

Table 1: Corruption Infraction Codes

Code #	Code Description
Procurement	
(04)	Public tender was not publicized.
(05)	Tender winner presented forged price estimates.
(06)	Shell companies have participated in tender.
(08)	Tender documentation was forged.
(09)	Tender participant received special treatment.
(30)	Wrong tender rules were applied.
(31)	Tender was incorrectly dismissed.
Private Appropriation	
(11)	Good/service was overpriced.
(12)	Supplier used forged receipts to claim payments.
(13)	Payments were unaccompanied by receipts.
(14)	Payments made to parties unrelated to policy implementation.

Source: CEPESP-FGV. All other codes available in **appendix B**.

Table 2: Procurement Categories

	Type	Goods/Services Purchases	Public Works
Category 0	Direct contracting	$x_i \leq R\$8,000$	$x_i \leq R\$15,000$
Category 1	Invitational	$R\$80,000 \leq x_i < R\$8,000$	$R\$150,000 \leq x_i < R\$15,000$
Category 2	Price Taking	$R\$650,000 \leq x_i < R\$80,000$	$R\$1,500,000 \leq x_i < R\$150,000$
Category 3	Competitive	$x_i > R\$650,000$	$x_i > R\$1,500,000$

Source: Law 8,666/93.

Table 3: Number of Municipal Audits by Ministry

	Health			
	No	Yes	Total	
Education	No	0	65	65
	Yes	34	1040	1074
	Total	34	1105	1139

Source: CGU and CEPESP-FGV. The total across rows and columns is equivalent to the number of municipalities in the sample.

Table 4: Summary Statistics

<i>Panel A: Service Order Level</i>							
	<i>N</i>	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Amount (in R\$)	9,593	449,858	3,060,374	65	36,000	204,721	236,198,658
Infraction Count	9,593	2.398	2.172	0	1	3	18
Corruption Indicator I (Binary)	9,593	0.398	0.489	0	0	1	1
Corruption Indicator II (Share of Total Infractions)	9,593	0.195	0.294	0	0	0.3	1
Corruption Indicator III (Amount)	9,593	125,695	954,252	0	0	29,427	49,282,832
Mismanagement Indicator I (Binary)	9,593	0.746	0.435	0	0	1	1
Mismanagement Indicator II (Share of Total Infractions)	9,593	0.619	0.407	0	0	1	1
Mismanagement Indicator III (Amount)	9,593	268,168	2,618,568	0	0	122,000	236,198,658
<i>Panel B: Municipal Level</i>							
	<i>N</i>	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Urban Population (Share)	1,139	0.642	0.221	0.042	0.476	0.826	1
Female (Share)	1,139	0.505	0.015	0.461	0.495	0.512	0.658
Illiteracy Rate	1,139	0.168	0.099	0.016	0.083	0.254	0.428
GDP per capita	1,139	11,890	11,696	2,463	5,046	14,749	153,770
Gini Index	1,139	0.512	0.066	0.318	0.469	0.555	0.783
Human Development Index	1,139	0.654	0.072	0.469	0.592	0.714	0.862
Poverty Rate	1,139	0.250	0.184	0.003	0.078	0.404	0.755
Presence of AM Radio	1,139	0.237	0.425	0	0	0	1
Education Council Established	1,139	0.781	0.413	0	1	1	1
Health Council Established	1,139	0.969	0.173	0	1	1	1
Seat of Judiciary Branch	1,139	0.514	0.500	0	0	1	1
Vote Margin	1,139	0.168	0.188	-0.046	0.047	0.211	1
Mayor Reelection Rate	1,139	0.293	0.451	0	0	1	1

Sources: CGU, CEPESP-FGV, IBGE, and TSE. Panel A contains variables measured at the service order level coded by CEPESP-FGV straight out of CGU audit reports, including the six corruption and mismanagement outcomes. Panel B contains covariates at the municipal level measured in 2010 by the Brazilian Office of Statistics (IBGE) and electoral data from the Electoral Court (TSE) for municipal elections in 2000, 2004, and 2008. 1.8% of the two election covariates had missing values and were recoded to the overall mean as per Donald Green’s lab Statement of Purpose.

