The Consequences of Electing Criminal Politicians on India's Largest Workforce Program

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EEA-ESEM 2023, Barcelona
29 August, 2023

Motivation

- The selection of good quality politicians is often highlighted as a cornerstone to good governance (Caselli & Morelli, 2004).

- However, citizens across the world are often complicit of supporting candidates of disrepute.

Motivation

- This problem is particularly acute in India where candidates accused of criminal charges routinely win at the polls.

- The Indian Supreme Court, 2003: Mandatory for all candidates contesting in Indian elections to submit a a sworn affidavit of their criminal records.

- The judgement revealed the extent of the "criminalisation" of Indian politics.

Motivation

% of MPs with Criminal Records in National Elections
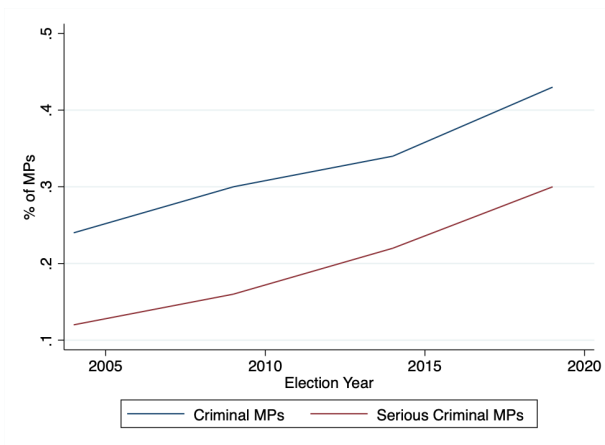
Theory

1. Information Hypothesis: Voters elect bad quality legislators because they lack adequate information (Ferraz & Finan, 2008; Winters & Weitz-Shapiro, 2013).

   - However, recent research has shown that voters often fail to punish venal politicians even when they have sufficient information to do so (Banerjee et al., 2011; Boas et al., 2019).

2. "Trade-off" Hypothesis: Voters are willing to forgive probity if there are direct benefits on offer (Manzetti & Wilson, 2007).

   - Voters might be making a strategic decision to exchange votes for particular benefits explaining their willingness to excuse bad politicians.

Theory

- This voter behaviour is even more prominent in contexts with weak government institutions and limited state capacity (Easterly & Levine, 1997; Stokes, 2005).

- Such conditions allow criminal or corrupt politicians to step in as "problem solvers" and clientelistic networks to prosper.

- Ethnographic Literature on India: Voters view criminal politicians as having the ability to "get things done"' or "Robin Hood" figures (Vaishnav, 2017; Martin & Michelutti, 2017).

Theory

- In contrast, several studies find that criminal politicians have negative economic costs (Chemin, 2012; Prakash et al., 2019).

- However, these studies look only at aggregate economic activity rather than policy-specific measurements.

- Criminal politicians might be systematically target the delivery of specific public goods which the voters care more about and they can claim credit for.

This Paper

- The casual effects of electing criminal politicians on program service delivery in India.

- **Context:** Mahatma Gandhi Rural Guarantee Act (MGNREGA) in the state of West Bengal.

- **Methodology:** RD Design

- **Main Results:**
  - ▸ Criminality leads to a reduction in overall program efficiency but has a positive effect on specific policy outcomes.
  - ▸ These results seem to be driven by strategic clientelistic behaviour.

Contribution to Literature

1. First study that examines the impact of electing criminal politicians on program service delivery in a developing world context.

2. Literature on why voters elect criminal politicians? (Ferraz & Finan, 2008; Banerjee & Pande, 2007; Kitschelt & Wilkinson, 2007; Bratton, 2008)

3. Distributive politics literature: (Kitschelt & Wilkinson, 2007; Stokes et al., 2013)

MGNREGA Background

- India's largest anti-poverty and rural workforce program.

- **Main Aims**:
  - Guarantees 100 days employment at minimum wage.
  - Generate rural infrastructure assets (e.g. ditch irrigation, canals, unpaved roads).

