

Online Appendix for  
“Does Corruption Deter Female Leadership in Firms?”  
*Journal of Institutional Economics*

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October 1, 2025

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# A Population Weighting and Alternative Corruption Measures

Table A1: The effect of corruption on the share of leadership positions held by women.

	Employers	Managers Directors & Executives	Leadership
<b>Panel A:</b> OLS with Baseline Controls with Population as Analytic Weights			
Corruption per-capita	-0.236** (0.086)	-0.222*** (0.066)	-0.197*** (0.057)
$N$	878	930	933
adj. $R^2$	0.073	0.068	0.097
<b>Panel B:</b> OLS with Baseline Controls - Pre-2010 Data			
Corruption per-capita	-0.096 (0.214)	-0.291** (0.118)	-0.190 (0.117)
$N$	496	523	525
adj. $R^2$	0.011	0.061	0.060
<b>Panel C:</b> OLS with Baseline Controls - Ferraz and Finan (2011) Data			
Corruption per-capita	0.008 (0.079)	-0.121** (0.049)	-0.060 (0.037)
$N$	458	472	475
adj. $R^2$	0.042	0.115	0.088
<b>Panel D:</b> OLS with Baseline Controls - Controlling for Number of Audits			
Corruption per-capita	-0.297** (0.138)	-0.214** (0.084)	-0.178** (0.077)
$N$	878	930	933
adj. $R^2$	0.023	0.053	0.058
<b>Panel E:</b> OLS with Baseline Controls - Dummy for Multiple Audits			
Corruption per-capita	-0.293** (0.138)	-0.214** (0.083)	-0.175** (0.077)
$N$	878	930	933
adj. $R^2$	0.023	0.050	0.057

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. See Table 3 for a list of the baseline controls used in regressions. Standard errors clustered by state in parentheses. Panel A weights each observation (municipality) OLS regression according to its population. Panel D includes a control for the number of times the municipality has been audited. Panel E includes a dummy for whether the municipality has been audited more than once.

Table A2: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions.

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b>Panel A:</b> OLS with Baseline Controls with Population as Analytic Weights				
Corruption per-capita	-0.070 (0.091)	-0.015*** (0.004)	-0.021** (0.007)	-0.035*** (0.009)
<i>N</i>	935	935	935	935
adj. <i>R</i> <sup>2</sup>	0.785	0.442	0.432	0.536
<b>Panel B:</b> OLS with Baseline Controls - Pre-2010 Data				
Corruption per-capita	-0.070 (0.083)	-0.008 (0.010)	-0.017 (0.014)	-0.025 (0.020)
<i>N</i>	527	527	527	527
adj. <i>R</i> <sup>2</sup>	0.698	0.239	0.214	0.286
<b>Panel C:</b> OLS with Baseline Controls - Ferraz and Finan (2011) Data				
Corruption per-capita	-0.024 (0.025)	-0.003 (0.005)	-0.006 (0.006)	-0.009 (0.009)
<i>N</i>	476	476	476	476
adj. <i>R</i> <sup>2</sup>	0.712	0.303	0.211	0.307
<b>Panel D:</b> OLS with Baseline Controls - Controlling for Number of Audits				
Corruption per-capita	-0.094 (0.072)	-0.017*** (0.005)	-0.017* (0.009)	-0.034*** (0.012)
<i>N</i>	935	935	935	935
adj. <i>R</i> <sup>2</sup>	0.697	0.239	0.193	0.274
<b>Panel E:</b> OLS with Baseline Controls - Dummy for Multiple Audits				
Corruption per-capita	-0.094 (0.072)	-0.017*** (0.005)	-0.017* (0.009)	-0.034*** (0.012)
<i>N</i>	935	935	935	935
adj. <i>R</i> <sup>2</sup>	0.696	0.238	0.193	0.274

Notes: \*\*\* *p*-value < 0.01, \*\* *p*-value < 0.05, \* *p*-value < 0.1. See Table 3 for a list of the baseline controls used in regressions. Standard errors clustered by state in parenthesis. Panel A weights each observation (municipality) OLS regression according to its population. Panel D includes a control for the number of times the municipality has been audited. Panel E includes a dummy for whether the municipality has been audited more than once.

## B Main Results with Industry Share Controls

Table B1: Summary statistics for employment shares across industries

Variable	Mean	Std. Dev.	Min	Max
Agriculture	0.327	0.148	0.032	0.847
Extractive	0.005	0.017	0.000	0.234
Manufacturing	0.098	0.092	0.000	0.622
Utilities (Electricity, Water, Gas)	0.009	0.007	0.000	0.064
Construction	0.066	0.027	0.004	0.227
Retail and Wholesale	0.134	0.049	0.022	0.310
Transportation	0.028	0.016	0.000	0.151
Accommodation	0.033	0.018	0.000	0.183
Banking and Finance	0.005	0.004	0.000	0.026
Professional Services	0.025	0.017	0.000	0.118
Education	0.077	0.041	0.010	0.262
Healthcare	0.029	0.015	0.000	0.124
Public Administration	0.085	0.054	0.014	0.547
Domestic Services	0.067	0.027	0.005	0.187

*Notes:* Summary statistics presented for the full sample of 935 municipalities with available corruption audit data.

