# Online Appendix: Trafficking Networks and the Mexican Drug War

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### A-1 Estimation appendix

#### A-1.1 The shortest paths problem

The model setup is as follows: let  $N = (\mathcal{V}, \mathcal{E})$  be an undirected graph representing the Mexican road network, which consists of sets  $\mathcal{V}$  of vertices and  $\mathcal{E}$  of edges. Traffickers transport drugs across the network from a set of origins to a set of destinations. Trafficking paths connect origins to destinations. Formally, a trafficking path is an ordered set of nodes such that an edge exists between two successive nodes. Each edge  $e \in \mathcal{E}$  has a cost function  $c_e(l_e)$ , where  $l_e$  is the length of the edge in kilometers. The total cost to traverse path p is  $w(p) = \sum_{e \in p} c_e(l_e)$ , which equals the length of the path. Close PAN victories remove edges from the network. Let  $\mathcal{P}_i$  denote the set of all possible paths between producing municipality i and the United States. Each trafficker solves:

$$\min_{p \in \mathcal{P}_i} w(p) \tag{A-1}$$

This problem, which amounts to choosing the shortest path between each producing municipality and the nearest U.S. point of entry, can be solved using Dijkstra's algorithm (Dijkstra, 1959).

#### A-1.2 Solving for the congested trafficking equilibrium

An equilibrium routing pattern must satisfy the following conditions (Wardrop, 1952):

1. For all 
$$p, p' \in \mathcal{P}_i$$
 with  $x_p, x_{p'} > 0, \sum_{e \in p'} c_e(x_e, l_e) = \sum_{e \in p} c_e(x_e, l_e)$ .

2. For all 
$$p, p' \in \mathcal{P}_i$$
 with  $x_p > 0$   $x_{p'} = 0$ ,  $\sum_{e \in p'} c_e(x_e, l_e) \ge \sum_{e \in p} c_e(x_e, l_e)$ .

where  $x_p$  is total flows on path p,  $x_e$  is total flows on edge e, and  $c_e(\cdot)$  is the cost to traverse edge e. The equilibrium routing pattern satisfying these conditions is the Nash equilibrium of the game.

Beckmann, McGuire, and Winsten (1956) proved that the equilibrium can be characterized by a straightforward optimization problem. Specifically, the routing pattern  $\mathbf{x}^*$  is an equilibrium if and only if it is a solution to:

$$\min \sum_{e \in E} \int_0^{x_e} c_e(z) dz \tag{A-2}$$

$$s.t. \quad \sum_{p \in \mathcal{P}|e \in p} x_p = x_e \quad \forall e \in E$$
 (A-3)

$$\sum_{p \in \mathcal{P}_i} x_p = 1 \quad \forall i = 1, 2, \dots, \quad \forall p \in \mathcal{P}$$
 (A-4)

$$x_p \ge 0 \ \forall p \in \mathcal{P}$$
 (A-5)

The first constraint requires that the flow of traffic on the paths traversing an edge sum to the total flow of traffic on that edge, the second constraint requires that supply (equal to 1 for each producer i) be conserved, and the third constraint requires flows to be non-negative. By Weierstrass's Theorem, a solution to the above problem exists, and thus a trafficking equilibrium always exists.

While this problem does not have a closed-form solution, for a given network and specification of the congestion costs  $c_e(\cdot)$  it can be solved using numerical methods. I use the Frank-Wolfe algorithm (1956), which generalizes Dantzig's simplex algorithm to non-linear programming problems. The Frank-Wolfe algorithm alternates between solving a linear program defined by a tangential approximation of the objective function in (A-2) and a line search that minimizes the objective over the line segment connecting the current iterate and the solution to the linear programming problem. The linear subproblem determines the direction of movement, and the line search selects the optimal step length in that direction. At the end of each iteration, the current iterate is updated to the  $\mathbf{x_e}$  selected by the line search problem. The linear subproblem defines a lower bound on the optimal value, which is used in the termination criterion.

The tangential approximation to the objective given in (A-2) is a simple shortest paths problem in which the costs to traverse each edge  $c_e(x_e, l_e)$  are evaluated at the current iterate's flows  $x_e^k$ . In other words, the linear subproblem finds the shortest path between each producing municipality and the nearest U.S. point of entry given edge costs of  $c_e(x_e^k, l_e)$  at iteration k. The linear subproblem is solved using Dijkstra's algorithm (Dijkstra, 1959). The line search problem is solved using the golden section method (Kiefer, 1953).

#### A-1.3 Moments

In the baseline congestion model, the moments match the mean model predicted and observed confiscations at ports, at terrestrial bordering crossings, and on interior edges. They also match the interactions between port confiscations and the port's container capacity, between terrestrial crossing confiscations and the crossing's number of commercial lanes, between interior confiscations and the length of the interior edge, and between interior confiscations and the length of the detour required to circumvent the edge. Finally, the moment conditions match the model predicted and observed variance of confiscations across U.S. points of entry

and across interior edges. For the congestion models reported in the appendix that estimate six separate crossing congestion parameters, the moment conditions match mean model predicted and observed confiscations for each of the six separate groups of crossings, instead of matching mean confiscations for all ports and for all terrestrial border crossings.

The model with DTO territorial costs and no congestion matches mean confiscations, mean confiscations interacted with DTO presence, and mean confiscations interacted with the share of Mexico's territory (if any) that the municipality's DTO controls. The model that includes congestion matches the same moments as in the baseline congestion model as well as the two moments that interact confiscations and DTO presence/share.

The model with a PAN cost parameter and no congestion matches the mean monthly change in confiscations in municipalities that do not have a PAN mayor elected during the Calderón period. The sample is limited to these municipalities because it is plausible that enforcement remains constant. The model also matches the mean monthly change in confiscations in municipalities bordering a municipality with a PAN mayor elected during the sample period. These municipalities are useful for estimating the PAN cost parameter because drug traffic is often diverted to them. The model that includes both a PAN cost parameter and congestion matches the same moments as in the baseline congestion model, as well as the two moments that summarize changes in confiscations.

# A-1.4 Maximizing the simulated method of moments objective function

The simulated method of moments (SMM) estimator  $\hat{\theta}$  minimizes a weighted quadratic form:

$$\theta = \underset{\theta \in \Theta}{\operatorname{argmin}} \frac{1}{M} \left[ \sum_{m=1}^{M} \hat{g}(X_m, \theta) \right]' \Sigma \left[ \sum_{m=1}^{M} \hat{g}(X_m, \theta) \right]$$
(A-6)

where  $\hat{g}(\cdot)$  is an estimate of the true moment function, M is the number of municipalities in the sample, and  $\Sigma$  is an  $L \times L$  positive semi-definite weighting matrix.

The SMM objective function is not globally convex, and thus standard gradient methods may perform poorly. Instead, I use simulated annealing (Kirkpatrick, Gelatt, and Vecchi, 1983), which is more suitable for problems that lack a globally convex objective. Simulated annealing is a non-gradient iterative method that differs from gradient methods in permitting movements that increase the objective function being minimized.

Given a value of  $\hat{\theta}_s$  for the congestion parameters at the sth iteration, the algo-

<sup>&</sup>lt;sup>1</sup>See Goffe, Ferrier, and Rogers (1994) for a comprehensive review and Cameron and Trivedi (2005, p. 347) for a textbook treatment.

rithm perturbs the jth component of  $\hat{\theta}_s$  so as to obtain a new trial value of  $\theta_s^* = \hat{\theta}_s + [0...0 \ (\lambda_s r_s) \ 0...0]'$ , where  $\lambda_s$  is a pre-specified step length and  $r_s$  is a draw from a uniform distribution on (-1,1). The method sets  $\hat{\theta}_{s+1} = \theta_s^*$  if the perturbation decreases the objective function. If  $\theta_s^*$  does not decrease the objective, it is accepted with probability  $\frac{1}{1+exp(\frac{\Delta}{T_s})}$ , where  $\Delta$  is the change in value of the objective and  $T_s$  is a positive scaling parameter called the temperature. Uphill moves are accepted with a probability that declines with the change in the objective function and increases with the temperature. The temperature is set to  $T_0$  at the initial iteration and updated according to the temperature schedule  $T_k = T_0/k$ . The annealing parameter k is initially set equal to the iteration number. If after a given number of iterations convergence has not been achieved, k is set to some value less than the iteration number so that the temperature increases and the algorithm can move to a potentially more promising region of the parameter space. The dependency between the temperature and acceptance probability is such that the current solution changes almost randomly when T is large and increasingly downhill as T goes to zero.

The algorithm runs until the average change in value of the objective function over a given number of iterations is less than some small number  $\epsilon$ . I choose the starting value using a grid search over the parameter space. Results (available upon request) are robust to the use of different starting values and annealing parameters, with these choices primarily affecting the speed with which the algorithm converges.

#### A-1.5 Inference

Predicted confiscations on a given edge are not independent of predicted confiscations elsewhere in the network, introducing spatial dependence. Conley (1999) explores method of moments estimators for data exhibiting spatial dependence, showing that the sufficient conditions for consistency and normality require the dependence amongst observations to die away as the distance between the observations increases. This condition appears likely to hold in the current application, since drugs are typically trafficked to relatively close crossings. With the presence of spatial dependence, the asymptotic covariance matrix  $\Lambda$  is replaced by a weighted average of spatial autocovariance terms with zero weights for observations farther than a certain distance (Conley, 1999):

$$\hat{\lambda} = \frac{1}{M} \sum_{m} \sum_{s \in Mun_m} [\hat{g}(X_m, \theta)\hat{g}(X_m, \theta)']$$
(A-7)

where  $Mun_m$  is the set of all municipalities within 250 kilometers of municipality m, in-

<sup>&</sup>lt;sup>2</sup>Since both  $\Delta$  and  $T_s$  are positive, the probably of acceptance is between zero and one half.

cluding municipality m. The implicit assumption is that the correlation between observations is negligible for municipalities beyond 250 kilometers.

#### A-1.6 The government's resource allocation problem

To apply the trafficking framework to policy analysis, I embed the trafficking model in a Stackelberg network game (Baş and Srikant, 2002). In the first stage, the government (a single player) decides how to allocate law enforcement resources to edges in the road network, subject to a budget constraint. The edges selected by the government are referred to as vital edges. Traffickers' costs of traversing an edge increase when law enforcement resources are placed on it. The network model best predicts the diversion of drug traffic following PAN victories when I assume that they increase trafficking costs by a factor of three. Thus, I assume that each police checkpoint increases the effective length of selected edges by  $3 \times 9 = 27$  kilometers, where 9 kilometers is the average edge length in the network.<sup>3</sup> With more information on the resources deployed in PAN crackdowns, it would be possible to construct more precise estimates of the costs that law enforcement resources impose on traffickers.

In the second stage, traffickers simultaneously select least cost routes to the U.S. The government's objective is to maximize the total costs that traffickers incur, and each trafficker minimizes his own costs. The scenario in which traffickers respond to the government's action by choosing the shortest path to the U.S. is a special case in which congestion costs are zero. Ball, Golden, and Vohra (1989) showed that this special case is NP hard, and thus it follows that the more general problem is also NP-hard. That is, the time required to solve for the optimum increases quickly as the size of the problem grows. Even if we focused on the simpler model with no congestion costs, solving for the optimum using an exhaustive search would have an order of complexity of O(V!), where V (the number of vertices) equals 13,969, and thus would take trillions of years to run.

Developing algorithms for problems similar to the one described here is an active area of operations research and computer science. For example, researchers have examined the problem of identifying vital edges in critical infrastructure networks, such as oil pipelines and electricity grids, so that these edges can be better defended against terrorist attacks and the systems made more robust (see, for example, Brown, Carlyle, Salmerón and Wood, 2005). To the best of my knowledge there are currently no known algorithms for solving the

<sup>&</sup>lt;sup>3</sup>An alternative assumption is that police checkpoints multiply the effective length of edges by a given factor. However, this would imply that checkpoints increase the costs of longer edges by more than they increase the costs of shorter edges. The multiplicative costs assumption appears reasonable for PAN crackdowns, as larger municipalities have more police and are likely to receive larger federal police and military contingents, but the assumption appears less appropriate for police checkpoints.

government's resource allocation problem that are both exact (guaranteed to converge to optimality) and feasible given the size of the network, either for the network with congestion or for the simpler problem in which congestion costs are zero.<sup>4</sup> Developing a fast, exact algorithm for this problem is a challenging endeavor that is significantly beyond the scope of the current study. Thus, I instead use the following approximate heuristic to solve for the k vital edges:

- 1. For each of k iterations, calculate how total trafficking costs respond to individually increasing the edge lengths of each of the N most trafficked edges in the network.
- 2. Assign each element of this set of N edges a rank, m = 1 ... N, such that the removal of edge m = 1 would increase trafficking costs the most, the removal of edge m = 2 would increase trafficking costs the second most ... and the removal of edge m = N would increase trafficking costs the least.
- 3. Increase the effective length of the edge with m=1 by a pre-specified amount.
- 4. Terminate if k iterations have been completed and return to step 1 otherwise.

Appendix Figure A-28 plots the results of this exercise with k=25 and N=250, highlighting municipalities that contain a vital edge in yellow. The average monthly drug trade-related homicide rate between 2007 and 2009 is plotted in the background. Allocating police checkpoints to these 25 edges increases the total length of the network by 0.043 percent and increases total trafficking costs by 17 percent. Appendix Table A-61 documents that results are similar when I instead: a) choose values of N ranging from 100 to 500, b) alternate in step 3 between selecting the edges with m=1 and m=2, c) alternate in step 3 between selecting the edges with m=1, m=2, and m=3, and d) remove the edge with m=2, m=3, m=4, or m=5 when m=1 and remove the edge with m=1 when m=1 when m=1 when m=1 when m=1 and m=1 when m

 $<sup>^4</sup>$ Malik, Mittal, and Gupta (1989) suggest an algorithm for finding k vital edges in the shortest path problem, but unfortunately it is theoretically flawed (see Israeli and Wood (2002) for a discussion). The most closely related work is by Israeli and Wood (2002), who develop an efficient algorithm for solving for k vital edges in the context of a shortest path problem on a directed graph with a single origin and destination. Even if the algorithm, which involves considerable mathematical machinery, could be extended to this paper's undirected graph with multiple origins, it is unlikely to be feasible on a network of the size examined here and does not accommodate congestion costs. Existing vital edge algorithms focus on shortest path or max flow problems (i.e. Lim and Smith, 2007), and to the best of my knowledge researchers have not examined the vital edge problem in a congested network.