- **In Numbers**:
  - Employs about 113 million rural workers annually with budget of 10 billion US$.
  - To date about 50 million local projects completed.

MGNREGA Background

- The implementation of the program involves all levels of government.

- Bottom Up Approach:
    - Request for work and projects begins at the village-level (Gram Panchayat).
    - Funds flow down from the central/state government.

- Funding:
    - Central: 75% ; State: 25%
    - 60:40 labor-material ratio

Why MGNREGA?

- Welfare schemes such as MGNREGA are often used as instrument to win elections (Zimmermann, 2015).

- Since the program is at village level, provides an opportunity for credit claiming (Gulzar & Pasquale, 2017).

- "Self-targets" the poor which can foster clientelistic relationships (Kitschelt, 2000).

Data: Political Candidates and Election Outcomes

- **Political Candidate:**
  - ▸ **Source:** Association for Democratic Reform (ADR)
  - ▸ Has compiled the original hand-written candidate affidavits.
  - ▸ Criminal Allegations, Age, Gender, Assets and Liabilities, Party Affiliation

- **Election Outcomes:**
  - ▸ **Source:** Trivedi Centre for Political Data
  - ▸ Information on constituencies, reservation status, electoral size and turnout, vote share, etc.
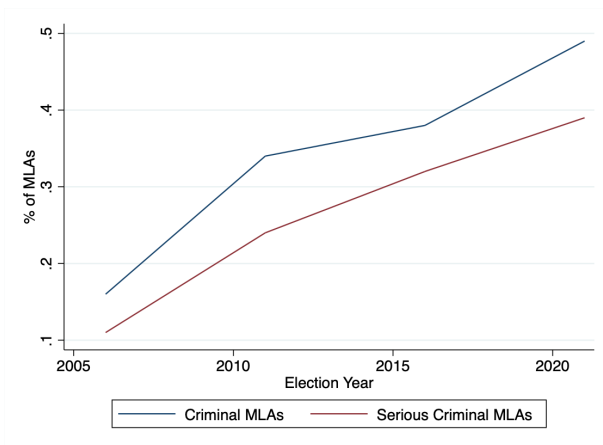
- Period: 2011-2021

Data: Defining Criminality

- A politician is defined as a criminal if they have any charges against them.

- Robustness Checks: Alternative definitions of crime (Serious and Corrupt)

Criminality in West Bengal Politics

% of MLAs with Criminal Records in West Bengal State Assembly Elections

Data: MGNREGA Outcomes

- **Source:** Government Data Portal

- Available at the village cluster level (Gram Panchayat).

- **Main Outcomes:** Projects Completed and Work Days

- Other Outcomes: Number of Job Cards Issued, Material and Labor Expenditure

- Outcomes are divided by per 1000 residents.

Empirical Strategy: RD Design

$$y_{ijt} = \alpha + \gamma_t + \beta criminal_{jt} + \delta_1 MV_{jt} + \delta_2 criminal_{jt} \times MV_{jt} + \epsilon_{ijt}$$

- y_{ijt}: Measures MGNREGA outcomes in village cluster i in constituency j at time t.

- $Criminal_{jt}$: Equals to 1 if a candidate has criminal charges against them.

- MV_{jt}: Forcing variable

- Optimal Bandwidth (h): Calonico et al. (2014) with triangular kernel.

- Robustness Checks: Imbens and Kalyanaraman (2012), $2h$ and $h/2$.