Table B2: The effect of corruption on the share of leadership positions held by women; industry shares included as additional controls.

	Employers	Managers Directors & Executives	Leadership
<b><i>Panel A: Full Sample</i></b>			
Corruption per-capita	-0.143 (0.131)	-0.159 (0.093)	-0.132 (0.083)
$N$	878	930	933
adj. $R^2$	0.037	0.044	0.062
<b><i>Panel B: "Corrupt" Sectors Only</i></b>			
Corruption per-capita	-0.351 (0.226)	0.529* (0.268)	0.164 (0.199)
$N$	553	639	719
adj. $R^2$	0.070	0.059	0.069

*Notes:* \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. See Table 3 for a list of the baseline controls. Standard errors clustered by state in parentheses. See Table B1 for a list of sectors and summary statistics.





Table B3: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions.

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b><i>Panel A: Full Sample</i></b>				
Corruption per-capita	0.002 (0.066)	-0.003 (0.005)	0.001 (0.009)	-0.002 (0.012)
$N$	935	935	935	935
adj. $R^2$	0.774	0.290	0.259	0.355
<b><i>Panel B: "Corrupt" Sectors Only</i></b>				
Corruption per-capita	-0.011 (0.010)	-0.005** (0.002)	-0.007** (0.003)	-0.011** (0.005)
$N$	935	935	935	935
adj. $R^2$	0.821	0.421	0.481	0.479

*Notes:* Notes: \*\*\*  $p$ -value  $< 0.01$ , \*\*  $p$ -value  $< 0.05$ , \*  $p$ -value  $< 0.1$ . See Table 3 for a list of the baseline controls. Standard errors clustered by state in parentheses. See Table B1 for a list of sectors and summary statistics.

## C Sample Consistency

Table C1: Summary statistics for reduced samples of Table 4

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Sample of Table 4, Panel A, Column 1</b>    in Figure C1					
<b>Outcome:</b> <i>Female employers divided by total employers in the municipality.</i>					
Employers	878	0.263	0.184	0.000	1.000
<b>Corruption</b>					
(Log) Corruption per-capita	878	0.426	0.067	0.181	0.600
<b>Municipal Level Controls (Baseline Controls)</b>					
GDP per-capita (R\$)	878	12,004.5	17,790.1	2,261.63	298,819.8
Population Density	878	85.456	351.998	0.225	6140.697
Size of Informal Sector (%)	878	0.590	0.191	0.128	0.970
College Degree (%)	878	0.051	0.030	0.003	0.235
Male (%)	878	0.504	0.015	0.465	0.658
Working Age (18-65 years) (%)	878	0.597	0.046	0.392	0.698
Urban (%)	878	0.631	0.215	0.050	0.999
<b>Sample of Table 4, Panel B, Column 1</b>    in Figure C1					
<b>Outcome:</b> <i>Female employers in corrupt sectors divided by total employers in corrupt sectors.</i>					
Employers	553	0.273	0.140	0.000	1.000
<b>Corruption</b>					
(Log) Corruption per-capita	553	0.410	0.067	0.181	0.583
<b>Municipal Level Controls (Baseline Controls)</b>					
GDP per-capita (R\$)	553	13,897.6	17677.1	2582.37	234,013.4
Population Density	553	111.182	435.759	0.372	6140.697
Size of Informal Sector (%)	553	0.537	0.188	0.170	0.970
College Degree (%)	553	0.060	0.033	0.003	0.235
Male (%)	553	0.502	0.014	0.465	0.553
Working Age (18-65 years) (%)	553	0.607	0.045	0.392	0.696
Urban (%)	553	0.687	0.206	0.085	0.999
<b>Sample of Table 4, Panel B, Column 2</b>    in Figure C1					
<b>Outcome:</b> <i>Female Managers, Directors, or Executives (MDE) in corrupt sect. div. by total MDE in corrupt sectors</i>					
Managers, Directors, or Executives	639	0.207	0.259	0.000	1.000
<b>Corruption</b>					
(Log) Corruption per-capita	639	0.416	0.068	0.181	0.600
<b>Municipal Level Controls (Baseline Controls)</b>					
GDP per-capita (R\$)	639	13,563.0	16,797.9	2,575.2	234,013.4
Population Density	639	103.660	410.467	0.232	6140.697
Size of Informal Sector (%)	639	0.547	0.189	0.128	0.970
College Degree (%)	639	0.057	0.032	0.006	0.235
Male (%)	639	0.504	0.015	0.465	0.658
Working Age (18-65 years) (%)	639	0.606	0.043	0.462	0.698
Urban (%)	639	0.672	0.208	0.085	0.999
<b>Sample of Table 4, Panel B, Column 3</b>    in Figure C1					
<b>Outcome:</b> <i>Female leaders divided by total leadership positions in the municipality.</i>					
Leadership	719	0.197	0.240	0.000	1.000
<b>Corruption</b>					
(Log) Corruption per-capita	719	0.419	0.067	0.181	0.600
<b>Municipal Level Controls (Baseline Controls)</b>					
GDP per-capita (R\$)	719	12,802.7	16,037.850	2,575.211	234,013.4
Population Density	719	96.584	387.725	0.232	6140.697
Size of Informal Sector (%)	719	0.563	0.191	0.128	0.970
College Degree (%)	719	0.055	0.031	0.003	0.235
Male (%)	719	0.504	0.015	0.465	0.658
Working Age (18-65 years) (%)	719	0.602	0.046	0.392	0.698
Urban (%)	719	0.659	0.210	0.085	0.999