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# A-2 Additional Results

# A-2.1 Robustness of Balance Checks

Table A-1: Baseline Characteristics (4% vote spread, 2007-2008)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		(	Own municip	ality		Neighbori	ng muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
Political characteristics							
Mun. taxes per capita (2005)	64.52	50.13	(0.96)	53.89	(0.89)	8.76	(0.28)
Turnout	0.61	0.59	(0.58)	0.04	(0.56)	0.01	(0.13)
PAN incumbent	0.26	0.29	(-0.34)	0.07	(0.27)	0.07	(0.63)
PRD incumbent	0.16	0.13	(0.54)	-0.12	(-0.65)	-0.13	(-0.95)
% alternations (1976-2006)	0.31	0.31	(0.08)	0.06	(0.64)	0.00	(0.07)
PRI never lost (1976-2006)	0.08	0.08	(0.03)	-0.21	(-1.52)	-0.10	(-0.96)
Demographic characteristics			,		,		,
Population (2005)	6.48	5.12	(0.45)	2.47	(0.24)	-3.54	(-0.93)
Population density (2005)	197.63	210.49	(-0.16)	-615.53**	(-1.99)	-376.16**	(-2.02)
Migrants per capita (2005)	0.02	0.02	(-0.80)	0.00	(-0.54)	-0.01	(-1.42)
Economic characteristics			,		,		,
Income per capita (2005)	4.37	4.40	(-0.06)	-0.56	(-0.37)	0.61	(0.82)
Malnutrition (2005)	32.18	31.52	(0.20)	2.06	(0.23)	-7.76	(-1.20)
Mean years schooling (2005)	6.23	6.17	(0.22)	-1.24	(-1.44)	-0.23	(-0.42)
Infant mortality (2005)	22.35	21.97	(0.30)	1.80	(0.43)	-1.59	(-0.69)
HH w/o access to sewage (2005)	8.05	8.23	(-0.13)	-2.43	(-0.73)	-5.46*	(-1.74)
HH w/o access to water (2005)	17.15	15.93	(0.33)	-15.69*	(-1.84)	-11.22	(-1.48)
Marginality index (2005)	-0.16	-0.12	(-0.26)	-0.06	(-0.13)	-0.44	(-1.25)
Road network characteristics			,		,		,
Detour length (km)	29.40	24.16	(0.23)	-76.85*	(-1.90)	-33.17*	(-1.71)
Road density	0.15	0.13	(0.80)	-0.10	(-1.61)	-0.11**	(-2.01)
Distance U.S. (km)	708.09	765.78	(-1.05)	-104.77	(-0.59)	-120.37	(-0.68)
Geographic characteristics			` ,		,		,
Elevation (m)	1365.84	1398.81	(-0.22)	426.08	(0.84)	392.43	(0.84)
Slope (degrees)	3.65	3.38	(0.57)	0.13	(0.10)	-0.24	(-0.23)
Surface area $(km^2)$	1951.44	535.23	(1.59)	1048.62	(0.68)	53.41	(0.05)
Average min. temperature, C	7.29	7.76	(-0.46)	-4.20	(-1.20)	-3.79	(-1.15)
Average max. temperature, C	22.52	23.22	(-0.95)	-3.82	(-1.46)	-3.66	(-1.56)
Average precipitation, cm	1160.13	1056.88	(0.78)	21.76	(0.07)	11.08	(0.03)
Observations	61	62		123		123	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the author's own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections in 2007-2008. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election in 2007-2008. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-2: Baseline Characteristics (3% vote spread, 2007-2008)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		C	Own municip	ality		Neighbori	ng muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
Political characteristics							
Mun. taxes per capita (2005)	67.85	48.18	(1.13)	41.17	(0.54)	-31.11	(-0.70)
Turnout	0.60	0.60	(0.27)	0.06	(0.70)	0.00	(0.04)
PAN incumbent	0.23	0.30	(-0.82)	-0.10	(-0.33)	0.00	(0.02)
PRD incumbent	0.21	0.11	(1.32)	0.08	(0.37)	-0.04	(-0.27)
% alternations (1976-2006)	0.32	0.30	(0.51)	0.11	(1.00)	-0.03	(-0.43)
PRI never lost (1976-2006)	0.08	0.11	(-0.41)	-0.24	(-1.64)	-0.03	(-0.28)
Demographic characteristics			,		,		,
Population (2005)	7.87	5.64	(0.58)	-2.39	(-0.18)	-8.50	(-1.55)
Population density (2005)	218.11	249.33	(-0.30)	-836.07**	(-2.23)	-505.72**	(-2.31)
Migrants per capita (2005)	0.02	0.02	(-0.50)	-0.01	(-0.99)	-0.01**	(-2.08)
Economic characteristics			,		,		,
Income per capita (2005)	4.46	4.43	(0.05)	-0.95	(-0.50)	-0.18	(-0.19)
Malnutrition (2005)	30.77	31.24	(-0.12)	1.87	(0.18)	-3.61	(-0.46)
Mean years schooling (2005)	6.39	6.24	(0.49)	-1.59	(-1.54)	-0.82	(-1.26)
Infant mortality (2005)	22.00	22.03	(-0.02)	2.05	(0.42)	-1.04	(-0.39)
HH w/o access to sewage (2005)	8.33	8.06	(0.16)	-3.42	(-0.84)	-5.21	(-1.42)
HH w/o access to water (2005)	18.75	16.24	(0.56)	-11.93	(-1.28)	-10.01	(-1.14)
Marginality index (2005)	-0.20	-0.12	(-0.41)	0.21	(0.38)	-0.11	(-0.26)
Road network characteristics			,		,		,
Detour length (km)	36.72	32.31	(0.15)	-86.28	(-1.63)	-58.93**	(-2.17)
Road density	0.15	0.15	(0.27)	-0.19**	(-2.50)	-0.16***	(-2.65)
Distance U.S. (km)	680.18	770.18	(-1.57)	-67.33	(-0.32)	-79.38	(-0.38)
Geographic characteristics			` ,		, ,		,
Elevation (m)	1439.71	1380.10	(0.34)	432.09	(0.76)	256.36	(0.49)
Slope (degrees)	3.57	3.46	(0.20)	-0.24	(-0.17)	-0.43	(-0.37)
Surface area $(km^2)$	2246.80	448.90	(1.60)	284.59	(0.11)	-393.16	(-0.23)
Average min. temperature, C	6.62	8.00	(-1.22)	-4.89	(-1.20)	-3.64	(-0.95)
Average max. temperature, C	22.03	23.24	(-1.49)	-3.86	(-1.25)	-3.06	(-1.11)
Average precipitation, cm	1106.39	1071.97	(0.24)	61.04	(0.16)	86.84	(0.23)
Observations	48	46	,	94		94	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections in 2007-2008. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election in 2007-2008. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-3: Baseline Characteristics (2% vote spread, 2007-2008)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		C	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
Political characteristics							
Mun. taxes per capita (2005)	82.31	50.58	(1.32)	125.10	(1.24)	6.69	(0.12)
Turnout	0.60	0.58	(0.48)	0.06	(0.62)	0.05	(0.73)
PAN incumbent	0.27	0.28	(-0.03)	0.06	(0.14)	0.03	(0.19)
PRD incumbent	0.15	0.14	(0.15)	-0.13	(-0.51)	0.00	(-0.01)
% alternations (1976-2006)	0.32	0.30	(0.28)	0.07	(0.51)	-0.03	(-0.33)
PRI never lost (1976-2006)	0.09	0.14	(-0.57)	-0.26	(-1.42)	0.04	(0.23)
Demographic characteristics			,		,		,
Population (2005)	10.06	5.43	(0.89)	5.54	(0.30)	3.71	(0.38)
Population density (2005)	257.93	313.69	(-0.36)	-813.01	(-1.52)	-374.10	(-1.26)
Migrants per capita (2005)	0.02	0.02	(-0.19)	0.00	(0.07)	0.00	(-0.53)
Economic characteristics			,		,		,
Income per capita (2005)	4.65	4.88	(-0.32)	0.61	(0.23)	0.38	(0.32)
Malnutrition (2005)	30.11	26.33	(0.83)	-5.51	(-0.39)	-13.74	(-1.48)
Mean years schooling (2005)	6.49	6.58	(-0.24)	-0.93	(-0.66)	-0.07	(-0.08)
Infant mortality (2005)	22.25	20.90	(0.74)	4.88	(0.71)	-0.10	(-0.03)
HH w/o access to sewage (2005)	8.17	7.22	(0.49)	-1.15	(-0.21)	-8.01	(-1.54)
HH w/o access to water (2005)	17.49	14.63	(0.53)	4.77	(0.42)	-7.35	(-0.61)
Marginality index (2005)	-0.27	-0.28	(0.03)	0.28	(0.37)	-0.37	(-0.70)
Road network characteristics			` ,		` /		, ,
Detour length (km)	45.17	49.45	(-0.10)	8.21	(0.16)	-3.35	(-0.07)
Road density	0.17	0.15	(0.48)	-0.16	(-1.49)	-0.06	(-0.74)
Distance U.S. (km)	654.64	740.40	(-1.13)	-262.07	(-0.99)	-263.20	(-1.01)
Geographic characteristics			, ,		, ,		, ,
Elevation (m)	1473.84	1299.94	(0.81)	62.24	(0.08)	-132.31	(-0.20)
Slope (degrees)	3.55	3.14	(0.58)	-1.22	(-0.63)	-1.17	(-0.70)
Surface area $(km^2)$	2788.02	528.14	(1.39)	3712.91*	(1.69)	4011.75	(1.56)
Average min. temperature, C	6.26	7.94	(-1.21)	-5.95	(-1.12)	-4.24	(-0.84)
Average max. temperature, C	21.58	23.32	(-1.72*)	-5.68	(-1.43)	-4.67	(-1.30)
Average precipitation, cm	1065.19	1029.42	$(0.21)^{'}$	3.28	(0.01)	96.62	(0.20)
Observations	33	29		62		62	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteode Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections in 2007-2008. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election in 2007-2008. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-4: Baseline Characteristics (13.3% vote spread, 2007-2008)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		C	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
Political characteristics							
Mun. taxes per capita (2005)	66.59	58.11	(0.23)	38.85	(1.28)	42.14*	(1.65)
Turnout	0.61	0.59	(0.99)	0.01	(0.15)	0.01	(0.20)
PAN incumbent	0.25	0.32	(-0.61)	0.00	(0.04)	0.02	(0.24)
PRD incumbent	0.14	0.13	(0.63)	0.06	(0.58)	-0.06	(-0.91)
% alternations (1976-2006)	0.32	0.30	(-0.01)	0.02	(0.41)	-0.04	(-1.20)
PRI never lost (1976-2006)	0.12	0.10	(-0.04)	-0.12	(-1.17)	-0.03	(-0.44)
$Demographic\ characteristics$			,		,		,
Population (2005)	5.28	4.34	(0.35)	4.13	(0.70)	1.88	(0.73)
Population density (2005)	207.02	195.96	(0.42)	-197.74	(-1.06)	-69.11	(-0.63)
Migrants per capita (2005)	0.02	0.02	(-0.69)	0.00	(-0.27)	0.00	(0.64)
Economic characteristics			, ,		,		,
Income per capita (2005)	4.28	4.36	(-0.53)	-0.12	(-0.15)	0.47	(0.89)
Malnutrition (2005)	33.08	31.79	(0.53)	0.24	(0.04)	-4.22	(-0.97)
Mean years schooling (2005)	6.22	6.11	(0.32)	-0.17	(-0.36)	0.13	(0.35)
Infant mortality (2005)	22.56	22.54	(0.22)	1.14	(0.50)	0.61	(0.38)
HH w/o access to sewage (2005)	8.29	9.04	(0.05)	0.72	(0.32)	-0.63	(-0.33)
HH w/o access to water (2005)	17.52	18.48	(-0.62)	1.80	(0.30)	-2.28	(-0.52)
Marginality index (2005)	-0.10	-0.05	(-0.23)	-0.08	(-0.27)	-0.22	(-0.95)
Road network characteristics			, ,		,		, ,
Detour length (km)	22.65	22.29	(0.19)	-14.57	(-0.35)	6.21	(0.36)
Road density	0.16	0.14	(0.98)	-0.02	(-0.42)	-0.03	(-0.76)
Distance U.S. (km)	732.16	759.47	(-0.55)	-127.59	(-1.37)	-131.39	(-1.41)
$Geographic\ characteristics$							
Elevation (m)	1363.85	1367.75	(0.26)	327.64	(1.19)	273.58	(1.08)
Slope (degrees)	3.60	3.32	(1.02)	0.25	(0.29)	-0.02	(-0.02)
Surface area $(km^2)$	1613.60	748.56	(1.36)	2422.76*	(1.73)	1463.56*	(1.76)
Average min. temperature, C	7.61	7.79	(-0.46)	-3.41*	(-1.92)	-3.04*	(-1.82)
Average max. temperature, C	22.64	23.19	(-0.53)	-2.54*	(-1.91)	-2.38**	(-1.99)
Average precipitation, cm	1217.80	1112.02	(0.65)	-55.13	(-0.28)	-62.91	(-0.32)
Observations	168	212		380		380	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections in 2007-2008. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election in 2007-2008. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-5: Baseline Characteristics (5% vote spread, 2007-2010)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		O	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
$\overline{Political\ characteristics}$							
Mun. taxes per capita (2005)	76.24	85.61	(-0.69)	-27.04	(-0.38)	7.28	(0.17)
Turnout	0.67	0.64	(1.54)	-0.03	(-0.50)	-0.04	(-0.90)
PAN incumbent	0.37	0.37	(0.12)	0.08	(0.51)	0.10	(1.13)
PRD incumbent	0.11	0.10	(0.37)	0.09	(0.82)	-0.05	(-0.67)
% alternations (1976-2006)	0.27	0.29	(-1.04)	0.04	(0.85)	0.04	(1.34)
PRI never lost (1976-2006)	0.13	0.10	(0.90)	-0.09	(-0.78)	-0.16**	(-2.42)
Demographic characteristics			, ,		,		, ,
Population (2005)	3.74	6.11	(-1.43)	1.83	(0.36)	-3.00	(-1.53)
Population density (2005)	136.31	226.96	(-1.32)	-242.43	(-1.46)	-192.40	(-1.57)
Migrants per capita (2005)	0.02	0.02	(-0.15)	0.01	(1.41)	0.00	(0.53)
Economic characteristics			, ,		` ,		, ,
Income per capita (2005)	4.57	4.94	(-1.58)	-0.58	(-0.69)	-0.09	(-0.17)
Malnutrition (2005)	27.45	26.52	(0.50)	2.30	(0.41)	-3.57	(-0.83)
Mean years schooling (2005)	6.27	6.41	(-0.90)	-0.49	(-0.97)	-0.18	(-0.51)
Infant mortality (2005)	22.76	22.08	(0.79)	-0.30	(-0.11)	0.05	(0.03)
HH w/o access to sewage (2005)	11.11	10.55	(0.41)	-1.47	(-0.31)	-1.27	(-0.41)
HH w/o access to water (2005)	13.98	14.43	(-0.22)	-5.09	(-0.97)	-2.77	(-0.62)
Marginality index (2005)	-0.29	-0.30	(0.17)	-0.12	(-0.41)	-0.17	(-0.71)
Road network characteristics							
Detour length (km)	17.67	17.46	(0.02)	-21.32	(-0.94)	-3.57	(-0.36)
Road density	0.13	0.13	(0.01)	-0.04	(-1.02)	-0.02	(-0.63)
Distance U.S. (km)	776.52	781.72	(-0.10)	-111.11	(-0.72)	-113.45	(-0.74)
$Geographic\ characteristics$							
Elevation (m)	1276.19	1264.79	(0.12)	401.26	(1.46)	406.91	(1.57)
Slope (degrees)	3.10	2.84	(0.92)	0.29	(0.31)	0.15	(0.21)
Surface area $(km^2)$	1372.19	1084.88	(0.73)	911.82	(1.14)	422.22	(0.60)
Average min. temperature, C	7.66	7.83	(-0.28)	-3.01	(-1.56)	-2.86	(-1.54)
Average max. temperature, C	23.22	23.22	0.00	-2.42	(-1.59)	-2.47*	(-1.78)
Average precipitation, cm	948.41	941.35	(0.11)	-72.78	(-0.39)	-61.14	(-0.34)
Observations	155	155		310		310	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-6: Baseline Characteristics (4% vote spread, 2007-2010)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		O	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
$\overline{Political\ characteristics}$							
Mun. taxes per capita (2005)	79.03	78.40	(0.04)	-41.42	(-0.47)	38.88	(0.80)
Turnout	0.67	0.65	(0.53)	-0.06	(-0.75)	-0.04	(-0.70)
PAN incumbent	0.36	0.36	(0.06)	-0.01	(-0.07)	0.08	(0.77)
PRD incumbent	0.11	0.08	(0.72)	0.01	(0.13)	-0.07	(-0.84)
% alternations (1976-2006)	0.27	0.29	(-0.73)	0.06	(1.09)	0.04	$(1.21)^{'}$
PRI never lost (1976-2006)	0.14	0.10	(1.01)	-0.04	(-0.34)	-0.16**	(-2.20)
Demographic characteristics			,		,		,
Population (2005)	4.14	4.79	(-0.39)	1.65	(0.28)	-2.04	(-0.86)
Population density (2005)	118.32	157.30	(-0.88)	-318.49*	(-1.82)	-225.44*	(-1.96)
Migrants per capita (2005)	0.02	0.02	(-0.08)	0.00	(0.71)	0.00	(0.21)
Economic characteristics			,		,		,
Income per capita (2005)	4.59	4.82	(-0.85)	-0.40	(-0.40)	0.42	(0.65)
Malnutrition (2005)	27.22	26.91	(0.15)	0.88	(0.13)	-6.53	(-1.38)
Mean years schooling (2005)	6.29	6.34	(-0.32)	-0.58	(-0.98)	0.00	0.00
Infant mortality (2005)	22.74	22.27	(0.51)	-0.14	(-0.05)	-1.76	(-0.98)
HH w/o access to sewage (2005)	10.06	11.48	(-0.95)	-3.13	(-0.55)	-3.72	(-1.03)
HH w/o access to water (2005)	14.34	13.24	(0.49)	-8.96	(-1.54)	-5.65	(-1.13)
Marginality index (2005)	-0.31	-0.26	(-0.42)	-0.21	(-0.58)	-0.38	(-1.40)
Road network characteristics			, ,		,		, ,
Detour length (km)	20.58	16.63	(0.35)	-35.07*	(-1.70)	-8.45	(-0.84)
Road density	0.13	0.13	(0.40)	-0.04	(-1.13)	-0.04	(-1.16)
Distance U.S. (km)	763.38	816.01	(-0.89)	-63.01	(-0.35)	-69.21	(-0.38)
$Geographic\ characteristics$			, ,				, ,
Elevation (m)	1249.72	1212.67	(0.34)	472.14	(1.49)	476.90	(1.60)
Slope (degrees)	3.22	2.87	(1.09)	0.21	(0.20)	0.08	(0.11)
Surface area $(km^2)$	1513.15	1028.66	(1.04)	818.71	(0.98)	454.31	(0.55)
Average min. temperature, C	7.71	8.26	(-0.78)	-3.18	(-1.39)	-3.08	(-1.41)
Average max. temperature, C	23.22	23.49	(-0.54)	-2.68	(-1.49)	-2.73*	(-1.67)
Average precipitation, cm	966.66	925.62	(0.57)	-21.92	(-0.11)	-10.31	(-0.05)
Observations	129	122		251		251	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-7: Baseline Characteristics (3% vote spread, 2007-2010)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		O	wn municipa	ality		Neighbori	ng muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
$\overline{Political\ characteristics}$							
Mun. taxes per capita (2005)	85.90	80.76	(0.26)	-72.69	(-0.65)	10.60	(0.19)
Turnout	0.64	0.64	(0.06)	-0.05	(-0.53)	-0.03	(-0.56)
PAN incumbent	0.39	0.35	(0.53)	-0.02	(-0.10)	0.03	(0.29)
PRD incumbent	0.14	0.07	(1.61)	0.09	(0.73)	-0.03	(-0.36)
% alternations (1976-2006)	0.27	0.28	(-0.57)	0.04	(0.63)	0.02	(0.40)
PRI never lost (1976-2006)	0.15	0.11	(0.76)	0.07	(0.51)	-0.10	(-1.19)
$Demographic\ characteristics$			,		( )		,
Population (2005)	5.11	4.28	(0.40)	0.12	(0.02)	-3.91	(-1.28)
Population density (2005)	134.39	153.45	(-0.35)	-384.00*	(-1.88)	-259.43**	(-2.17)
Migrants per capita (2005)	0.02	0.02	(0.66)	0.00	(0.61)	0.00	(-0.48)
Economic characteristics			,		( )		,
Income per capita (2005)	4.61	4.80	(-0.56)	-0.50	(-0.41)	0.19	(0.25)
Malnutrition (2005)	26.86	27.05	(-0.08)	-0.93	(-0.12)	-5.56	(-1.04)
Mean years schooling (2005)	6.38	6.39	(-0.05)	-0.57	(-0.82)	-0.12	(-0.26)
Infant mortality (2005)	22.73	22.56	(0.15)	-0.60	(-0.17)	-2.05	(-0.99)
HH w/o access to sewage (2005)	9.79	11.62	(-1.00)	-4.10	(-0.59)	-3.25	(-0.78)
HH w/o access to water (2005)	15.94	13.88	(0.73)	-8.13	(-1.26)	-6.57	(-1.13)
Marginality index (2005)	-0.34	-0.26	(-0.62)	-0.17	(-0.40)	-0.30	(-0.99)
Road network characteristics			,		,		,
Detour length (km)	26.90	19.51	(0.49)	-41.76*	(-1.73)	-20.51	(-1.56)
Road density	0.13	0.13	(0.13)	-0.07*	(-1.66)	-0.06*	(-1.89)
Distance U.S. (km)	679.02	766.78	(-1.42)	-11.13	(-0.05)	-14.72	(-0.07)
Geographic characteristics			, ,		,		, ,
Elevation (m)	1325.30	1247.59	(0.63)	438.35	(1.22)	379.92	(1.13)
Slope (degrees)	3.39	3.02	(0.95)	-0.58	(-0.49)	-0.35	(-0.41)
Surface area $(km^2)$	1729.22	1060.67	(1.08)	674.43	(0.54)	818.35	(0.81)
Average min. temperature, C	6.92	7.95	(-1.34)	-3.21	(-1.21)	-2.73	(-1.08)
Average max. temperature, C	22.66	23.24	(-1.01)	-2.29	(-1.08)	-2.01	(-1.04)
Average precipitation, cm	934.10	916.70	(0.21)	-11.08	(-0.05)	17.62	(0.08)
Observations	95	91	. ,	186	, ,	186	` '

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteo de Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the authors own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-8: Baseline Characteristics (2% vote spread, 2007-2010)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		O	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
$\overline{Political\ characteristics}$							
Mun. taxes per capita (2005)	98.68	89.03	(0.36)	-87.77	(-0.58)	-31.19	(-0.38)
Turnout	0.63	0.65	(-0.39)	-0.04	(-0.35)	0.00	(0.05)
PAN incumbent	0.42	0.37	(0.54)	0.16	(0.59)	0.07	(0.54)
PRD incumbent	0.12	0.08	(0.87)	-0.08	(-0.66)	-0.03	(-0.30)
% alternations (1976-2006)	0.27	0.27	(-0.18)	-0.02	(-0.30)	-0.02	(-0.49)
PRI never lost (1976-2006)	0.15	0.14	(0.25)	0.10	(0.53)	-0.02	(-0.19)
Demographic characteristics			,		, ,		,
Population (2005)	5.82	4.15	(0.62)	0.55	(0.06)	-4.98	(-1.31)
Population density (2005)	149.18	170.68	(-0.29)	-474.11*	(-1.81)	-289.46*	(-1.96)
Migrants per capita (2005)	0.02	0.02	(0.80)	0.00	(-0.52)	0.00	(-0.66)
Economic characteristics			,		,		,
Income per capita (2005)	4.72	5.07	(-0.84)	-0.34	(-0.22)	-0.25	(-0.26)
Malnutrition (2005)	26.37	23.99	(0.83)	1.48	(0.15)	-4.70	(-0.73)
Mean years schooling (2005)	6.42	6.60	(-0.81)	-0.50	(-0.56)	-0.23	(-0.40)
Infant mortality (2005)	23.03	21.86	(0.86)	3.88	(0.80)	1.02	(0.38)
HH w/o access to sewage (2005)	9.79	10.95	(-0.52)	-0.05	(-0.01)	0.00	(-0.00)
HH w/o access to water (2005)	14.48	12.52	(0.61)	2.64	(0.34)	-0.33	(-0.05)
Marginality index (2005)	-0.40	-0.37	(-0.19)	0.07	(0.13)	-0.12	(-0.30)
Road network characteristics			,		,		,
Detour length (km)	33.06	25.45	(0.36)	-10.91	(-0.41)	-9.92	(-0.54)
Road density	0.14	0.13	(0.59)	-0.11**	(-2.07)	-0.08**	(-2.12)
Distance U.S. (km)	656.29	752.45	(-1.24)	-125.61	(-0.46)	-130.07	(-0.48)
Geographic characteristics			, ,		, ,		, ,
Elevation (m)	1360.00	1170.44	(1.32)	298.37	(0.69)	279.43	(0.69)
Slope (degrees)	3.53	2.88	(1.37)	-0.09	(-0.06)	0.01	0.00
Surface area $(km^2)$	2020.80	1218.50	(0.90)	554.11	(0.37)	1515.10	(1.23)
Average min. temperature, C	6.54	8.00	(-1.63)	-3.36	(-1.01)	-3.13	(-0.98)
Average max. temperature, C	22.27	23.35	(-1.58)	-2.75	(-1.04)	-2.65	(-1.09)
Average precipitation, cm	898.98	870.95	(0.29)	-38.56	(-0.15)	3.53	(0.01)
Observations	65	65	, ,	130	, ,	130	, ,

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteode Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the author's own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-9: Baseline Characteristics (13.3% vote spread, 2007-2010)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		O	wn municipa	ality		Neighbor	ing muns.
	5% vote PAN won	e spread PAN lost	t-stat on means difference	RD estimate	t-stat on RD estimate	RD estimate	t-stat on RD estimate
$\overline{Political\ characteristics}$							
Mun. taxes per capita (2005)	85.93	88.95	(-0.69)	6.18	(0.15)	16.05	(0.50)
Turnout	0.66	0.64	(1.54)	-0.04	(-0.83)	-0.04	(-1.25)
PAN incumbent	0.38	0.38	(0.12)	0.06	(0.55)	0.04	(0.65)
PRD incumbent	0.11	0.10	(0.37)	0.07	(1.04)	-0.04	(-0.96)
% alternations (1976-2006)	0.28	0.28	(-1.03)	-0.01	(-0.19)	0.01	(0.48)
PRI never lost (1976-2006)	0.13	0.11	(0.90)	0.03	(0.36)	-0.07	(-1.62)
Demographic characteristics			,		,		,
Population (2005)	4.18	5.39	(-1.43)	2.16	(0.64)	-0.77	(-0.43)
Population density (2005)	160.46	236.82	(-1.32)	-84.14	(-0.76)	-48.70	(-0.62)
Migrants per capita (2005)	0.02	0.02	(-0.15)	0.00	(1.04)	0.00	(1.45)
Economic characteristics			, ,		,		,
Income per capita (2005)	4.67	4.86	(-1.58)	-0.39	(-0.72)	0.16	(0.39)
Malnutrition (2005)	27.54	26.80	(0.49)	0.52	(0.14)	-2.73	(-0.91)
Mean years schooling (2005)	6.34	6.38	(-0.90)	-0.20	(-0.65)	-0.01	(-0.03)
Infant mortality (2005)	22.57	22.26	(0.78)	0.57	(0.34)	0.39	(0.34)
HH w/o access to sewage (2005)	10.52	11.12	(0.41)	-3.40	(-1.17)	-2.96	(-1.42)
HH w/o access to water (2005)	14.08	14.64	(-0.22)	1.68	(0.44)	0.24	(0.08)
Marginality index (2005)	-0.29	-0.28	(0.17)	-0.13	(-0.65)	-0.17	(-1.05)
Road network characteristics			, ,		, ,		, ,
Detour length (km)	15.85	15.96	(0.02)	2.08	(0.09)	8.38	(0.87)
Road density	0.14	0.14	(0.01)	-0.01	(-0.40)	-0.01	(-0.45)
Distance U.S. (km)	777.21	793.53	(-0.10)	-130.20	(-1.35)	-133.43	(-1.38)
$Geographic\ characteristics$							
Elevation (m)	1302.49	1265.37	(0.12)	221.93	(1.22)	239.94	(1.40)
Slope (degrees)	3.09	2.91	(0.91)	0.62	(1.01)	0.38	(0.83)
Surface area $(km^2)$	1272.77	1003.83	(0.73)	1098.05	(1.30)	681.57	(1.20)
Average min. temperature, C	7.68	8.03	(-0.28)	-2.10*	(-1.78)	-2.11*	(-1.86)
Average max. temperature, C	23.20	23.48	0.00	-1.39	(-1.50)	-1.53*	(-1.82)
Average precipitation, cm	988.68	962.91	(0.11)	3.48	(0.03)	-0.68	(-0.01)
Observations	366	398		764		764	

Notes: Data on population, population density, mean years of schooling, and migrants per capita are from II Conteode Poblacion y Vivienda, INEGI (National Institute of Statistics and Geography, 2005). Data on municipal tax collection are from Sistema de Cuentas Municipales, INEGI. Data on housecold access to sewage and water are from CONAPO (National Population Council) (2005). Data on malnutrition are from CONEVAL (National Council for Evaluating Social Development Policy), Indice de Reazgo Social (2005). Data on infant mortality are from PNUD Mexico (UN Development Program, 2005). The marginality index is from CONAPO (2005). Data on distance to the U.S. and other road network characteristics are from the author's own calculations. Electoral data are from Mexico Electoral-Banamex and electoral results published by the Electoral Tribunals of each state. For 11 states, data on the total number of eligible voters, required to calculate turnout, are not reported. The geographic characteristics are from Acemoglu and Dell (2009). Columns (1) through (5) examine these variables for municipalities with close elections. Column (6) and (7) examine these characteristics for municipalities that border a municipality with a close election. Column (3) reports the t-statistic on the difference in means between municipalities where the PAN barely won and where they barely lost. Columns (4) and (6) report the coefficient on PAN win from a standard RD specification where the respective characteristic is used as the dependent variable, and columns (5) and (7) report the respective t-statistic. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

A-2.2 Robustness of Regressions Discontinuity Analysis

Table A-10: PAN Elections (2007-2008) and Drug Trade-Related Homicides

	5%	5% bandwidth		4%		3%	2	2%		13.3%	
	$\operatorname{Post}$	Lame	$\operatorname{Pre}$	Post	$\operatorname{Pre}$	Post	$\operatorname{Pre}$	$\operatorname{Post}$	Pre	Post	$\operatorname{Pre}$
	inaug.	duck	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)
Linear	32.981***	4.967	-2.038	36.423***	-2.466	38.064***	-2.710	47.1111***	-5.761	25.621***	-0.226
	(9.346)	(4.122)	(3.776)	(8.969)	(4.054)	(8.587)	(4.043)	(10.817)	(5.830)	(8.484)	(3.020)
Linear FE	15.899*	0.504	-1.211	18.460*	-0.675	17.545	-1.087	37.445**	1.001	14.901**	-0.007
	(8.736)	(2.815)	(2.709)	(9.923)	(2.830)	(12.540)	(3.083)	(15.209)	(3.984)	(6.443)	(1.970)
Linear FE controls	16.786**	0.505	-0.989	19.488**	0.226	20.637*	0.445	40.225***	1.782	13.094**	-0.567
	(7.762)	(3.119)	(2.643)	(8.512)	(2.883)	(10.511)	(3.088)	(12.472)	(3.962)	(5.973)	(1.909)
Quadratic	41.658***	3.875	-4.537	41.436***	-6.135	42.559***	-7.931	29.469*	-9.713	34.924***	-3.261
	(8.194)	(3.888)	(4.206)	(9.663)	(5.496)	(11.390)	(6.876)	(15.431)	(9.152)	(9.534)	(3.717)
Quadratic FE	29.606***	6.049***	-1.923	29.618**	-3.447	35.337**	-1.426	22.867	-3.510	18.052**	-2.635
	(9.538)	(2.226)	(3.661)	(14.169)	(5.045)	(17.279)	(4.428)	(21.184)	(5.155)	(8.531)	(2.993)
Quadratic FE Controls	33.271***	6.958**	-0.786	39.390***	0.514	43.177***	1.026	33.605*	-0.098	18.331**	-2.705
	(8.262)	(2.872)	(3.336)	(11.498)	(4.071)	(14.609)	(4.185)	(16.985)	(5.363)	(7.454)	(2.706)
Cubic	40.996***	-1.483	-7.437	40.655***	-9.154	41.769***	-9.228	64.231**	-8.159	39.130***	-4.812
	(11.568)	(3.323)	(7.088)	(13.353)	(8.688)	(15.468)	(9.919)	(31.015)	(14.208)	(8.513)	(4.040)
Cubic FE	33.755**	4.054*	-4.527	34.865*	-2.385	27.018	-4.183	38.626	-5.144	19.302*	-4.082
	(14.914)	(2.200)	(6.422)	(18.264)	(6.058)	(23.226)	(6.406)	(32.752)	(10.063)	(10.265)	(3.662)
Cubic FE controls	46.536***	6.879	-0.173	47.227***	2.517	43.331**	2.464	90.785	13.395	21.772**	-3.566
	(11.706)	(4.854)	(4.827)	(14.629)	(4.833)	(18.836)	(5.633)	(29.337)	(9.779)	(8.954)	(3.137)
Quartic	41.610***	-2.393	-10.522	46.432**	-10.306	41.921	-11.420	211.072***	-11.609	43.679***	-4.769
	(14.486)	(3.823)	(9.401)	(19.849)	(11.231)	(31.551)	(14.458)	(40.156)	(25.841)	(8.716)	(4.874)
Quartic FE	38.295**	2.163	-4.618	25.043	-6.358	15.129	-9.208	144.096***	-10.422	27.573**	-3.310
	(17.054)	(2.905)	(7.136)	(23.980)	(8.132)	(32.741)	(10.622)	(48.617)	(21.034)	(11.666)	(4.661)
Quartic FE controls	53.362***	5.450	0.487	50.675***	2.585	79.041**	9.955	191.858***	9.095	32.852***	-1.926
	(12.543)	(4.741)	(5.199)	(18.686)	(6.374)	(33.582)	(11.251)	(33.138)	(18.289)	(9.666)	(3.638)
Observations	152	152	152	123	123	94	94	62	62	380	380
(1) (1)	(0) (0)	1 (40)	-		-				(0)		

Notes: In columns (1), (4), (6), (8), and (10) the dependent variable is the drug trade homicide rate during the mayor's term; in column (2) it is the drug homicide rate during the lame duck period, and in columns (3), (5), (7), (9), and (11) it is the drug homicide rate during the pre-election period. All rows and columns report the coefficient on the PAN win indicator. The rows correspond to different specifications of the PAN win indicator, \*\* significant at 10%, \*\* significant at 1%.

