Appendix: District Magnitude, Party System Size, and Electoral Strategy

A Descriptive Statistics for Each Group of Municipality

In this Appendix, I present descriptive statistics for the sample used in the analysis and for all municipalities for which I have electoral data. The first subsection contains descriptive statistics for all municipalities. The remaining subsections show descriptive statistics for each treatment group and the control group. In each subsection, the first table contains descriptive statistics for all municipalities and the second for those municipalities used in the analysis. Note that matched and original datasets contain the same number of observations.

A.1 All Municipalities

Table A.1: Descriptive statistics for all municipalities (All Municipalities in the dataset)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	5,471	4.036	1.287	0.814	3.008	4.911	9.653
Family Income (2000)	5,471	170.621	96.190	28.380	86.452	232.665	954.649
Change in M (after 2004 reform)	5,524	−1.529	2.228	−12	−2	0	12
Population (2003)	5,524	31,207.570	188,579.400	809	5,068	21,747.5	10,677,019
Magnitude (2000)	5,524	10.844	3.011	9	9	11	55
HDI (2000)	5,524	0.523	0.104	0.214	0.436	0.609	0.820
GDP per capita (Log) (2003)	5,524	1.557	0.755	0.046	0.891	2.090	5.148
% of Urban Population (2000)	5,471	58.801	23.333	0.000	40.443	77.937	100.000
N of Parties (2000)	5,524	8.207	4.261	1	5	10	31
N of Leg Parties (2000)	5,524	5.065	1.845	1	4	6	18
ENPv (2000)	5,524	5.104	2.165	1.000	3.532	6.245	15.382
ENPs (2000)	5,524	4.123	1.548	1.000	3.000	4.840	14.143
Two-Party VS (2000)	5,524	55.818	16.552	19.508	43.397	66.869	100.000
Two-List VS (2000)	5,524	70.588	21.475	20.219	52.971	91.271	100.000
N of PECs (2000)	5,524	2.360	1.598	0	1	3	12
N of Lists (2000)	5,524	4.556	2.418	1	3	6	23
ENLv (2000)	5,524	3.659	1.814	1.000	2.218	4.596	13.420
N of Lists Seats (2000)	5,524	3.721	1.716	1	2	5	14
ENLs (2000)	5,524	3.184	1.399	1.000	1.976	3.857	10.178

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.2: Descriptive statistics for all municipalities (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	4,825	4.013	1.251	0.814	3.009	4.871	9.653
Family Income (2000)	4,825	169.355	92.988	30.429	86.661	230.846	954.649
Change in M (after 2004 reform)	4,825	−1.459	2.167	−12	−2	0	0
Population (2003)	4,825	25,040.990	165,796.400	809	4,944	19,970	10,677,019
Magnitude (2000)	4,825	10.674	2.738	9	9	11	55
HDI (2000)	4,825	0.524	0.103	0.214	0.437	0.609	0.791
GDP per capita (Log) (2003)	4,825	1.555	0.741	0.046	0.898	2.089	5.148
% of Urban Population (2000)	4,825	58.077	22.980	0.000	40.029	76.853	100.000
N of Parties (2000)	4,825	7.895	3.941	1	5	9	30
N of Leg Parties (2000)	4,825	4.963	1.758	1	4	6	17
ENPv (2000)	4,825	4.980	2.080	1.000	3.488	6.109	14.907
ENPs (2000)	4,825	4.042	1.491	1	3	4.8	12
Two-Party VS (2000)	4,825	56.595	16.533	20.241	44.118	67.610	100.000
Two-List VS (2000)	4,825	71.553	21.227	21.623	54.419	92.366	100.000
N of PECs (2000)	4,825	2.263	1.499	0	1	3	11
N of Lists (2000)	4,825	4.419	2.292	1	3	5	23
ENLv (2000)	4,825	3.566	1.742	1.000	2.170	4.464	13.238
N of Lists Seats (2000)	4,825	3.632	1.640	1	2	4	14
ENLs (2000)	4,825	3.115	1.346	1	2.0	3.9	9

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.2 Control Group

Table A.3: Descriptive statistics for municipalities that were not affected by the 2004 reform (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	3,059	3.786	1.110	0.814	2.939	4.566	8.426
Family Income (2000)	3,059	155.741	81.861	28.380	82.256	208.779	954.649
Change in M (after 2004 reform)	3,111	0.000	0.000	0	0	0	0
Population (2003)	3,111	15,611.930	203,191.500	809	3,720.5	9,856	10,677,019
Magnitude (2000)	3,111	9.091	1.397	9	9	9	55
HDI (2000)	3,111	0.510	0.100	0.214	0.428	0.590	0.791
GDP per capita (Log) (2003)	3,111	1.555	0.740	0.046	0.919	2.065	4.627
% of Urban Population (2000)	3,059	51.689	21.775	0.000	34.755	68.761	100.000
N of Parties (2000)	3,111	6.587	2.999	1	5	8	30
N of Leg Parties (2000)	3,111	4.310	1.314	1	3	5	17
ENPv (2000)	3,111	4.359	1.632	1.000	3.187	5.262	15.359
ENPs (2000)	3,111	3.558	1.145	1.000	2.793	4.263	12.270
Two-Party VS (2000)	3,111	60.973	15.735	19.508	49.117	71.819	100.000
Two-List VS (2000)	3,111	77.242	19.052	20.219	61.439	99.697	100.000
N of PECs (2000)	3,111	1.909	1.218	0	1	2	11
N of Lists (2000)	3,111	3.702	1.698	1	2	5	23
ENLv (2000)	3,111	3.046	1.258	1.000	1.997	3.763	13.420
N of Lists Seats (2000)	3,111	3.067	1.119	1	2	4	14
ENLs (2000)	3,111	2.675	0.930	1.000	1.976	3.240	9.000

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.4: Descriptive statistics for municipalities that were not affected by the 2004 reform (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	2,833	3.800	1.099	0.814	2.959	4.567	8.426
Family Income (2000)	2,833	156.580	81.622	30.429	83.117	209.255	954.649
Change in M (after 2004 reform)	2,833	0.000	0.000	0	0	0	0
Population (2003)	2,833	15,533.180	210,869.100	809	3,758	9,656	10,677,019
Magnitude (2000)	2,833	9.082	1.313	9	9	9	55
HDI (2000)	2,833	0.511	0.100	0.214	0.432	0.590	0.791
GDP per capita (Log) (2003)	2,833	1.554	0.730	0.046	0.923	2.065	4.627
% of Urban Population (2000)	2,833	51.559	21.712	0.000	34.564	68.413	100.000
N of Parties (2000)	2,833	6.505	2.923	1	5	8	30
N of Leg Parties (2000)	2,833	4.287	1.289	1	3	5	17
ENPv (2000)	2,833	4.316	1.590	1.000	3.176	5.213	12.383
ENPs (2000)	2,833	3.539	1.126	1.000	2.793	4.263	10.441
Two-Party VS (2000)	2,833	61.277	15.707	24.800	49.376	71.895	100.000
Two-List VS (2000)	2,833	77.574	18.849	25.455	61.908	99.761	100.000
N of PECs (2000)	2,833	1.887	1.196	0	1	2	11
N of Lists (2000)	2,833	3.663	1.653	1	2	4	23
ENLv (2000)	2,833	3.017	1.219	1.000	1.996	3.742	9.967
N of Lists Seats (2000)	2,833	3.047	1.096	1	2	4	14
ENLs (2000)	2,833	2.658	0.907	1.000	1.976	3.240	9.000

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.3 Municipalities that lost one seat

Table A.5: Descriptive statistics for municipalities that lost one seat (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	75	3.642	1.193	2.239	2.926	4.018	7.783
Family Income (2000)	75	124.623	92.842	53.866	77.352	118.725	539.837
Change in M (after 2004 reform)	75	−1.000	0.000	−1	−1	−1	−1
Population (2003)	75	50,866.090	121,769.300	6,946	11,044.5	28,111.5	569,177
Magnitude (2000)	75	10.747	2.494	10	10	10	21
HDI (2000)	75	0.474	0.085	0.350	0.425	0.499	0.739
GDP per capita (Log) (2003)	75	1.289	0.773	0.309	0.823	1.490	3.859
% of Urban Population (2000)	75	59.530	22.030	10.957	44.682	76.641	100.000
N of Parties (2000)	75	9.493	5.300	3	6	10	28
N of Leg Parties (2000)	75	4.933	1.554	3	4	5.5	10
ENPv (2000)	75	5.165	2.222	1.999	3.572	6.171	10.997
ENPs (2000)	75	4.010	1.414	1.515	2.941	5.000	8.321
Two-Party VS (2000)	75	55.328	15.588	27.923	43.172	66.715	90.192
Two-List VS (2000)	75	71.496	21.579	30.896	55.493	89.917	100.000
N of PECs (2000)	75	2.907	1.974	0	2	3	11
N of Lists (2000)	75	4.787	2.652	1	3	5	15
ENLv (2000)	75	3.601	1.883	1.000	2.150	4.453	8.744
N of Lists Seats (2000)	75	3.547	1.605	1	2	4	9
ENLs (2000)	75	3.040	1.352	1.000	1.962	3.846	7.475

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.6: Descriptive statistics for municipalities that lost one seat (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	59	3.479	0.957	2.239	2.926	3.968	7.783
Family Income (2000)	59	109.072	74.971	53.866	74.080	109.312	539.837
Change in M (after 2004 reform)	59	−1.000	0.000	−1	−1	−1	−1
Population (2003)	59	28,319.920	68,484.000	6,946	10,951.5	19,372	527,733
Magnitude (2000)	59	10.288	1.451	10	10	10	21
HDI (2000)	59	0.463	0.070	0.350	0.420	0.492	0.733
GDP per capita (Log) (2003)	59	1.161	0.621	0.309	0.775	1.273	3.753
% of Urban Population (2000)	59	57.697	19.546	10.957	45.269	72.530	100.000
N of Parties (2000)	59	8.712	4.210	4	6	9	23
N of Leg Parties (2000)	59	4.780	1.287	3	4	5	9
ENPv (2000)	59	4.865	1.886	1.999	3.595	6.033	10.997
ENPs (2000)	59	3.855	1.226	1.515	2.941	4.773	7.230
Two-Party VS (2000)	59	56.519	14.593	27.923	44.939	65.035	90.192
Two-List VS (2000)	59	74.281	19.781	34.953	59.668	93.217	100.000
N of PECs (2000)	59	2.593	1.475	0	2	3	8
N of Lists (2000)	59	4.339	1.997	1	3	5	12
ENLv (2000)	59	3.255	1.474	1.000	2.112	3.799	7.395
N of Lists Seats (2000)	59	3.271	1.298	1	2	4	8
ENLs (2000)	59	2.810	1.140	1.000	1.923	3.333	6.211