*Notes:* In Table 2, some variables had less observations because some municipalities are small and have *no* leadership positions (e.g. *Employment* with 878 observations) making the denominator zero. Other municipalities had no employment (or no leadership positions) in the corrupt sectors. Here, we restrict the sample to provide summary statistics for those observations we have complete data for all outcome variables.

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Figure C1: Kernel densities distribution of the independent variables

*Note:* This figure plots the kernel densities of the explanatory variables for the different samples in the main results (Table 4). — Panel A, Column 1; — Panels B, Column 1; — Panel B, Column 2; — Panel B, Column 3. For reference, we also plot the distribution of the full sample (solid black line, —), and of all Brazilian municipalities eligible for treatment (dashed black line, - -).



## D “Non-Corrupt” Sectors

Table D1: Summary statistics for outcome measures in corrupt vs. non-corrupt sectors

<b>Outcomes - “Corrupt” Sectors Only<sup>1</sup></b>					
Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Female Presence in Leadership Positions<sup>2</sup></b>					
<i>Female leaders in corrupt sectors divided by total leadership positions in corrupt sectors.</i>					
Employer	553	0.188	0.242	0	1
Managers, Directors, or Executives	639	0.207	0.259	0	1
Leadership	719	0.197	0.240	0	1
<b>Female Labor Force in “Corrupt” Sector</b>					
<i>Female workers in corrupt sectors divided by total number of working women.</i>					
Female Labor Force Participation	935	0.021	0.021	0.001	0.181
<b>Female Labor Force Job Type</b>					
<i>Female leaders in corrupt sectors divided by total number of female workers in corrupt sectors</i>					
Employer	935	0.001	0.003	0	0.027
Managers, Directors, or Executives	935	0.001	0.004	0	0.045
Leadership	935	0.002	0.006	0	0.072
<b>Outcomes - “Non-Corrupt” Sectors Only<sup>3</sup></b>					
Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Female Presence in Leadership Positions<sup>2</sup></b>					
<i>Female leaders in non-corrupt sectors divided by total leadership positions in non-corrupt sectors.</i>					
Employer	863	0.277	0.196	0	1
Managers, Directors, or Executives	928	0.386	0.180	0	1
Leadership	932	0.352	0.151	0	1
<b>Female Labor Force in “Non-Corrupt”</b>					
<i>Female workers in non-corrupt sectors divided by total number of working age women.</i>					
Female Labor Force Participation	935	0.309	0.021	0.149	0.329
<b>Female Labor Force Job Type</b>					
<i>Female leaders in non-corrupt sectors divided by total number of female workers in non-corrupt sectors.</i>					
Employer	935	0.001	0.002	0	0.024
Managers, Directors, or Executives	935	0.001	0.003	0	0.046
Leadership	935	0.002	0.005	0	0.070

Notes: <sup>1</sup>“Corrupt” sectors are extractive industries, manufacturing, construction, and transportation and communication, following [Bologna and Ross \(2015\)](#). <sup>2</sup>The observation numbers may be lower because some municipalities are small and have *no* leadership positions in these sectors, making the denominator zero. All municipalities have women and working women and thus there are no undefined observations when using the other measures. <sup>3</sup> “Non-Corrupt” sectors are defined as all remaining sectors.

Table D2: The effect of corruption on the share of leadership positions held by women.