Table A-11: PAN Elections (2007-2010) and Drug Trade-Related Homicides

	5%	5% bandwidth	h	4%	\ <sub>0</sub>	3%	20	2%		13.3%	2
	$\operatorname{Post}$	Lame	$\operatorname{Pre}$	$\operatorname{Post}$	$\operatorname{Pre}$	$\operatorname{Post}$	Pre	Post	$\operatorname{Pre}$	$\operatorname{Post}$	$\operatorname{Pre}$
	inaug.	duck	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)
Linear	26.735***	6.331	3.830	22.540***	0.391	24.392***	1.003	17.522***	-3.768	15.580**	3.644
	(8.560)	(5.212)	(4.688)	(8.009)	(4.595)	(7.851)	(5.070)	(6.015)	(4.338)	(7.100)	(3.481)
Linear FE	14.005***	0.918	-0.617	15.259***	-1.513	16.153***	-0.632	10.585	-5.522	8.531*	1.289
	(5.355)	(5.181)	(4.774)	(5.087)	(4.489)	(5.651)	(4.817)	(8.275)	(7.776)	(5.098)	(3.835)
Linear FE controls	15.807***	-0.375	-1.270	15.881***	-3.950	17.261***	-2.454	15.352*	-9.001	8.369*	1.049
	(4.394)	(4.268)	(3.718)	(4.672)	(3.809)	(4.921)	(3.864)	(8.144)	(8.285)	(4.298)	(3.350)
Quadratic	17.635***	1.132	-4.574	19.315***	-4.247	16.306**	-6.675	15.694	-9.375	23.453***	3.223
	(6.489)	(4.895)	(4.774)	(4.995)	(5.093)	(7.680)	(5.368)	(10.340)	(7.511)	(7.711)	(4.371)
Quadratic FE	11.567	-2.129	-6.953	15.197**	-5.925	10.959	-9.178	6.991	-14.021	15.190***	0.287
	(7.979)	(5.967)	(6.622)	(6.083)	(7.100)	(9.154)	(8.471)	(12.960)	(11.187)	(5.366)	(4.933)
Quadratic FE Controls	16.940***	-2.007	-6.367	17.964***	-8.265	16.197	-13.018	12.172	-21.290	15.237***	0.069
	(6.285)	(6.163)	(5.049)	(6.222)	(6.641)	(9.902)	(9.788)	(12.645)	(13.616)	(4.553)	(4.108)
Cubic	18.231**	-5.530	-5.005	13.206	-8.174	14.817	-8.618	22.139	-12.979	25.350***	-1.705
	(7.872)	(6.705)	(5.830)	(9.475)	(6.546)	(11.067)	(8.969)	(18.259)	(14.629)	(7.313)	(4.980)
Cubic FE	9.429	-13.567	-10.918	9.384	-12.567	4.341	-14.086	-3.774	-17.789	15.461***	-5.814
	(9.527)	(12.302)	(9.144)	(9.814)	(9.385)	(12.967)	(11.801)	(18.643)	(18.066)	(5.261)	(5.943)
Cubic FE controls	20.247**	-16.038	-10.364	14.600	-18.109*	14.672	-18.646	23.389	-21.122	16.738***	-5.631
	(9.782)	(15.974)	(8.426)	(10.930)	(10.576)	(13.691)	(14.287)	(19.126)	(28.663)	(4.825)	(4.756)
Quartic	12.756	-13.076	-10.507	19.449	-10.388	20.465	-15.134	65.456	3.098	18.435***	-4.338
	(11.024)	(9.225)	(7.863)	(12.099)	(10.598)	(18.263)	(15.251)	(41.376)	(20.861)	(5.228)	(4.591)
Quartic FE	4.364	-21.661	-17.814	8.965	-15.172	2.913	-16.848	44.866	3.316	11.722*	-8.114
	(12.795)	(14.819)	(11.313)	(12.962)	(11.998)	(17.952)	(16.351)	(37.167)	(20.058)	(6.531)	(6.593)
Quartic FE controls	21.000	-21.751	-15.171	18.177	-21.380	21.841	-21.712	58.763	6.117	16.470***	-6.644
	(13.113)	(17.760)	(10.061)	(12.693)	(13.262)	(16.409)	(20.772)	(38.980)	(21.141)	(5.689)	(5.142)
Clusters	307	307	307	249	249	186	186	130	130	746	746
Observations	310	310	310	251	251	186	186	130	130	764	764
	(0) (0)	1, (0, )	-				-		-	(6)	

Notes: In columns (1), (4), (6), (8), and (10) the dependent variable is the drug trade homicide rate during the post-inauguration period; in column (2) it is the drug homicide rate during the lame duck period, and in columns (3), (5), (7), (9), and (11) it is the drug homicide rate during the pre-election period. All rows and columns report the coefficient on the PAN win indicator. The rows correspond to different specifications of the bandwidth. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-12: PAN Elections (2007-2008) and Overall Homicides

	22	5% bandwidth	ج ا	701		%6		%6		13 30%	
	Post	Lame	Pre	Post	Pre	Post	, Pre	Post	$\operatorname{Pre}$	Post	$\stackrel{\circ}{ m Pre}$
	inaug.	duck	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)
Linear	56.630***	2.457	3.088	62.219***	1.626	63.787***	0.185	75.771***	-3.654	44.551***	3.653
	(12.768)	(2.922)	(4.361)	(11.444)	(4.846)	(10.791)	(5.000)	(14.434)	(7.532)	(11.967)	(3.245)
Linear FE	32.729**	-0.611	0.719	37.478***	1.039	36.449**	-0.853	64.781***	1.362	29.187***	3.385
	(12.579)	(3.541)	(3.846)	(13.862)	(4.126)	(17.457)	(4.667)	(20.262)	(5.191)	(699.6)	(2.302)
Linear FE controls	34.430***	-1.764	1.432	38.963***	2.962	40.079**	2.493	***969.89	4.053	26.189***	3.686*
	(11.205)	(3.211)	(4.116)	(12.165)	(4.082)	(15.365)	(4.629)	(19.228)	(5.387)	(8.872)	(2.162)
Quadratic	68.550	4.442	-1.951	68.130***	-5.919	72.084***	-6.299	61.434***	-11.815	59.602***	1.653
	(10.105)	(3.142)	(5.571)	(12.772)	(7.133)	(15.029)	(8.891)	(19.891)	(11.625)	(12.668)	(4.382)
Quadratic FE	55.348***	4.903	-1.051	56.208***	-5.167	63.300***	-1.578	51.954*	-3.771	37.571***	1.316
	(13.698)	(3.877)	(5.671)	(18.629)	(7.959)	(22.861)	(7.156)	(27.193)	(6.880)	(11.985)	(3.699)
Quadratic FE controls	61.415***	4.737	1.091	68.388***	1.399	73.884***	3.581	68.588**	3.909	37.970***	2.185
	(12.687)	(3.338)	(5.038)	(17.461)	(6.469)	(21.715)	(7.216)	(26.084)	(6.100)	(10.544)	(3.571)
Cubic	71.197***	-0.063	-7.869	71.760***	-9.530	77.883***	-12.089	113.270***	-23.280	66.131***	-0.522
	(15.385)	(4.071)	(9.184)	(17.171)	(11.132)	(19.531)	(12.627)	(41.032)	(17.777)	(10.663)	(5.220)
Cubic FE	66.441***	0.464	-6.592	65.402***	-5.492	57.932*	-8.386	69.167	-19.462*	41.977***	-1.043
	(18.634)	(5.476)	(9.770)	(23.193)	(9.492)	(30.227)	(9.788)	(45.054)	(10.846)	(13.875)	(4.911)
Cubic FE controls	87.533***	2.666	1.467	81.458***	2.638	80.244***	5.701	139.902***	0.209	45.912***	0.495
	(16.743)	(4.582)	(8.017)	(21.835)	(8.280)	(27.709)	(8.835)	(46.836)	(14.378)	(12.494)	(4.553)
Quartic	70.782***	1.638	-11.846	89.305***	-14.355	88.694**	-30.021	314.681***	-20.910	70.807***	-3.820
	(18.881)	(5.898)	(12.066)	(25.679)	(14.014)	(40.734)	(18.335)	(52.271)	(28.229)	(11.108)	(6.333)
Quartic FE	***208.99	2.313	-8.116	57.857*	-13.788	39.903	-34.190**	197.522***	-23.517	54.124***	-3.066
	(22.414)	(698.9)	(11.003)	(31.878)	(11.834)	(44.767)	(13.661)	(63.647)	(21.813)	(15.638)	(6.530)
Quartic FE controls	91.760***	5.284	1.810	94.476***	3.435	127.397**	-8.209	254.627***	-8.143	62.025***	0.110
	(18.590)	(6.054)	(8.838)	(27.883)	(10.118)	(51.547)	(14.102)	(51.194)	(22.945)	(14.023)	(5.564)
Observations	152	152	152	123	123	94	94	62	62	380	380
N - 1 (1) (1)	F== (0) (3) (	(10) 41° Jan 200 Jan	Land Land	onioble is the	June on Ame of	of one of the second	Junior at the	ai . como + o (morro o	(0)	24 : 44 of 45	

Notes: In columns (1), (4), (6), (8), and (10) the dependent variable is the drug trade homicide rate during the mayor's term; in column (2) it is the drug homicide rate during the lame duck period, and in columns (3), (5), (7), (9), and (11) it is the drug homicide rate during the pre-election period. All rows and columns report the coefficient on the PAN win indicator. The rows correspond to different specifications of the PAN win indicator, "significant at 10%, "\* significant at 1%."

Table A-13: PAN Elections (2007-2010) and Overall Homicides

	2%	5% bandwidth	h	4%	. ~	3%	70	2%	, o	13.3%	2
	$\operatorname{Post}$	Lame	$\operatorname{Pre}$	$\operatorname{Post}$	$\operatorname{Pre}$	$\operatorname{Post}$	$\operatorname{Pre}$	$\mathbf{Post}$	$\operatorname{Pre}$	$\mathbf{Post}$	$\operatorname{Pre}$
	inaug.	duck	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.	inaug.	elec.
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)
Linear	44.820***	6.622	4.740	41.830***	3.023	42.184***	2.172	32.247***	-0.352	29.642***	3.697
	(12.289)	(6.665)	(3.498)	(12.027)	(3.928)	(11.541)	(4.408)	(11.685)	(4.681)	(10.913)	(2.448)
Linear FE	28.464***	-0.026	1.832	30.120***	2.033	30.030***	1.122	25.638*	0.692	19.316***	1.773
	(8.178)	(7.283)	(2.995)	(8.758)	(3.023)	(9.547)	(3.776)	(13.478)	(4.421)	(7.085)	(1.990)
Linear FE controls	29.385	-2.218	2.536	30.469***	2.823	31.591***	2.572	31.589**	2.542	18.399***	1.881
	(7.657)	(5.595)	(2.840)	(8.045)	(2.928)	(8.600)	(3.267)	(13.013)	(4.620)	(6.278)	(1.929)
Quadratic	35.970***	-2.048	-0.669	32.601***	-2.021	29.678*	-1.824	27.229	-5.689	40.799***	3.482
	(9.351)	(5.665)	(4.767)	(10.070)	(5.140)	(15.186)	(6.566)	(20.089)	(8.882)	(11.827)	(3.499)
Quadratic FE	30.073***	-7.716	-0.304	28.374**	-0.950	24.309	-0.476	21.569	-2.881	29.470***	1.911
	(10.626)	(8.969)	(4.756)	(11.969)	(5.538)	(16.664)	(6.281)	(22.581)	(7.404)	(8.557)	(3.189)
Quadratic FE Controls	35.409***	-7.597	0.864	32.156***	1.261	31.735*	3.875	30.680	2.655	28.597***	2.278
	(10.135)	(8.362)	(4.411)	(11.135)	(4.974)	(16.147)	(5.719)	(21.010)	(6.273)	(7.578)	(3.021)
Cubic	29.008*	-6.648	-2.118	25.165	-3.813	25.858	-7.825	51.101*	-12.397	43.434***	2.214
	(15.412)	(8.830)	(6.928)	(18.519)	(7.934)	(21.975)	(9.977)	(29.094)	(12.282)	(10.607)	(4.409)
Cubic FE	22.361	-22.510	-1.630	21.205	-2.884	14.900	-7.392	10.652	-16.740*	30.712***	1.105
	(16.504)	(17.344)	(7.818)	(19.012)	(7.928)	(24.761)	(9.479)	(32.358)	(9.676)	(9.036)	(3.995)
Cubic FE controls	33.265**	-25.009	2.468	28.943	2.467	31.132	1.552	53.659	-4.170	31.267***	1.820
	(15.873)	(21.577)	(6.764)	(18.109)	(6.864)	(23.605)	(7.614)	(32.662)	(8.775)	(8.761)	(3.811)
Quartic	23.244	-12.152	-7.313	36.261	-6.727	50.659*	-14.263	106.428*	-13.229	36.097***	-1.400
	(21.227)	(12.413)	(9.323)	(23.206)	(10.635)	(30.272)	(12.929)	(63.440)	(17.926)	(9.527)	(5.295)
Quartic FE	17.154	-29.959	-7.104	21.076	-7.276	21.133	-17.062	68.771	-19.263	28.960***	-0.596
	(21.824)	(20.973)	(10.080)	(25.462)	(10.220)	(33.436)	(11.330)	(59.445)	(15.078)	(10.966)	(5.612)
Quartic FE controls	36.216*	-27.800	-1.805	35.657	0.914	52.288*	-2.224	95.217	-6.843	34.287***	1.182
	(20.522)	(24.123)	(8.621)	(22.803)	(8.362)	(31.497)	(8.857)	(63.004)	(12.119)	(10.080)	(5.354)
Clusters	307	307	307	249	249	186	186	130	130	746	746
Observations	310	310	310	251	251	186	186	130	130	764	764
Notes: In columns (1) (1) (8) and (10) the denondent	Pue (8) (9)	(10) the de		oter obiginal about mind of the iners	of obert su		diring the nog	iteamoneari tao	i Johnson noi	(9) umiilos u	it is the

Notes: In columns (1), (4), (6), (8), and (10) the dependent variable is the drug trade homicide rate during the post-inauguration period; in column (2) it is the drug homicide rate during the lame duck period, and in columns (3), (5), (7), (9), and (11) it is the drug homicide rate during the pre-election period. All rows and columns report the coefficient on the PAN win indicator. The rows correspond to different specifications of the RD polynomial, region fixed effects, and controls. The columns correspond to different specifications of the bandwidth. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-14: PAN Elections and Violence (All Municipalities)

	Drug-Rel	lated Hom.	Overal	l Hom.
	07-08	07-10	07-08	07-10
	(1)	(2)	(3)	(4)
PAN win	13.576 (9.382)	9.418 (6.962)	30.908** (13.109)	17.775* (10.608)
Clusters Observations R-squared	621 621 0.032	1166 1,205 0.014	621 621 0.044	1166 1,205 0.019

Notes: The sample includes all elections where the PAN was the winner or runner-up. Columns (1) and (2) examine the drug trade-related death rate and columns (3) and (4) examine the overall homicide rate. Columns (1) and (3) utilize elections that occurred in 2007-2008. Columns (2) and (4) utilize elections occurring in 2007-2010. Standard errors are clustered by municipality. \* significant at 10%, \*\*\* significant at 5%, \*\*\* significant at 1%.

A-2.3 Ro	${ m bustness}$ ${ m t}$	<b>o</b>	Using	Differences	-in-	-Diff	erences
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Table A-15: Close PAN Elections and Drug Trade-Related Homicides (DD strategy; 5% vote spread)

	Quadratic	Quadratic vote spread polynomial	olynomial	Linear v	Linear vote spread polynomial	nomial
	Calendar	Calendar Municipality time trend(s)	$_{ m No}$	Calendar	Calendar Municipality time trend(s)	$N_{\rm O}$
	(1)	(2)	(3)	(4)	(2)	(9)
Panel A: 2007-2008 elections	7-2008 electi	ons				
PAN win x	1.238	5.902	0.490	1.345	6.205	0.598
lame duck	(5.355)	(5.515)	(3.978)	(5.665)	(5.500)	(4.260)
PAN win x	$30.539*^{**}$	30.539***	$26.329^{**}$	28.668***	29.448***	$24.475^{*}$
post-inaug.	(9.517)	(10.197)	(12.443)	(9.904)	(10.182)	(12.571)
R-squared	0.085	0.165	0.085	0.083	0.165	0.083
Clusters	152	152	152	152	152	152
Observations	8,816	8,816	8,816	8,816	8,816	8,816
Panel B: 2007-2010 elections	7-2010 electi	suc				
PAN win x	-3.212	2.830	-3.191	-3.321	3.456	-3.224
lame duck	(6.173)	(4.643)	(5.006)	(7.011)	(4.468)	(5.695)
PAN win x	22.299**	24.822**	22.391**	18.536*	23.307**	18.963*
post-inaug.	(9.501)	(10.020)	(11.175)	(9.902)	(9.857)	(10.610)
R-squared	0.038	0.103	0.038	0.036	0.103	0.036
Clusters	307	307	307	307	307	307
Observations	17 980	17.980	17.980	17,980	17.980	17.980

Table A-16: Close PAN Elections and Drug Trade-Related Homicides (DD strategy; 4% vote spread)

	Quadratic	Quadratic vote spread polynomial	olynomial	Linear v	Linear vote spread polynomial	/nomial
	Calendar	Municipality time trend(s)	No	Calendar	Calendar Municipality time trend(s)	$_{ m O}$
	(1)	(2)	(3)	(4)	(5)	(9)
Panel A: 2007-2008 elections	'-2008 electi	ons				
$PAN \min x$	3.030	8.375	2.304	3.755	8.340	3.030
lame duck	(5.809)	(6.494)	(4.176)	(6.083)	(6.290)	(4.437)
PAN win x	34.168***	$31.252^{***}$	$30.221^{**}$	$30.820^{**}$	30.224***	$26.897^{*}$
post-inaug.	(10.763)	(10.407)	(13.034)	(12.419)	(10.452)	(15.215)
R-squared	0.105	0.186	0.105	0.100	0.186	0.099
Clusters	123	123	123	123	123	123
Observations	7,134	7,134	7,134	7,134	7,134	7,134
Panel B: 2007-2010 elections	'-2010 electia	ons				
$PAN \min x$	-5.467	4.673	-5.051	-8.284	4.245	-7.718
lame duck	(6.704)	(5.790)	(5.478)	(7.880)	(5.627)	(6.368)
$PAN \min x$	20.104**	26.114**	21.988*	13.610	23.606**	16.115
post-inaug.	(9.893)	(10.446)	(11.811)	(11.134)	(10.342)	(12.877)
R-squared	0.053	0.122	0.053	0.046	0.121	0.046
Clusters	249	249	249	249	249	249
Observations	14.558	14.558	14.558	14.558	14.558	14.558

Table A-17: Close PAN Elections and Drug Trade-Related Homicides (DD strategy; 3% vote spread)

	Quadratic	Quadratic vote spread polynomial	olynomial	Linear v	Linear vote spread polynomial	momial
	Calendar	Municipality time trend(s)	$_{ m o}^{ m N}$	Calendar	Calendar Municipality time trend(s)	m No
	(1)	(2)	(3)	(4)	(2)	(9)
Panel A: 2007-2008 elections	7-2008 electi	ons				
$PAN \min x$	2.235	7.960	1.593	3.587	7.926	2.952
lame duck	(6.267)	(7.174)	(4.551)	(6.682)	(6.713)	(4.947)
$PAN \min x$	36.940***	31.023***	33.414**	31.573**	30.196***	28.102*
post-inaug.	(11.619)	(9.744)	(13.361)	(14.219)	(10.139)	(16.785)
R-squared	0.120	0.198	0.119	0.111	0.198	0.111
Clusters	94	94	94	94	94	94
Observations	5,452	5,452	5,452	5,452	5,452	5,452
Panel B: 2007-2010 elections	7-2010 electi	ons				
PAN win x	-3.969	4.632	-4.030	-3.421	4.809	-3.298
lame duck	(7.076)	(5.923)	(5.595)	(8.285)	(6.164)	(6.405)
PAN win x	24.642**	25.171**	24.418*	21.367	24.005**	21.805
post-inaug.	(10.865)	(9.887)	(12.733)	(13.329)	(9.846)	(15.405)
R-squared	0.064	0.133	0.064	0.057	0.132	0.057
Clusters	186	186	186	186	186	186
Observations	10,788	10,788	10,788	10,788	10,788	10,788

Table A-18: Close PAN Elections and Drug Trade-Related Homicides (DD strategy; 2% vote spread)

	Quadratic	Quadratic vote spread polynomial	oolynomial	Linear	Linear vote spread polynomial	ynomial
	Calendar	Municipality time trend(s)	$ m N_{ m O}$	Calendar	Municipality time trend(s)	$ m N_{o}$
	(1)	(2)	(3)	(4)	(2)	(9)
Panel A: 2007	107-2008 elections	ons				
PAN win x	-1.080	-1.839	-2.870	-1.737	-3.311	-3.489
lame duck	(6.138)	(6.136)	(6.034)	(5.298)	(4.431)	(5.591)
PAN win x	62.372***	26.180***	52.288***	65.278***	21.347**	55.200***
post-inaug.	(11.932)	(9.778)	(11.468)	(13.018)	(8.117)	(13.994)
R-squared	0.182	0.254	0.180	0.182	0.253	0.179
Clusters	62	62	62	62	62	62
Observations	3,596	3,596	3,596	3,596	3,596	3,596
Panel B: 2007-2010 elections	7-2010 electi	ons				
PAN win x	-14.467**	-4.072	-15.206**	-19.703***	-3.825	-20.396***
lame duck	(6.615)	(3.998)	(6.950)	(6.239)	(5.399)	(6.026)
$PAN \min x$	39.583***	20.491**	35.769**	35.248**	21.181***	31.588*
post-inaug.	(13.640)	(8.682)	(15.615)	(15.864)	(7.256)	(18.729)
R-squared	0.096	0.165	0.096	0.092	0.165	0.092
Clusters	130	130	130	130	130	130
Observations	7.540	7.540	7,540	7.540	7.540	7.540