Table 5: Corruption Determinants in Brazilian Municipalities

	<i>Dependent variable:</i>					
	Corruption Indicator I (Binary)		Corruption Indicator II (Share of Total Infractions)		Corruption Indicator III (Amount)	
	(1)	(2)	(3)	(4)	(5)	(6)
Amount	0.000***	0.000***	0.000***	0.000***	.451***	.452***
(in R\$)	(0.000)	(0.000)	(0.000)	(0.000)	(.077)	(.078)
Amount	-0.000*	-0.000**	-0.000**	-0.000**	-0.000***	-0.000***
(in R\$, Squared)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Municipal Corruption	1.079***	.812***	.546***	.423***	130,305	174,681
	(.156)	(.157)	(.083)	(.086)	(95,773)	(110,873)
Municipal Corruption	-1.619***	-1.396***	-.412**	-.327*	-109,920	-178,577
(Squared)	(.314)	(.288)	(.184)	(.175)	(200,521)	(200,739)
Procurement Type 1	.086***	.114***	.035**	.046***	-11,702***	-2,273
	(.027)	(.027)	(.015)	(.015)	(3,810)	(7,903)
Procurement Type 2	.162***	.205***	.064***	.079***	-63,758***	-39,176*
	(.028)	(.029)	(.016)	(.016)	(20,663)	(20,434)
Procurement Type 3	.174***	.188***	.040**	.046**	-381,097	-353,389
	(.036)	(.034)	(.020)	(.020)	(233,558)	(223,038)
Municipal Controls	-	Yes	-	Yes	-	Yes
Ministry Fixed-Effects	-	Yes	-	Yes	-	Yes
Lottery Fixed-Effects	-	Yes	-	Yes	-	Yes
Observations	9,593	9,593	9,593	9,593	9,593	9,593
Adjusted-R <sup>2</sup>	.034	.074	.036	.052	.551	.551
F Statistic	48.926***	17.992***	52.371***	12.606***	1,680***	262.439***

Notes: This table reports the relationship between the (new) corruption determinants in the context of Brazilian municipalities. Corruption Indicator I (columns 1-2) is a binary variable turning on when the procurement call has at least one corruption infraction. Corruption Indicator II (columns 3-4) is the share of corruption infractions over all infractions for any single procurement call. Corruption Indicator III (columns 5-6) is the share of corruption infractions over all infractions times the procurement amount. Municipal corruption is computed by aggregating indicator II at the municipal level; it summarizes the relationship between the corruption level at each procurement call vs. overall municipal corruption. Municipal controls are summarized in table 4 and control for other variables that are associated with individual corruption decisions. Robust standard errors are clustered at the municipal level and are reported in parentheses.

\*p<.1; \*\*p<.05; \*\*\*p<.01

Table 6: Bandwidth Choice (in R\$)

Cutoff	Purchases		Public Works	
	Amount	Range	Amount	Range
1	8,000	$\pm 3,839$	15,000	$\pm 6,269$
2	80,000	$\pm 30,085$	150,000	$\pm 46,798$
3	650,000	$\pm 216,058$	1,500,000	$\pm 773,044$

Notes: All values have been rounded to zero decimal cases. The ranges have been determined by the average bandwidth across all six outcomes using the optimal bandwidth selection from Calonico et al. (2014, 2015); Cattaneo et al. (2016).

## References

- Calonico, S., Cattaneo, M. D., and Titiunik, R. (2014). Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs. *Econometrica*, 82(6):2295–2326.
- Calonico, S., Cattaneo, M. D., and Titiunik, R. (2015). Optimal Data-Driven Regression Discontinuity Plots. *Journal of the American Statistical Association*, 110:1753–1769.
- Cattaneo, M. D., Keele, L., Titiunik, R., and Vazquez-Bare, G. (2016). Interpreting Regression Discontinuity Designs with Multiple Cutoffs. *The Journal of Politics*, 78(4):1229–1248.