	Employers	Managers Directors & Executives	Leadership
<b>Panel A: OLS Estimates, “Corrupt” Sectors Only</b> (Same as Table 3, Panel B)			
Corruption per-capita	-0.477* (0.251)	0.338 (0.225)	-0.021 (0.201)
<i>N</i>	553	639	719
adj. <i>R</i> <sup>2</sup>	0.070	0.040	0.058
<b>Panel B: OLS Estimates, “Non-Corrupt” Sectors Only</b>			
Corruption per-capita	-0.301** (0.143)	-0.277*** (0.095)	-0.206** (0.092)
<i>N</i>	863	928	932
adj. <i>R</i> <sup>2</sup>	0.050	0.048	0.065

Notes: \*\*\* *p*-value < 0.01, \*\* *p*-value < 0.05, \* *p*-value < 0.1. See Table 3 for a list of the baseline controls. Standard errors clustered by state in parentheses.

Table D3: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions.

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b>Panel A: OLS Estimates, “Corrupt” Sectors Only</b> (Same as Table ??, Panel B)				
Corruption per-capita	-0.055*** (0.018)	-0.007*** (0.002)	-0.010*** (0.003)	-0.017*** (0.004)
<i>N</i>	935	935	935	935
adj. <i>R</i> <sup>2</sup>	0.356	0.360	0.429	0.422
<b>Panel B: OLS Estimates, “Non-Corrupt” Sectors Only</b>				
Corruption per-capita	-0.036 (0.067)	-0.004*** (0.001)	-0.009*** (0.002)	-0.014*** (0.003)
<i>N</i>	935	935	935	935
adj. <i>R</i> <sup>2</sup>	0.671 (0.063)	0.452 (0.004)	0.477 (0.007)	0.481 (0.010)

Notes: \*\*\* *p*-value < 0.01, \*\* *p*-value < 0.05, \* *p*-value < 0.1. See Table 3 for a list of the baseline controls. Standard errors clustered by state in parentheses.

## E Instrumental Variable Analysis

A concern with our OLS results, and any study of corruption, is endogeneity. There are many potential unobservable causes of corruption that could result in omitted variables biasing the estimates. Culture, for example, has been linked to corruption and is notoriously difficult to measure and control for (Barr and Serra, 2010; Pillay and Kluvers, 2024). An ideal solution would be to utilize an experimental or quasi-experimental design. However, given our cross-sectional data, this is not possible here. We therefore rely on an instrumental variable approach. More specifically, we utilize a two stage least squares (2SLS) estimator where we (1) get an estimate of corruption in the first stage using a set of instrumental variables (along with our controls) and (2) use this predicted corruption value to estimate the causal effect of corruption on our outcomes in the second stage.

For instruments to be valid, they need to satisfy two criteria: relevance and exogeneity. The first is relatively easy to satisfy in that many factors are related to corruption. It is the second, exogeneity, that makes finding a plausible instrument more difficult.

Our instruments include two measures of political competition and participation: the existence of local councils and whether these councils are active.<sup>1</sup> The former counts the number of municipal councils that exist and creates an index from this information (scaled from 1 (least councils) to 6 (most councils)). A council is coded as active if they have individuals appointed in positions. These measures are taken from a 1998 index (*Indicador de Qualidade Institucional Municipal - IQIM*) constructed by the *Instituto Brasileiro de Geografia e Estatística* (IBGE). Municipal councils serve as a check on corruption.

We additionally include a measure of management capacity, also from the IQIM index and defined at the municipal level. In sum, this indicator measures the government’s ability to implement zones, codes, and other laws with the purpose of municipal planning (e.g., zoning laws or building codes). We interpret this as a measure of state capacity where state capacity is defined broadly as the ability to govern, enforce the law, and tax (Piano, 2019). While stronger states might engage in more corruption, they also have a stronger ability to limit it. There is an extensive literature connecting state capacity to development (see, e.g., (Johnson and Koyama, 2017)), and while specific the connection between corruption and capacity has received relatively less attention, it is likely that state strength is an important factor in determining corruption levels (Owen and Vu, 2022).<sup>2</sup>

Lastly, we include an indicator for whether the municipality is a judiciary district (*comarca*). It implies that the municipalities has a branch of the state court. Ferraz and Finan (2011) theorize that the presence of a judge increases the likelihood of being prosecuted for wrongdoing and thus likely reduces corruption as a result.

All four instruments are measured before any occurrence of corrupt activity studied in this paper.<sup>3</sup> This is beneficial because it makes reverse causality less of a concern. However, the length of time between instrument measurement (1998 for the IQIM data) and corrupt activity could be concerning (any time between 2003-2013). One might be worried that these instruments are not relevant at the time of the corrupt activity and therefore may not be

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<sup>1</sup>In the context of Brazil, municipal councils (*conselhos municipais*) are commissions established by law to propose or advise on policy initiatives in a specific area (e.g., health, education) and oversee their implementation. These councils typically include representatives from the local public administration and civil society organizations. Notably, they differ from city councils (*câmaras municipais*), which serve as the local legislative branch.

