

Online Appendix to:
“Are Voters too Afraid to Tackle Corruption?
Survey and Experimental Evidence from Mexico”

Omar García-Ponce
George Washington University
garciaponce@gwu.edu

Thomas Zeitzoff
American University
zeitzoff@gmail.com

Leonard Wantchekon
Princeton University
lwantche@princeton.edu

June 22, 2020

This Online Appendix contains six sections. Section A.1 provides additional details of the sampling design used in the national survey. Section A.2 presents the electoral treatments used in the survey experiment. Section A.3 describes additional questions included in the survey experiment and that are used to construct indices of crime victimization, psychological stress, perceived neighborhood violence, and perceived neighborhood corruption. Section A.4 presents results from the survey experiment splitting the sample into low, medium, and high violence areas. Section A.5 shows that our main results are robust to weighted least squares regression. Section A.6 provides additional results using self-reported levels of fear instead of the emotional treatment.

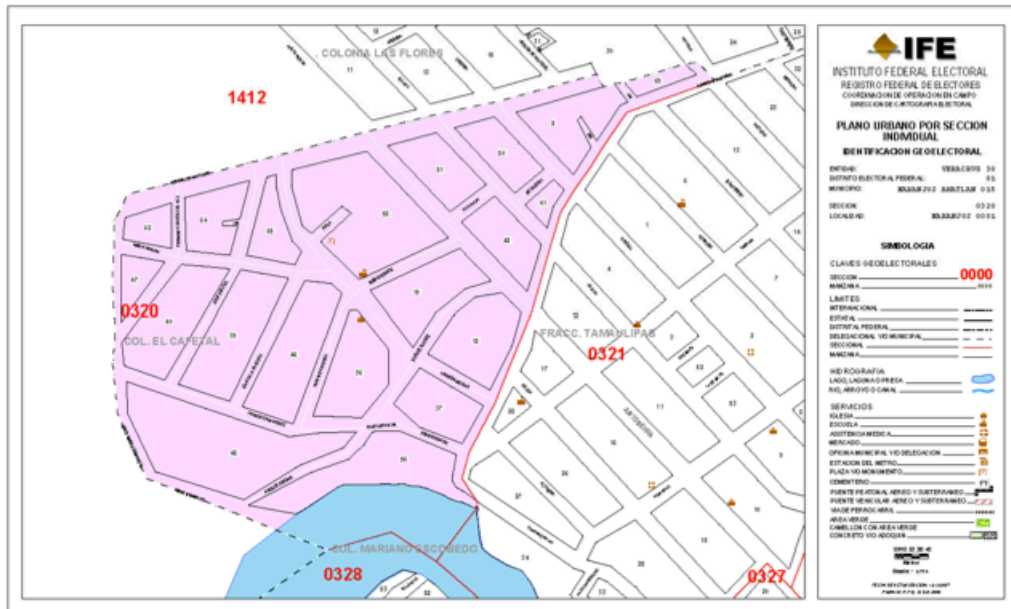
A.1 Sampling Design of National Survey

Mexico’s electoral precincts were used as the Primary Sampling Units (PSUs). It is worth mentioning that the combination of geospatial and census data at the electoral precinct level provide the most complete and up-to-date sampling frame available in the country. These data come from the National Electoral Institute (INE, by its Spanish acronym)—formerly known as the Federal Electoral Institute—and are continuously updated, providing a comprehensive assessment of the Mexican electorate—approximately 95 percent of Mexicans 18 years old or older are registered at the National Electoral Institute. As of 2012, about 77.4 million voters were registered at the INE. These citizens are dispersed across 64,934 electoral precincts.

Respondents were randomly selected using a stratified multistage cluster sampling design. This drawing procedure was crafted to achieve a nationally representative sample of Mexican citizens, and required the careful implementation of the five methodological steps that we describe below.