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.4 Municipalities that lost two seats

Table A.7: Descriptive statistics for municipalities that lost two seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	1,115	3.926	1.216	1.283	2.849	4.910	7.784
Family Income (2000)	1,115	163.558	87.330	39.504	82.742	232.395	514.427
Change in M (after 2004 reform)	1,115	−2.000	0.000	−2	−2	−2	−2
Population (2003)	1,115	18,852.020	33,219.710	1,341	9,731.5	20,386	508,156
Magnitude (2000)	1,115	11.067	0.704	11	11	11	21
HDI (2000)	1,115	0.518	0.102	0.306	0.426	0.609	0.752
GDP per capita (Log) (2003)	1,115	1.424	0.745	0.116	0.742	1.967	4.202
% of Urban Population (2000)	1,115	60.362	21.064	6.698	43.475	77.036	100.000
N of Parties (2000)	1,115	8.213	3.139	2	6	10	26
N of Leg Parties (2000)	1,115	5.181	1.449	2	4	6	11
ENPv (2000)	1,115	5.179	1.782	1.528	3.846	6.254	12.340
ENPs (2000)	1,115	4.224	1.288	1.424	3.270	5.261	9.383
Two-Party VS (2000)	1,115	53.962	14.582	23.715	43.180	62.802	100.000
Two-List VS (2000)	1,115	69.553	19.964	25.618	52.955	86.986	100.000
N of PECs (2000)	1,115	2.318	1.326	0	2	3	9
N of Lists (2000)	1,115	4.500	1.900	1	3	6	15
ENLv (2000)	1,115	3.623	1.503	1.000	2.402	4.578	11.073
N of Lists Seats (2000)	1,115	3.685	1.333	1	3	5	11
ENLs (2000)	1,115	3.176	1.137	1.000	2.242	3.903	8.321

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.8: Descriptive statistics for municipalities that lost two seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	944	3.932	1.210	1.283	2.853	4.922	7.784
Family Income (2000)	944	164.622	86.100	39.504	83.451	232.326	471.369
Change in M (after 2004 reform)	944	−2.000	0.000	−2	−2	−2	−2
Population (2003)	944	17,246.020	29,511.790	1,341	9,345.2	19,695.5	508,156
Magnitude (2000)	944	11.044	0.599	11	11	11	21
HDI (2000)	944	0.522	0.101	0.308	0.428	0.613	0.752
GDP per capita (Log) (2003)	944	1.434	0.732	0.116	0.764	1.975	4.202
% of Urban Population (2000)	944	60.747	20.652	7.243	44.061	77.032	100.000
N of Parties (2000)	944	8.057	3.007	2	6	9	26
N of Leg Parties (2000)	944	5.125	1.423	2	4	6	11
ENPv (2000)	944	5.110	1.768	1.528	3.775	6.224	12.340
ENPs (2000)	944	4.175	1.277	1.424	3.270	4.840	9.383
Two-Party VS (2000)	944	54.470	14.750	23.715	43.347	63.466	100.000
Two-List VS (2000)	944	70.239	20.046	25.618	53.227	88.145	100.000
N of PECs (2000)	944	2.263	1.277	0	1	3	9
N of Lists (2000)	944	4.441	1.891	1	3	6	15
ENLv (2000)	944	3.577	1.501	1.000	2.322	4.555	11.073
N of Lists Seats (2000)	944	3.630	1.312	1	3	5	11
ENLs (2000)	944	3.128	1.121	1.000	2.051	3.903	8.321

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.5 Municipalities that lost three seats

Table A.9: Descriptive statistics for municipalities that lost three seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	104	4.692	1.416	2.233	3.639	5.580	9.653
Family Income (2000)	104	186.734	110.200	66.305	104.358	229.974	809.179
Change in M (after 2004 reform)	104	−3.000	0.000	−3	−3	−3	−3
Population (2003)	104	81,456.510	91,754.000	15,987	49,870	73,732.2	467,334
Magnitude (2000)	104	13.346	1.858	12	13	13	21
HDI (2000)	104	0.536	0.097	0.350	0.457	0.602	0.771
GDP per capita (Log) (2003)	104	1.541	0.729	0.334	0.940	2.061	3.593
% of Urban Population (2000)	104	73.278	21.890	1.559	60.294	91.975	100.000
N of Parties (2000)	104	13.202	4.660	4	10	15.2	30
N of Leg Parties (2000)	104	6.625	1.528	3	6	8	12
ENPv (2000)	104	7.190	2.127	2.802	5.548	8.512	14.095
ENPs (2000)	104	5.403	1.455	2.571	4.333	6.259	10.256
Two-Party VS (2000)	104	41.919	11.258	23.294	33.496	48.901	80.430
Two-List VS (2000)	104	52.696	17.734	26.184	40.012	63.275	100.000
N of PECs (2000)	104	3.952	1.982	0	3	5	11
N of Lists (2000)	104	6.933	2.689	2	5	8	15
ENLv (2000)	104	5.281	1.999	1.768	3.747	6.514	11.071
N of Lists Seats (2000)	104	5.250	1.647	2	4	6	10
ENLs (2000)	104	4.403	1.473	1.600	3.314	5.165	7.475

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.10: Descriptive statistics for municipalities that lost three seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	78	4.603	1.381	2.233	3.504	5.531	9.653
Family Income (2000)	78	182.009	112.138	66.305	95.915	232.070	809.179
Change in M (after 2004 reform)	78	−3.000	0.000	−3	−3	−3	−3
Population (2003)	78	71,937.970	71,269.810	15,987	50,469.8	68,524	466,628
Magnitude (2000)	78	13.154	1.451	12	13	13	21
HDI (2000)	78	0.531	0.099	0.350	0.457	0.598	0.771
GDP per capita (Log) (2003)	78	1.554	0.725	0.432	0.917	2.093	3.593
% of Urban Population (2000)	78	72.660	21.609	18.695	58.250	91.880	100.000
N of Parties (2000)	78	12.692	4.429	4	10	15	30
N of Leg Parties (2000)	78	6.487	1.439	3	6	8	9
ENPv (2000)	78	7.122	2.119	2.802	5.341	8.536	12.065
ENPs (2000)	78	5.328	1.396	2.571	4.333	6.635	8.048
Two-Party VS (2000)	78	42.088	11.870	23.414	32.689	49.476	80.430
Two-List VS (2000)	78	51.945	17.657	26.184	38.629	63.152	98.048
N of PECs (2000)	78	3.756	1.962	0	2	5	11
N of Lists (2000)	78	6.936	2.660	3	5	8	15
ENLv (2000)	78	5.376	2.058	1.768	3.858	6.689	11.071
N of Lists Seats (2000)	78	5.282	1.595	2	4	6	8
ENLs (2000)	78	4.471	1.476	1.600	3.314	5.452	7.475

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.6 Municipalities that lost four seats

Table A.11: Descriptive statistics for municipalities that lost four seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	509	4.251	1.304	1.477	3.182	5.291	8.757
Family Income (2000)	509	183.314	100.837	45.302	93.120	256.182	729.623
Change in M (after 2004 reform)	509	−4.000	0.000	−4	−4	−4	−4
Population (2003)	509	34,947.420	46,830.090	6,512	17,576	34,305	418,147
Magnitude (2000)	509	13.214	1.002	13	13	13	21
HDI (2000)	509	0.535	0.105	0.298	0.442	0.626	0.785
GDP per capita (Log) (2003)	509	1.551	0.787	0.298	0.841	2.115	5.148
% of Urban Population (2000)	509	68.268	20.385	11.479	52.673	84.791	100.000
N of Parties (2000)	509	10.198	3.932	3	7	12	26
N of Leg Parties (2000)	509	6.100	1.593	2	5	7	12
ENPv (2000)	509	6.163	2.186	1.474	4.648	7.454	14.791
ENPs (2000)	509	4.936	1.478	1.352	3.930	5.828	9.966
Two-Party VS (2000)	509	47.752	14.187	20.241	36.872	55.997	97.000
Two-List VS (2000)	509	59.781	19.934	23.376	45.225	71.846	100.000
N of PECs (2000)	509	2.843	1.616	0	2	4	9
N of Lists (2000)	509	5.607	2.259	2	4	7	13
ENLv (2000)	509	4.508	1.838	1.087	3.100	5.599	10.736
N of Lists Seats (2000)	509	4.603	1.631	1	3	6	10
ENLs (2000)	509	3.934	1.428	1.000	2.864	4.829	8.321

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.12: Descriptive statistics for municipalities that lost four seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	424	4.274	1.305	1.477	3.230	5.293	8.757
Family Income (2000)	424	184.656	100.790	46.871	95.317	254.653	729.623
Change in M (after 2004 reform)	424	−4.000	0.000	−4	−4	−4	−4
Population (2003)	424	33,224.680	44,468.060	6,512	16,879.2	32,979.5	418,147
Magnitude (2000)	424	13.193	0.945	13	13	13	21
HDI (2000)	424	0.538	0.103	0.308	0.443	0.626	0.785
GDP per capita (Log) (2003)	424	1.569	0.777	0.298	0.885	2.121	5.148
% of Urban Population (2000)	424	68.490	19.892	11.479	53.101	84.488	100.000
N of Parties (2000)	424	9.920	3.771	3	7	12	26
N of Leg Parties (2000)	424	6.024	1.562	2	5	7	11
ENPv (2000)	424	6.058	2.145	1.474	4.549	7.333	14.791
ENPs (2000)	424	4.864	1.454	1.352	3.887	5.828	9.941
Two-Party VS (2000)	424	48.359	14.421	20.241	37.441	56.524	97.000
Two-List VS (2000)	424	60.279	20.029	23.376	45.579	72.493	100.000
N of PECs (2000)	424	2.712	1.538	0	2	4	8
N of Lists (2000)	424	5.559	2.262	2	4	7	13
ENLv (2000)	424	4.472	1.822	1.327	3.062	5.531	10.736
N of Lists Seats (2000)	424	4.575	1.623	2	3	6	10
ENLs (2000)	424	3.902	1.415	1.352	2.770	4.829	8.257