Table A-19: Close PAN Elections and Drug-Related Homicides (DD strategy; 13.3% vote spread)

	Ouadratic	Quadratic vote spread polynomial	lvnomial	Linear v	Linear vote spread polynomia	momial
	Calendar	Calendar Municipality time trend(s)	No	Calendar	Calendar Municipality time trend(s)	No
	(1)	(2)	(3)	(4)	(5)	(9)
Panel A: 2007-2008 elections	7-2008 election	ons				
PAN min x	2.626	3.361	1.120	2.405	3.247	0.899
lame duck	(4.321)	(3.841)	(3.072)	(4.450)	(3.907)	(3.170)
PAN min x	29.228***	24.241***	$20.968^{**}$	29.195***	$24.390^{***}$	$20.938^{**}$
post-inaug.	(7.879)	(8.801)	(9.384)	(8.176)	(9.337)	(9.539)
R-squared	0.046	0.140	0.045	0.046	0.139	0.045
Clusters	380	380	380	380	380	380
Observations	22,040	22,040	22,040	22,040	22,040	22,040
Panel B: 2007-2010 elections	7-2010 electia	suc				
PAN min x	-0.437	3.028	-1.737	-1.333	2.731	-2.605
lame duck	(5.592)	(3.117)	(4.180)	(5.808)	(3.080)	(4.342)
PAN win x	16.231**	13.791*	12.007	15.104**	13.118	10.976
post-inaug.	(7.048)	(8.338)	(7.728)	(7.305)	(8.640)	(7.691)
R-squared	0.026	0.108	0.026	0.026	0.108	0.025
Clusters	746	746	746	746	746	746
Observations	44.312	44,312	44.312	44.312	44.312	44.312

Table A-20: Close PAN Elections and Overall Homicides (DD strategy; 5% vote spread)

	Quadratic	Quadratic vote spread polynomia	olynomial	Linear	Linear vote spread polynomial	ynomial
	Calendar	Municipality	No	Calendar	Calendar Municipality	No
		time trend(s)			time trend(s)	
	(1)	(2)	(3)	(4)	(2)	(9)
$PAN \min x$	-9.437**	-14.058***	-4.807	-8.880**	-13.610***	-4.272
lame duck	(3.992)	(4.213)	(3.575)	(4.115)	(4.359)	(3.699)
$PAN \min x$	48.463***	41.445***	53.983***	45.426**	38.318**	50.945***
post-inaug.	(15.376)	(15.796)	(15.830)	(18.009)	(18.406)	(18.490)
R-squared	0.178	0.235	0.176	0.167	0.229	0.165
Clusters	152	152	152	152	152	152
Observations	39,269	39,269	39,269	39,269	39,269	39,269
Panel B: 2007-2010 elections	7-2010 electio	ns				
PAN win x	-5.948	-8.647	-2.276	-5.914	-8.398	-2.227
lame duck	(5.812)	(5.836)	(5.258)	(5.908)	(5.775)	(5.289)
PAN win x	37.294***	33.527***	41.576***	32.368***	28.919**	36.648***
post-inaug.	(11.419)	(11.259)	(12.324)	(12.112)	(11.835)	(12.881)
R-squared	0.072	0.114	0.071	0.068	0.112	0.067
Clusters	307	307	307	307	307	307
Observations	73,875	73,875	73,875	73,875	73,875	73,875

Table A-21: Close PAN Elections and Overall Homicides (DD strategy; 4% vote spread)

	Quadratic Calendar	Quadratic vote spread polynomia.	oolynomial No	Linear Calendar	Linear vote spread polynomial	lynomial No
		time $trend(s)$			time $trend(s)$	
	(1)	(2)	(3)	(4)	(2)	(9)
PAN win x	-6.489**	-9.079***	-0.247	-6.002*	-7.578**	0.251
lame duck	(3.234)	(2.685)	(3.109)	(3.373)	(3.041)	(3.272)
$PAN \min x$	53.830***	48.647***	61.020***	49.333**	44.441**	56.573***
post-inaug.	(14.621)	(15.404)	(15.041)	(20.426)	(20.793)	(20.817)
R-squared	0.222	0.273	0.220	0.201	0.262	0.198
Clusters	123	123	123	123	123	123
Observations	31,773	31,773	31,773	31,773	31,773	31,773
	,					
Panel B: 2007-2010 elections	7-2010 electio	us				
PAN min x	-5.738	-8.013	-1.428	-5.990	-8.388*	-1.680
lame duck	(5.293)	(5.175)	(5.037)	(5.178)	(5.011)	(4.914)
$PAN \min x$	35.409***	32.132***	40.431***	30.298**	27.320**	35.316***
post-inaug.	(10.123)	(10.595)	(11.218)	(11.747)	(12.309)	(12.691)
R-squared	0.089	0.130	0.087	0.080	0.124	0.079
Clusters	249	249	249	249	249	249
Observations	59,809	59,809	59,809	59,809	59,809	59,809

Table A-22: Close PAN Elections and Overall Homicides (DD strategy; 3% vote spread)

	Quadratic	Quadratic vote spread polynomial	oolynomial	Linear	Linear vote spread polynomial	ynomial
	Calendar	Municipality	$N_{\rm o}$	Calendar	Municipality	$N_{\rm O}$
		time trend(s)			time trend(s)	
	(1)	(2)	(3)	(4)	(5)	(9)
PAN win x	-6.835**	-8.650***	0.010	-6.377**	-6.793**	0.498
lame duck	(3.174)	(2.592)	(3.489)	(3.167)	(2.855)	(3.383)
PAN win x	57.304***	53.231***	65.274***	50.182**	$46.527^{**}$	58.230***
post-inaug.	(14.212)	(15.044)	(14.540)	(21.524)	(22.163)	(21.965)
R-squared	0.251	0.300	0.248	0.225	0.287	0.222
Clusters	94	94	94	94	94	94
Observations	24,287	24,287	24,287	24,287	24,287	24,287
Panel B: 2007-2010 elections	7-2010 electio	271.5				
PAN win x	-3.055	-5.079	1.863	-3.208	-4.922	1.731
lame duck	(5.354)	(4.730)	(5.309)	(5.344)	(4.695)	(5.293)
$PAN \min x$	37.070***	33.725***	42.597***	33.486***	$30.512^{**}$	39.035***
post-inaug.	(9.057)	(10.043)	(10.142)	(12.046)	(13.147)	(12.884)
R-squared	0.110	0.153	0.108	0.100	0.147	0.097
Clusters	186	186	186	186	186	186
Observations	44,337	44,337	44,337	44,337	44,337	44,337

Table A-23: Close PAN Elections and Overall Homicides (DD strategy; 2% vote spread)

	Quadratic	Quadratic vote spread polynomia	olynomial	Linear	Linear vote spread polynomial	ynomial
	Calendar	Municipality	$N_{\rm o}$	Calendar	Calendar Municipality	$N_{\rm O}$
		time trend(s)			time trend(s)	
	(1)	(2)	(3)	(4)	(5)	(9)
PAN win x	-8.361*	-7.806	-1.053	-9.827**	-8.574	-2.597
lame duck	(4.809)	(6.089)	(5.492)	(3.804)	(6.182)	(4.428)
$PAN \min x$	73.958***	72.483***	83.504***	75.102***	73.956***	84.659***
post-inaug.	(15.766)	(15.425)	(15.613)	(17.163)	(17.102)	(16.919)
R-squared	0.342	0.394	0.338	0.342	0.394	0.338
Clusters	62	62	62	62	62	62
Observations	16,022	16,022	16,022	16,022	16,022	16,022
Panel B: 2007-2010 elections	$^{\prime}$ -2010 electio					
$PAN \min x$	-19.603***	-17.354***	-13.408**	-19.280**	-17.239**	-13.088*
lame duck	(6.879)	(6.217)	(6.599)	(7.985)	(8.041)	(7.721)
$PAN \min x$	27.907**	29.123**	35.356***	27.354*	28.422*	34.802**
post-inaug.	(13.194)	(13.414)	(12.948)	(14.920)	(15.790)	(14.718)
R-squared	0.157	0.203	0.153	0.156	0.202	0.152
Clusters	130	130	130	130	130	130
Observations	30,997	30,997	30,997	30,997	30,997	30,997

Table A-24: Close PAN Elections and Overall Homicides (DD strategy; 13.3% vote spread)

	Quadratic	Quadratic vote spread polynomial	olynomial	Linear	Linear vote spread polynomial	ynomial
	Calendar		$N_{\rm O}$	Calendar	Calendar Municipality	$N_{\rm O}$
		time trend(s)			time trend(s)	
	(1)	(2)	(3)	(4)	(2)	(9)
PAN win x	-6.633*	-8.904**	-3.021	-6.556*	-9.019**	-2.944
lame duck	(3.788)	(3.857)	(3.095)	(3.729)	(3.875)	(3.060)
PAN win x	38.091***	33.937***	42.530***	38.525***	$34.262^{**}$	42.961***
post-inaug.	(12.821)	(13.028)	(13.477)	(14.080)	(14.026)	(14.790)
R-squared	0.128	0.187	0.127	0.124	0.185	0.123
Clusters	380	380	380	380	380	380
Observations	98,179	98,179	98,179	98,179	98,179	98,179
Panel B: 2007-2010 elections	7-2010 electia	2ns				
PAN win x	-1.024	-3.555	1.429	-1.298	-3.859	1.152
lame duck	(4.232)	(4.634)	(3.874)	(4.163)	(4.619)	(3.848)
PAN win x	24.537**	21.508**	27.357***	23.302**	20.458**	26.117**
post-inaug.	(9.642)	(9.488)	(10.566)	(10.316)	(10.083)	(11.239)
R-squared	0.047	0.089	0.046	0.044	0.087	0.043
Clusters	746	746	746	746	746	746
Observations	182.104	182.104	182.104	182.104	182.104	182.104

A-2.4 Police-Criminal Confrontations	
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Table A-25: Close PAN Elections and Deaths in Police-Criminal Confrontations

		Ŭ	Confrontation Probability	1 Probabili	ity				Confrontat	Confrontation Deaths		
	Quadra	Quadratic RD Polynomial	olynomial	Linear	Linear RD Polynomial	nomial	Quadrati	Quadratic RD Polynomia	ynomial	Linear I	Linear RD Polynomial	omial
	Post inaug.	Lame duck	Pre election	Post inaug.	Lame duck	Pre election	Post inaug.	Lame duck	Pre election	Post inaug.	Lame duck	Pre election
Panel A: BPAN win	2007-2008 0.031 (0.058)	Panel A: 2007-2008 Elections PAN win 0.031 0.014 (0.058) (0.010)	-0.002 (0.029)	0.035	-0.002	0.015 (0.026)	8.658**	0.805 (1.388)	0.181 (4.332)	23.454*** (8.559)	3.636 (2.983)	4.040 (6.613)
Obs. $R^2$	$\frac{152}{0.037}$	$152 \\ 0.051$	$\frac{152}{0.020}$	$152 \\ 0.021$	$\frac{152}{0.031}$	$152 \\ 0.016$	$152 \\ 0.360$	$152 \\ 0.331$	$152 \\ 0.209$	$152 \\ 0.222$	$\frac{152}{0.212}$	$\frac{152}{0.124}$
Panel B: $\S$ PAN win	2007-2010 0.002 (0.033)	Panel B: 2007-2010 Elections PAN win 0.002 -0.007 (0.033) (0.019)	0.001 $0.001$	0.025 $(0.021)$	0.017 (0.016)	0.015 $(0.016)$	15.261** (7.537)	-0.104 $(0.160)$	0.007	26.770* (14.120)	0.453* $(0.263)$	0.649 $(0.549)$
Clusters Obs. $R^2$	307 310 0.036	307 310 0.010	307 310 0.011	307 310 0.016	307 310 0.005	307 310 0.008	307 310 0.231	307 310 0.100	307 310 0.072	307 310 0.200	307 310 0.047	307 310 0.038

Notes: The dependent variable is deaths in police-criminal confrontations. PAN win is an indicator equal to one if a PAN candidate won the election, and the sample includes elections in which the PAN was first or second by a 5 percentage point or less vote spread margin. Columns (1) through (3) and (7) through (9) include a quadratic RD polynomial estimated separately on either side of the PAN win-loss threshold. Columns (4) through (6) and (10) through (12) include a linear RD polynomial estimated separately on either side of the threshold. \*\* significant at 10%, \*\*\* significant at 5%, \*\*\* significant at 1%.

A-2.5	Robustness	of Heteroger	neity Results
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Table A-26: Heterogeneity (5% bandwidth)

			4		0			
		2007-2008	2007-2008 elections			2007-2010 elections	elections	
	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)
PAN win	32.981*** (9.346)	37.699***	37.333*** (9.752)	-2.344	26.735***	32.594***	30.333***	-0.781
PAN win x far from U.S.		-49.364*** (12.674)				-34.487*** $(11.231)$		
AN win x			-51.267***				-38.262***	
AN win x			(11.024)	0.331			(601.6)	1.000
local gang				(14.867)				(9.978)
PAN win x				33.747***				33.680**
rival				(10.827)				(16.747)
$AN \min x$				11.522				4.900
ally				(10.992)				(9.405)
R-squared	0.326	0.433	0.443	0.504	0.102	0.201	0.216	0.220
Clusters	152	152	152	152	307	307	307	307
Observations	152	152	152	152	310	310	310	310
AN win effect		-11.670				-1.892		
(far from US)		(8.924)				(4.566)		
AN win effect			-13.930**				-7.928*	
(low violence)			(6.140)				(4.259)	
AN win effect				-2.013				0.219
(local gang)				(14.310)				(5.736)
AN win effect				31.400***				32.900**
(rival)				(10.050)				(14.620)
PAN win effect				9.178				4.119
(allv)				(10.990)				(4,660)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and borders territory controlled by a rival distance from the U.S., low violence is an indicator equal to 1 if the municipality had a below median homicide rate during 2004-2006, local gang is an indicator DTO, and ally is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns limit the sample to municipalities where a PAN candidate was the winner or runner-up by less than a five percentage point vote spread margin and include a linear RD polynomial Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors, clustered by municipality, are in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-27: Heterogeneity (4% bandwidth)

	(1)	(2)	$(3)$ $Dev \ \iota$	(4) yar: Drug-relo	(4) (5) (5) Dep var: Drug-related homicide rate	(6) rate	(7)	(8)
		$2007\text{-}2008\ sample$	$8 \ sample$	,		$2007 ext{-}2010\ sample$	$\theta$ sample	
PAN win	36.423*** (8.969)	43.631*** (7.710)	43.031*** (9.187)	-5.666 (5.176)	22.540*** (8.009)	26.106*** (9.068)	23.836*** (7.502)	-1.974 (9.517)
PAN win x far from U.S.		-53.324*** (12.090)				$-30.772^{***}$ (10.673)		
PAN win x			-59.589*** (11.22E)				-34.939***	
PAN win x			(000:11)	9.405			(0.047)	2.972
local gang				(14.139)				(11.099)
riva.				(10.418)				(15.344)
PAN win x				21.861**				7.098
ally				(8.341)				(10.815)
R-squared	0.392	0.504	0.499	0.587	0.203	0.269	0.308	0.322
Observations	123	123	123	123	251	251	251	251
PAN win effect		-9.693				-4.666		
(Iar Irom US) PAN win effect		(9.312)	-16.560**			(5.029)	-11 10**	
(low violence)			(6.639)				(4.290)	
PAN win effect			,	3.738			,	0.997
(local gang)				(13.160)				(5.713)
PAN win effect				32.840***				18.00
(rival)				(9.041)				(12.04)
PAN win effect				16.190**				5.123
(ally)				(6.541)				(5.139)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors are clustered by municipality. \* significant at 10%, \*\* significant at 15%, \*\*\* significant at 1%. distance from the U.S., low violence is an indicator equal to 1 if the municipality had a below median homicide rate during 2004-2006, local gang is an indicator Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median

Table A-28: Heterogeneity (3% bandwidth)

	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)
		2007-200	Dep v 2007-2008 sample	Dep var: Drug-related homicide rate le	ted homicide	$rate 2007-2010 \ sample$	heta $sample$	
PAN win	38.064*** (8.587)	43.333*** (7.603)	45.302*** (9.429)	-6.287 (6.072)	24.392*** (7.851)	26.675*** (9.634)	24.302*** (6.978)	-2.064 (10.529)
PAN win x far from U.S.		-52.538*** (12.854)				-27.999** (10.992)		
PAN win x		(-))	-62.145***				-34.104***	
low violence			(11.631)				(8.230)	
PAN win x				11.489				2.932
local gang				(13.437)				(12.005)
PAN win x				43.227***				22.253
rival				(10.780)				(16.695)
PAN win x				22.037**				14.141
ally				(9.044)				(11.810)
R-squared	0.414	0.524	0.523	0.612	0.162	0.238	0.277	0.291
Observations	94	94	94	94	186	186	186	186
PAN win effect		-9.206				-1.324		
(far from US)		(10.360)				(5.292)		
PAN win effect			-16.840**				-9.802**	
(low violence)			(6.810)				(4.365)	
PAN win effect				5.203				0.868
(local gang)				(11.990)				(5.768)
PAN win effect				36.940***				20.19
(rival)				(8.907)				(12.96)
PAN win effect				15.75**				12.08**
(allv)				(6.702)				(5.351)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors are Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median homicide rate during 2004-2006, local gang is an indicator clustered by municipality. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-29: Heterogeneity (2% bandwidth)

(8)		-16.849 (10.499) 9.362 (13.192) 45.104*** (14.824) 31.971** (13.610)	0.311 130 -7.487 (7.987) 28.25*** (10.47) 15.12* (8.661)
30		9.5 (10. (13. (13. (13. (13.	0.3 11 13 7.7.5 28.2 28.2 (10 15.8.6 (8.6
(7)	2007-2010 sample	16.788* (9.411) -23.494** (10.567)	0.232 130 -6.705 (4.806)
(9)	2007-201	18.520*** (6.453) -14.475 (9.007)	0.221 130 4.045 (6.284)
(5)		(6.015)	0.125
(4) (5) (5)		-0.535 (5.435) 26.902 (25.339) 49.399*** (16.378) 25.980*** (7.390)	0.663 62 62 26.370 (24.750) 48.860*** (15.450) 25.450*** (5.008)
(3) Den 1	sample sample	36.860** (15.046) -46.786*** (16.454)	0.558 62 -9.926 (6.661)
(2)	2007-2008 sample	62.914*** (9.889) -70.701*** (19.085)	0.542 $62$ $-7.788$ $(16.320)$
(1)		47.111*** (10.817)	0.349
		PAN win x far from U.S. PAN win x low violence PAN win x local gang PAN win x rival PAN win x ally	R-squared Observations PAN win effect (far from US) PAN win effect (low violence) PAN win effect (local gang) PAN win effect (rival) PAN win effect (rival) PAN win effect (rival)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors are clustered by municipality. \* significant at 10%, \*\* significant at 15%, \*\*\* significant at 1%. distance from the U.S., low violence is an indicator equal to 1 if the municipality had a below median homicide rate during 2004-2006, local gang is an indicator Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median

Table A-30: Heterogeneity (13% bandwidth)

(8)		-1.914 (4.817) 3.113 (6.083) 20.675* (10.954) 5.565 (5.905)	764 0.191 1.199 (3.715) 18.76** (9.838) 3.652 (3.416)
(7)	) sample	18.495** (8.038) (8.038) (8.601) (6.601)	764 0.166 -4.167 (3.062)
(6)	2007-2010 sample	16.849** (8.130) -17.739** (8.673)	764 0.145 -0.890 (3.020)
(5) bomicide		15.580** (7.100)	764 0.080
3) (4) (5) (Denominate nate to the nate of	Fig. 7	-0.196 (2.251) -6.559 (9.654) 29.027** (11.311) 7.817 (6.854)	380 0.365 -6.755 (9.388) 28.83*** (11.08) 7.622 (6.474)
(3) $Den nar$	sample	30.306*** (8.886) -36.721*** (10.478)	380 0.302 -6.415 (5.552)
(2)	2007-2008 sample	30.701*** (9.108) -36.108*** (10.792)	380 0.289 -5.408 (5.789)
(1)		25.621*** (8.484)	380
		PAN win x far from U.S. PAN win x low violence PAN win x local gang PAN win x rival PAN win x ally	Observations R-squared PAN win effect (far from US) PAN win effect (low violence) PAN win effect (local gang) PAN win effect (rival) PAN win effect (rival) PAN win effect (rival)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors are clustered by municipality. \* significant at 10%, \*\* significant at 15%, \*\*\* significant at 1%. distance from the U.S., low violence is an indicator equal to 1 if the municipality had a below median homicide rate during 2004-2006, local gang is an indicator Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median

Table A-31: Heterogeneity (overall homicides, 5% bandwidth)

	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)
		2007-2008	De 2007-2008 elections	:p var: Overa	Dep var: Overall homicide rate		2007-2010 elections	
PAN win	56.630***	66.235***	59.683***	-8.798	44.820***	54.553***	46.371***	-3.656
PAN win x far from U.S.		-84.627*** (16.106)				-58.341*** $(14.732)$		
$PAN \min x$			-71.613***				-49.256***	
low violence			(14.238)				(12.985)	
PAN win x				8.137				1.838
borders local gang				(17.539)				(7.406)
PAN win x				73.191***				56.724***
borders rival				(14.488)				(17.764)
PAN win x				16.045				18.612**
borders ally				(18.960)				(8.874)
R-squared	0.396	0.521	0.536	0.593	0.237	0.360	0.419	0.412
Observations	152	152	152	152	310	310	310	310
PAN win effect		-18.39				-3.787		
(far from US)		(11.10)				(7.421)		
PAN win effect			-11.930*				-2.885	
(low violence)			(7.156)				(5.796)	
PAN win effect				-0.661				-1.818
(borders local gang)				(16.65)				(5.435)
PAN win effect				64.39***				53.07***
(borders rival)				(13.40)				(17.04)
PAN win effect				7.247				14.96**
(borders ally)				(18.140)				(7.311)

Table A-32: Heterogeneity (overall homicides, 4% bandwidth)

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
			$D\epsilon$	p var: Overa	Dep var: Overall homicide rate	te		
		2007-2008 elections					2007-2010 elections	
PAN win	62.219***	73.706***	68.397***	-10.449	41.830***	50.865***	42.132***	-5.963
	(11.444)	(8.838)	(10.357)	(8.978)	(12.027)	(12.344)	(10.954)	(6.135)
$PAN \min x$		-86.308***				-58.565***		
far from U.S.		(13.098)				(15.181)		
$PAN \min x$			-84.534***				-52.656***	
low violence			(12.926)				(12.458)	
$PAN \min x$				14.898				4.629
local gang				(17.122)				(8.135)
PAN win x				70.733***				$39.302^{**}$
borders rival				(11.601)				(17.728)
$PAN \min x$				35.434***				27.689***
borders ally				(12.708)				(8.589)
Observations	123	123	123	123	251	251	251	251
R-squared	0.491	0.625	0.625	0.708	0.341	0.448	0.515	0.573
PAN win effect		-12.60				-7.700		
(far from US)		(999.6)				(8.836)		
PAN win effect			-16.14**				-10.52*	
(low violence)			(7.735)				(5.936)	
PAN win effect				4.449				-1.334
(local gang)				(15.64)				(5.342)
PAN win effect				60.28				33.34**
(borders rival)				(9.268)				(16.63)
PAN win effect				24.99**				21.73***
(borders ally)				(10.62)				(6.011)