<sup>2</sup>Defining the causal association between state capacity and corruption is not necessary in determining the relevance of an instrument. All that matters is that the two variables are correlated; and that the instrument is not otherwise associated with the outcome.

<sup>3</sup>Because there were 6 municipalities emancipating after 1998 but before 2010 we have only 929 observations for IV estimates. Summary statistics for instruments are presented in Table ??.

strong predictors of corruption – in other words, these instruments are predetermined but could be weak. To address this concern, we always report the  $F$ -Statistic from the first stage to gauge the strength of the instruments.

Another concern with these instruments is that they are not truly exogenous. We note that all four variables are political instruments with a focus on implementing some sort of check and balance in local government. We argue that these checks and balances only influence our outcomes through corruption. We believe this is a reasonable assumption but cannot rule out other potential channels. We do provide the  $J$ -Statistic from a test where the null hypothesis is that the instruments are exogenous. However, this is not a particularly strong test because even if we fail to reject the null at a standard threshold (e.g., 90%) the probability that the null is false can still be reasonably high. We also provide results where we present “just-identified” 2SLS estimates using each instrument separately to show the consistency of our results. Even so, endogeneity could remain. We therefore view these instrumental variable results as a robustness check only and refrain from making strong causal statements throughout the paper.

Table E1: Summary statistics for instrumental variables.

Variable	Mean	Std. Dev.	Min	Max
Number of Councils <sup>1</sup>	3.157	0.702	1	6
Number of Councils <sup>1</sup> installed	2.804	0.762	1	5
Management Capacity Index	2.151	1.237	1	6
Has Local Judge	0.318	0.466	0	1

*Notes:* Summary statistics for instrumental variables refer to 929 municipalities (compared to 935 in the main sample). Data is unavailable for 6 municipalities emancipated in the early 2000s, after the creation of the Management Capacity Index (IQIM - *Indicador de Qualidade Institucional Municipal*). <sup>1</sup> In the context of Brazil, municipal councils (*conselhos municipais*) are commissions established by law to propose or advise on policy initiatives in a specific area (e.g., health, education) and oversee their implementation. These councils typically include representatives from the local public administration and civil society organizations. Notably, they differ from city councils (*câmaras municipais*), which serve as the local legislative branch. The measures report indexes on the number of councils and number of *active* councils, scaled from 1 (least councils) to 6 (most councils). A council is coded as active if they have individuals appointed in positions.

Table E2: The effect of corruption on the share of leadership positions held by women: IV estimates

	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, Full Sample</b>			
Corruption per-capita	-0.780 (0.615)	-0.414 (0.319)	-0.511 (0.337)
<i>N</i>	872	924	927
<i>F</i> -Statistic	24.122	26.803	26.997
<i>J</i> -Statistic	6.192	0.970	1.692
<b>Panel B: 2SLS Estimates, "Corrupt" Sectors Only</b>			
Corruption per-capita	-0.173 (0.997)	0.903 (0.559)	0.204 (0.568)
<i>N</i>	551	637	716
<i>F</i> -Statistic	12.028	24.814	25.575
<i>J</i> -Statistic	0.801	4.639	5.002

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments for include two measures of political participation (whether councils exist and the number of councils that are active), an indicator for management capacity, and whether the municipality has a judge. See Table E4-E5 for first-stage regressions.

Table E3: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions: IV results

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, Full Sample</b>				
Corruption per-capita	-0.108 (0.232)	-0.058*** (0.022)	-0.085*** (0.031)	-0.142*** (0.047)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	25.775	25.775	25.775	25.775
<i>J</i> -Statistic	4.980	4.101	1.606	2.573
<b>Panel B: 2SLS Estimates, "Corrupt" Sectors Only</b>				
Corruption per-capita	-0.034 (0.063)	-0.023*** (0.004)	-0.039*** (0.007)	-0.062*** (0.010)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	25.775	25.775	25.775	25.775
<i>J</i> -Statistic	5.296	4.282	6.095	5.717

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments include two measures of political participation (whether councils exist and the number of councils that are active), an indicator for management capacity, and whether the municipality has a judge. See Tables E6-E7 for first-stage regressions.