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.7 Municipalities that lost five seats

Table A.13: Descriptive statistics for municipalities that lost five seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	152	5.272	1.310	1.341	4.495	6.136	9.262
Family Income (2000)	152	244.567	124.136	47.338	135.757	305.987	762.052
Change in M (after 2004 reform)	152	−5.000	0.000	−5	−5	−5	−5
Population (2003)	152	103,804.700	88,750.430	25,612	57,096.8	88,776.2	376,068
Magnitude (2000)	152	15.757	1.838	14	15	15	21
HDI (2000)	152	0.588	0.098	0.283	0.514	0.662	0.766
GDP per capita (Log) (2003)	152	1.882	0.778	0.430	1.257	2.402	4.724
% of Urban Population (2000)	152	82.790	17.144	13.246	75.470	95.487	100.000
N of Parties (2000)	152	14.862	4.972	5	11	18.2	28
N of Leg Parties (2000)	152	7.526	1.798	4	6	9	13
ENPv (2000)	152	7.871	2.475	2.850	6.125	9.528	14.907
ENPs (2000)	152	5.984	1.655	2	4.9	6.8	11
Two-Party VS (2000)	152	39.623	11.278	21.608	31.718	45.471	71.946
Two-List VS (2000)	152	46.746	15.441	21.623	36.376	55.380	99.727
N of PECs (2000)	152	4.316	2.170	0	3	6	10
N of Lists (2000)	152	8.145	2.695	3	6	10	16
ENLv (2000)	152	6.192	2.209	1.553	4.520	7.650	13.238
N of Lists Seats (2000)	152	6.303	1.842	2	5	8	11
ENLs (2000)	152	5.112	1.642	2	3.8	6.1	9

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.14: Descriptive statistics for municipalities that lost five seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	118	5.292	1.331	1.341	4.546	6.140	9.262
Family Income (2000)	118	249.339	121.909	47.338	136.936	310.570	701.424
Change in M (after 2004 reform)	118	−5.000	0.000	−5	−5	−5	−5
Population (2003)	118	93,563.870	77,073.420	25,612	56,216.8	80,496	369,102
Magnitude (2000)	118	15.576	1.625	14	15	15	21
HDI (2000)	118	0.593	0.101	0.283	0.517	0.665	0.766
GDP per capita (Log) (2003)	118	1.904	0.770	0.430	1.295	2.424	4.724
% of Urban Population (2000)	118	81.534	17.649	13.246	74.222	94.678	100.000
N of Parties (2000)	118	14.593	4.840	5	11	18	26
N of Leg Parties (2000)	118	7.441	1.687	4	6	8.8	12
ENPv (2000)	118	7.800	2.406	2.850	6.149	9.504	14.907
ENPs (2000)	118	5.891	1.558	3	4.6	6.8	10
Two-Party VS (2000)	118	39.799	11.325	21.608	31.636	45.439	71.946
Two-List VS (2000)	118	46.682	15.462	21.623	36.850	53.755	99.727
N of PECs (2000)	118	4.161	2.140	0	2	6	9
N of Lists (2000)	118	8.119	2.670	3	6	10	16
ENLv (2000)	118	6.193	2.205	1.553	4.556	7.595	13.238
N of Lists Seats (2000)	118	6.288	1.812	2	5	8	11
ENLs (2000)	118	5.087	1.611	2	3.8	6.1	9

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.8 Municipalities that lost six seats

Table A.15: Descriptive statistics for municipalities that lost six seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	233	4.944	1.391	1.909	3.745	5.969	9.050
Family Income (2000)	233	233.492	113.530	55.711	119.485	307.222	667.675
Change in M (after 2004 reform)	233	−6.000	0.000	−6	−6	−6	−6
Population (2003)	233	65,580.240	69,971.640	13,510	27,034	99,134	332,993
Magnitude (2000)	233	15.790	1.529	15	15	17	21
HDI (2000)	233	0.588	0.097	0.374	0.505	0.667	0.759
GDP per capita (Log) (2003)	233	1.745	0.704	0.455	1.084	2.279	4.093
% of Urban Population (2000)	233	77.869	19.762	19.045	62.229	94.025	100.000
N of Parties (2000)	233	12.240	4.868	3	9	16	26
N of Leg Parties (2000)	233	7.232	2.002	2	6	9	12
ENPv (2000)	233	7.091	2.559	1.846	5.161	8.689	14.554
ENPs (2000)	233	5.748	1.860	1.510	4.412	7.000	10.714
Two-Party VS (2000)	233	43.852	14.575	21.273	33.371	51.873	99.042
Two-List VS (2000)	233	54.797	21.230	21.796	36.756	68.942	100.000
N of PECs (2000)	233	3.502	1.928	0	2	5	10
N of Lists (2000)	233	6.764	2.981	2	4	9	15
ENLv (2000)	233	5.319	2.351	1.485	3.254	6.978	12.110
N of Lists Seats (2000)	233	5.571	2.163	2	4	7	11
ENLs (2000)	233	4.619	1.813	1.471	2.922	6.081	9.323

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.16: Descriptive statistics for municipalities that lost six seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	206	4.912	1.404	1.909	3.701	5.969	9.050
Family Income (2000)	206	232.742	113.009	55.711	117.098	308.018	667.675
Change in M (after 2004 reform)	206	−6.000	0.000	−6	−6	−6	−6
Population (2003)	206	61,559.460	68,409.780	13,510	26,444	46,212	331,372
Magnitude (2000)	206	15.718	1.514	15	15	15	21
HDI (2000)	206	0.589	0.098	0.374	0.503	0.668	0.759
GDP per capita (Log) (2003)	206	1.719	0.678	0.455	1.069	2.256	3.327
% of Urban Population (2000)	206	76.639	20.036	19.045	59.041	93.234	100.000
N of Parties (2000)	206	11.806	4.667	3	9	15	24
N of Leg Parties (2000)	206	7.150	2.051	2	6	8	12
ENPv (2000)	206	6.938	2.564	1.846	5.061	8.580	13.565
ENPs (2000)	206	5.685	1.915	1.510	4.245	6.818	10.714
Two-Party VS (2000)	206	44.637	15.014	22.976	33.347	53.242	99.042
Two-List VS (2000)	206	55.692	21.594	25.214	36.873	70.649	100.000
N of PECs (2000)	206	3.427	1.867	0	2	4.8	10
N of Lists (2000)	206	6.583	2.918	2	4	8.8	15
ENLv (2000)	206	5.203	2.311	1.485	3.049	6.900	11.808
N of Lists Seats (2000)	206	5.476	2.163	2	4	7	11
ENLs (2000)	206	4.561	1.822	1.471	2.922	6.081	9.256

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.9 Municipalities that lost seven seats

Table A.17: Descriptive statistics for municipalities that lost seven seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	87	5.879	1.060	2.444	5.410	6.457	8.577
Family Income (2000)	87	302.585	115.338	80.603	237.090	367.980	670.282
Change in M (after 2004 reform)	87	−7.000	0.000	−7	−7	−7	−7
Population (2003)	87	114,938.000	75,931.400	47,850	64,916	165,465	281,634
Magnitude (2000)	87	17.897	1.548	17	17	19	21
HDI (2000)	87	0.642	0.079	0.415	0.602	0.697	0.777
GDP per capita (Log) (2003)	87	2.111	0.625	0.846	1.763	2.553	4.163
% of Urban Population (2000)	87	88.461	12.813	33.170	85.658	95.639	100.000
N of Parties (2000)	87	15.690	4.878	5	12	19	28
N of Leg Parties (2000)	87	8.632	1.733	4	7.5	10	13
ENPv (2000)	87	8.685	2.618	2.847	7.116	10.813	14.007
ENPs (2000)	87	6.695	1.685	2.429	5.667	7.811	10.939
Two-Party VS (2000)	87	36.759	10.988	20.356	28.126	40.595	80.634
Two-List VS (2000)	87	41.684	13.486	22.536	32.558	47.077	90.932
N of PECs (2000)	87	4.793	2.012	1	3	6	11
N of Lists (2000)	87	8.943	2.805	3	7	11	16
ENLv (2000)	87	7.010	2.201	2.366	5.459	8.364	11.849
N of Lists Seats (2000)	87	7.264	1.807	3	6	9	11
ENLs (2000)	87	5.895	1.588	2.240	4.922	7.049	8.805

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.18: Descriptive statistics for municipalities that that lost seven seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	69	5.813	1.044	2.444	5.415	6.377	7.765
Family Income (2000)	69	299.766	107.665	80.603	250.451	369.118	503.165
Change in M (after 2004 reform)	69	−7.000	0.000	−7	−7	−7	−7
Population (2003)	69	104,109.800	67,764.390	47,850	63,342	90,663	278,574
Magnitude (2000)	69	17.725	1.413	17	17	17	21
HDI (2000)	69	0.643	0.080	0.415	0.608	0.697	0.744
GDP per capita (Log) (2003)	69	2.143	0.641	0.846	1.767	2.555	4.163
% of Urban Population (2000)	69	87.585	13.859	33.170	84.934	95.350	99.972
N of Parties (2000)	69	15.101	4.863	5	12	17	28
N of Leg Parties (2000)	69	8.536	1.795	4	7	10	13
ENPv (2000)	69	8.600	2.701	2.847	6.386	10.537	14.007
ENPs (2000)	69	6.698	1.823	2.429	5.582	8.018	10.939
Two-Party VS (2000)	69	37.137	11.866	20.356	27.968	41.992	80.634
Two-List VS (2000)	69	42.474	14.576	22.536	32.501	48.550	90.932
N of PECs (2000)	69	4.623	2.073	1	3	6	11
N of Lists (2000)	69	8.725	2.854	3	7	10	16
ENLv (2000)	69	6.896	2.301	2.366	5.254	8.298	11.849
N of Lists Seats (2000)	69	7.145	1.935	3	6	9	11
ENLs (2000)	69	5.855	1.732	2.240	4.898	7.049	8.805