Table A-33: Heterogeneity (overall homicides, 3% bandwidth)

- PAN win		( <u>_</u> )	<u>(</u> )	( <del>†</del> )	(c)	(o)	$\subseteq$	(o)
			De	p var: Overa	Dep var: Overall homicide rate	te		
		2007 - 2008 elections					2007- $2010$ elections	
	63.787***	73.082***	72.177***	-9.727	42.184***	49.743***	38.528***	-4.302
DAM with a	(10.731)	(0.034) 0/ 991***	(10.949)	(0.539)	(11.041)	(17:941) 77 744**	(0.0011)	(0.130)
fall will x far from U.S.		(13.801)				(16.251)		
$PAN \min x$		,	-88.859**				-50.016***	
low violence			(13.198)				(12.954)	
PAN win x				13.886				-0.710
local gang				(16.519)				(8.705)
PAN win x				74.466***				$39.961^{**}$
(borders rival)				(12.398)				(18.960)
PAN win x				36.957***				31.599***
borders ally				(13.382)				(8.882)
Observations	94	94	94	94	186	186	186	186
R-squared	0.505	0.640	0.638	0.721	0.325	0.449	0.506	0.567
PAN win effect		-11.15				-7.801		
(far from US)		(10.72)				(9.848)		
PAN win effect			-16.68**				-11.49*	
(low violence)			(7.939)				(6.179)	
PAN win effect				4.159				-5.011
(local gang)				(14.28)				(6.116)
PAN win effect				64.74***				35.66**
(borders rival)				(9.213)				(17.92)
PAN win effect				27.23***				27.30***
(borders ally)				(10.50)				(6.365)

Table A-34: Heterogeneity (overall homicides, 2% bandwidth)

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
			7	var: Overall	Dep var: Overall homicide rate			
		2007-2008 elections				2007-2010 elections	elections	
PAN win	75.771***	96.269***	72.528***	8.121	32.247***	39.775***	25.745	-16.421
	(14.434)	(12.337)	(21.121)	(10.202)	(11.685)	(10.970)	(15.891)	(12.704)
$PAN \min x$		-98.543***				-45.118***		
far from U.S.		(21.964)				(16.766)		
$PAN \min x$			-80.222***				-30.323*	
low violence			(22.263)				(17.450)	
$PAN \min x$				31.688				21.240
local gang				(32.210)				(16.391)
$PAN \min x$				71.176***				50.482**
borders rival				(18.826)				(21.573)
$PAN \min x$				36.708**				39.946***
borders ally				(14.588)				(15.055)
Observations	62	62	62	62	130	130	130	130
R-squared	0.428	0.641	0.644	0.757	0.269	0.430	0.465	0.582
PAN win effect		-2.273				-5.344		
(far from US)		(18.17)				(12.68)		
PAN win effect			-7.694				-4.577	
(low violence)			(7.039)				(7.209)	
PAN win effect				39.81				4.820
(local gang)				(30.55)				(10.36)
PAN win effect				79.30***				34.06**
(borders rival)				(15.82)				(17.44)
PAN win effect				44.83***				23.53***
(borders ally)				(10.43)				(8.079)

Table A-35: Heterogeneity (overall homicides, 13.3% bandwidth)

	(1)	(5)	(3)	(4)	(5)	(9)	(7)	(8)
			7	ep var: Over	Dep var: Overall homicide rate			
		2007-2008	2007-2008 elections			2007-2010	2007-2010 elections	
	De	Dep var: Overall homicide rate	ll homicide r	xte	De	p var: Overa	Dep var: Overall homicide rate	ate
PAN win PAN win x far from II S	44.551*** (11.967)	53.398*** (12.223) -59.568*** (13.565)	50.809***	-7.332* (4.139)	29.642*** (10.913)	35.266*** (11.489) -36.590***	33.976*** (10.643)	-4.248 (3.401)
PAN win x low violence			-56.665*** (12.876)				-36.536** $(11.563)$	
win x				-1.677			,	3.859
gang				(12.021)				(5.596)
$PAN \min x$				80.679***				42.509***
borders rival				(14.663)				(13.802)
win x				21.912**				19.623***
borders ally				(11.029)				(6.379)
Observations	380	380	380	380	764	764	764	764
R-squared	0.270	0.389	0.435	0.481	0.165	0.256	0.328	0.326
win effect		-6.170				-1.324		
(far from US)		(5.883)				(4.833)		
PAN win effect			-5.856				-2.561	
violence)			(6.124)				(4.520)	
win effect				-9.010				-0.389
(local gang)				(11.29)				(4.443)
win effect				53.35***				38.26***
(borders rival)				(14.07)				(13.38)
PAN win effect				14.58				15.38***
(borders ally)				(10.22)				(5.397)

equal to one if the municipality contains only a local gang, rival is an indicator equal to one if it contains a major DTO and borders territory controlled by a rival DTO, and ally is an indicator equal to one if it contains a major DTO and does not border territory controlled by a rival DTO. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. In addition to the interactions, main effects are also included. Standard errors are clustered by municipality. \* significant at 10%, \*\* significant at 15%, \*\*\* significant at 1%. distance from the U.S., low violence is an indicator equal to 1 if the municipality had a below median homicide rate during 2004-2006, local gang is an indicator Notes: PAN win is an indicator equal to one if a PAN candidate won the election, far from U.S. is an indicator equal to 1 if the municipality is above median

A-2.6	Robustness of Results on Local Politics and Violence

Table A-36: Local Politics and Drug-Related Homicides (5% Bandwdith)

		Depende	Dependent variable: drug-related homicide rate	e: drug-re	lated hom	nicide rate						
		20	2007-2008 elections	lections				20	2007-2010 elections	elections		
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
PAN win	32.981***	30.134***				34.038*** (11.173)	26.735***	33.336***				24.123***
PAN win x PAN inclumb		-32.965*** (9.704)						-32.812*** (10.999)				
Alter (PAN)			8.147 (6.313)						2.996 (6.041)			
PRI win				11.523						1.693 (13.092)		
Alter (PRI/PRD)				(000:01)	4.419						-2.795	
PAN win x PAN gov.					6.5	3.617 (15.494)						0.415 $(17.342)$
Clusters	152	152	152	142	142	152	307	307	307	181	181	307
Observations R-squared	0.326	0.470	0.104	0.038	0.039	0.342	0.102	0.255	0.187	0.089	0.096	0.119
PAN win effect		-2.831						0.524				
(PAN incumb.) PAN win effect		(5.370)				***099 28		(4.993)				24.540
(PAN gov.)						(10.730)						(16.070)
		, ,	1		-				1			

during the previous term, PAN governor is an indicator equal to 1 if the state has a PAN governor, PRI win is an indicator equal to 1 if the PRI won the election, and alter is a dummy equal one if the party controlling the mayorship changed. Columns (1) - (3), (6) - (9), and (12) limit the sample to municipalities where a threshold. In columns (2), (6), (8), and (12), main effects are also included. Standard errors, clustered by municipality, are in parentheses. \* significant at 10%, PAN candidate was the winner or runner-up by less than a five percentage point vote spread margin; and columns (4), (5), (10), and (11) limit the sample to municipalities with a close election between PRI and PRD candidates. All columns include a linear RD polynomial estimated separately on either side of the Notes: PAN win is an indicator equal to one if a PAN candidate won the election, PAN incumbent is an indicator equal to 1 if the PAN held the mayorship significant at 5%, \*\*\* significant at 1%.

Table A-37: Local Politics and Drug-Related Homicides (4% Bandwdith)

			I	Dependent	variable:	Dependent variable: drug-related homicide rate	nomicide rate					
		2.	2007-2008 elections	lections					2007-2010 elections	lections		
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
PAN win	36.423***	32.789***				36.208***	22.540*** (8.009)	22.382*** (7.429)				19.403*** (4.842)
PAN win x		-34.597***						-21.279**				
PAN incumb. Alter (PAN)		(8.380)	8.687					(9.181)	10.157**			
PRI win				15.729 (10.347)						18.913		
Alter (PRI/PRD)					2.396						1.049 (4.852)	
PAN win x PAN gov.						31.377* (18.741)						-0.538 $(20.765)$
Observations R-squared	$123 \\ 0.392$	$123 \\ 0.523$	$123 \\ 0.155$	116	116	$123 \\ 0.410$	$251 \\ 0.203$	$251 \\ 0.282$	$251 \\ 0.170$	$147 \\ 0.053$	147 0.003	$251 \\ 0.227$
PAN win effect (PAN incumb.)		-1.808 (2.832)						1.103 $(5.394)$				
PAN win effect						67.580***		,				18.870
(PAN gov.)						(15.640)						(20.190)
NT 4 - DAN - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	11: 4	1:	DAM	1: 1-4-	.11.	. 14 4 11	1	1: + 1:	7 0 - 7 -	L DANT	1.1 ±1.	

Table A-38: Local Politics and Drug-Related Homicides (3% Bandwdith)

		(12)	20.684*** (4.763)					1.625 $(21.532)$	186 0.196		22.310	(21.000)	vorshin
		(11)					3.002 (4.830)		$\frac{116}{0.014}$				ld the ma
	lections	(10)				19.929 $(14.989)$			$\frac{116}{0.053}$				he PAN he
	2007-2010 elections	(6)			10.193** $(4.639)$				$\frac{186}{0.147}$				113 to 1 if t
		(8)	22.590*** (7.352)	-18.065* (9.301)					$186 \\ 0.244$	4.525 $(5.698)$			indicator eq
omicide rate		(7)	24.392*** (7.851)						$\frac{186}{0.162}$				us si thent is an
Dependent variable: drug-related homicide rate		(9)	36.967*** (10.135)					31.166 (18.793)	$94 \\ 0.424$		68.130***	(15.830)	ction DAN inc
variable:		(5)					3.406 (3.948)		92 0.028				on the ele
Dependent	lections	(4)				13.467 (13.211)			92 0.086				ndidate w
I	2007-2008 elections	(3)			9.565 $(6.895)$	•			94 0.149				PAN
	2	(2)	33.036*** (8.252)	-34.499*** $(8.817)$					$94 \\ 0.537$	-1.463 (3.107)	,		i and to one i
		(1)	38.064*** (8.587)						$94 \\ 0.414$				in indicator e
			PAN win	PAN win x $PAN incumb.$	Alter (PAN)	PRI win	Alter (PRI/PRD)	PAN win x PAN gov.	Observations R-squared	PAN win effect (PAN incumb.)	PAN win effect	(PAN gov.)	<b>Notes:</b> PAN win is an indicator equal to one if a PAN candidate won the election PAN incumbent is an indicator equal to 1 if the PAN held the mayorship

Table A-39: Local Politics and Drug-Related Homicides (2% Bandwdith)

icide rate	2007-2010 elections	(7) (8) (9) (10) (11) (12)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10.104*** (3.747)	37.953 (23.165)	5.272 (5.961)	-15.975 (26.105)		$9.125 \\ (10.010) \\ 1.987 \\ (25.100)$
Dependent variable: drug-related homicide rate	tions	(4) (5)	49.828*** (11.089)		20.407 (21.406)	5.782 $(5.602)$	58.136 (52.287)	61 61 62 0.116 0.040 0.401	108.000**
Dep	2007-2008 elections	(2) (3)	(13.285) -48.438*** (15.258)	8.199 (11.059)	(2, 2)	,		62 62 0.529 0.218 (	-2.901 (7.504)
		(1)	47.111*** 44 (10.817) -4 ()					$62 \\ 0.349$	
			PAN win PAN win x PAN incumb.	Alter (PAN)	PRI win	Alter (PRI/PRD)	PAN win x PAN gov.	Observations R-squared	PAN win effect (PAN incumb.) PAN win effect (PAN win effect (PAN gray.)

Table A-40: Local Politics and Drug-Related Homicides (13.3% Bandwdith)

2007-200	007-200	08 e	Dependent v. 2007-2008 elections	ariable: d	Dependent variable: drug-related homicide rate 38 elections	omicide rate	64	2007-2010 elections	elections		
(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
25.621*** (8.484)	23.614*** (7.872)				28.131** (11.573)	15.580** (7.100)	16.280** (7.999)				14.132** (5.945)
	-20.390**						-15.939*				
	(8.201)	6.226					(8.478)	1.966			
		(5.897)	0					(4.649)	7		
			(6.461)						(8.680)		
				-0.103 (3.514)						-6.476 (6.558)	
					-2.449 $(14.720)$						0.260 $(13.237)$
380	380	380	308	308	380	764	764	764	423	423	764
<del>1</del>	767.0	0.020	0.020	0.020	0.213	0.000	0.101	0.023	0.00	0.041	0.004
	3.224 $(2.301)$						0.341 $(2.794)$				
					25.680***						14.390
					(9.097)						(11.830)

Table A-41: Local Politics and Overall Homicides (5% Bandwdith)

			D	ependent	variable:	Dependent variable: drug-related homicide rate	omicide rate					
		20	2007-2008 elections	lections				2(	2007-2010 elections	elections		
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
PAN win	56.630***	60.482***				54.009*** (16.849)	44.820***	48.163*** (12.096)				35.723*** (11.052)
PAN win x		-66.399***						-35.106***				
PAN incumb. Alter (PAN)		(14.555)	15.459					(13.335)	8.151			
PRI win			(9.431)	11 022					(8.311)	0.070		
T TOT MITT				(11.069)						(12.198)		
Alter (PRI/PRD)					4.611 $(4.626)$						0.168 $(5.845)$	
PAN win x PAN gov.						13.028 $(23.868)$						23.645 $(24.192)$
Observations	152	152	152	142	142	152	310	310	310	183	183	310
K-squared	0.396	0.535	0.167	0.033	0.016	0.407	0.237	0.401	0.202	0.032	0.043	0.262
PAN win effect (PAN incumb.)		-5.918 (9.661)						13.060** (5.615)				
PAN win effect		,				67.040***		,				59.370
(PAN gov.)						(16.910)						(21.520)

Table A-42: Local Politics and Overall Homicides (4% Bandwdith)

		(12)	33.253*** (10.035)					20.409 (26.612)	$251 \\ 0.370$	53.660** (24.650)
		(11)					2.942 (5.356)		$\frac{147}{0.020}$	
	lections	(10)				16.324 (11.589)			$\begin{array}{c} 147 \\ 0.056 \end{array}$	
	2007-2010 elections	(6)			13.929* (7.751)				$251 \\ 0.242$	
	2	(8)	39.053*** (11.061)	$-25.380^{+1}$ $(12.536)$					$251 \\ 0.456$	13.670** (5.900)
micide rate		(7)	41.830*** (12.027)						$251 \\ 0.341$	
Dependent variable: drug-related homicide rate		(9)	58.842*** (14.619)					51.309* (28.299)	$\begin{array}{c} 123 \\ 0.514 \end{array}$	110.200*** (24.230)
variable: c		(5)					2.195 (5.120)		$\frac{116}{0.021}$	
ependent	lections	(4)				14.721 (11.353)			116	
Q	2007-2008 elections	(3)			18.822** (9.277)				$123 \\ 0.217$	
		(2)	62.176*** (9.870)	-64.698 mm (11.624)					$123 \\ 0.612$	-2.522 (6.141)
		(1)	62.219*** (11.444)						$123 \\ 0.491$	
			PAN win	PAIN win x PAN incumb.	Alter (PAN)	PRI win	Alter (PRI/PRD)	PAN win x PAN gov.	Observations R-squared	PAN win effect (PAN incumb.) PAN win effect (PAN gov.)

Table A-43: Local Politics and Overall Homicides (3% Bandwdith)

		(12)	34.289*** (10.218)				24.475 $(27.341)$	$\frac{186}{0.370}$	58.760** (25.360)
		(11)				5.525 $(5.157)$		$\frac{116}{0.031}$	
	lections	(10)			16.570 (14.910)			$\begin{array}{c} 116 \\ 0.054 \end{array}$	
	2007-2010 elections	(6)		13.468* (7.698)				$\frac{186}{0.250}$	
	2	(8)	38.620*** (11.030) -24.135* (12.663)					186 0.440	14.480** (6.220)
nicide rate		(7)	42.184*** (11.541)					$\frac{186}{0.325}$	
Dependent variable: drug-related homicide rate		(9)	60.846*** (14.205)				49.664* (28.316)	$94 \\ 0.525$	110.500*** (24.500)
variable: c		(5)				4.147 $(5.200)$		$92 \\ 0.029$	
ependent	lections	(4)			10.639 (14.420)			$92 \\ 0.082$	
Q	2007-2008 elections	(3)		20.314** (9.804)				$94 \\ 0.222$	
		(2)	62.869*** (10.277) -76.492*** (13.065)					94 0.617	-13.620* (8.066)
		(1)	63.787*** (10.791)					$94 \\ 0.505$	
			PAN win PAN win x PAN incumb.	Alter (PAN)	PRI win	Alter (PRI/PRD)	PAN win x PAN gov.	Observations R-squared	PAN win effect (PAN incumb.) PAN win effect (PAN gov.)

Table A-44: Local Politics and Overall Homicides (2% Bandwdith)

		(12)	38.182*** (12.392)				-17.389 (30.307)	$130 \\ 0.304$	20.790 (27.660)
		(11)				7.765		78 0.025	
	elections	(10)			34.548			78	
	2007-2010 elections	(6)		13.151**				130 0.400	
		(8)	25.649* (14.457) -10.149	(17.514)				130 0.461	15.500 (9.885)
nicide rate		(7)	32.247*** (11.685)					130 0.269	
Dependent variable: drug-related homicide rate		(9)	83.108*** (13.776)				63.032 $(94.414)$	$62 \\ 0.518$	146.100 (93.400)
ariable: dr		(5)				6.374		$61 \\ 0.028$	
pendent v	ections	(4)			17.005			$61 \\ 0.105$	
De	2007-2008 elections	(3)		20.723 (15.258)				$62 \\ 0.316$	
	20	(2)	76.052*** (17.870) -107.590***	(21.131)				62 0.609	-31.540** (12.380)
		(1)	75.771*** (14.434)					$62 \\ 0.428$	
			PAN win PAN win x	FAIN Incumb. Alter (PAN)	PRI win	Alter (PRI/PRD)	PAN win x PAN gov.	Observations R-squared	PAN win effect (PAN incumb.) PAN win effect (PAN gov.)

Table A-45: Local Politics and Overall Homicides (13.3% Bandwdith)

			Ď	pendent v	ariable: o	Dependent variable: drug-related homicide rate	omicide rate					
		2(	2007-2008 e	elections				20	2007-2010 elections	lections		
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
PAN win	44.551***	44.067***				44.774**	29.642***	29.863***				24.342**
PAN win x PAN incumb.		-35.807*** (11.183)						-21.865* $(11.368)$				
Alter (PAN)			12.353						4.950			
PRI win			(9.040)	6.837					(1.0.44)	7.093		
Alter (PRI/PRD)				(607.1)	-0.304					(65.1.9)	-3.752	
PAN win x PAN gov.					(4.909)	3.274 $(22.402)$					(9.099)	11.455 $(20.187)$
Observations R-squared	380 0.270	380 0.379	380 0.039	$\frac{308}{0.012}$	308	380 0.287	764 $0.165$	$764 \\ 0.285$	$764 \\ 0.035$	$423 \\ 0.016$	423	764 0.173
PAN win effect (PAN incumb.) PAN win effect (PAN gov.)		8.260* (4.294)				48.050*** (14.490)		7.997** (3.827)				35.800** (17.040)

## A-2.7 Corruption and Other Results

Table A-46: Corruption

	(1)	(2)	(3)	(4)	(5)
		I	Bandwidt	h	
	5%	4%	3%	2%	13.3%
Panel A: Means	comparis	son			
PAN win	-0.022	-0.023	0.021	0.054	-0.007
	(0.087)	(0.097)	(0.121)	(0.152)	(0.055)
R-squared	0.001	0.001	0.000	0.003	0.000
Panel B: RD and	alysis				
PAN win	0.091	0.013	-0.034	-0.324	-0.005
	(0.159)	(0.174)	(0.215)	(0.295)	(0.091)
R-squared	0.124	0.164	0.133	0.109	0.027
Observations	102	84	62	44	237
Mean dep. var.	0.245	0.262	0.323	0.409	0.231

Notes: PAN win is an indicator equal to one if a PAN candidate won the election, and the dependent variable is an indicator equal to 1 if official government records document the mayor engaging in corruption in 2008. Close elections from 2007 where the mayor had take office by the beginning of 2008 are included in the sample. Panel B includes a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-47: Violence and Corruption of the Losing Party

	(1)	(2)	(3)	(4)
		Bandy	width	
	5%	5%	13.3%	13.3%
PAN win	81.584*	43.017	37.418*	16.686
	(42.919)	(37.565)	(21.431)	(13.875)
Loser corrupt		12.160		3.582
		(24.946)		(8.288)
PAN win x		109.946**		83.278**
Loser corrupt		(50.657)		(33.414)
Observations	61	61	165	165
R-squared	0.200	0.303	0.099	0.204

Notes: The dependent variable is the homicide rate during the one year following the mayor's inauguration. PAN win is an indicator equal to one if a PAN candidate won the election, and loser corrupt is an indicator equal to 1 if official government records document that the losing party was engaged in corruption during the previous mayor's term, in 2008. The only way to observe this is if the losing party is the incumbent party, so in all municipalities with PAN win= 1, the PAN did not hold the mayorship previously. 2009-2010 close elections where the incumbent party lost form the sample. All columns include a linear RD polynomial estimated separately on either side of the PAN win-loss threshold. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-48: Political Competition and Violence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Drug trad	le-related	Ove	erall	Drug trad	le-related	Ove	erall
		homicid	le rate		h	omicide p	robability	
	07-08	07-10	07-08	07-10	07-08	07-10	07-08	07-10
5% bandwidt	h							
abs(spread)	-1.165**	-0.160	-0.604	-0.338	-0.021*	-0.000	-0.057	0.025
	(0.535)	(1.152)	(0.719)	(0.627)	(0.011)	(0.009)	(0.643)	(0.428)
4% bandwidt	h	,	, ,	,	, ,	,	,	,
abs(spread)	-1.234	-0.864	-1.128	-1.247	-0.036**	-0.008	-0.186	-0.229
	(0.809)	(0.924)	(1.188)	(0.842)	(0.016)	(0.012)	(0.988)	(0.566)
3% bandwidt	h	,	, ,	,	, ,	, ,	, ,	, ,
abs(spread)	-1.008	-0.913	-1.440	-1.216	-0.042*	-0.021	1.472	1.413
, - ,	(0.988)	(1.106)	(1.677)	(1.285)	(0.025)	(0.016)	(2.351)	(1.405)
2% bandwidt	h	,	, ,	,	,	, ,	, ,	,
abs(spread)	0.621	3.290	3.037	2.859	-0.101*	-0.020	-0.458	2.269
, - ,	(3.194)	(2.905)	(2.811)	(2.150)	(0.058)	(0.033)	(2.778)	(2.254)
13.3% bandw	ridth	,	,	,	, ,	, ,	, ,	,
abs(spread)	-0.298*	-0.265	-0.020	-0.158	-0.003	-0.003	-0.059	-0.083
,	(0.172)	(0.251)	(0.202)	(0.155)	(0.002)	(0.002)	(0.189)	(0.110)

Notes: The table reports coefficients from regressing violence measures on the absolute value of the vote spread. Each row considers a different vote spread bandwidth.