Results: RDD Validity

- Manipulation of Forcing Variable: McCrary Density Test (link)
- Continuity of Observable Variables (Constituency) (Candidate)

Results: Baseline

Project Completed per 1000 residents
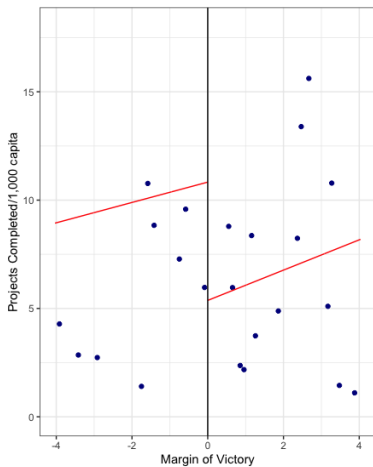
Results: Baseline

Effect of Electing Criminal Politicians on MGNREGA

	(1)	(2)	(3)	(4)
	Projects Completed/1000 capita			
Criminal	-5.264***	-5.504***	-3.436***	-6.440***
	(1.313)	(1.879)	(1.205)	(2.138)
Observations	2459	1492	4679	1118
Bandwidth Size	4.916	3.407	9.832	2.458

- Constituencies that elect a criminal politician (in comparison to the median):
  - Complete 1260 less projects annually which reflects to 27% to 67% drop in project completion rate.

Results: Baseline

Work Days per 1000 residents
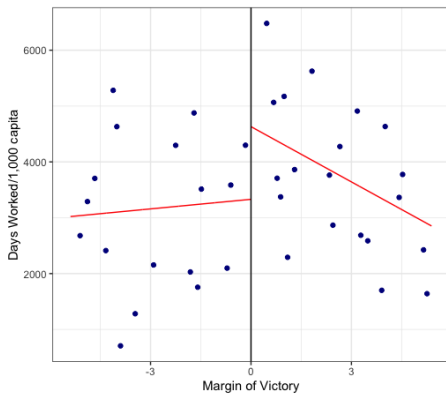
Results: Baseline

Effect of Electing Criminal Politicians on MGNREGA

	(1)	(2)	(3)	(4)
	Work Days /1000 capita			
Criminal	1,295***	1,309***	1,147***	746.2
	(477.3)	(470.6)	(333.4)	(765.4)
Observations	2724	2764	5044	1183
Bandwidth Size	5.340	5.458	10.68	2.670
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

- In comparison to the median constituency, generate 310,800 (36%) additional Works Days.

Results: Baseline

Effect of Electing Criminal Politicians on MGNREGA Labor Expenditure

	(1)	(2)	(3)	(4)
	Labor Expenditure/1000 capita			
Criminal	193,118***	186,256***	171,649***	155,489
	(62,455)	(70,727)	(44,093)	(103,659)
Observations	2459	1982	4869	1118
Bandwidth Size	5.103	4.351	10.21	2.551
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

- In comparison to the median constituency, this accounts for 46 million Rupees (550,000 US$) higher wage bill..

Results

- Can rent-seeking account for these results?

- There is sufficient evidence that officials are often complicit of over-estimating expenses (Gulzar & Pasquale, 2017).

  - Average Expenditure `link`
  - 60:40 labor-material expenditure rule `link`

- Alternative Explanations

  - Lack of Adequate Funds: Material Expenditure `link`
  - Employment Demand: No. of Job Cards Issued `link`

Robustness Checks

- Alternative Definitions of Crime
    - Serious `link`
    - Corrupt `link`

- Timing of RD Effect
    - At $t+1$ `link`
    - Yearly `link`
    - Average over election cycle `link`

- Addressing Extreme Values `Excluding Zeros` `< Top 5 Values`

- Alternative Specification
    - Bandwidth Sensitivity `link`
    - Higher Order Polynomials `Projects Completed` `Days Worked`
    - Controls for Covariates `link`

Conclusion

- I find that criminal politicians have strong negative effect on asset generation but a positive effect on work allocation.

- These results seems to be driven by distributive strategies rather than rent seeking.

- This could perhaps explain why voters perceive criminal politicians as being competent and vote for them at the ballot.