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.10 Municipalities that lost eight seats

Table A.19: Descriptive statistics for municipalities that lost eight seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	52	4.931	1.677	1.918	3.162	6.122	7.396
Family Income (2000)	52	222.066	119.752	57.649	95.052	319.743	456.247
Change in M (after 2004 reform)	52	−8.000	0.000	−8	−8	−8	−8
Population (2003)	52	92,580.060	68,670.940	24,857	38,774	132,801.5	235,821
Magnitude (2000)	52	18.269	1.586	17	17	19	21
HDI (2000)	52	0.580	0.110	0.369	0.466	0.663	0.740
GDP per capita (Log) (2003)	52	1.768	0.903	0.512	0.869	2.458	3.687
% of Urban Population (2000)	52	77.802	20.477	31.871	58.931	93.765	99.672
N of Parties (2000)	52	12.827	5.186	5	8	17	24
N of Leg Parties (2000)	52	7.269	2.766	2	5	9.2	13
ENPv (2000)	52	6.921	3.232	1.410	4.183	9.557	12.972
ENPs (2000)	52	5.578	2.430	1.262	3.461	7.681	11.645
Two-Party VS (2000)	52	47.229	18.214	23.297	31.846	60.961	93.077
Two-List VS (2000)	52	56.360	22.968	26.908	37.837	67.883	100.000
N of PECs (2000)	52	3.846	2.200	1	2	5	9
N of Lists (2000)	52	7.327	3.347	2	4	10	16
ENLv (2000)	52	5.399	2.647	1.322	3.405	7.506	11.652
N of Lists Seats (2000)	52	5.712	2.554	2	4	8	11
ENLs (2000)	52	4.554	2.040	1.262	2.798	5.918	9.000

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.20: Descriptive statistics for municipalities that lost eight seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	39	4.939	1.680	2.094	3.131	6.224	7.396
Family Income (2000)	39	219.286	118.202	67.222	96.237	313.523	456.247
Change in M (after 2004 reform)	39	−8.000	0.000	−8	−8	−8	−8
Population (2003)	39	87,328.360	65,295.400	24,857	38,368	132,824	220,487
Magnitude (2000)	39	18.179	1.571	17	17	19	21
HDI (2000)	39	0.580	0.106	0.401	0.470	0.661	0.736
GDP per capita (Log) (2003)	39	1.719	0.861	0.512	0.867	2.318	3.687
% of Urban Population (2000)	39	78.090	20.163	39.235	58.930	94.765	99.672
N of Parties (2000)	39	13.000	5.301	5	8.5	17	24
N of Leg Parties (2000)	39	7.308	2.957	2	5	10	13
ENPv (2000)	39	6.898	3.480	1.410	3.919	9.569	12.972
ENPs (2000)	39	5.539	2.633	1.262	3.215	7.546	11.645
Two-Party VS (2000)	39	48.393	19.713	24.450	31.509	62.750	93.077
Two-List VS (2000)	39	56.870	22.791	26.908	38.616	70.186	99.915
N of PECs (2000)	39	4.000	2.340	1	2	6	9
N of Lists (2000)	39	7.410	3.485	2	4	10	16
ENLv (2000)	39	5.393	2.798	1.322	3.310	7.303	11.652
N of Lists Seats (2000)	39	5.769	2.670	2	4	8	11
ENLs (2000)	39	4.526	2.138	1.262	2.790	5.918	9.000

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.11 Municipalities that lost nine seats

Table A.21: Descriptive statistics for municipalities that lost nine seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	35	5.403	1.499	1.832	4.539	6.567	7.552
Family Income (2000)	35	245.301	116.198	55.086	131.955	326.610	441.875
Change in M (after 2004 reform)	35	−9.000	0.000	−9	−9	−9	−9
Population (2003)	35	105,955.000	49,537.980	50,635	61,753	158,504.5	189,634
Magnitude (2000)	35	19.743	0.980	19	19	21	21
HDI (2000)	35	0.599	0.092	0.371	0.536	0.677	0.742
GDP per capita (Log) (2003)	35	1.921	0.658	0.386	1.375	2.285	3.311
% of Urban Population (2000)	35	82.482	17.204	34.395	76.298	95.250	100.000
N of Parties (2000)	35	14.543	4.984	7	10.5	18	25
N of Leg Parties (2000)	35	8.314	2.298	4	6	10	13
ENPv (2000)	35	7.718	3.198	3.435	4.893	10.211	14.200
ENPs (2000)	35	6.130	2.441	2.935	4.051	7.578	11.308
Two-Party VS (2000)	35	42.184	15.012	20.232	29.340	53.266	72.734
Two-List VS (2000)	35	50.403	20.234	24.517	35.839	59.796	91.134
N of PECs (2000)	35	4.086	2.331	1	2	5	10
N of Lists (2000)	35	8.200	2.939	3	5	10	14
ENLv (2000)	35	6.102	2.638	1.950	4.112	8.116	11.083
N of Lists Seats (2000)	35	6.857	2.251	3	5	8.5	11
ENLs (2000)	35	5.231	2.138	1.851	3.576	6.573	9.383

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.22: Descriptive statistics for municipalities that lost nine seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	27	5.261	1.583	1.832	4.038	6.567	7.444
Family Income (2000)	27	243.152	116.301	55.086	127.595	326.610	407.951
Change in M (after 2004 reform)	27	−9.000	0.000	−9	−9	−9	−9
Population (2003)	27	97,449.890	46,981.100	50,635	60,012.5	148,285	177,844
Magnitude (2000)	27	19.667	0.961	19	19	21	21
HDI (2000)	27	0.595	0.097	0.371	0.525	0.677	0.721
GDP per capita (Log) (2003)	27	1.859	0.677	0.386	1.375	2.243	3.311
% of Urban Population (2000)	27	79.185	18.076	34.395	68.803	91.214	100.000
N of Parties (2000)	27	13.296	4.631	7	10	15.5	24
N of Leg Parties (2000)	27	7.815	2.001	4	6	9	11
ENPv (2000)	27	7.020	2.650	3.435	4.677	9.097	13.022
ENPs (2000)	27	5.588	2.025	2.935	3.610	7.298	9.383
Two-Party VS (2000)	27	44.475	13.879	24.600	32.498	53.872	72.734
Two-List VS (2000)	27	52.685	19.899	25.611	38.649	66.713	91.134
N of PECs (2000)	27	3.630	2.186	1	2	5	9
N of Lists (2000)	27	7.963	2.915	3	5	10	14
ENLv (2000)	27	5.733	2.461	1.950	3.596	7.049	11.083
N of Lists Seats (2000)	27	6.593	2.099	3	5	8	10
ENLs (2000)	27	4.924	1.989	1.851	3.220	6.448	9.000

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.12 Municipalities that lost ten seats

Table A.23: Descriptive statistics for municipalities that lost ten seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	13	5.708	1.843	2.456	5.330	6.815	8.745
Family Income (2000)	13	292.043	201.527	75.068	168.045	316.777	834.003
Change in M (after 2004 reform)	13	−10.000	0.000	−10	−10	−10	−10
Population (2003)	13	97,494.770	34,610.450	37,874	96,878	118,016	137,276
Magnitude (2000)	13	20.538	0.877	19	21	21	21
HDI (2000)	13	0.614	0.118	0.399	0.577	0.672	0.820
GDP per capita (Log) (2003)	13	2.010	0.865	0.580	1.250	2.618	3.618
% of Urban Population (2000)	13	79.517	21.606	38.947	68.923	97.507	100.000
N of Parties (2000)	13	11.231	3.086	4	9	13	15
N of Leg Parties (2000)	13	7.000	2.041	3	5	9	10
ENPv (2000)	13	6.451	1.921	2.189	5.377	7.181	9.365
ENPs (2000)	13	5.528	1.637	1.994	4.688	6.041	8.018
Two-Party VS (2000)	13	45.878	15.099	30.199	39.904	45.808	89.589
Two-List VS (2000)	13	51.936	20.746	34.359	39.904	54.133	100.000
N of PECs (2000)	13	2.615	0.961	1	2	3	4
N of Lists (2000)	13	7.462	2.665	2	6	9	11
ENLv (2000)	13	5.645	1.877	1.872	4.864	6.676	7.567
N of Lists Seats (2000)	13	6.231	2.048	2	5	8	8
ENLs (2000)	13	5.047	1.620	2	4.5	6.0	7

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.24: Descriptive statistics for municipalities that lost ten seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	11	5.383	1.735	2.456	4.386	6.796	6.823
Family Income (2000)	11	243.069	129.322	75.068	125.581	305.988	466.843
Change in M (after 2004 reform)	11	−10.000	0.000	−10	−10	−10	−10
Population (2003)	11	93,732.360	35,544.010	37,874	69,919.5	115,773.5	130,866
Magnitude (2000)	11	20.455	0.934	19	20	21	21
HDI (2000)	11	0.592	0.108	0.399	0.527	0.667	0.712
GDP per capita (Log) (2003)	11	1.864	0.785	0.580	1.157	2.427	3.017
% of Urban Population (2000)	11	76.020	21.735	38.947	60.148	91.409	100.000
N of Parties (2000)	11	11.000	3.130	4	9	13	14
N of Leg Parties (2000)	11	6.909	2.212	3	5	9	10
ENPv (2000)	11	6.405	2.101	2.189	5.053	7.473	9.365
ENPs (2000)	11	5.435	1.775	1.994	4.419	6.555	8.018
Two-Party VS (2000)	11	46.902	16.311	30.199	39.458	49.852	89.589
Two-List VS (2000)	11	54.020	22.031	34.359	40.682	56.292	100.000
N of PECs (2000)	11	2.636	0.809	2	2	3	4
N of Lists (2000)	11	7.182	2.822	2	6	9	11
ENLv (2000)	11	5.491	2.013	1.872	4.530	7.016	7.567
N of Lists Seats (2000)	11	6.000	2.145	2	5	8	8
ENLs (2000)	11	4.866	1.708	2	4.1	6.1	7