1. ***Stratification by Geographical Region and Type of Electoral Precinct.*** In order to achieve territorial coverage, the sample was allocated to five geographical regions (electoral circumscriptions) as defined by the INE. These regions have a very similar number of registered voters. Strata were defined according to the winning party of the 2006 presidential election and the current degree of urbanization in the section. The IFE classifies electoral precincts (our PSUs) as urban, rural, or mixed (urban-rural). We used this classification to define each stratum. Possible categories for party support at the precinct level include: PAN, PRI-PVEM, and PRD, where PRI-PVEM represents the PRI or the PRI-PVEM alliance. As of 2012, 69% of registered citizens lived in urban precincts, 20% in rural precincts, and 11% in mixed precincts. According to the 2006 election results, 43% of registered citizens lived in electoral precincts where the PAN won, 23% in PRI-PVEM precincts, and 34% in electoral precincts won by the PRD. The idea behind constructing these strata is to increase the accuracy of the estimators since political preferences vary from one stratum to another.
2. ***Electoral Precinct Selection.*** Within each stratum, electoral precincts were selected according to a probability proportional to its size, in the same fashion that a cluster sampling design is carried out. In total, 100 precincts were drawn. The size of a electoral precinct is measured using the number of registered voters. We interviewed eight citizens per electoral precinct, totaling 800 face-to-face interviews. The total number of precincts in the sample was proportionally distributed in each stratum.
3. ***Block Selection within Electoral Precincts.*** Once electoral precincts in the sample were drawn, the next step was to select two blocks from the precinct using a table with random numbers. For instance, the PSU map shown below has 20 blocks, and the PSU number is 0320. A combination of the number of blocks and the last digit of the PSU number determines which blocks are to be selected.
4. ***Household Selection within Blocks.*** Once blocks in the sample were identified, households per block were selected using a systematic random sampling method. Blocks were covered starting by the northeast corner using a systematic random start of three households. Blocks were walked clockwise. Once a questionnaire was completed, the interviewer had to move to the next side of the block.
5. ***Respondent Selection within Households.*** One respondent per household was selected using a random method (a numbered card). If the selected respondent was not available during the first visit, the interviewer returned up to three times. If the respondent refused the interview, the interviewer moved using a systematic random start of 10 households in order to obtain

Figure A1: Example of a PSU Map



the interview.

A.2 Electoral Manipulation in Survey Experiment

The electoral manipulation was aimed at priming the importance of the presidential election with respect to fighting corruption and the Drug War. Respondents were randomly assigned to one of two statements:

NEUTRAL ELECTION

In the 2012 Mexican General Election, voters will seek to replace current President Felipe Calderón (PAN). Andrés Manuel López Obrador (PRD), Enrique Peña Nieto (PRI), and Josefina Vázquez Mota (PAN) all are vying for the presidency.

SALIENCE ELECTION

In the 2012 Mexican General Election, voters will seek to replace current President Felipe Calderón (PAN). Andrés Manuel López Obrador (PRD), Enrique Peña Nieto (PRI), and Josefina Vázquez Mota (PAN) all are vying for the presidency. Many observers argue that Mexicans face important choices ahead. The two key issues remain corruption and narco-violence. The next president must confront the high levels of corruption that plague institutions at a local and national level. Additionally, widespread narco-violence remains a large obstacle to a peaceful, prosperous Mexico.

A.3 Additional Questions in Survey Experiment

- **Crime victimization index.** Respondents were asked the following question: *Please mark for each of the following crimes whether you (with the exception of murder), your immediate family, your friends, or your extended family have been the victim of the following: a) house robbed, b) business robbed, c) car-jacked, d) assaulted on public transportation, e) wounded from a firearm, f) murder, g) extortion, h) fraud, i) kidnapping, and j) sexual abuse.* Each response was assigned a number based on how close they were to a victim of given crime: personally (4), immediate family (3), friends (2), or extended family (1) or 0 no one. A crime victimization index was then constructed using principal components analysis on the assigned values for each of the 10 crimes. The resulting index was normalized rescaling by the minimum to make all the elements lie between 0 (lowest level of victimization) and 1 (highest level of victimization).
- **Psychological stress index.** This metric was constructed using a 10-item Perceived Stress Scale (PSS) asking how stressed subjects felt in the last month, derived from (?).
- **Perceived neighborhood violence.** Respondents were asked the following question: *On a scale from 0 to 10, where 0 is not that likely and 10 is very likely, how likely is it that someone like you who lives in your neighborhood has felt the following in the past month: a) has felt fear to go out in the street because of fears of personal safety, b) has paid for personal protection, c) has been the victim of physical aggression, d) has seen drugs sold in public, e) has seen people carry guns who are not police or military.* An index of perceived neighborhood violence was constructed via principal components analysis using the ranked answers to the five items. The resulting index was normalized rescaling by the minimum to make all the elements lie between 0 (lowest level of perceived violence) and 1 (highest level of perceived violence).
- **Perceived neighborhood corruption.** Respondents were asked the following question: *On a scale from 0 to 10, where 0 is not that likely and 10 is very likely, how likely is it that someone like you who lives in your neighborhood has experienced the following in the past month: a) has had to pay under the table to any government employee to have access to electricity, water, or some other service; b) has paid under the table to avoid a parking violation; c) has had to pay under the table to any government employee to obtain a construction or business license; d) has received gifts, job offer, or any other type of personal benefits in exchange for supporting a candidate or political party.* Based on the ranked answers to these items, an index of perceived neighborhood corruption was constructed using principal components analysis. The resulting index was normalized rescaling by the minimum to make all the elements lie between 0 (lowest level of perceived corruption) and 1 (highest level of perceived corruption).