A-2.8 Robustness of Spillover Results

Table A-49: The Diversion of Drug Traffic (2007-2010 Elections)

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
	I	Full Sample	le	Lim	Limited Sample	ple	F	Full Sample	е
		Domesti	ic Illicit D	Domestic Illicit Drug Confiscations	ations		Cocain	Cocaine Confiscations	ations
	Dummy	Value	Value	Dummy Value	Value	Value	Dummy	Value	Value
Panel A: Shortest Paths	st Paths								
Predicted	0.008*	0.080		0.007	0.048		-0.001	0.005	
routes dummy	(0.005)	(0.000)		(0.008)	(0.093)		(0.005)	(0.025)	
Predicted			0.018***			0.016		•	0.004
routes count			(0.006)			(0.010)			(0.003)
Panel B: Model with	with Cong	Congestion Costs	sts						
Predicted	0.006*	0.062		0.008	0.093		0.004	0.021	
routes dummy	(0.004)	(0.041)		(0.000)	(0.061)		(0.004)	(0.020)	
Predicted			0.005*			0.007*			0.003
routes count			(0.003)			(0.004)			(0.002)
Municipalities	1,816	1,816	1,816	937	937	937	1,816	1,816	1,816
Observations	88.984	88.984	88.984	45.913	45.913	45.913	88.984	88.984	88.984

Notes: The dependent variable in columns (1), and (4) is an indicator equal to 1 if domestic illicit drug confiscations are made in a given municipality-month; the dependent variable in columns (2), (3), (5), and (6) is the log value of domestic illicit drug confiscations (or 0 if no confiscations are made); the dependent variable that has experienced a close PAN victory from 2007 to 2010. Panel A predicts trafficking routes using the shortest paths model, and Panel B uses the model with in column (7) is an indicator equal to 1 if cocaine confiscations are made in a given municipality-month; and the dependent variable in columns (8) and (9) is the log value of confiscated cocaine (or 0 if no confiscations are made). Columns (4) through (6) limit the sample to municipalities that do not border a municipality congestion costs. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-50: Violence Spillovers (2007-2010 Elections)

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)
			Full Sample	le			Lin	Limited Sample	ıple	,
	Dep. $dummy$	var Dr rate	ug trade-r rate	Dep. var.: Drug trade-related homicide vmy rate rate dummy ra	$vicide \ rate$	Dep. $dummy$	Var.: Dru $rate$	ug trade-r rate	Dep. Var.: Drug trade-related homicide nmy rate rate dummy rat	$iicide \ rate$
Panel A: Shortest Paths	st Paths									
Predicted	0.003	1.833				-0.011	1.215			
routes dummy	(0.005)	(1.368)				(0.00)	(2.058)			
Predicted			0.478**					0.406		
routes count			(0.222)					(0.263)		
One route				-0.001	-3.669				-0.018	0.460
More than				(0.000)	(5.200) $(5.022**$				(0.012)	(1.545) $1.759$
-				- 1					7	
one route				(0.007)	(2.553)				(0.011)	(2.902)
Panel B: Model with Congestion Costs	with Cong	pestion C	osts							
Predicted	0.003	1.278				0.003	0.601			
routes dummy	(0.004)	(0.787)				(0.007)	(1.057)			
Predicted			0.036					0.066		
routes count			(0.045)					(0.076)		
One route				-0.004	0.803				-0.006	0.029
				(900.0)	(1.293)				(0.000)	(0.893)
More than				0.000	1.430				0.007	0.811
one route				(0.005)	(0.976)				(0.007)	(1.199)
Mimicipalities	1 816	1 816	1.816	1.816	1.816	937	937	937	937	937
Manuel Paneres	0,000	2,010	0,000	2,000	2,010	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20. 7	2 2 2	2007	2 2 2
Observations	88,984	88,984	88,984	88,984	88,984	45,913	45,913	45,913	45,913	45,913

Notes: The dependent variable in columns (1), (4), (6) and (9) is an indicator equal to 1 if a drug trade-related homicide occurred in a given municipality-month, and the dependent variable in columns (2), (3), (5), (7), (8), and (10) is the drug trade-related homicide rate per 100,000 municipal inhabitants. Columns (6) through (10) limit the sample to municipalities that do not border a municipality that experienced a close PAN victory between 2007 and 2010. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-51: The Diversion of Drug Traffic (Controlling for PAN mayors)

		Dep. var.: Do	omestic Illic	ep. var.: Domestic Illicit Drug Confiscations	nfiscations		Cocain	Cocaine Confiscations	ations
	Dummy	Value	Value	Dummy	Value	Value	Dummy	Value	Value
	[	Full Sample		Lin	Limited Sample	ole		Full Sample	
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
Panel A: Shortest Paths Predicted 0.016**	st Paths 0.016***	0.170***		0.016**	0.170***		0.004	0.028	
routes dummy Predicted	(0.005)	(0.050)	0.022***	(0.007)	(0.065)	0.015*	(0.004)	(0.020)	0.006
routes count			(0.008)			(0.009)			(0.006)
Panel B: Model with Congestion Costs Predicted 0.013** 0.149***	with Conge $0.013^{**}$	sstion Costs 0.149***		0.011*	0.129**		0.002	0.009	
routes dummy Predicted	(0.005)	(0.057)	0.004	(0.006)	(0.065)	0.003	(0.004)	(0.025)	0.001
routes count			(0.004)			(0.004)			(0.002)
Municipalities	1869	1869	1869	1562	1562	1562	1869	1869	1869
Observations	69153	69153	69153	57,794	57,794	57,794	69153	69153	69153

Notes: The dependent variable in columns (1), and (4) is an indicator equal to 1 if domestic illicit drug confiscations are made in a given municipality-month; the dependent variable in columns (2), (3), (5), and (6) is the log value of domestic illicit drug confiscations (or 0 if no confiscations are made); the dependent variable All columns include month x state and municipality fixed effects, as well as an indicator equal to 1 if the PAN currently controls the mayorship in the municipality. in column (7) is an indicator equal to 1 if cocaine confiscations are made in a given municipality-month; and the dependent variable in columns (8) and (9) is the log value of confiscated cocaine (or 0 if no confiscations are made). Columns (4) through (6) limit the sample to municipalities that do not border a municipality that has experienced a close PAN victory. Panel A predicts trafficking routes using the shortest paths model, and Panel B uses the model with congestion costs. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%

Table A-52: Violence Spillovers (Controlling for PAN mayors)

	Dep	var: drug	g trade-rel	Dep var: drug trade-related homicide	cide	Dep	var: drug	trade-rela	Dep var: drug trade-related homicide	
	dummy	rate	rate	dummy	rate	dummy	rate	rate	dummy	rate
			Full sample	le			Lin	Limited sample	ple	
	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)
Panel A: Shortest Paths Predicted 0.014** routes dummy (0.005 Predicted	st Paths 0.014*** (0.005)	1.175 (1.200)	0.554*			0.006	-0.514 (1.164)	0.460		
routes count One route			(0.307)	0.017**	-6.064			(0.287)	0.014	-5.278
More than one route				0.001)	(9.790) $(4.702)$				(0.010) -0.000 (0.010)	(5.421) $(6.179)$ $(4.493)$
Panel B: Model with Congestion Co Predicted 0.017*** 1.813** routes dummy (0.005) (0.802) Predicted	with Conge 0.017*** (0.005)	stion Cos 1.813** (0.802)	sts -0.007			0.019***	1.834** $(0.934)$	0.001		
routes count One route			(0.015)	0.010	2.256			(0.013)	0.01	1.48
More than one route				0.020***	(1.639) $(1.049)$				0.023***	(0.350) $1.988*$ $(1.035)$
Municipalities Observations	1869 69,153	1869 $69,153$	1869 69,153	1869 69,153	1869 69,153	1562 $57,794$	1562 $57,794$	1562 $57,794$	1562 $57,794$	1562 57,794

Notes: The dependent variable in columns (1), (4), (6) and (9) is an indicator equal to 1 if a drug trade-related homicide occurred in a given municipality-month, through (10) limit the sample to municipalities that do not border a municipality that has experienced a close PAN victory. All columns include month x state and the dependent variable in columns (2), (3), (5), (7), (8), and (10) is the drug trade-related homicide rate per 100,000 municipal inhabitants. Columns (6) and municipality fixed effects, as well as an indicator equal to 1 if the PAN currently controls the mayorship in the municipality. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-53: A Reduced Form Spillovers Model: Confiscations

	(1)	(2)	(3)
	Domest	ic Confis	cations
	Dummy	Value	Value
RF predicted	0.002	0.056	
routes dummy	(0.006)	(0.067)	
RF predicted			0.029
routes count			(0.057)
R-squared	0.39	0.44	0.44
Municipalities	1869	1869	1869
Observations	69,153	69,153	69,153

Notes: The dependent variable in column (1) is an indicator equal to 1 if domestic illicit drug confiscations are made in a given municipality-month, and the dependent variable in columns (2) and (3) is the log value of domestic illicit drug confiscations (or 0 if no confiscations are made). The RF predicted routes dummy is an indicator equal to 1 if the municipality borders a municipality that has inaugurated a closely elected PAN mayor during the sample period. The RF predicted routes count is a count variable equal to the number of bordering municipalities that have inaugurated a closely elected PAN mayor during the sample period. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-54: A Reduced Form Spillovers Model: Violence

	(1)	(2)	(3)	(4)	(5)
	Dep.	var.: Dru	ig trade-r	elated hon	nicide
	dummy	rate	rate	dummy	rate
RF predicted	-0.005	3.136			
routes dummy	(0.007)	(2.292)			
RF predicted			2.204		
routes count			(1.596)		
One RF route				-0.003	3.235
				(0.007)	(2.443)
More than				-0.017	2.522
one RF route				(0.014)	(1.976)
R-squared	0.34	0.42	0.42	0.34	0.42
Municipalities	1869	1869	1869	1869	1869
Observations	$69,\!153$	69,153	69,153	$69,\!153$	$69,\!153$
routes count One RF route  More than one RF route R-squared Municipalities	1869	1869	(1.596) 0.42 1869	(0.007) -0.017 (0.014) 0.34 1869	(2.443) 2.522 (1.976) 0.42 1869

Notes: The dependent variable in columns (1) and (4) is an indicator equal to 1 if a drug trade-related homicides occurred in a given municipality-month, and the dependent variable in columns (2), (3), and (5) is the drug trade-related homicide rate per 100,000 municipal inhabitants. The RF predicted routes dummy is an indicator equal to 1 if the municipality borders a municipality that has inaugurated a closely elected PAN mayor during the sample period. The RF predicted routes count is a count variable equal to the number of bordering municipalities that have inaugurated a closely elected PAN mayor during the sample period, and analogously for the one RF route and more than one RF route indicators. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-55: Trafficking Model Parameter Estimates

	(1)	(2)	(3)
	Crossing	Costs	Full
	parsimonious	flexible	congestion
	model	model	costs
$\overline{\phi_t}$	62.34***		
	[2.72]		
	(1.41)		
$\phi_p$	36.48***		
	[2.07]		
	(1.40)		
$\phi_t^{Q1}$		3.24***	13.00***
		[0.30]	[1.27]
_		(0.25)	(1.19)
$\phi_t^{Q2}$		13.19***	9.29***
		[2.14]	[0.34]
		(1.89)	(0.33)
$\phi_t^{Q3}$		13.86***	21.26***
		[4.37]	[0.54]
		(4.08)	(0.52)
$\phi_t^{Q4}$		18.81***	20.22***
<i>' L</i>		[0.86]	[0.62]
		(0.83)	(0.57)
$\phi_p^{small}$		64.47***	70.990***
· P		[9.76]	[1.29]
		(9.16)	(1.28)
$\phi_p^{large}$		55.34***	43.50**
, F		[8.43]	[21.73]
		(7.46)	(17.03)
$\phi_{int}$		, ,	0.015***
,			[0.004]
			(0.003)
$\delta$	1.88***	1.57***	1.86***
	[0.05]	[0.15]	[0.17]
	(0.04)	(0.12)	(0.16)
$\gamma$			0.11**
			[0.06]
			(0.05)
$\kappa$	0.763***	0.91***	0.79***
	[0.07]	[0.08]	[0.07]
	(0.06)	(0.07)	(0.06)

Notes: Column 1 reports the simulated method of moments parameter estimates for the model with parsimonious congestion costs on U.S. points of entry, Column 2 reports the parameter estimates for the model with flexible congestion costs on U.S. points of entry, and Column 3 reports the parameter estimates for the model with congestion costs on both U.S. points of entry and interior edges. Conley (1999) standard errors are in brackets, and robust standard errors are in parentheses.

Table A-56: The Diversion of Drug Traffic (Alternative Congestion Models)

	(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)
	Ą	Full Sample		Lin	Limited Sample	ole	F.	Full Sample	
	Dummy	Domestic Value	Illicit Dr Value	Domestic Illicit Drug Confiscations Value Value Dummy Value	ations Value	Value	Cocain Dummy	Cocaine Confiscations ımmy Value Valu	ations Value
Panel A: Congestion Model (8 Parameters, Predicted 0.010*** 0.106*** routes dummy (0.004) (0.041)	stion Model 0.010*** (0.004)	(8 Parame 0.106*** (0.041)	eters)	0.006	0.063 (0.048)	600	0.003	0.009	7000
routes count			(0.005)			(0.005)			(0.004)
Panel B: Congestion Model (10 Parameters)  Predicted $0.011^{***}$ $0.128^{***}$ routes dummy $(0.004)$ $(0.041)$	$stion Model \\ 0.011*** \\ (0.004)$	(10 Param 0.128*** (0.041)	neters)	0.009** (0.004)	0.105** $(0.043)$		0.002	0.014 $(0.025)$	
Predicted routes count		,	0.001 $(0.004)$	,		-0.005 $(0.004)$	,	,	-0.005 $(0.004)$
Municipalities Observations	1869 69,153	1869 69,153	1869 69,153	1562 $57,794$	1562 $57,794$	1562 57,794	1869 69,153	1869 69,153	1869 69,153

Notes: The dependent variable in columns (1), and (4) is an indicator equal to 1 if domestic illicit drug confiscations are made in a given municipality-month; the dependent variable in columns (2), (3), (5), and (6) is the log value of domestic illicit drug confiscations (or 0 if no confiscations are made); the dependent variable in column (7) is an indicator equal to 1 if cocaine confiscations are made in a given municipality-month; and the dependent variable in columns (8) and (9) is the log value of confiscated cocaine (or 0 if no confiscations are made). Columns (4) through (6) limit the sample to municipalities that do not border a municipality that has experienced a close PAN victory. Panel A predicts trafficking routes using the shortest paths model, and Panel B uses the model with congestion costs. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-57: Violence Spillovers (Alternative Congestion Models)

	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)
	Dep.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Full Sample wag trade-rel	Full Sample  Drug trade-related homicide	cide	Dep.	$\frac{\text{Lin}}{Var.:\ Dr^{n}}$	Limited Sample Drug trade-relat	Limited Sample  Dep. Var.: Drug trade-related homicide	cide
	$\overline{dummy}$	rate	rate	dummy	rate	$\dot{d}ummy$	rate	rate	dummy	rate
Panel A: Congestion Model (8 Parameters) Predicted 0.014*** 0.568 routes dummy (0.004) (0.421)	stion Model 0.014*** (0.004)	l (8 Parar 0.568 (0.421)	neters)			0.013***	0.035			
Predicted routes count			0.006					0.020		
One route				0.011*	1.094				0.010	0.105
More than				0.015**	0.309 $0.797$				0.015**	0.001
one route				(cnn·n)	(0.121)				(cnn·n)	(0.340)
Panel B: Congestion Model (10)	stion Mode	l (10 Parc	Parameters			* 0000	066.0			
Fredicted routes dummy	(0.004)	(0.840)				(0.004)	(0.916)			
Predicted routes count			0.014 $(0.024)$					0.024 $(0.023)$		
One route				0.007	1.643 (1.395)				0.008	0.806 $(0.834)$
More than				0.010**	0.360				0.008	0.080
one route				(0.005)	(1.122)				(0.005)	(1.100)
Municipalities	1869	1869	1869	1869	1869	1562	1562	1562	1562	1562
Observations	69,153	69,153	69,153	69,153	69,153	57,794	57,794	57,794	57,794	57,794

Notes: The dependent variable in columns (1), (4), (6) and (9) is an indicator equal to 1 if a drug trade-related homicide occurred in a given municipality-month, and the dependent variable in columns (2), (3), (5), (7), (8), and (10) is the drug trade-related homicide rate per 100,000 municipal inhabitants. Columns (6) through (10) limit the sample to municipalities that do not border a municipality that experienced a close PAN victory between 2007 and 2008. All columns include month x state and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 1%. \*\* significant at 1%.

Table A-58: Accounting for DTO Territory when Predicting Routes

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
	D	Confiscations	SO N			Homicides		
	dummy	value	value	dummy	rate	rate	dummy	rate
Panel A: Shortest Path Model Predicted 0.008** 0.  routes dummy (0.004) (0.  Predicted routes count One route  More than one route	sst Path M 0.008** (0.004)	odel 0.039 (0.044)	0.012*	0.009*	0.350 (0.609)	0.337*	0.014** (0.007) 0.003 (0.006)	-2.251 (1.891) 3.618 (2.495)
Panel B: Model with Congestion Costs Predicted 0.007** 0.104** routes dummy (0.003) (0.038) Predicted routes count One route  More than one route	with Cong 0.007** (0.003)	nestion Cost 0.104*** (0.038)	0.004 (0.003)	0.007**	1.277 (0.782)	0.068*	0.008* (0.004) 0.006 (0.004)	1.154* (0.620) 1.378 (0.951)
Municipalities Observations	1869 $69,264$	1869 $69,264$	1869 $69,264$	1869 $69,264$	1869 $69,264$	1869 69,264	1869 69,264	1869 69,264

Notes: All columns include month x state and municipality fixed effects and omit municipalities that experienced a closed PAN victory. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

Table A-59: Violence Spillovers in a Model that Estimates Political Costs

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)
		<u></u>	Full Sample	0			Lin	imited Sample	ıple	
	$Dep. \ var.:$		g trade-re	Drug trade-related homicide	cide	Dep.	Var.: Dr	<i>ug trade-r</i>	Dep. Var.: Drug trade-related homicide	icide
	dummy	Ţ	rate	dummy	rate	dummy	rate	rate	dummy	rate
Panel A: 2007-2008 Elections	2008 Election	ns								
Predicted	0.010***	0.814*				0.008*	0.983**			
routes dummy	(0.004)	(0.458)				(0.004)	(0.494)			
Predicted			0.209*					0.171		
routes count			(0.116)					(0.104)		
One route				0.013**	-1.947				0.011	-0.595
				(0.000)	(1.834)				(0.008)	(1.608)
More than				*600.0	2.153**				900.0	1.843**
one route				(0.005)	(1.071)				(0.005)	(0.921)
Observations	69,153	69,153	69,153	69,153	69,153	57,794	57,794	57,794	57,794	57,794
Panel B: 2007-2010 Elections	010 Electio	ns								
Predicted	0.011***	1.586**				0.010*	0.912			
routes dummy	(0.004)	(0.643)				(0.006)	(0.713)			
Predicted			0.214**				,	0.129		
routes count			(0.104)					(0.100)		
One route				0.013**	-0.318				0.009	1.541**
				(900.0)	(1.727)				(0.000)	(0.684)
More than				0.009**	2.490**				0.011*	0.563
one route				(0.004)	(1.028)				(0.007)	(0.874)
Observations	88.984	88.984	88.984	88.984	88.984	45.913	45.913 45.913	45.913	45.913	45.913

Notes: The dependent variable in columns (1), (4), (6) and (9) is an indicator equal to 1 if a drug trade-related homicide occurred in a given municipality-month, and municipality fixed effects. Standard errors clustered by municipality and month x state are reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\* significant at 10%. through (10) limit the sample to municipalities that do not border a municipality that has experienced a close PAN victory. All columns include month x state and the dependent variable in columns (2), (3), (5), (7), (8), and (10) is the drug trade-related homicide rate per 100,000 municipal inhabitants. Columns (6)

Table A-60: Economic Spillovers

	(1)	(2)	(3)	(4)	(2)	(9)
		Full s	Full sample		Limited sample	ample
	Male	Female	Formal	Informal	Female	Informal
	partic	participation	sector le	sector log wages	participation	wages
Panel A: Shortest Paths	aths					
Predicted	-0.124	-0.756	0.020	-0.023	-0.784	-0.030
routes dummy	(0.513)	(1.038)	(0.022)	(0.020)	(1.622)	(0.027)
Panel B: Model with Congestion Costs	' Congest	ion Costs				
Predicted	-0.242	-1.261**	0.013	-0.022*	-1.558**	-0.028*
routes dummy	(0.302)	(0.302) $(0.570)$	(0.012)	(0.013)	(0.673)	(0.017)
State x quarter FE	yes	yes	yes	yes	yes	yes
Municipality FE	yes	yes	yes	yes	yes	yes
$R^2$	0.52	0.79	0.18	0.09	0.79	0.09
Municipalities	880	880	879	871	602	703
Observations	9,821	9,821	407,204	148,302	7,887	114,633

municipal female labor force participation, the dependent variable in column (3) is log wages of formal sector workers, and the dependent variable in columns (4) and (6) is log wages of informal sector workers. All columns include quarter x state and municipality fixed effects. Column (1) weights by the square root of the excludes municipalities that border a municipality that has experienced a close PAN victory. Standard errors clustered by municipality and quarter x state are municipality's male population and columns (2) and (5) weight by the square root of the municipality's female population. The sample in columns (5) and (6) Notes: The dependent variable in column (1) is average municipal male labor force participation, the dependent variable in columns (2) and (5) is average reported in parentheses. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.

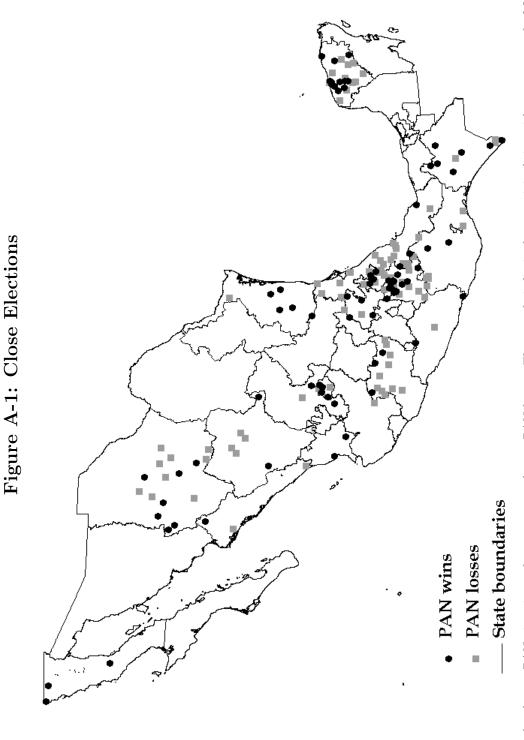
A-2.9 Law Enforcement Allocation Tal	A-2.9
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Table A-61: Robustness of Policy Algorithm

	(1)
	Percentage
	increase
	in total
	costs
Baseline $(N = 250)$	0.168
N = 100	0.168
N = 500	0.168
Alternate between selecting edges with $m = 1$ and $m = 2$	0.105
Alternate between selecting edges with $m = 1$ , $m = 2$ , and $m = 3$	0.106
Select edge with $m=2$ when $k=1$	0.168
Select edge with $m = 3$ when $k = 1$	0.168
Select edge with $m = 4$ when $k = 1$	0.168
Select edge with $m = 5$ when $k = 1$	0.168

Notes: The left column describes the variation in the policy algorithm (as described in the estimation appendix) and the right column gives the percentage increase in total trafficking costs when the respective variant of the algorithm is used to select edges.

