/11/2015-ICI-Presentacion_completa.pdf.
- ⁴⁶ María Amparo Casar, *México: Anatomía de la Corrupción* (México, 2016), http://contralacorrupcion.mx/anatomiadigital/content/Anatomia_de_la_corrupcion.pdf.
- ⁴⁷ Ivette Saldaña, “Corrupción cuesta 5 veces más en México: OEA,” *El Universal*, August 17, 2016, <http://www.eluniversal.com.mx/articulo/cartera/economia/2016/08/17/corrupcion-cuesta-5-veces-mas-en-mexico-oea>.
- ⁴⁸ Verificado, “¿La corrupción cuesta 9% del PIB en México?” 2018, <https://verificado.mx/corrupcion-cuesta-pib/>.
- ⁴⁹ Jerg Gutmann, Fabio Padovano and Stefan Voigt, “Perception vs. Experience: Explaining Differences in Corruption Measures Using Microdata,” *SSRN* (September 11, 2015): 1-28, <http://dx.doi.org/10.2139/ssrn.2659349>.
- ⁵⁰ Dilyan Donchev and Gergely Ujhelyi, “What Do Corruption Indices Measure?” *Economics and Politics* 26, no. 2 (July 1, 2014): 309-331, <https://onlinelibrary.wiley.com/doi/full/10.1111/ecpo.12037>.
- ⁵¹ I inverted the values: 1 = “no corruption” and 4 = “very frequent.”
- ⁵² An example of the power of society in Mexico is the development of the National Anti-corruption System.