A.4 Determinants of Fear over the Drug War Across Violence Levels

Table A1: Determinants of Fear over the Drug War in Low Violence Areas

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	0.17 (0.34)	0.04 (0.34)	-0.03 (0.34)	0.00 (0.34)	0.03 (0.34)
Crime victimization index	2.95*** (1.04)	3.37*** (1.05)	2.96*** (0.98)	2.97*** (0.99)	3.02*** (0.97)
Age		-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
Male		-0.69** (0.33)	-0.68** (0.33)	-0.65* (0.34)	-0.79** (0.33)
Education		-0.10 (0.10)	-0.10 (0.10)	-0.09 (0.10)	-0.08 (0.10)
Children (dummy variable)		0.95** (0.39)	0.89** (0.39)	0.82** (0.39)	0.78** (0.38)
Household size		-0.32** (0.13)	-0.32** (0.13)	-0.32** (0.13)	-0.36*** (0.13)
Stress index			2.40** (1.11)	2.39** (1.13)	1.68 (1.10)
AMLO vote				0.35 (0.40)	0.36 (0.39)
EPN vote				0.09 (0.42)	-0.09 (0.43)
Perceived neighborhood violence					2.94*** (0.84)
Perceived neighborhood corruption					-1.10 (0.77)
Constant	7.18*** (0.34)	9.11*** (1.08)	7.78*** (1.30)	7.60*** (1.30)	7.04*** (1.29)
σ	7.18*** (0.82)	6.93*** (0.81)	6.78*** (0.78)	6.81*** (0.78)	6.54*** (0.76)
Observations	293	287	287	283	283

All estimates are based on weighted Tobit regressions with both left- and right-censoring.

Robust standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

Table A2: Determinants of Fear over the Drug War in Medium Violence Areas

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	-0.67 (0.44)	-0.71 (0.44)	-0.71 (0.44)	-0.67 (0.43)	-0.64 (0.42)
Crime victimization index	3.06** (1.43)	2.79* (1.43)	2.74* (1.42)	2.54* (1.38)	2.60* (1.36)
Age		0.03** (0.01)	0.03** (0.01)	0.02 (0.01)	0.02* (0.01)
Male		-0.59 (0.43)	-0.62 (0.42)	-0.66 (0.41)	-0.59 (0.41)
Education		-0.29** (0.14)	-0.29** (0.14)	-0.35*** (0.14)	-0.39*** (0.13)
Children (dummy variable)		-0.39 (0.48)	-0.37 (0.48)	-0.29 (0.47)	-0.15 (0.45)
Household size		0.17 (0.20)	0.15 (0.20)	0.15 (0.20)	0.19 (0.20)
Stress index			0.90 (1.38)	1.30 (1.32)	1.11 (1.31)
AMLO vote				-0.33 (0.51)	-0.22 (0.50)
EPN vote				0.42 (0.48)	0.48 (0.47)
Perceived neighborhood violence					2.07* (1.23)
Perceived neighborhood corruption					-0.14 (0.86)
Constant	7.38*** (0.46)	7.84*** (1.08)	7.50*** (1.19)	7.76*** (1.18)	6.56*** (1.11)
σ	8.02*** (1.30)	7.04*** (1.14)	7.03*** (1.16)	6.71*** (1.10)	6.54*** (1.07)
Observations	214	206	206	201	200

All estimates are based on weighted Tobit regressions with both left- and right-censoring.

Robust standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

Table A3: Determinants of Fear over the Drug War in High Violence Areas

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	-0.50 (0.43)	-0.28 (0.43)	-0.28 (0.42)	-0.31 (0.42)	-0.41 (0.41)
Crime victimization index	3.36*** (1.22)	3.76*** (1.26)	2.98** (1.21)	2.91** (1.24)	2.13* (1.19)
Age		0.00 (0.02)	-0.00 (0.02)	0.00 (0.02)	-0.00 (0.02)
Male		-0.81* (0.42)	-0.74* (0.40)	-0.69* (0.40)	-0.79** (0.39)
Education		-0.07 (0.13)	-0.07 (0.13)	-0.09 (0.13)	-0.10 (0.13)
Children (dummy variable)		1.83*** (0.47)	1.91*** (0.46)	1.95*** (0.46)	2.02*** (0.45)
Household size		-0.15 (0.12)	-0.17 (0.12)	-0.17 (0.12)	-0.20* (0.11)
Stress index			5.47*** (1.63)	5.60*** (1.64)	5.30*** (1.64)
AMLO vote				-0.29 (0.51)	-0.34 (0.50)
EPN vote				0.19 (0.49)	0.02 (0.48)
Perceived neighborhood violence					0.43 (1.09)
Perceived neighborhood corruption					1.17 (0.99)
Constant	7.57*** (0.42)	8.02*** (1.35)	5.09*** (1.62)	5.02*** (1.62)	5.23*** (1.53)
σ	10.36*** (1.38)	9.50*** (1.29)	8.90*** (1.20)	8.80*** (1.17)	8.31*** (1.08)
Observations	283	278	277	275	274