### A-2.10 Map of Close PAN Elections



Notes: Black circles denote PAN victories and gray squares denote PAN losses. The sample is limited to municipalities with a vote spread of five percentage points or less.

### A-2.11 Balance Figures for Pre-Characteristics

Figure A-2: Covariate Plots

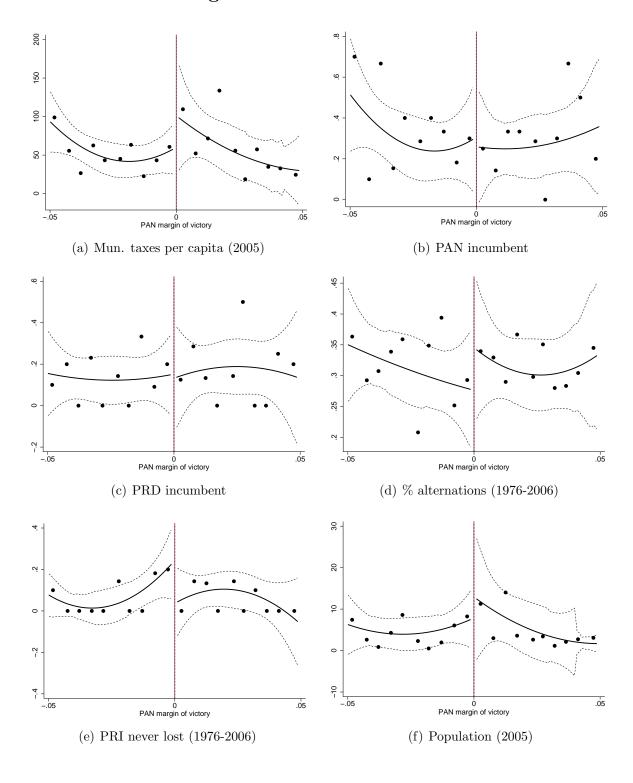


Figure A-3: Covariate Plots

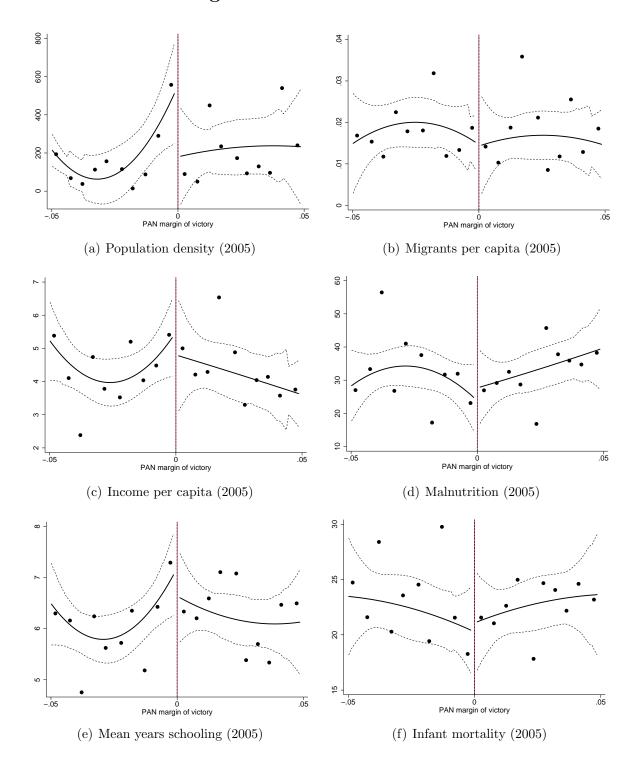


Figure A-4: Covariate Plots

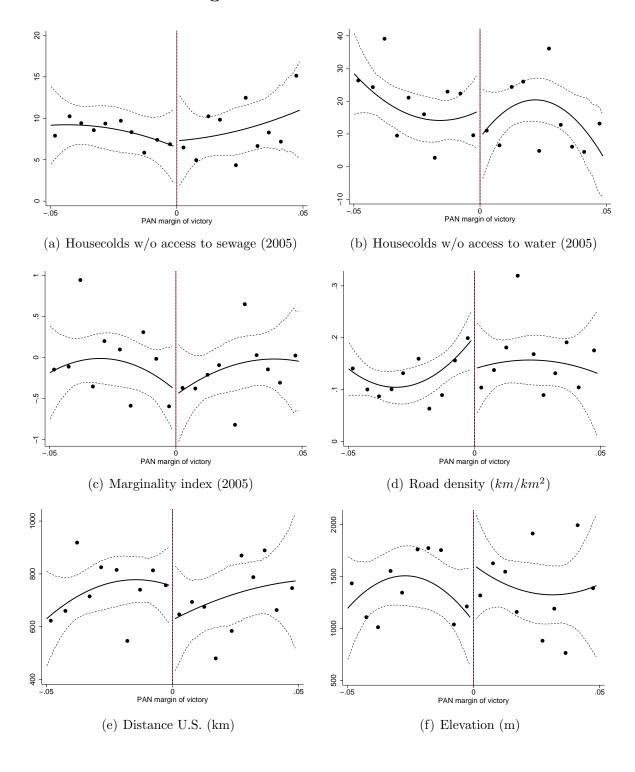


Figure A-5: Covariate Plots

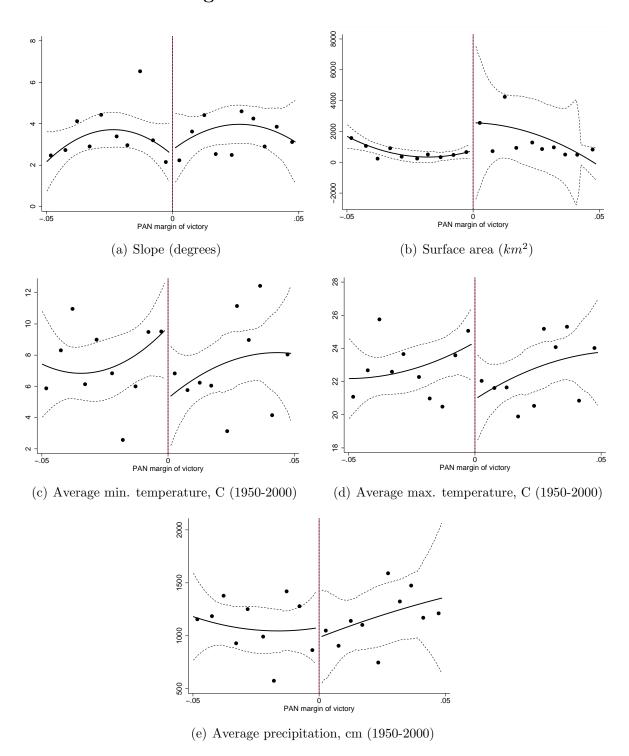
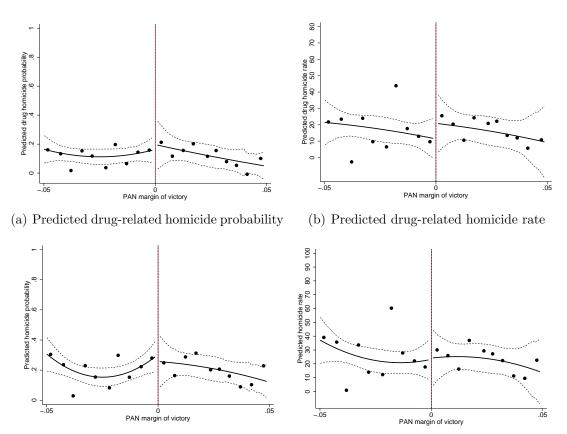


Figure A-6: PAN victories and predicted homicides



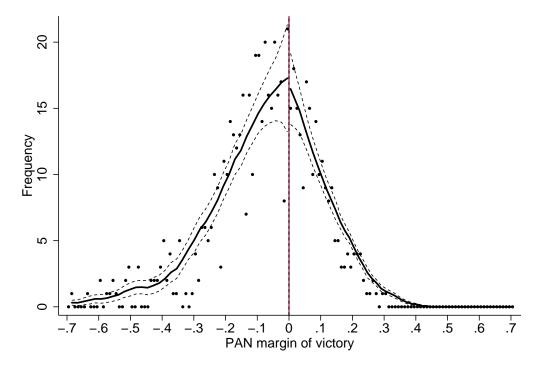
(c) Predicted overall homicide probability

(d) Predicted overall homicide rate

Notes: This figure plots predicted homicide measures against the PAN margin of victory. The homicide measures are predicted using the characteristics in Table 1 and pre-period violence data. Each point represents the average value of predicted homicides in vote spread bins of width one half of a percentage point. The solid line plots predicted values from an RD regression with separate vote spread polynomials estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals.

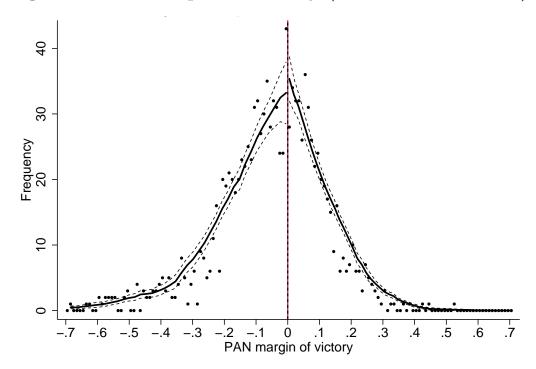
### A-2.13 McCrary Plots

Figure A-7: Vote Spread Density (2007-2008 Elections)



Notes: This figure shows the frequency of mayoral elections (2007-2008) in one percentage point vote spread bins. The solid line plots predicted values from a local linear regression of frequency on vote spread, with separate vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals. The bandwidth is chosen using the Imbens-Kalyanaraman bandwidth selection rule (2009), and a rectangular kernel is used.

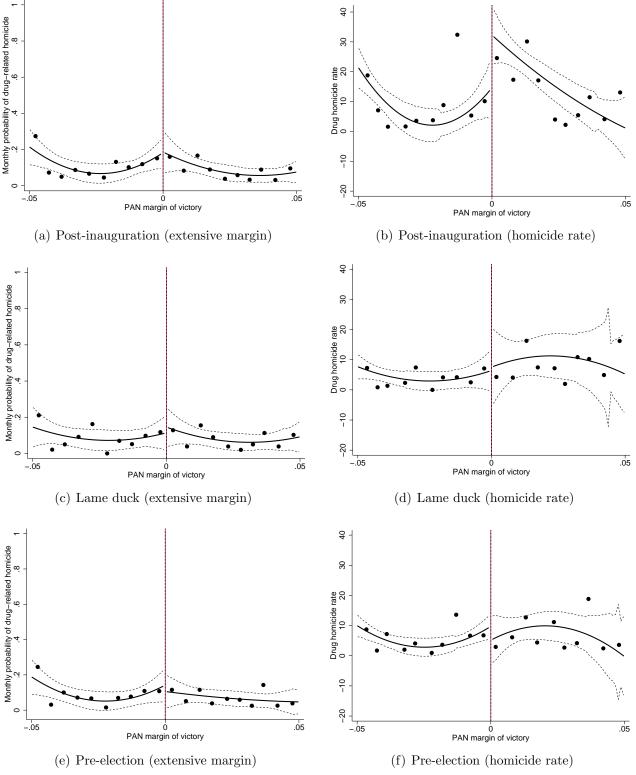
Figure A-8: Vote Spread Density (2007-2010 Elections)



**Notes:** This figure shows the frequency of mayoral elections (2007-2010) in one percentage point vote spread bins. The solid line plots predicted values from a local linear regression of frequency on vote spread, with separate vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals. The bandwidth is chosen using the Imbens-Kalyanaraman bandwidth selection rule (2009), and a rectangular kernel is used.

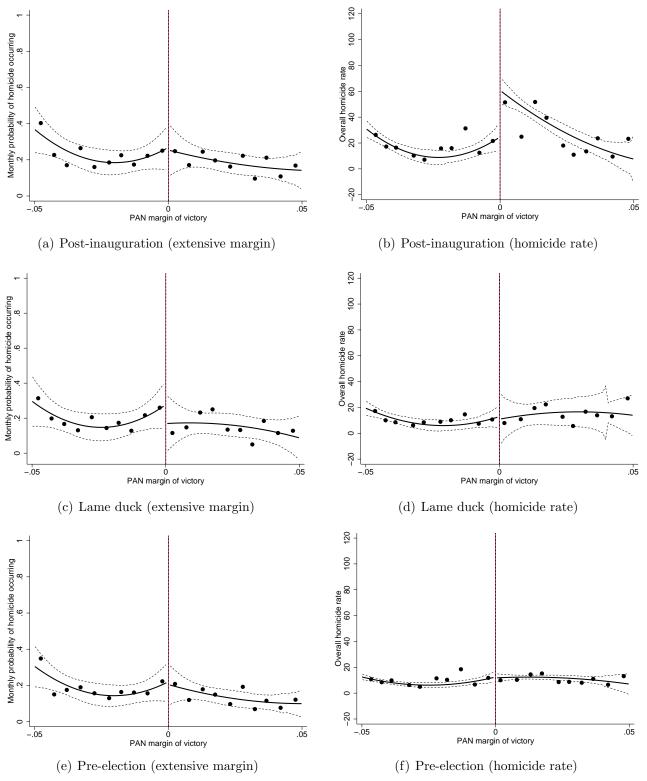
### A-2.14 Homicide RD Figures - Robustness

Figure A-9: Drug trade-related homicide RD figures (2007-2010 elections)



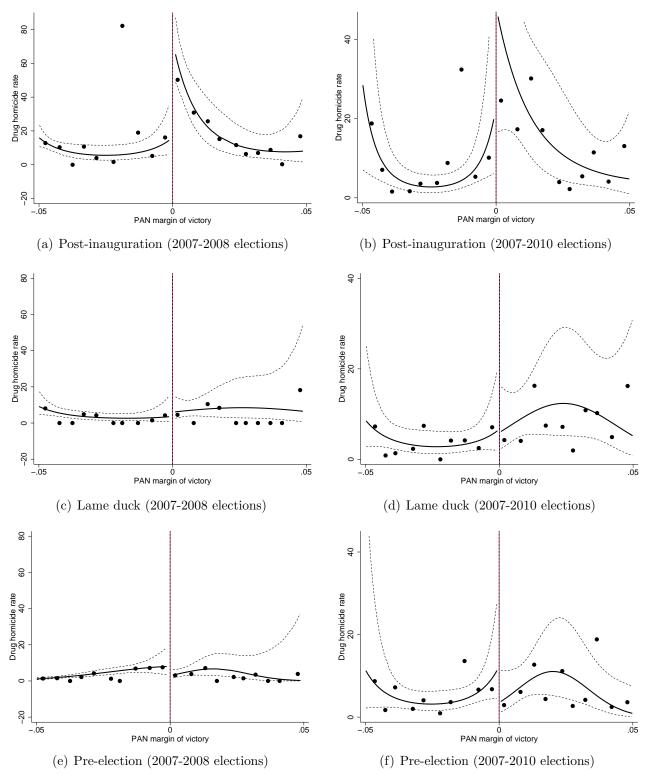
Notes: This figure plots violence measures against the PAN margin of victory, with a negative margin indicating a PAN loss. Each point represents the average value of the outcome in vote spread bins of width one half of a percentage point. The solid line plots predicted values, with separate quadratic vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals.

Figure A-10: All homicides RD figures (2007-2010 elections)



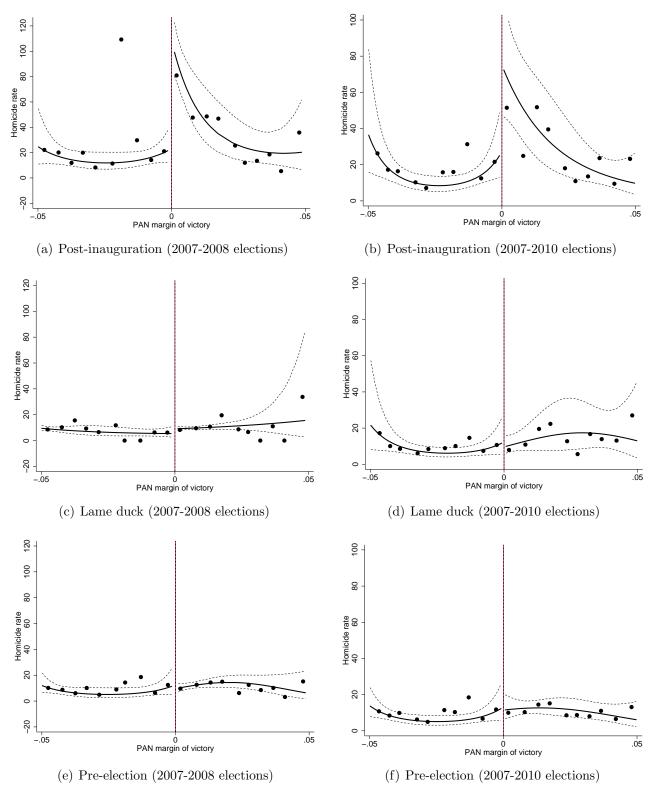
Notes: This figure plots violence measures against the PAN margin of victory, with a negative margin indicating a PAN loss. Each point represents the average value of the outcome in vote spread bins of width one half of a percentage point. The solid line plots predicted values, with separate quadratic vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals.

Figure A-11: Drug trade-related homicide negative binomial RD figures



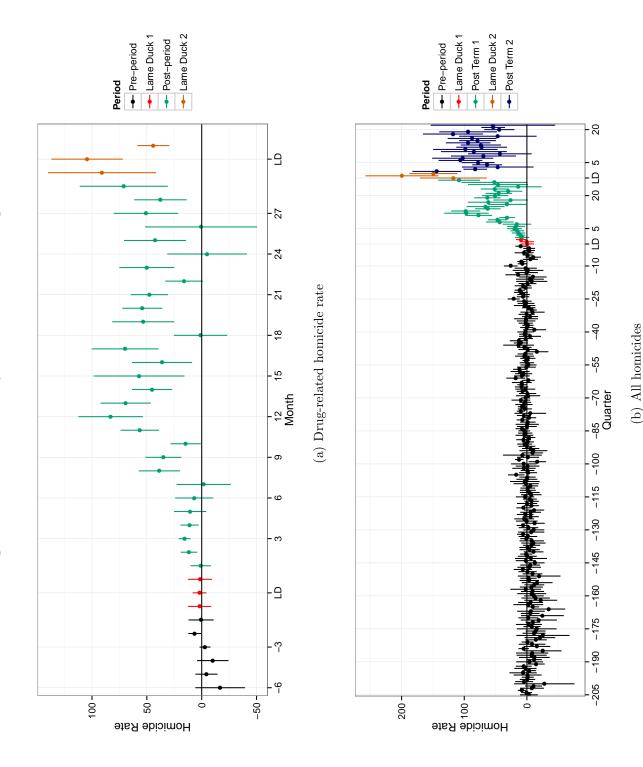
**Notes:** This figure plots violence measures against the PAN margin of victory, with a negative margin indicating a PAN loss. Each point represents the average value of the outcome in vote spread bins of width one half of a percentage point. The solid line plots predicted values from a negative binomial regression, with separate vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals.

Figure A-12: All homicides negative binomial RD figures



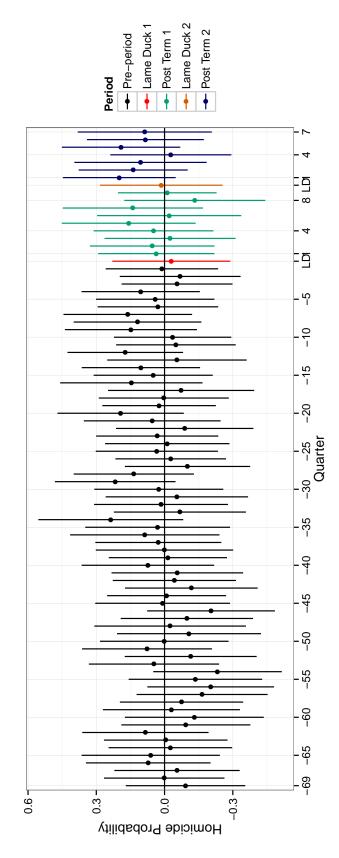
**Notes:** This figure plots violence measures against the PAN margin of victory, with a negative margin indicating a PAN loss. Each point represents the average value of the outcome in vote spread bins of width one half of a percentage point. The solid line plots predicted values from a negative binomial regression, with separate vote spread trends estimated on either side of the PAN win-loss threshold. The dashed lines show 95% confidence intervals.

### Figure A-13: Monthly homicide RD figures



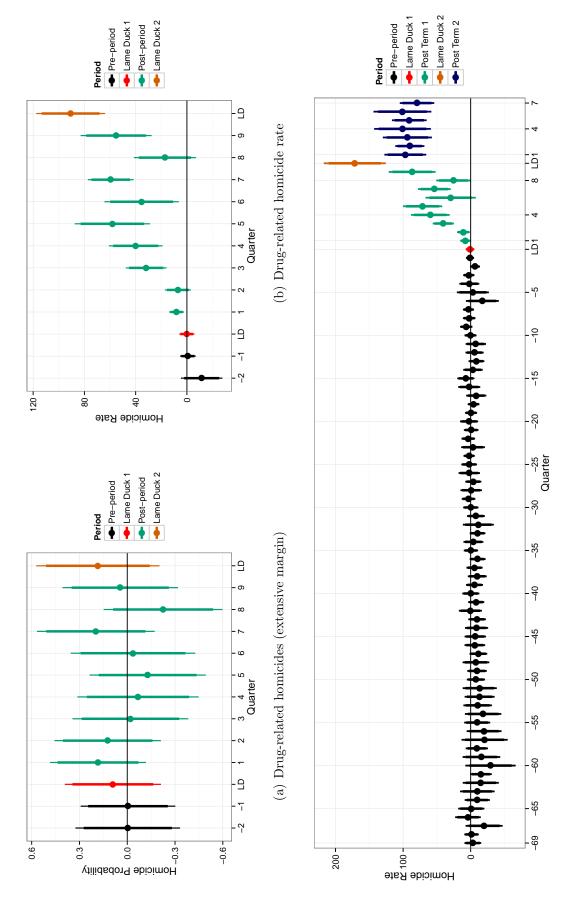
municipality-month. In Panel B, each point plots a separate RD estimate of the impact of a close PAN victory on the overall homicide rate in a Notes: In Panel A, each point plots a separate RD estimate of the impact of a close PAN victory on the drug-related homicide rate in a municipality-month. The lines plot 95% confidence intervals.

Figure A-14: Total homicides quarterly RD estimates (extensive margin)



**Notes:** Each point plots a separate RD estimate of the impact of a close PAN victory on whether a homicide occured in a municipality-quarter. The lines plot 95% confidence intervals.