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

A.13 Municipalities that lost eleven seats

Table A.25: Descriptive statistics for municipalities that lost eleven seats (All Municipalities)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	18	4.860	1.627	2.752	3.240	6.545	6.844
Family Income (2000)	18	204.596	106.954	77.169	105.275	302.683	351.620
Change in M (after 2004 reform)	18	−11.000	0.000	−11	−11	−11	−11
Population (2003)	18	75,113.670	12,913.300	52,136	66,087.2	87,986	94,114
Magnitude (2000)	18	21.000	0.000	21	21	21	21
HDI (2000)	18	0.577	0.092	0.445	0.490	0.663	0.696
GDP per capita (Log) (2003)	18	1.594	0.670	0.600	1.011	2.154	2.549
% of Urban Population (2000)	18	73.393	16.549	41.661	59.409	87.692	92.962
N of Parties (2000)	18	10.167	1.618	8	9	11	14
N of Leg Parties (2000)	18	6.667	1.328	4	6	8	8
ENPv (2000)	18	5.767	1.558	3.626	4.339	6.940	8.862
ENPs (2000)	18	4.902	1.290	2.845	3.692	5.657	6.785
Two-Party VS (2000)	18	49.107	11.730	29.898	41.000	58.590	68.550
Two-List VS (2000)	18	56.949	14.631	35.863	46.856	65.047	91.728
N of PECs (2000)	18	2.333	1.029	1	1.2	3	4
N of Lists (2000)	18	6.333	1.749	3	5	7.8	9
ENLv (2000)	18	4.669	1.425	2.068	3.636	5.409	7.394
N of Lists Seats (2000)	18	5.556	1.723	2	4.2	6.8	8
ENLs (2000)	18	4.284	1.347	1.690	3.421	4.928	6.785

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

Table A.26: Descriptive statistics for municipalities that lost eleven seats (Municipalities included in the analysis)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Avg Schooling Years (2000)	16	4.784	1.641	2.752	3.163	6.404	6.830
Family Income (2000)	16	204.402	107.715	77.169	104.635	299.479	351.620
Change in M (after 2004 reform)	16	−11.000	0.000	−11	−11	−11	−11
Population (2003)	16	72,796.000	11,721.420	52,136	65,353	80,132	92,736
Magnitude (2000)	16	21.000	0.000	21	21	21	21
HDI (2000)	16	0.575	0.095	0.445	0.484	0.665	0.696
GDP per capita (Log) (2003)	16	1.620	0.701	0.600	0.993	2.202	2.549
% of Urban Population (2000)	16	72.128	16.827	41.661	55.791	86.497	91.738
N of Parties (2000)	16	9.938	1.526	8	9	10.2	14
N of Leg Parties (2000)	16	6.500	1.317	4	5.8	8	8
ENPv (2000)	16	5.460	1.340	3.626	4.305	6.106	7.823
ENPs (2000)	16	4.666	1.164	2.845	3.630	5.444	6.582
Two-Party VS (2000)	16	51.061	10.844	31.671	44.101	59.336	68.550
Two-List VS (2000)	16	58.841	14.325	35.863	48.001	65.991	91.728
N of PECs (2000)	16	2.250	1.000	1	1	3	4
N of Lists (2000)	16	6.125	1.708	3	5	7.2	9
ENLv (2000)	16	4.453	1.312	2.068	3.577	5.320	7.050
N of Lists Seats (2000)	16	5.375	1.708	2	4	6.2	8
ENLs (2000)	16	4.099	1.261	1.690	3.296	4.873	6.582

Sources: Avg Schooling Years (IPEAData), Family Income (IPEAData), Change in M (TSE, author's calculations), Population (DataSUS), Magnitude (TSE), HDI (TSE), GDP per capita (IBGE), Urban Population (IBGE), N of Parties (TSE), N of Leg Parties (TSE), ENPv (TSE, author's calculations), ENPs (TSE, author's calculations), Two-Party VS (TSE), Two-List VS (TSE), N of PECs (TSE), N of Lists (TSE), ENLv (TSE, author's calculations), N of Lists Seats (TSE), and ENLs (TSE, author's calculations).

B Distribution of Changes

In this Appendix, I present tables for the distribution of changes in district magnitude produced by the 2004 reform. Table B.1 shows the distribution for all municipalities. Note that the total number of municipalities in this table is slightly lower than the number of municipalities that held elections in 2008 because four municipalities were founded after the 2000 election. Table B.2 shows the distribution for municipalities for which electoral data are available. Lastly, Table B.3 displays the distribution for the sample of municipalities that 1) existed since 1996, 2) did not change magnitude between 1996 and 2000, and 3) did not change magnitude between 2004 and 2008.

Table B.1: Changes in District Magnitude Produced by the 2004 Reform - All Municipalities

M	Change in Magnitude after the 2004 reform																				
(2000)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	6	8	12	Total
9	0	0	0	0	0	0	0	0	0	0	0	0	3110	4	0	1	0	0	0	0	3115
10	0	0	0	0	0	0	0	0	0	0	0	61	2	0	0	0	0	0	0	0	63
11	0	0	0	0	0	0	0	0	0	0	1107	9	2	1	0	0	0	0	0	0	1119
12	0	0	0	0	0	0	0	0	0	16	1	0	0	0	0	0	0	0	0	0	17
13	0	0	0	0	0	0	0	0	477	78	6	1	3	0	1	0	0	0	0	0	566
14	0	0	0	0	0	0	0	8	4	0	0	0	0	0	0	0	0	1	0	0	13
15	0	0	0	0	0	0	172	112	17	4	2	0	0	0	0	0	0	0	0	0	307
16	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	29	64	42	14	5	1	1	0	0	1	0	0	0	0	0	0	157
18	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19	0	0	3	22	13	9	10	4	1	0	1	0	0	0	0	0	0	0	0	0	63
21	2	18	10	13	10	15	10	13	5	6	4	4	13	0	0	0	0	0	0	1	124
33	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	5
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
41	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
55	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	2	18	13	35	52	88	234	152	510	105	1122	75	3133	8	2	3	2	2	1	1	5558

Table B.2: Changes in District Magnitude Produced by the 2004 Reform - All Municipalities with Electoral Results

M	Change in Magnitude after the 2004 reform																				
(2000)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	6	8	12	Total
9	0	0	0	0	0	0	0	0	0	0	0	0	3088	4	0	1	0	0	0	0	3093
10	0	0	0	0	0	0	0	0	0	0	0	61	2	0	0	0	0	0	0	0	63
11	0	0	0	0	0	0	0	0	0	0	1100	9	2	1	0	0	0	0	0	0	1112
12	0	0	0	0	0	0	0	0	0	16	1	0	0	0	0	0	0	0	0	0	17
13	0	0	0	0	0	0	0	0	476	78	6	1	3	0	1	0	0	0	0	0	565
14	0	0	0	0	0	0	0	8	4	0	0	0	0	0	0	0	0	1	0	0	13
15	0	0	0	0	0	0	171	112	17	4	2	0	0	0	0	0	0	0	0	0	306
16	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	29	63	42	14	5	1	1	0	0	1	0	0	0	0	0	0	156
18	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19	0	0	3	22	13	9	10	4	1	0	1	0	0	0	0	0	0	0	0	0	63
21	2	18	10	13	10	15	10	13	5	5	4	4	13	0	0	0	0	0	0	1	123
33	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	4
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
41	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
55	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	2	18	13	35	52	87	233	152	509	104	1115	75	3111	8	2	3	1	2	1	1	5524

Table B.3: Changes in District Magnitude Produced by the 2004 Reform (Final Dataset)

M	Change in Magnitude after the 2004 reform																			
(2000)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	6	12	Total
9	0	0	0	0	0	0	0	0	0	0	0	0	2815	2	0	0	0	0	0	2817
10	0	0	0	0	0	0	0	0	0	0	0	52	2	0	0	0	0	0	0	54
11	0	0	0	0	0	0	0	0	0	0	937	6	0	0	0	0	0	0	0	943
12	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	12
13	0	0	0	0	0	0	0	0	399	61	2	0	2	0	0	0	0	0	0	464
14	0	0	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0	0	8
15	0	0	0	0	0	0	158	90	16	2	2	0	0	0	0	0	0	0	0	268
16	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	23	53	31	10	3	1	0	0	0	0	0	0	0	0	0	121
18	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
19	0	0	3	18	9	7	8	3	0	0	0	0	0	0	0	0	0	0	0	48
21	1	16	8	9	7	9	9	7	4	2	3	1	12	0	0	0	0	0	1	89
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
41	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	1	16	11	27	39	69	206	118	424	78	944	59	2833	2	1	2	1	1	1	4833

C RD Assumption Check

The 2004 reform defined that one seat should be added to the local assembly for every 47,619 inhabitants. Moreover, these assemblies should have at least 9 and at most 55 legislators. A consequence of this regulation was, therefore, the creation of population thresholds, generating the opportunity of using a regression discontinuity design (RD). The key assumption of the RD design is that observations located at different sides of the threshold are comparable (Angrist and Pischke, 2009). The assignment to the treatment or control group should be *as if* random. That is, there is no confounder at the threshold. Given that the 2004 reform also changed the magnitude in many municipalities, the modification in magnitude is an obvious confounder that may bias an RD analysis. In this Appendix, I verify if the assumption of no confounding holds.