Table E4: First Stage Estimates for Table E2, Panel A

<i>First-Stage for:</i>	<b>Employers</b>	<b>Managers Directors &amp; Executives</b>	<b>Leadership</b>
<b>Instrumented Variable:</b>	<i>Corruption per-capita</i>		
<i>Excluded instruments</i>			
Number of Councils	-0.001 (0.004)	-0.000 (0.004)	-0.000 (0.004)
Councils installed	-0.004 (0.003)	-0.005 (0.003)	-0.004 (0.003)
Management Index	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)
Has Judge	-0.020*** (0.004)	-0.020*** (0.004)	-0.021*** (0.004)
<i>Included instruments</i>			
Log(GDP per capita)	-0.004 (0.004)	-0.004 (0.003)	-0.004 (0.003)
Log(Pop. Density)	-0.013*** (0.002)	-0.013*** (0.003)	-0.013*** (0.003)
% Informal	0.049** (0.022)	0.043** (0.020)	0.043** (0.020)
% College Degree	-0.249** (0.095)	-0.223** (0.094)	-0.220** (0.094)
% Working Age	-0.074 (0.093)	-0.117 (0.095)	-0.113 (0.094)
% Male	0.270 (0.183)	0.228 (0.182)	0.232 (0.182)
% Urban	0.035** (0.014)	0.034** (0.013)	0.034** (0.013)
<i>N</i>	872	924	927
<i>F</i> -Statistic	24.122	26.803	26.997
<i>J</i> -Statistic	6.192	0.970	1.692

*Notes:* \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table E1 for summary statistics for instrumental variables.

Table E5: First Stage Estimates for Table E2, Panel B

<i>First-Stage for:</i>	Employers	Managers Directors & Executives	Leadership
Instrumented Variable:	<i>Corruption per-capita</i>		
<i>Excluded instruments</i>			
Number of Councils	-0.004 (0.003)	-0.004 (0.003)	-0.005 (0.003)
Councils installed	-0.001 (0.004)	-0.002 (0.003)	-0.003 (0.003)
Management Index	-0.006*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Has Judge	-0.015*** (0.004)	-0.020*** (0.004)	-0.021*** (0.004)
<i>Included instruments</i>			
Log(GDP per capita)	-0.002 (0.005)	-0.004 (0.004)	-0.004 (0.004)
Log(Pop. Density)	-0.016*** (0.003)	-0.014*** (0.003)	-0.014*** (0.003)
% Informal	0.076** (0.030)	0.063*** (0.019)	0.062*** (0.021)
% College Degree	-0.199 (0.131)	-0.220* (0.111)	-0.199* (0.115)
% Working Age	0.015 (0.101)	-0.023 (0.101)	-0.009 (0.081)
% Male	0.293 (0.240)	0.368* (0.198)	0.374* (0.192)
% Urban	0.039** (0.019)	0.046*** (0.015)	0.043*** (0.016)
<i>N</i>	551	637	716
<i>F</i> -Statistic	12.028	24.814	25.575
<i>J</i> -Statistic	0.801	4.639	5.002

*Notes:* \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table E1 for summary statistics for instrumental variables.

Table E6: First Stage Estimates for Table E3, Panel A

	Labor Force	Employers	Managers Directors & Executives	Leadership
Instrumented Variable:	Corruption per-capita			
Excluded instruments				
Number of Councils	-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)
Councils installed	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)
Management Index	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)
Has Judge	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)
Included instruments				
Log(GDP per capita)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)
Log(Pop. Density)	-0.014*** (0.003)	-0.014*** (0.003)	-0.014*** (0.003)	-0.014*** (0.003)
% Informal	0.043** (0.021)	0.043** (0.021)	0.043** (0.021)	0.043** (0.021)
% College Degree	-0.212** (0.095)	-0.212** (0.095)	-0.212** (0.095)	-0.212** (0.095)
% Working Age	-0.113 (0.094)	-0.113 (0.094)	-0.113 (0.094)	-0.113 (0.094)
% Male	0.236 (0.183)	0.236 (0.183)	0.236 (0.183)	0.236 (0.183)
% Urban	0.034** (0.013)	0.034** (0.013)	0.034** (0.013)	0.034** (0.013)
N	929	929	929	929
F-Statistic	25.775	25.775	25.775	25.775
J-Statistic	4.980	4.101	1.606	2.573

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table E1 for summary statistics for instrumental variables.



Table E7: First Stage Estimates for Table E3, Panel B

	Labor Force	Employers	Managers Directors & Executives	Leadership
Instrumented Variable:	Corruption per-capita			
Excluded instruments				
Number of Councils	-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)
Councils installed	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)
Management Index	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)	-0.008*** (0.002)
Has Judge	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)
Included instruments				
Log(GDP per capita)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)
Log(Pop. Density)	-0.014*** (0.003)	-0.014*** (0.003)	-0.014*** (0.003)	-0.014*** (0.003)
% Informal	0.043** (0.021)	0.043** (0.021)	0.043** (0.021)	0.043** (0.021)
% College Degree	-0.212** (0.095)	-0.212** (0.095)	-0.212** (0.095)	-0.212** (0.095)
% Working Age	-0.113 (0.094)	-0.113 (0.094)	-0.113 (0.094)	-0.113 (0.094)
% Male	0.236 (0.183)	0.236 (0.183)	0.236 (0.183)	0.236 (0.183)
% Urban	0.034** (0.013)	0.034** (0.013)	0.034** (0.013)	0.034** (0.013)
N	929	929	929	929
F-Statistic	25.775	10.611	10.611	10.611
J-Statistic	3.077	2.711	6.260	5.307

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table E1 for summary statistics for instrumental variables.