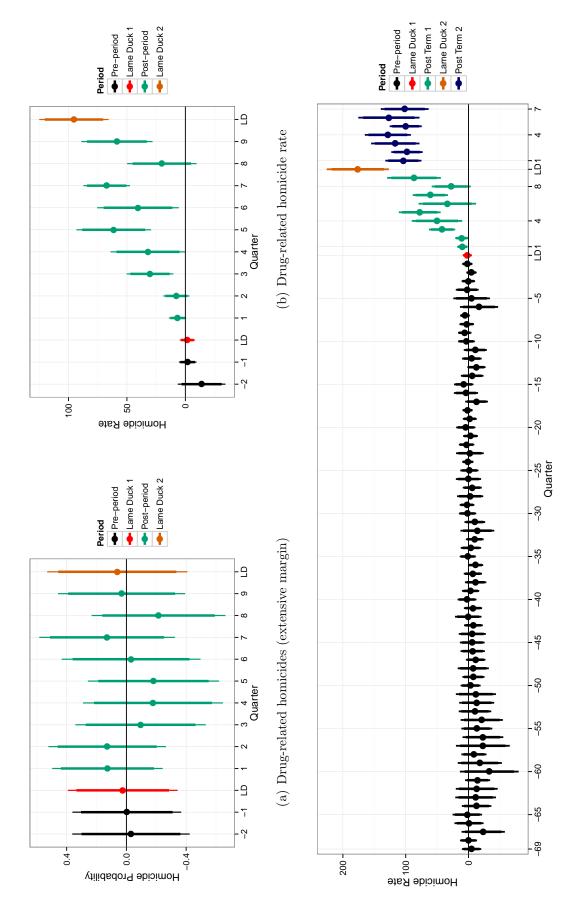
## Figure A-15: PAN Victories and Homicides (4% bandwidth)



(c) All homicides

Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

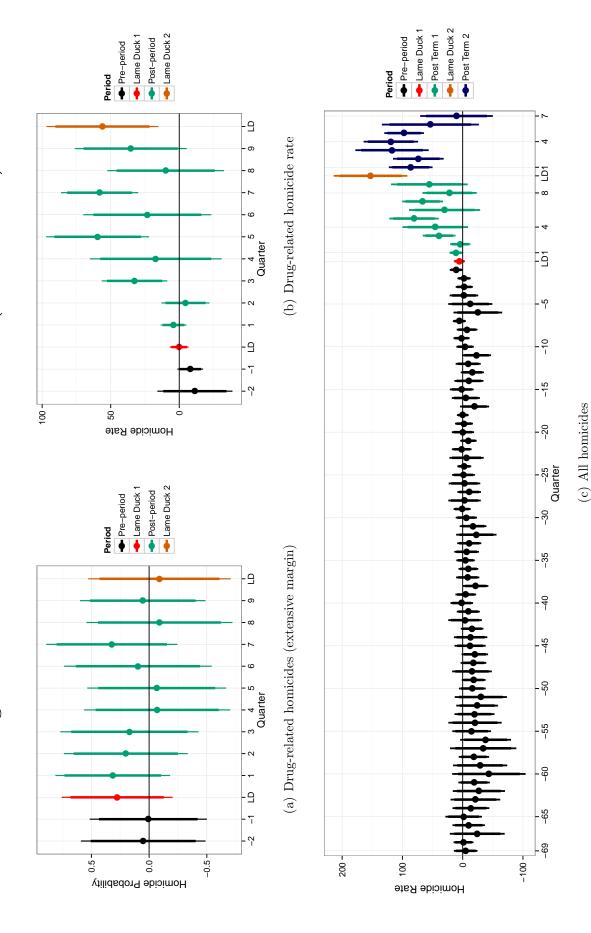
## Figure A-16: PAN Victories and Homicides (3% bandwidth)



(c) All homicides

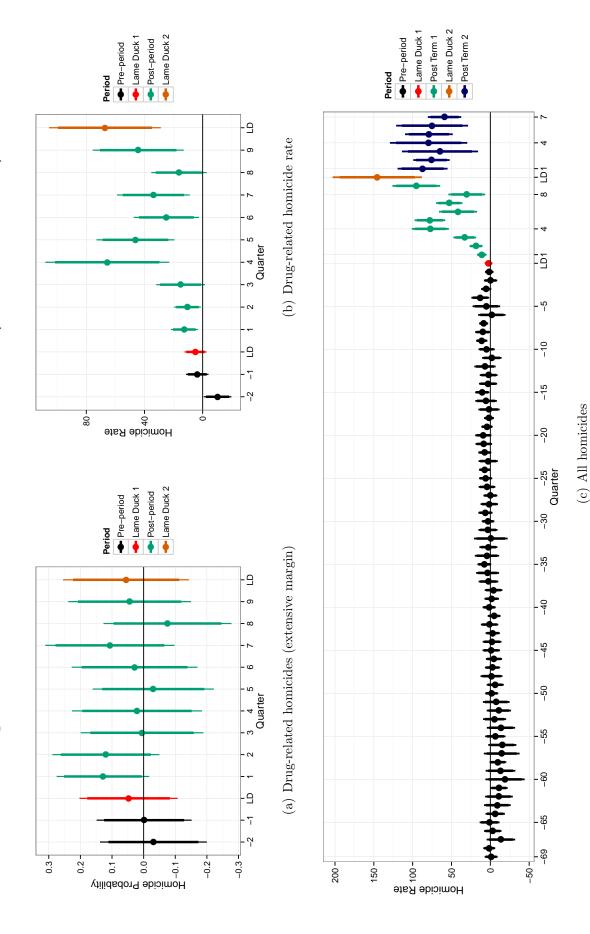
Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

## Figure A-17: PAN Victories and Homicides (2% bandwidth)



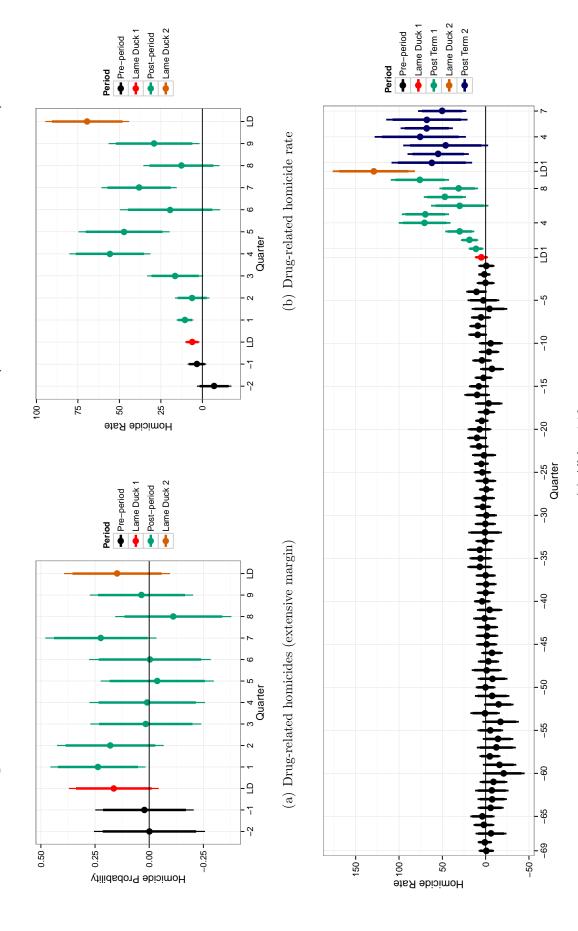
Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

# Figure A-18: PAN Victories and Homicides (13.3% bandwidth)



Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

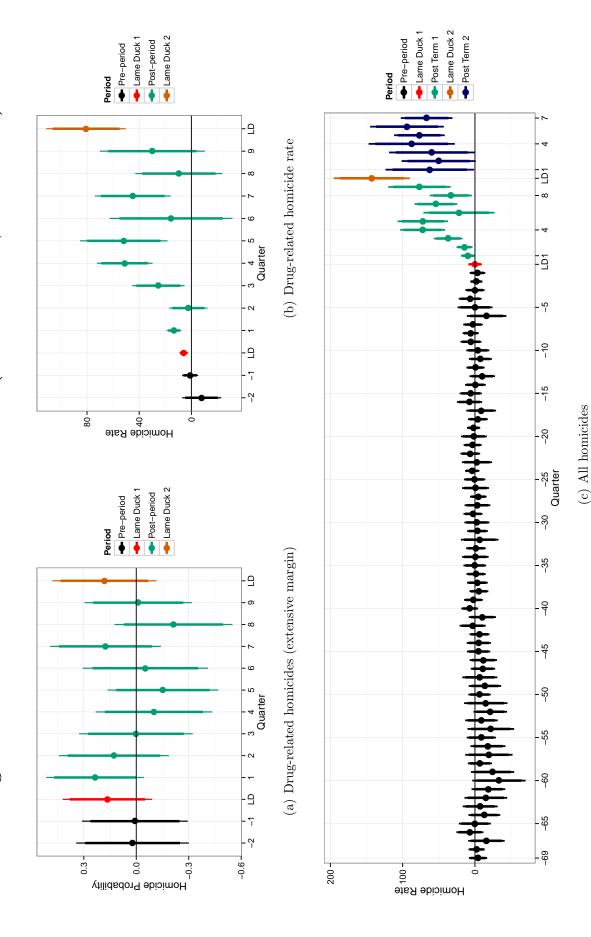
Figure A-19: PAN Victories and Homicides (5% bandwidth, fixed effects)



(c) All homicides

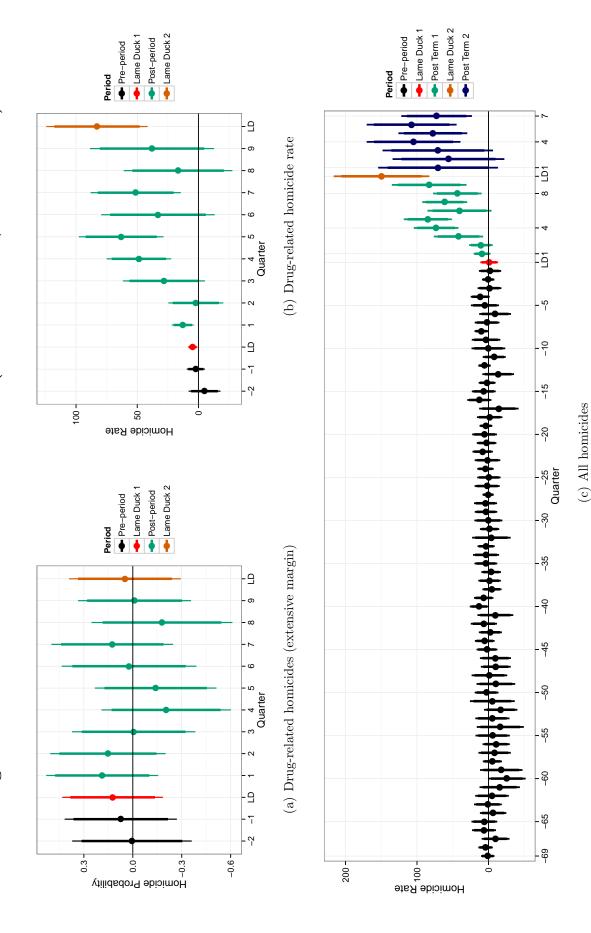
Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

Figure A-20: PAN Victories and Homicides (4% bandwidth, fixed effects)



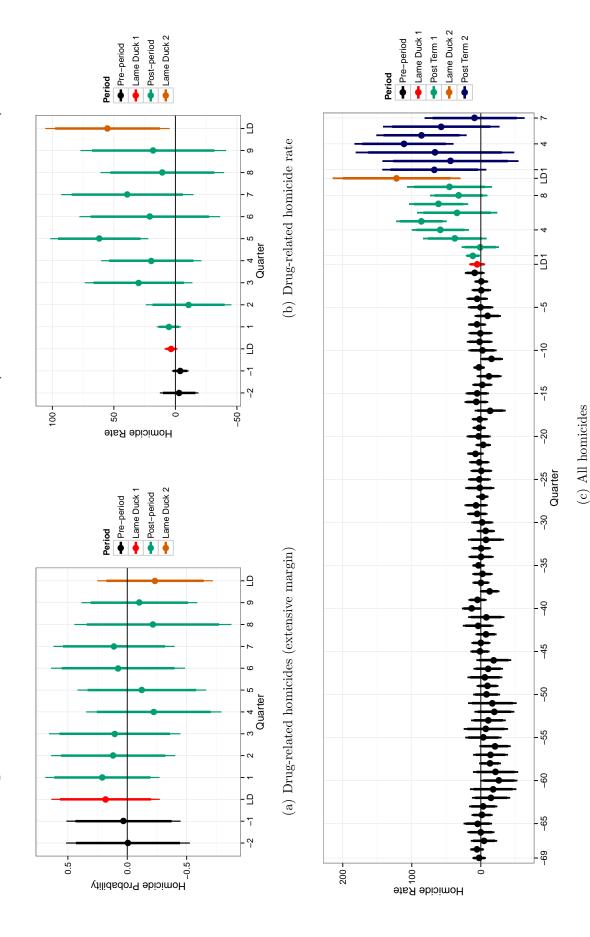
Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

Figure A-21: PAN Victories and Homicides (3% bandwidth, fixed effects)



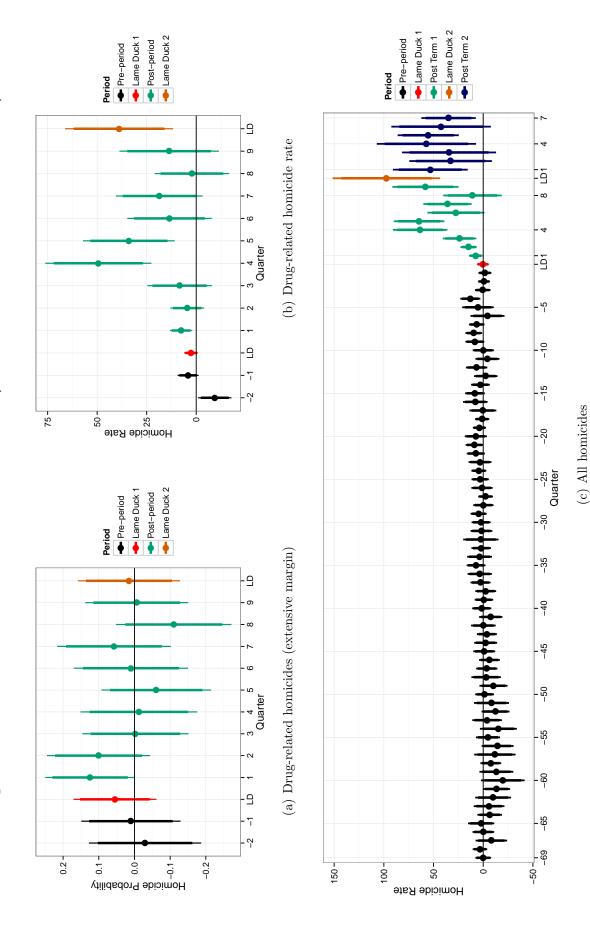
Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

Figure A-22: PAN Victories and Homicides (2% bandwidth, fixed effects)



Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

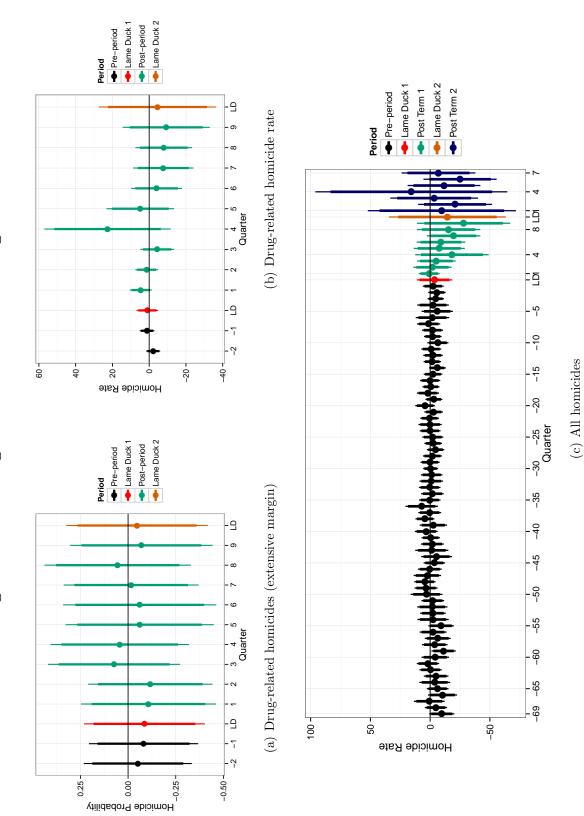
Figure A-23: PAN Victories and Homicides (13.3% bandwidth, fixed effects)



Notes: In Panel A, each point plots a separate RD estimate of the impact of close PAN victories on the average probability that a drug-related homicide occurred include a quadratic RD polynomial, estimated separately on either side of the PAN win-loss threshold. The thin lines plot 95% confidence intervals, and the thick quarter. In Panel C, each point plots a separate RD estimate of the impact of close PAN victories on the overall homicide rate in a given quarter. All regressions in a municipality-month. In Panel B, each point plots a separate RD estimate of the impact of close PAN victories on the drug-related homicide rate in a given lines plot 90% confidence intervals.

### A-2.15 Homicide RD Figures - Neighbors' Homicide Rates

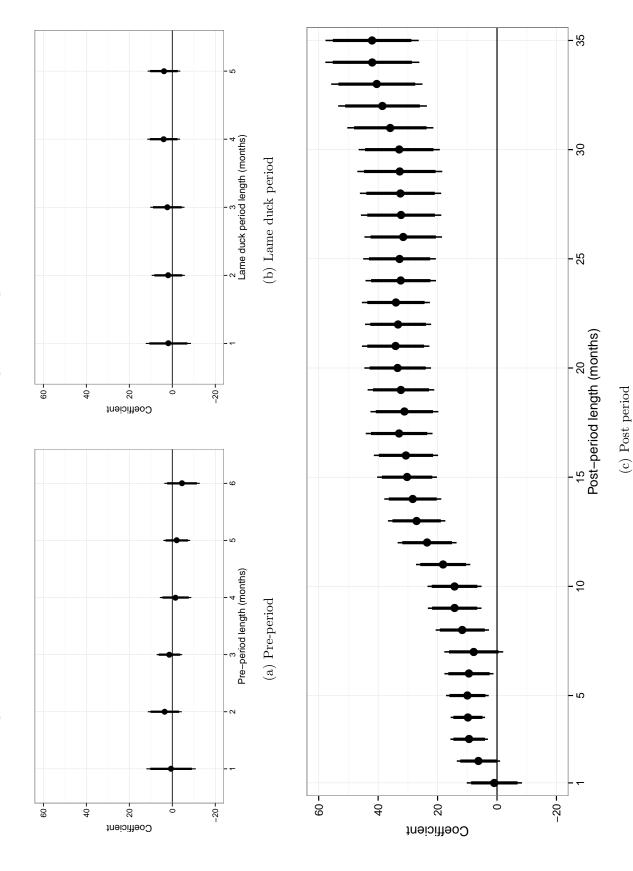
### Figure A-24: Neighbor Homicide RD Figures



Notes: In Panel A, each point plots a separate RD estimate of the impact of a close PAN victory on whether a drug-related homicide occurred in a municipality's municipality's bordering municipalities. In Panel C, each point plots a separate RD estimate of the impact of a close PAN victory on the overall homicide rate in a bordering municipalities. In Panel B, each point plots a separate RD estimate of the impact of a close PAN victory on the drug-related homicide rate in a municipality's bordering municipalities. The thin lines plot 95% confidence intervals, and the thick lines plot 90% confidence intervals.

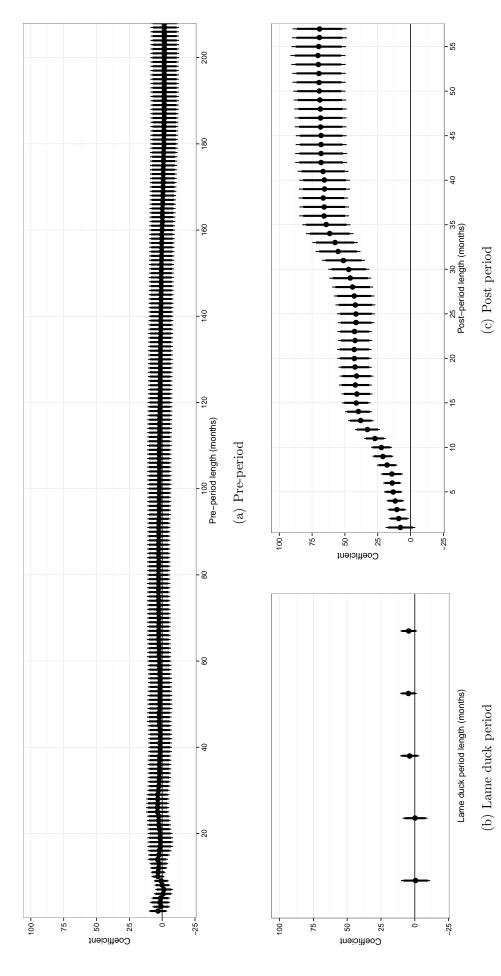
A-2.16 Robustness to Varying the Length of the Analysis Period

Figure A-25: Robustness to period length: drug-related homicides



Notes: Panel A reports RD estimates of the impact of PAN victories on the drug trade-related homicide rate from separate regressions that vary the length of the pre-period from one to six months. Panel B varies the length of the lame duck period, and Panel C varies the length of the post-period. The thin lines plot 95% confidence intervals, and the thick lines plot 90% confidence intervals.

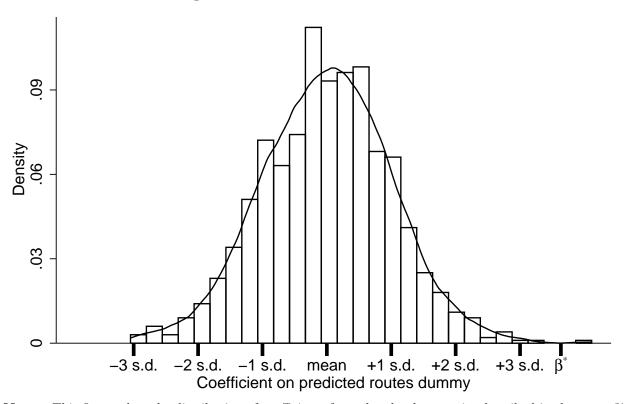
Figure A-26: Robustness to period length: overall homicides



Notes: Panel A reports RD estimates of the impact of PAN victories on the overall homicide rate from separate regressions that vary the length of the pre-period from one to 205 months. Panel B varies the length of the lame duck period, and Panel C varies the length of the post-period. The thin lines plot 95% confidence intervals, and the thick lines plot 90% confidence intervals.

### A-2.17 Spillovers Model Placeo Check

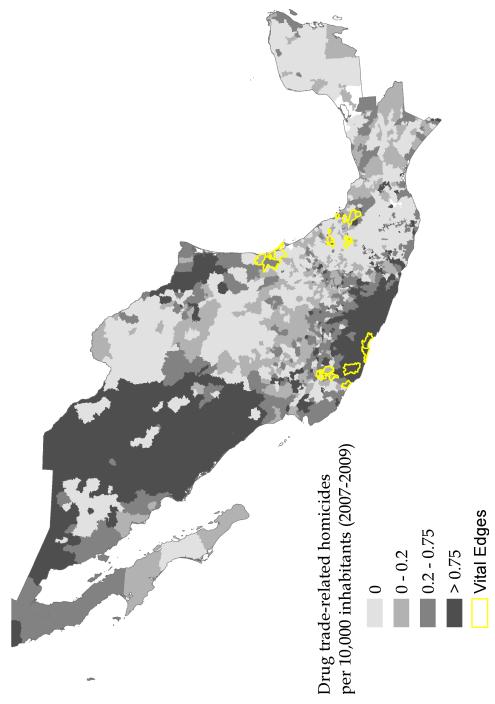
Figure A-27: Placebo Exercise



Notes: This figure plots the distribution of coefficients from the placebo exercise described in the text.  $\beta^*$  is the baseline coefficient from Table 6, column (2). The mean of the distribution equals -0.005.

### A-2.18 Law Enforcement Allocation Figure

Figure A-28: Law Enforcement Allocation



Notes: Municipalities that contain a selected edge are highlighted in yellow. The average monthly drug trade-related homicide rate between 2007 and 2009 is plotted in the background.