In total, the TSE's resolution created 36 cut-points. Except for municipalities bellow 47.619 and above 6.547.612 inhabitants, all the remaining municipalities are below a given threshold and above another one. To make sure that a municipality is only exposed to a single threshold, I followed Muraoka and Barceló (2017). For each cut-point, I calculated the lower and upper bound of the threshold by, respectively, subtracting and adding 47,619/2 to the value of each cut-point. Next, I verified if a municipality's population lies inside the interval. If the population is inside a given interval, then I centered the municipality's population at the value of the threshold.

After defining the treatment status of each municipality, I ran an RD model using local polynomial methods with a triangular kernel and a mean squared error (MSE) optimal bandwidth (Calonico, Cattaneo, and Titiunik, 2014; Cattaneo, Jansson, and Ma, 2019). The results in Table C.1 show that municipalities above the threshold lost, on average, one seat fewer than municipalities below the threshold after the 2004 reform. As a result, the assumption of no confounding at the threshold does not hold, meaning that the assignment of the treatment status cannot be considered *as if* random.

Table C.1: Empirical Check for the Assumption of No Confounding Variables at the Threshold. Dependent Variable: Change in Magnitude after the 2004 Reform

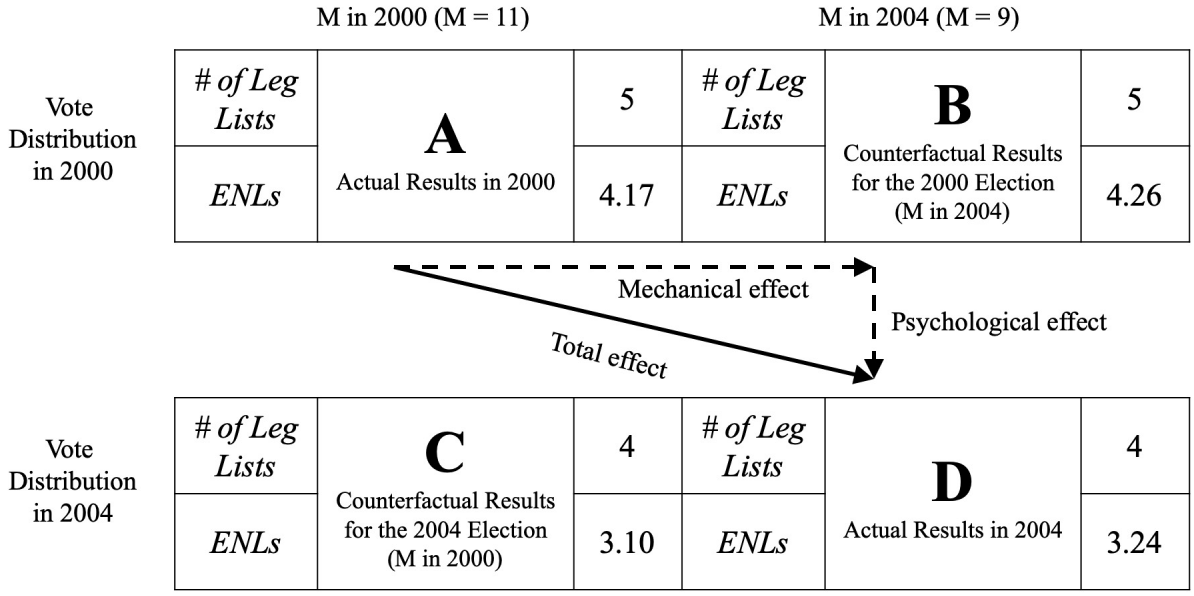
	Estimate	95% CI	p-value	h	n_{co}	n_{tr}
Using Population	$-1.187^{\dagger}$	[−2.487, 0.112]	0.073	0.044	210	147
Using Population (log)	-1.143^{*}	[−2.273, −0.014]	0.047	0.065	215	176

Note: Running variable, in row 1, is the municipal population re-centered at the threshold. Running variable, in row 2, is the logged municipal population re-centered at the threshold. Outcome is the change in magnitude after the 2004 reform. Estimate is the average treatment effect at cutoff with local linear polynomial regression with triangular kernel and MSE-optimal bandwidth. Columns 3-7 are: 95% robust confidence intervals, p-value, main optimal bandwidth, control and treatment observations within the bandwidth. † $p < 0.10$ * $p < 0.05$.

D Building the counterfactual scenarios

In this Appendix, I detail how the counterfactual scenarios used in the paper were created. To illustrate this approach, I use the municipality of Mira Estrela, the one that motivated the electoral reform, as an example. Cells A and D in Figure D.1 contain the actual number of legislative lists and the effective number of legislative lists (*ENLs*) in the 2000 and 2004 elections, respectively. Cells B and C are the counterfactual scenarios. The statistics in cell B utilize the vote distribution observed in 2000 but the magnitude in 2004; while the ones in the cell C use the vote distribution observed in 2004 but the magnitude in 2000.

Figure D.1: The contribution of the mechanical and psychological effects to the distribution of seats – Mira Estrela, State of São Paulo (2000 and 2004 elections)



Note: Entries in cells A and D are the real values for the number of legislative lists and *ENLs* and entries in cells B and C are counterfactual values for these statistics.

Table D.1 presents a detailed example for the construction of the values in cells A (the actual results) and B (the counterfactual scenario for the 2000 election using M from the 2004 election), the cells used to compute the mechanical effect. To calculate the seat distribution in columns 3 and 4, I utilize the real vote distribution from the 2000 election. Column 2 contains electoral returns (vote distribution) for each list in the 2000 election. Column 3 shows the distribution of seats using the actual district magnitude employed in the 2000 election ($M = 11$). Lastly, column 4 displays the counterfactual distribution of seats in Mira Estrela. That is, it shows the distribution of seats using the district magnitude equal to 9, as it defined by the 2004 reform. The row "# of Legislative Lists" indicates how many lists won seats and the row "*ENLs*" shows the effective number of legislative lists under the two different scenarios. The comparison between the statistics in columns 3 and 4 generates the

mechanical effect in Figure D.1 (cells A and B). The values in Table D.1 shows that a decrease of two seats in magnitude did not produce a mechanical effect on the number of legislative lists. Nevertheless, the same change produced a mechanical increase in the effective number of legislative lists equal to $4.26 - 4.17 = 0.09$ [counterfactual - actual value].[2]

Table D.1: Building a counterfactual scenario for the 2000 election— Municipality of Mira Estrela, State of São Paulo

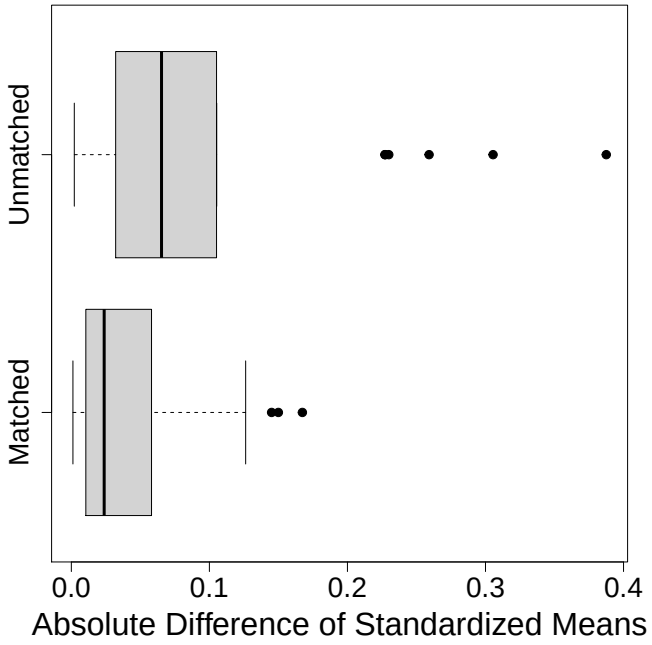
List	Vote (Share) in 2000	Seat (Share) M in 2000 Cell A in Figure D.1	Seat (Share) M in 2004 Cell B in Figure D.1
PFL/PMN	352 (18.22)	2 (18.18)	2 (22.22)
PL	589 (30.49)	4 (36.36)	3 (33.33)
PMDB	287 (14.86)	2 (18.18)	1 (11.11)
PP	348 (18.01)	2 (18.18)	2 (22.22)
PT	103 (5.33)	0 (0.00)	0 (0.00)
PTB	253 (13.09)	1 (9.09)	1 (11.11)
# of Leg Lists	–	5	5
ENLs	–	4.17	4.26

[2]Note that the calculations of the statistics in cells C and D follow a similar logic. The only difference is that they utilize the actual vote distribution (electoral returns) in the 2004 election.

E List Level Analysis

In this Appendix, I present the results for models in which I measure electoral coordination at the list level. As explained in the body of the paper, Brazilian parties had the option of entering the election solo or forming pre-electoral coalitions (PEC). I estimate models using both the unmatched and matched datasets. Figure E.1 shows the improved in imbalance after the use of Covariate Balancing Generalized Propensity (Fong, Hazlett, and Imai, 2018). Moreover, I also present results for groups of municipalities with at least 10 treated units (see Appendix B.1) and specific elections.

Figure E.1: Balance checks, absolute difference of standardized means between treated and control groups— Matched and Unmatched Samples



E.1 Complete Results

This subsection includes the estimates used to build Figures 1 and Table 1 in the body of the paper.