All estimates are based on weighted Tobit regressions with both left- and right-censoring.

Robust standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

A.5 Robustness to Weighted Least Squares Regression

Table A4: Determinants of Fear over the Drug War

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	-0.24 (0.16)	-0.25 (0.16)	-0.28* (0.16)	-0.28* (0.16)	-0.28* (0.17)
Crime victimization index	2.41*** (0.83)	2.43*** (0.81)	2.19*** (0.78)	2.16*** (0.77)	1.82** (0.72)
Age		0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Male		-0.48*** (0.16)	-0.49*** (0.16)	-0.49*** (0.16)	-0.52*** (0.16)
Education		-0.10* (0.06)	-0.10* (0.06)	-0.12** (0.06)	-0.11** (0.06)
Children (dummy variable)		0.48** (0.20)	0.48** (0.19)	0.49** (0.19)	0.54*** (0.19)
Household size		-0.10 (0.07)	-0.12* (0.06)	-0.12* (0.07)	-0.13** (0.06)
Stress index			2.09** (0.84)	2.23*** (0.84)	1.98** (0.85)
AMLO vote				-0.08 (0.21)	-0.08 (0.20)
EPN vote				0.21 (0.19)	0.14 (0.19)
Perceived neighborhood violence					0.91 (0.59)
Perceived neighborhood corruption					0.24 (0.41)
Constant	7.04*** (0.28)	7.76*** (0.61)	6.75*** (0.77)	6.77*** (0.75)	6.44*** (0.78)
Observations	790	771	770	759	757

All estimates are based on weighted least square regressions.

Linearized standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

Table A5: Determinants of Corruption Trade-off

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	-0.30** (0.14)	-0.32** (0.14)	-0.32** (0.14)	-0.33** (0.14)	-0.33** (0.14)
Crime victimization index	2.54*** (0.64)	2.75*** (0.68)	2.74*** (0.67)	2.76*** (0.68)	2.22*** (0.62)
Age		-0.01* (0.01)	-0.01* (0.01)	-0.01* (0.01)	-0.01* (0.01)
Male		-0.15 (0.17)	-0.15 (0.17)	-0.18 (0.17)	-0.23 (0.17)
Education		-0.08 (0.06)	-0.08 (0.06)	-0.10 (0.06)	-0.10* (0.06)
Children (dummy variable)		-0.19 (0.20)	-0.19 (0.21)	-0.20 (0.21)	-0.11 (0.20)
Household size		0.06 (0.06)	0.06 (0.06)	0.06 (0.06)	0.05 (0.06)
Stress index			0.11 (0.83)	0.23 (0.82)	-0.02 (0.73)
AMLO vote				0.21 (0.24)	0.20 (0.24)
EPN vote				0.27 (0.23)	0.14 (0.23)
Perceived neighborhood violence					0.48 (0.68)
Perceived neighborhood corruption					1.15* (0.60)
Constant	5.85*** (0.22)	6.58*** (0.59)	6.53*** (0.69)	6.42*** (0.72)	6.02*** (0.67)
Observations	777	759	758	747	746

All estimates are based on weighted least square regressions.

Linearized standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

Table A6: Determinants of Preference Toward Corruption as Long as the Violence Goes Down