Table E8: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions: just-identified IVs

	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, IV: Number of Council Installed</b>			
Corruption per-capita	-1.774* (1.061)	-0.612 (1.042)	-1.080 (0.787)
<i>N</i>	872	924	927
<i>F</i> -Statistic	14.004	21.817	21.676
<b>Panel B: 2SLS Estimates, IV: Number of Councils</b>			
Corruption per-capita	-2.485** (1.148)	-1.116 (0.756)	-1.322* (0.763)
<i>N</i>	872	924	927
<i>F</i> -Statistic	8.852	9.870	9.863
<b>Panel C: 2SLS Estimates, IV: Management Capacity Index</b>			
Corruption per-capita	-0.872 (0.818)	-0.394 (0.363)	-0.419 (0.339)
<i>N</i>	872	924	927
<i>F</i> -Statistic	24.081	29.454	29.420
<b>Panel D: 2SLS Estimates, IV: Has Judge</b>			
Corruption per-capita	-0.425 (0.768)	-0.406 (0.527)	-0.479 (0.547)
<i>N</i>	872	924	927
<i>F</i> -Statistic	42.238	40.001	40.736

Notes: \*\*\*  $p$ -value  $< 0.01$ , \*\*  $p$ -value  $< 0.05$ , \*  $p$ -value  $< 0.1$ . Standard errors clustered by state in parentheses. This table replicates the results of Table E2, Panel A, using each of the four instrumental variables separately. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table 3 for a list of the baseline controls and Table E1 for summary statistics for instrumental variables.

Table E9: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions, “corrupt sectors”: just-identified IVs

	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, IV: Council Installed</b>			
Corruption per-capita	-1.907 (2.396)	-2.795 (1.835)	-2.279 (1.525)
<i>N</i>	551	637	716
<i>F</i> -Statistic	5.184	9.050	11.750
<b>Panel B: 2SLS Estimates, IV: Number of Councils</b>			
Corruption per-capita	-0.715 (1.925)	-0.474 (1.382)	-0.996 (1.027)
<i>N</i>	551	637	716
<i>F</i> -Statistic	16.224	16.909	21.095
<b>Panel C: 2SLS Estimates, IV: Management Capacity Index</b>			
Corruption per-capita	0.081 (1.367)	0.126 (0.706)	-0.408 (0.940)
<i>N</i>	872	924	927
<i>F</i> -Statistic	20.078	20.445	20.369
<b>Panel D: 2SLS Estimates, IV: Has Judge</b>			
Corruption per-capita	-0.153 (1.038)	2.031*** (0.700)	1.129** (0.540)
<i>N</i>	872	924	927
<i>F</i> -Statistic	25.017	49.746	51.286

Notes: \*\*\*  $p$ -value  $< 0.01$ , \*\*  $p$ -value  $< 0.05$ , \*  $p$ -value  $< 0.1$ . Standard errors clustered by state in parentheses. This table replicates the results of Table E2, Panel B, using each of the four instrumental variables separately. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table 3 for a list of the baseline controls and Table E1 for summary statistics for instrumental variables.

Table E10: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions: just-identified IVs

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, IV: Number of Councils Installed</b>				
Corruption per-capita	-0.647* (0.369)	-0.131*** (0.047)	-0.187** (0.090)	-0.318** (0.130)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	20.898	20.898	20.898	20.898
<b>Panel B: 2SLS Estimates, IV: Number of Councils</b>				
Corruption per-capita	-1.260* (0.652)	-0.132** (0.055)	-0.186** (0.093)	-0.317** (0.139)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	9.467	9.467	9.467	9.467
<b>Panel C: 2SLS Estimates, IV: Management Capacity Index</b>				
Corruption per-capita	0.172 (0.345)	-0.039 (0.030)	-0.080** (0.039)	-0.120** (0.059)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	29.669	29.669	29.669	29.669
<b>Panel D: 2SLS Estimates, IV: Has Judge</b>				
Corruption per-capita	-0.244 (0.193)	-0.056* (0.032)	-0.076* (0.045)	-0.132** (0.067)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	40.110	40.110	40.110	40.110

*Notes:* \*\*\*  $p$ -value  $< 0.01$ , \*\*  $p$ -value  $< 0.05$ , \*  $p$ -value  $< 0.1$ . Standard errors clustered by state in parentheses. This table replicates the results of Table E3, Panel A, using each of the four instrumental variables separately. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table 3 for a list of the baseline controls and Table E1 for summary statistics for instrumental variables.