E.1.1 Main Effects

Table E.1: Effect of the 2004 reform on electoral coordination and seat distribution, Brazilian Municipal Elections, 2000-2008 (Unmatched Data)

	Dependent variable:					
	# of Lists	# of PECs	ENLv	Top-Two Lists Vote Share	# of Leg Lists	ENLs
	(1)	(2)	(3)	(4)	(5)	(6)
Magnitude	0.004	-0.155^{***}	0.029^{***}	0.234^{***}	0.184^{***}	0.122^{***}
	(0.011)	(0.010)	(0.009)	(0.083)	(0.010)	(0.008)
Observations	14,475	14,475	14,475	14,475	14,475	14,475
R^2	0.852	0.818	0.845	0.839	0.811	0.799
Adjusted R^2	0.778	0.728	0.768	0.759	0.717	0.698

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.2: Effect of the 2004 reform on electoral coordination and seat distribution, Brazilian Municipal Elections, 2000-2008 (Matched Data)

	Dependent variable:					
	# of Lists	# of PECs	ENLv	Top-Two Lists Vote Share	# of Leg Lists	ENLs
	(1)	(2)	(3)	(4)	(5)	(6)
Magnitude	0.006	-0.149^{**}	0.076^{***}	-0.253	0.150^{***}	0.130^{***}
	(0.035)	(0.063)	(0.029)	(0.382)	(0.035)	(0.026)
Observations	14,475	14,475	14,475	14,475	14,475	14,475
R^2	0.905	0.870	0.868	0.873	0.909	0.849
Adjusted R^2	0.858	0.805	0.802	0.809	0.863	0.774

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.1.2 Disentangling the effect on distribution of seats

Table E.3: Disentangling the effect on number of legislative lists, Brazilian Municipal Elections, 2000-2008 (Unmatched Data)

	Dependent variable:			
	Number of Legislative Lists			
	Mechanical	Psychological	Psychological, First Component	Psychological, Second Component
	(1)	(2)	(3)	(4)
Magnitude	0.072***	0.113***	0.022***	0.091***
	(0.004)	(0.009)	(0.008)	(0.007)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Observations	9,650	14,475	14,475	14,475
R^2	0.980	0.803	0.846	0.514
Adjusted R^2	0.960	0.705	0.769	0.271

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.4: Disentangling the effect on ENLs, Brazilian Municipal Elections, 2000-2008 (Unmatched Data)

	Dependent variable:			
	ENLs			
	Mechanical	Psychological	Psychological, First Component	Psychological, Second Component
	(1)	(2)	(3)	(4)
Magnitude	0.039***	0.084***	0.012	0.072***
	(0.003)	(0.008)	(0.007)	(0.005)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Observations	9,650	14,475	14,475	14,475
R^2	0.982	0.789	0.833	0.494
Adjusted R^2	0.964	0.683	0.750	0.241

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.5: Disentangling the effect on number of legislative lists, Brazilian Municipal Elections, 2000-2008 (Matched Data)

	Dependent variable:			
	Number of Legislative Lists			
	Mechanical	Psychological	Psychological, First Component	Psychological, Second Component
	(1)	(2)	(3)	(4)
Magnitude	0.067***	0.083***	0.069***	0.014
	(0.016)	(0.028)	(0.022)	(0.027)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Observations	9,650	14,475	14,475	14,475
R^2	0.981	0.906	0.907	0.477
Adjusted R^2	0.962	0.859	0.861	0.216

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.6: Disentangling the effect on ENLs, Brazilian Municipal Elections, 2000-2008 (Matched Data)

	Dependent variable:			
	ENLs			
	Mechanical	Psychological	Psychological, First Component	Psychological, Second Component
	(1)	(2)	(3)	(4)
Magnitude	0.038***	0.093***	0.066**	0.027
	(0.011)	(0.025)	(0.032)	(0.019)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Observations	9,650	14,475	14,475	14,475
R^2	0.977	0.845	0.845	0.484
Adjusted R^2	0.953	0.768	0.768	0.226

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2 Individual Groups and Elections

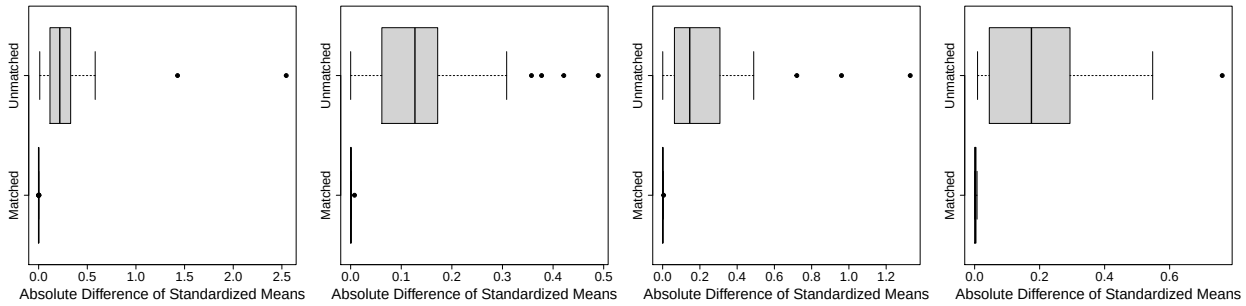
In this subsection, I present results for specific groups of municipalities and elections. Specifically, I fit the following model for each dependent variable.

$$y_{mt} = (\gamma_1 \ \cdot \ E_{2004} + \gamma_2 \ \cdot \ E_{2008}) \cdot M_m + \mu_m + \delta_t + \epsilon_{mt}$$

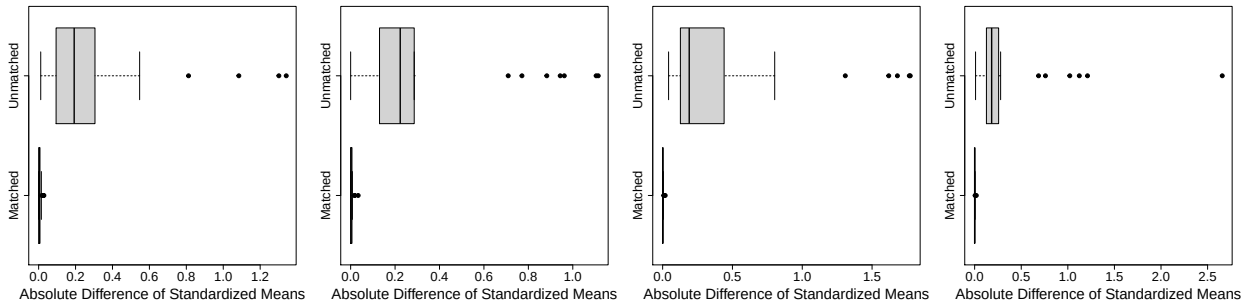
where y_{mt} is the dependent variable in municipality m and time t; E_{2004}, and E_{2008} represent indicators for the 2004 and 2008 elections; and M_m indicates the change in magnitude produced by the 2004 reform. The parameters μ and δ are municipality and election fixed effects. Finally, the γ parameters capture the effect of the change in magnitude in 2004 and 2008 elections. The 2000 election is used as the reference category. The control group is composed by municipalities that were not affected by the 2004 reform. Because data on PECs are not available before the 2000 election, I cannot include pre-intervention periods in my analysis as a diagnostic test for the parallel trends assumption. As a result, I present models using both an unmatched and matched dataset. Figure E.2 contains balance measures for all eleven treated groups.

Figure E.2: Balance checks, absolute difference of standardized means between treated and control groups— Matched and Unmatched Samples

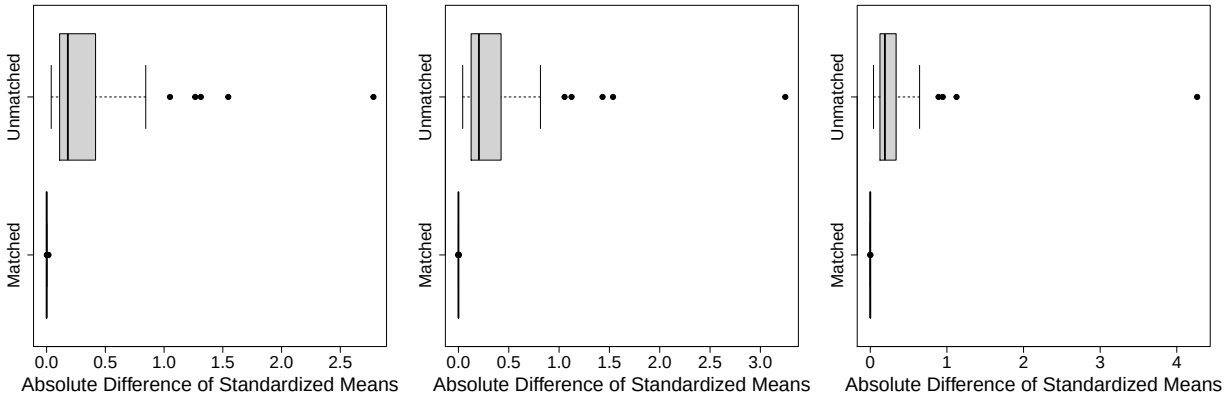
(a) $\Delta = -1$ (b) $\Delta = -2$ (c) $\Delta = -3$ (d) $\Delta = -4$



(e) $\Delta = -5$ (f) $\Delta = -6$ (g) $\Delta = -7$ (h) $\Delta = -8$



(i) $\Delta = -9$ (j) $\Delta = -10$ (k) $\Delta = -11$



E.2.1 Number of Lists Entering

The estimates in Table E.7 shows evidence that the number of lists increased in the groups of municipalities that lost two, four, and six seats. However, these coefficients are not statistically significant when using the matched dataset (Table E.8). Consequently, the evidence that the number of lists increased in these municipalities should be interpreted with caution. Nevertheless, I find, when using both the unmatched and matched dataset, that the number of lists decreased in municipalities that lost five, seven, and nine seats.