	(1)	(2)	(3)	(4)	(5)
Emotional treatment	-0.01 (0.20)	0.00 (0.21)	-0.00 (0.21)	0.03 (0.21)	0.05 (0.21)
Crime victimization index	2.66*** (0.79)	2.63*** (0.80)	2.59*** (0.81)	2.53*** (0.80)	1.73** (0.73)
Age		-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Male		-0.10 (0.19)	-0.10 (0.19)	-0.12 (0.20)	-0.16 (0.19)
Education		-0.10 (0.08)	-0.10 (0.08)	-0.12 (0.08)	-0.11 (0.08)
Children (dummy variable)		-0.54 (0.33)	-0.54 (0.33)	-0.58* (0.34)	-0.43 (0.30)
Household size		0.14* (0.08)	0.14* (0.08)	0.14* (0.08)	0.11 (0.07)
Stress index			0.37 (0.91)	0.41 (0.91)	-0.38 (0.81)
AMLO vote				0.15 (0.28)	0.14 (0.26)
EPN vote				0.08 (0.27)	-0.06 (0.27)
Perceived neighborhood violence					1.47 (0.94)
Perceived neighborhood corruption					1.46** (0.70)
Constant	5.29*** (0.31)	5.77*** (0.90)	5.59*** (1.07)	5.64*** (1.04)	4.83*** (0.86)
Observations	777	759	758	747	745

All estimates are based on weighted least square regressions.

Linearized standard errors in parentheses account for clustering at the electoral precinct level.

*** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

A.6 Results Using Self-Reported Fear

Table A7: Determinants of Corruption Trade-off (Using Self-Reported Fear)

	(1)	(2)	(3)	(4)	(5)
Self-reported fear	0.31*** (0.07)	0.30*** (0.07)	0.31*** (0.07)	0.30*** (0.07)	0.27*** (0.06)
Crime victimization index	2.06*** (0.62)	2.29*** (0.65)	2.36*** (0.64)	2.41*** (0.66)	1.96*** (0.63)
Age		-0.01** (0.01)	-0.01** (0.01)	-0.02** (0.01)	-0.01* (0.01)
Male		-0.03 (0.19)	-0.03 (0.19)	-0.07 (0.19)	-0.13 (0.19)
Education		-0.10 (0.07)	-0.10 (0.07)	-0.11 (0.07)	-0.12* (0.06)
Children (dummy variable)		-0.36 (0.22)	-0.37 (0.22)	-0.37* (0.22)	-0.27 (0.21)
Household size		0.09 (0.07)	0.10 (0.07)	0.11 (0.07)	0.09 (0.07)
Stress index			-0.76 (0.90)	-0.64 (0.90)	-0.81 (0.82)
AMLO vote				0.17 (0.26)	0.17 (0.25)
EPN vote				0.15 (0.25)	0.04 (0.25)
Perceived neighborhood violence					0.55 (0.77)
Perceived neighborhood corruption					1.03 (0.68)
Constant	3.67*** (0.51)	4.51*** (0.76)	4.83*** (0.81)	4.79*** (0.84)	4.60*** (0.77)
σ	6.88*** (0.75)	6.59*** (0.66)	6.59*** (0.66)	6.59*** (0.66)	6.38*** (0.65)
Observations	776	758	757	746	745

All estimates are based on weighted Tobit regressions with both left- and right-censoring. Linearized standard errors in parentheses account for clustering at the electoral precinct level. *** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level

Table A8: Determinants of Preference Toward Corruption as Long as the Violence Goes Down (Using Self-Reported Fear)

	(1)	(2)	(3)	(4)	(5)
Self-reported fear	0.21** (0.09)	0.21** (0.08)	0.21** (0.08)	0.20** (0.09)	0.14* (0.08)
Crime victimization index	2.61** (1.01)	2.54** (1.03)	2.53** (1.04)	2.52** (1.03)	1.78* (0.92)
Age		-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Male		0.02 (0.23)	0.02 (0.23)	-0.02 (0.23)	-0.08 (0.23)
Education		-0.12 (0.10)	-0.12 (0.10)	-0.14 (0.10)	-0.14 (0.10)
Children (dummy variable)		-0.72* (0.39)	-0.71* (0.39)	-0.75* (0.40)	-0.56 (0.35)
Household size		0.21** (0.11)	0.21** (0.10)	0.21** (0.10)	0.17* (0.10)
Stress index			0.12 (1.05)	0.14 (1.05)	-0.66 (0.97)
AMLO vote				0.25 (0.35)	0.24 (0.32)
EPN vote				0.05 (0.33)	-0.09 (0.32)
Perceived neighborhood violence					1.81 (1.23)
Perceived neighborhood corruption					1.45* (0.86)
Constant	3.84*** (0.55)	4.17*** (1.12)	4.12*** (1.31)	4.27*** (1.32)	3.75*** (1.06)
σ	11.43*** (1.45)	11.27*** (1.42)	11.29*** (1.42)	11.31*** (1.42)	10.57*** (1.32)
Observations	776	758	757	746	744

All estimates are based on weighted Tobit regressions with both left- and right-censoring.
 Linearized standard errors in parentheses account for clustering at the electoral precinct level.
 *** Significant at the 1% level; ** significant at the 5% level; and * significant at the 10% level