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Appendix: Data

Distribution of Candidates by Type of Criminal Charges

	Winner	Runner-up	All
None	53	89	3027
Any Crime	89	53	169
Serious	54	31	488
Corrupt	32	19	216

Appendix: Data

Constituency Profile

Variable	Control	Treatment	Total/Average
Constituencies	53	89	142
Gram Panchayat	650	940	1590
Rural Population (in Thousands)	315.20	240.80	271.10
	(84.82)	(66.01)	(82.76)
SC/ST Reserved AC	0.385	0.213	0.282
	(0.487)	(0.410)	(0.450)
Ruling Party AC	0.471	0.662	0.584
	(0.499)	(0.473)	(0.493)
Log of Total Votes	12.02	12.06	12.04
	(0.136)	(0.111)	(0.123)
Voter Turnout	87.08	84.31	85.44
	(4.057)	(4.217)	(4.369)
Log Electoral Size	16.49	16.49	16.49
	(0.165)	(0 .131)	(0.146)

Appendix: Data

Candidate Profile

Variable	Winner			Runner-up		
	Control	Treatment	Average	Control	Treatment	Average
Incumbent	0.328	0.394	0.367	0.212	0.271	0.247
	(0.470)	(0.489)	(0.482)	(0.409)	(0.444)	(0.431)
National Party	0.905	0.941	0.926	0.905	0.941	0.926
	(0.294)	(0.236)	(0.262)	(0.294)	(0.236)	(0.262)
Age	53.62	53.27	53.41	50.18	51.40	50.90
	(9.685)	(8.942)	(9.253)	(8.237)	(11.90)	(10.58)
Log Income	14.26	14.90	14.64	14.21	14.53	14.40
	(1.409)	(1.192)	(1.323)	(1.308)	(1.495)	(1.430)
Log Liabilities	3.072	7.152	5.490	4.445	4.496	4.475
	(5.211)	(6.428)	(6.290)	(1.308)	(1.495)	(1.430)
Graduate	0.790	0.771	0.779	0.767	0.825	0.801
	(0.407)	(0.420)	(0.415)	(0.294)	(0.236)	(0.262)

Appendix: RDD Validity

Continuity of Margin of Victory between Criminal and Clean Candidates
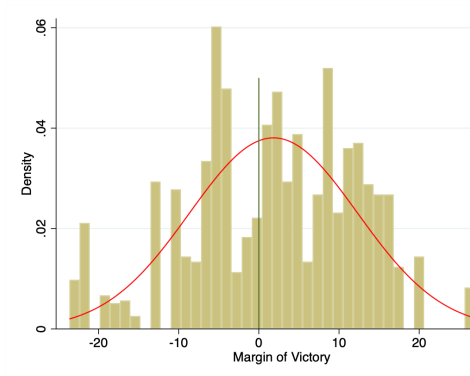
(a) Density of Margin of Victory
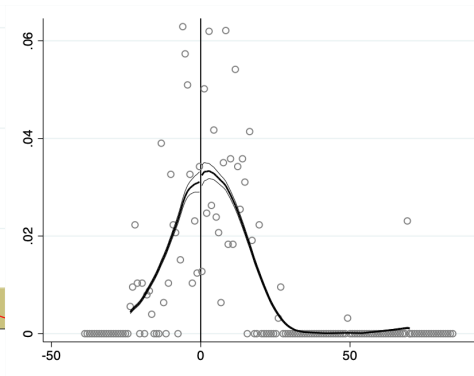
(b) McCrary Density Test

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Appendix: RDD Validity

Balance of Constituency Characteristics

VARIABLES	(1) Ruling Party	(2) SC/ST Reserved	(3) Log Total Votes	(4) Voter Turnout	(5) Log Electoral Size
Criminal	-0.097	-0.256	0.0169	-0.539	0.031
	(0.358)	(0.317)	(0.069)	(2.515)	(0.082)
Observations	2459	3254	2107	2334	3074
Bandwidth Size	4.934	6.106	4.479	4.664	5.863
Method			Local Linear		