Table E11: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions, “corrupt-sectors”: just-identified IVs

	Labor Force	Employers	Managers Directors & Executives	Leadership
<b>Panel A: 2SLS Estimates, IV: Council Installed</b>				
Corruption per-capita	-0.230 (0.173)	-0.029** (0.011)	-0.033* (0.020)	-0.062** (0.028)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	20.898	20.898	20.898	20.898
<b>Panel B: 2SLS Estimates, IV: Number of Councils</b>				
Corruption per-capita	-0.521* (0.285)	-0.054** (0.023)	-0.082*** (0.026)	-0.135*** (0.049)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	9.467	9.467	9.467	9.467
<b>Panel C: 2SLS Estimates, IV: Management Capacity Index</b>				
Corruption per-capita	0.027 (0.108)	-0.029*** (0.006)	-0.059*** (0.013)	-0.088*** (0.019)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	29.669	29.669	29.669	29.669
<b>Panel D: 2SLS Estimates, IV: Has Judge</b>				
Corruption per-capita	-0.046 (0.052)	-0.017*** (0.004)	-0.021*** (0.006)	-0.038*** (0.009)
<i>N</i>	929	929	929	929
<i>F</i> -Statistic	40.110	40.110	40.110	40.110

Notes: \*\*\*  $p$ -value  $< 0.01$ , \*\*  $p$ -value  $< 0.05$ , \*  $p$ -value  $< 0.1$ . Standard errors clustered by state in parentheses. This table replicates the results of Table E3, Panel B, using each of the four instrumental variables separately. Instruments for corruption include two measures of political participation – number of existent councils (*Number of Councils*) and how many are active (*Councils installed*) –, an indicator for management capacity (*Management Index*), and whether the municipality has a judge (*Has Judge*). See Table 3 for a list of the baseline controls and Table E1 for summary statistics for instrumental variables.

## F Full Set of Results for Main Estimates

Table F1: The effect of corruption on the share of leadership positions held by women.

	Employers	Managers Directors & Executives	Leadership
<i>Panel A: OLS Estimates, Full Sample</i>			
Corruption per-capita	-0.303** (0.140)	-0.198** (0.083)	-0.172** (0.076)
Log GDP per capita	-0.017 (0.017)	-0.007 (0.010)	-0.015 (0.009)
Log Pop. Density	0.001 (0.007)	0.003 (0.008)	0.002 (0.007)
% Labor Force Informal	-0.055 (0.093)	0.072 (0.067)	-0.011 (0.064)
% College Degree	0.379 (0.336)	0.688** (0.321)	0.552** (0.259)
% Workage	-0.181 (0.382)	-0.363 (0.226)	-0.286 (0.208)
% Male	-0.722 (0.573)	-0.227 (0.535)	-0.443 (0.486)
% Urban	0.031 (0.069)	0.048 (0.037)	0.043 (0.035)
<i>N</i>	878	930	933
adj. $R^2$	0.023	0.048	0.058

*Notes:* \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. This table replicates Table 5, Panel A, reporting all coefficients for controls variables.

Table F2: The effect of corruption on the share of women that are in the labor force *and* the share of the female labor force that hold leadership positions.

	Labor Force	Employers	Managers Directors & Executives	Leadership
<i>Panel A: OLS Estimates, Full Sample</i>				
Corruption per-capita	-0.091 (0.074)	-0.018*** (0.005)	-0.017* (0.009)	-0.035*** (0.012)
Log GDP per capita	0.033*** (0.007)	-0.000 (0.001)	0.002* (0.001)	0.001 (0.001)
Log Pop. Density	0.002 (0.004)	-0.000 (0.000)	0.000 (0.001)	0.000 (0.001)
% Labor Force Informal	0.061 (0.061)	0.002 (0.004)	-0.002 (0.005)	-0.000 (0.006)
% College	0.907*** (0.115)	0.062*** (0.011)	0.099*** (0.023)	0.161*** (0.029)
% Workage	0.632*** (0.162)	0.020 (0.016)	-0.006 (0.017)	0.014 (0.026)
% Male	0.272 (0.319)	-0.030 (0.030)	0.045 (0.037)	0.015 (0.055)
% Urban	0.049 (0.054)	0.005** (0.003)	0.016*** (0.003)	0.021*** (0.005)
<i>N</i>	935	935	935	935
adj. $R^2$	0.697	0.234	0.194	0.274

Notes: \*\*\*  $p$ -value < 0.01, \*\*  $p$ -value < 0.05, \*  $p$ -value < 0.1. Standard errors clustered by state in parentheses. This table replicates Table 5, Panel A, reporting all coefficients for controls variables.

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