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Appendix: RDD Validity

Balance of Candidate Characteristics

VARIABLES	(1) Log Income	(2) Log Liabalites	(3) Age	(4) Gender	(5) High School Degree	(6) Incumbent	(7) National Party
				Panel A: Winner			
Criminal	-0.648	-0.168	-6.673	-0.101	-0.030	-0.119	0.095
	(0.769)	(3.957)	(5.256)	(0.176)	(0.263)	(0.111)	(0.120)
Observations	3464	2954	3684	2954	3464	1492	3784
Bandwidth Size	6.766	5.790	7.503	5.774	6.861	3.334	8.001
				Panel B: Runner-up			
Criminal	0.442	0.501	-1.102	-0.065	-0.018	0.001	0.095
	(0.805)	(3.678)	(4.877)	(0.123)	(0.139)	(0.233)	(0.120)
Observations	2724	1982	3719	2334	2394	2279	3784
Bandwidth Size	5.319	4.270	7.822	4.665	4.801	4.597	8.001
Method				Local Linear			

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Appendix: Mechanism

Effect of Electing Criminal Politicians on MGNREGA Average Cost

	(1)	(2)	(3)	(4)
	Panel A: Wages per WorkDay			
Criminal	0.538	0.675	3.484	11.10
	(7.054)	(7.032)	(4.974)	(11.83)
Observations	1978	1978	4171	878
Bandwidth Size	4.203	4.223	8.407	2.102
	Panel B: Material Expenditure per Project			
Criminal	-18,743	-6,442	-1,911	28,749
	(25,657)	(21,711)	(19,973)	(29,138)
Observations	2993	4474	5211	1286
Bandwidth Size	6.026	9.873	12.05	3.013
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Mechanism

Effect of Electing Criminal Politicians on MGNREGA Labor Ratio

	(1)	(2)	(3)	(4)
	Material Expenditure Ratio			
Criminal	-0.072***	-0.050***	-0.051***	-0.047*
	(0.019)	(0.016)	(0.014)	(0.027)
Observations	3064	4417	5343	1315
Bandwidth Size	6.028	9.753	12.06	3.014
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Heterogeneous Effects

Effect of Electing Criminal Politicians on MGNREGA by Constituency Type

	(1) Non-Ruling	(2) Ruling	(3) Non-Reserved	(4) Reserved
	Panel A: Projects Completed/1000 capita			
Criminal	-10.95***	-0.452	-4.435**	-5.375***
	(1.763)	(2.618)	(2.239)	(1.959)
Observations	832	660	2594	520
Bandwidth Size	3.280	4.075	7.626	3.584
	Panel B: Work Days/1000 capita			
Criminal	1,891***	1,167*	2,717***	-759.8
	(533.9)	(647.7)	(561.8)	(1,149)
Observations	1527	1657	1327	415
Bandwidth Size	5.141	7.810	4.043	2.745
Bandwidth Type	CCT (h)			
Method	Local Linear			

Appendix: Alternative Explanations

Effect of Electing Criminal Politicians on MGNREGA Material Expenditure

	(1)	(2)	(3)	(4)
	Material Expenditure/1000 capita			
Criminal	-36,749	-45,442*	-11,501	67,834
	(30,786)	(27,121)	(29,038)	(52,357)
Observations	1492	1982	3464	728
Bandwidth Size	3.376	4.230	6.752	1.688
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Alternative Explanations

Effect of Electing Criminal Politicians on MGNREGA Work Demand

	(1)	(2)	(3)	(4)
	Job Cards Issued/1000 capita			
Criminal	-36.23	-79.51	-20.35	-64.96
	(32.90)	(61.65)	(20.58)	(58.27)
Observations	3074	1118	5404	1357
Bandwidth Size	5.907	2.612	11.81	2.953
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Effect of Electing Criminal Politicians on MGNREGA (Serious Criminals Only)

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-6.208***	-5.146***	-4.659***	-6.572***
	(1.268)	(1.253)	(1.239)	(1.979)
Observations	2017	2847	3197	933
Bandwidth Size	5.349	8.583	10.70	2.675
	Panel B: Work Days/1000 capita			
Criminal	1,634***	861.5	835.4**	478.3
	(491.7)	(668.6)	(363.4)	(731.7)
Observations	2107	1202	3247	1107
Bandwidth Size	5.795	3.418	11.59	2.897
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Effect of Electing Criminal Politicians on MGNREGA (Corrupt Criminals Only)

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-4.333**	-9.739***	-2.673*	-8.687***
	(1.697)	(2.376)	(1.484)	(2.354)
Observations	1441	485	2011	739
Bandwidth Size	6.236	2.303	12.47	3.118
	Panel B: Work Days/1000 capita			
Criminal	2,292***	1,240	1,395***	985.2
	(664.4)	(885.4)	(509.5)	(926.2)
Observations	1441	784	2071	739
Bandwidth Size	6.510	3.829	13.02	3.255
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Effect of Electing Criminal Politicians on MGNREGA at Time t+1

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-5.985***	-6.038***	-4.200***	-7.498**
	(2.123)	(2.236)	(1.479)	(3.753)
Observations	1275	1183	2831	572
Bandwidth Size	3.591	3.407	7.181	1.795
	Panel B: Work Days /1000 capita			
Criminal	1,438***	1,417**	1,309***	819.8
	(549.0)	(568.8)	(380.3)	(883.6)
Observations	2127	1947	3971	936
Bandwidth Size	5.284	5.006	10.57	2.642
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Effect of Electing Criminal Politicians on MGNREGA by Year
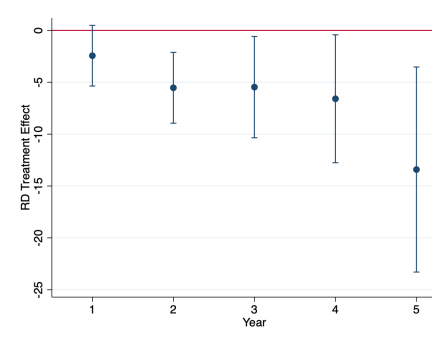
(a) Projects Completed
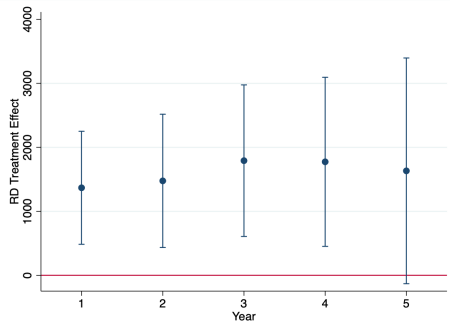
(b) Work Days

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Appendix: Robustness Checks

Effect of Electing Criminal Politicians on MGNREGA for Full Election Period

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-4.835***	-5.292***	-2.985**	-6.372***
	(1.315)	(1.964)	(1.219)	(2.121)
Observations	2394	1357	4559	1048
Bandwidth Size	4.846	2.981	9.691	2.423
	Panel B: Work Days/1000 capita			
Criminal	1,434***	896.8	1,283***	780.4
	(480.2)	(603.1)	(333.7)	(768.3)
Observations	2724	1732	5044	1183
Bandwidth Size	5.346	3.994	10.69	2.673
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Addressing Extreme Values (Excluding Zeros)

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-5.101***	-5.502***	-3.768***	-5.354**
	(1.341)	(1.970)	(1.165)	(2.125)
Observations	2992	1513	5114	1286
Bandwidth Size	5.948	3.503	11.90	2.974
	Panel B: Work Days /1000 capita			
Criminal	1,374***	1,335***	1,028***	950.5
	(486.3)	(514.9)	(336.8)	(785.0)
Observations	2795	2554	5004	1229
Bandwidth Size	5.700	5.216	11.40	2.850
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method		Local Linear		

Appendix: Robustness Checks

Addressing Extreme Values ($<$ Top 5 Values)

	(1)	(2)	(3)	(4)
	Panel A: Projects Completed/1000 capita			
Criminal	-4.929***	-5.045**	-3.377***	-6.766***
	(1.410)	(1.971)	(1.177)	(2.291)
Observations	1979	1289	4234	877
Bandwidth Size	4.231	2.848	8.463	2.116
	Panel B: Work Days /1000 capita			
Criminal	1,305***	1,263**	1,215***	764.2
	(486.3)	(514.9)	(336.8)	(785.0)
Observations	2611	2391	4864	1117
Bandwidth Size	5.193	4.772	10.39	2.596
Bandwidth Type	CCT (h)	IK	$2h$	$h/2$
Method	Local Linear			

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Appendix: Robustness Checks

Figure C.2: RD Estimates for Different Bandwidths
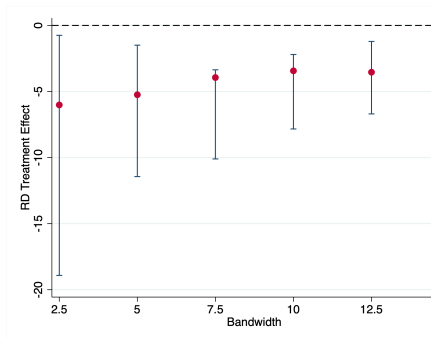
(a) Projects Completed
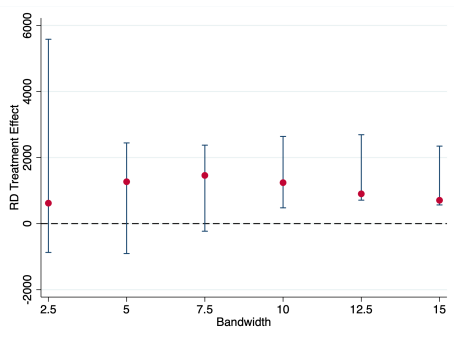
(b) Work Days

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Appendix: Robustness Checks

RD Estimates with Different Functional Forms

	(1)	(2)	(3)	(4)
	Projects Completed/1000 capita			
Linear	-5.264***	-5.504***	-3.436***	-6.440***
	(1.313)	(1.879)	(1.205)	(2.138)
Quadratic	-6.494**	-7.961**	-5.153***	-9.754**
	(2.555)	(3.487)	(1.439)	(4.880)
Cubic	-10.51**	-13.43**	-7.604***	-6.322
	(4.143)	(6.472)	(2.326)	(7.895)
Observations	2459	1492	4679	1118
Bandwidth Size	4.916	3.407	9.832	2.458
Bandwidth Type		CCT (h)		

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Appendix: Robustness Checks

RD Estimates with Different Functional Forms

	(1)	(2)	(3)	(4)
	Work Days /1000 capita			
Linear	1,295***	1,309***	1,147***	746.2
	(477.3)	(470.6)	(333.4)	(765.4)
Quadratic	837.1	828.8	1,644***	2,134
	(814.0)	(800.8)	(538.2)	(1,608)
Cubic	1,503	1,448	898.1	11,150***
	(1,419)	(1,354)	(750.9)	(2,745)
Observations	2724	2764	5044	1183
Bandwidth Size	5.340	5.458	10.68	2.670
Bandwidth Type		CCT (h)		

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Appendix: Robustness Checks

RD Specification with Covariates

	(1)	(2)	(3)
	Panel A: Projects Completed/1000 capita		
Criminal	-3.500***	-5.264***	-3.500***
	(1.231)	(1.313)	(1.231)
Observations	4359	2459	2459
Bandwidth Size	9.020	4.916	9.020
	Panel B: Work Days/1000 capita		
Criminal	1,297***	1,295***	1,297***
	(430.2)	(477.3)	(430.2)
Observations	3254	2724	2724
Bandwidth Size	6.235	5.340	6.235
Constituency Controls	Yes	No	Yes
Candidate Controls	No	Yes	Yes
Bandwidth Type		CCT (h)	
Method		Local Linear	

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