Table E.7: Effect of a decrease in magnitude on number of lists entering in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.069	0.244***	0.320	0.365***	−0.069	0.460**	−0.522	0.333	−0.853*	0.363	−0.438
	(0.192)	(0.056)	(0.222)	(0.087)	(0.195)	(0.147)	(0.276)	(0.322)	(0.374)	(0.296)	(0.365)
Effect in 2008	−0.077	0.144*	−0.006	0.093	−0.399*	0.070	−0.978***	−0.558	−1.335**	−0.436	−0.703
	(0.213)	(0.060)	(0.206)	(0.095)	(0.200)	(0.145)	(0.278)	(0.334)	(0.418)	(0.471)	(0.436)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.807	0.806	0.824	0.825	0.841	0.838	0.832	0.821	0.814	0.810	0.808
Adjusted R^2	0.711	0.709	0.736	0.737	0.762	0.757	0.748	0.731	0.721	0.715	0.711

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.8: Effect of a decrease in magnitude on number of lists entering in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.190	0.066	0.006	0.072	−0.212	−0.170	−1.300**	−0.648	−1.885*	−0.584	−1.138
	(0.206)	(0.075)	(0.263)	(0.119)	(0.252)	(0.338)	(0.432)	(0.696)	(0.827)	(0.939)	(0.738)
Effect in 2008	−0.061	−0.022	−0.190	−0.195	−0.689*	−0.405	−1.477***	−1.119**	−1.699**	−0.596	−0.785
	(0.222)	(0.075)	(0.278)	(0.130)	(0.335)	(0.210)	(0.349)	(0.423)	(0.542)	(0.648)	(0.546)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.871	0.850	0.885	0.872	0.887	0.911	0.906	0.938	0.940	0.954	0.944
Adjusted R^2	0.807	0.774	0.827	0.808	0.830	0.866	0.859	0.907	0.910	0.931	0.916

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.2 Number of PECs Entering

Unlike the results for the number of lists, the estimates for the number of PECs entering are positive and statistically significant in the models for treated groups either in one or both elections. The exception is the group of municipalities that lost one seat, for which the coefficients are statistically insignificant. Furthermore, these results are robust to the use of a matched dataset (Table E.10). This indicates that parties formed more pre-electoral coalitions after a decrease in magnitude, which is a logical step in an attempt to surpass a large electoral quotient.

Table E.9: Effect of a decrease in magnitude on number of PECs entering in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of PECs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.259	0.340***	0.848***	0.776***	1.318***	0.938***	0.796***	1.104***	0.842*	1.361*	0.923*
	(0.179)	(0.047)	(0.180)	(0.074)	(0.182)	(0.115)	(0.210)	(0.286)	(0.369)	(0.561)	(0.396)
Effect in 2008	0.054	0.428***	0.917***	0.909***	1.105***	0.882***	0.579*	0.481	0.729*	1.900**	1.173***
	(0.178)	(0.053)	(0.206)	(0.082)	(0.170)	(0.125)	(0.233)	(0.278)	(0.365)	(0.618)	(0.320)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.760	0.762	0.780	0.785	0.799	0.796	0.786	0.773	0.764	0.759	0.758
Adjusted R^2	0.641	0.643	0.669	0.677	0.698	0.694	0.678	0.659	0.646	0.638	0.637

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.10: Effect of a decrease in magnitude on number of PECs entering in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of PECs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.319	0.271***	0.800***	0.643***	1.277***	0.817***	0.740**	1.138***	0.963*	1.490**	0.946*
	(0.192)	(0.054)	(0.203)	(0.087)	(0.201)	(0.142)	(0.251)	(0.308)	(0.387)	(0.578)	(0.419)
Effect in 2008	0.245	0.315***	0.619**	0.709***	0.899***	0.546***	0.254	0.115	0.367	1.416*	0.819*
	(0.189)	(0.062)	(0.238)	(0.100)	(0.197)	(0.155)	(0.269)	(0.313)	(0.401)	(0.647)	(0.356)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.825	0.786	0.856	0.838	0.866	0.863	0.876	0.881	0.866	0.815	0.813
Adjusted R^2	0.737	0.679	0.783	0.757	0.798	0.795	0.813	0.821	0.798	0.723	0.719

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.3 ENLv

Table E.11 shows the results for *ENLv* using the unmatched dataset. The estimates indicate that the effect of the reform on *ENPv* was not the same in all municipalities — coefficients are positive for some municipalities and negative for others. Nevertheless, when using the matched dataset, all the positive coefficients are statistical insignificant. In fact, the only estimates that are robust to both datasets are the ones for municipalities that lost five, seven, nine, and ten. More precisely, the decrease in M seems to have led to a decrease in *ENLv* in these municipalities.

Table E.11: Effect of a decrease in magnitude on ENLv in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.008	0.208***	0.107	0.207**	−0.257	0.228*	−0.646**	0.102	−0.749**	0.009	−0.004
	(0.148)	(0.041)	(0.186)	(0.064)	(0.155)	(0.113)	(0.220)	(0.225)	(0.288)	(0.244)	(0.276)
Effect in 2008	−0.129	0.101*	−0.144	−0.015	−0.617***	−0.231*	−1.223***	−0.426	−1.194***	−0.893**	−0.558*
	(0.157)	(0.047)	(0.158)	(0.073)	(0.165)	(0.116)	(0.215)	(0.255)	(0.324)	(0.337)	(0.260)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.803	0.807	0.818	0.826	0.830	0.833	0.827	0.814	0.808	0.806	0.804
Adjusted R^2	0.704	0.710	0.727	0.739	0.745	0.749	0.740	0.721	0.711	0.708	0.705

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.12: Effect of a decrease in magnitude on ENLv in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENLv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.089	0.071	−0.234	−0.035	−0.527*	−0.371	−1.239**	−0.948	−2.068*	−1.158	−0.829
	(0.174)	(0.065)	(0.242)	(0.096)	(0.248)	(0.376)	(0.405)	(0.794)	(0.923)	(1.097)	(0.822)
Effect in 2008	−0.126	−0.035	−0.572*	−0.334**	−1.179**	−0.697***	−1.824***	−0.975**	−1.770***	−1.141*	−0.733
	(0.171)	(0.060)	(0.290)	(0.121)	(0.368)	(0.186)	(0.290)	(0.363)	(0.461)	(0.550)	(0.404)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.822	0.820	0.823	0.834	0.805	0.861	0.845	0.898	0.889	0.909	0.903
Adjusted R^2	0.733	0.730	0.734	0.751	0.708	0.791	0.768	0.847	0.834	0.864	0.854

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.4 Top-Two Lists Vote Share

Tables E.13 and E.14 tables show the results for models on top-two lists vote share. The coefficients, in both tables, are in general negative and statistically insignificant. The only negative coefficients that are significant in both tables are for municipalities that lost two and four seats. There is evidence that the dominance of the top-two lists increased in municipalities that lost seven seats in 2008.

Table E.13: Effect of a decrease in magnitude on top-two vote share in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	Top-Two Vote Share										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	−0.540	−3.355***	−2.268	−3.636***	−0.358	−4.071***	1.881	−3.997*	1.195	−2.090	−0.402
	(2.112)	(0.538)	(1.617)	(0.693)	(1.106)	(0.961)	(1.182)	(1.864)	(2.205)	(2.440)	(2.606)
Effect in 2008	3.260	−2.979***	−0.039	−2.049**	1.496	−0.400	5.752***	−0.725	3.776	4.758	3.301
	(2.404)	(0.643)	(1.721)	(0.772)	(1.244)	(1.061)	(1.337)	(2.079)	(2.515)	(2.857)	(2.996)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.793	0.805	0.803	0.819	0.811	0.816	0.807	0.799	0.797	0.795	0.795
Adjusted R^2	0.690	0.707	0.704	0.728	0.717	0.724	0.711	0.698	0.695	0.693	0.692

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.14: Effect of a decrease in magnitude on top-two vote share in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	Top-Two Vote Share										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	0.439	−2.500***	−0.350	−2.123*	−0.431	−2.373	2.639	−1.644	4.017	−1.206	0.239
	(2.440)	(0.640)	(1.995)	(0.875)	(2.054)	(1.649)	(2.114)	(2.645)	(3.146)	(3.980)	(3.358)
Effect in 2008	2.889	−1.692*	2.857	0.562	4.285*	2.321	8.718***	1.326	4.568	2.935	1.354
	(2.591)	(0.722)	(2.000)	(0.944)	(1.933)	(1.277)	(1.723)	(2.193)	(2.705)	(3.399)	(3.305)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.798	0.819	0.835	0.854	0.830	0.876	0.865	0.907	0.894	0.923	0.904
Adjusted R^2	0.697	0.728	0.753	0.780	0.745	0.814	0.798	0.860	0.841	0.885	0.857

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.5 Number of Legislative Lists

Tables E.15 and E.16 have the results for models on the number of legislative lists. The estimates indicate that in all treated groups of municipalities, except for those that lost one seat, the number of legislative lists decreased, either in one or both elections after the 2004 reform.

Table E.15: Effect of a decrease in magnitude on the number of legislative lists in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	0.028	-0.076^{*}	-0.643^{***}	-0.500^{***}	-1.396^{***}	-1.142^{***}	-2.055^{***}	-1.476^{***}	-2.188^{***}	-1.404^{***}	-0.853
	(0.136)	(0.038)	(0.155)	(0.065)	(0.148)	(0.122)	(0.214)	(0.292)	(0.343)	(0.347)	(0.435)
Effect in 2008	-0.139	-0.075	-0.657^{***}	-0.498^{***}	-1.274^{***}	-1.105^{***}	-2.206^{***}	-1.362^{***}	-2.077^{***}	-1.640^{***}	-1.378^{***}
	(0.152)	(0.042)	(0.157)	(0.067)	(0.143)	(0.116)	(0.185)	(0.322)	(0.310)	(0.392)	(0.385)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.781	0.779	0.792	0.795	0.806	0.802	0.805	0.787	0.787	0.784	0.782
Adjusted R^2	0.671	0.669	0.688	0.693	0.709	0.702	0.707	0.681	0.681	0.675	0.673

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.16: Effect of a decrease in magnitude on the number of legislative lists in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	-0.023	-0.144^{**}	-0.788^{***}	-0.666^{***}	-1.528^{***}	-1.402^{***}	-2.310^{***}	-1.827^{***}	-2.714^{***}	-1.674^{**}	-1.070^{*}
	(0.155)	(0.047)	(0.186)	(0.094)	(0.186)	(0.187)	(0.291)	(0.387)	(0.448)	(0.518)	(0.510)
Effect in 2008	-0.061	-0.172^{***}	-0.970^{***}	-0.726^{***}	-1.607^{***}	-1.422^{***}	-2.627^{***}	-1.655^{***}	-2.437^{***}	-1.622^{***}	-1.412^{***}
	(0.162)	(0.051)	(0.203)	(0.097)	(0.227)	(0.148)	(0.238)	(0.346)	(0.363)	(0.461)	(0.418)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.823	0.836	0.853	0.844	0.849	0.915	0.906	0.945	0.954	0.973	0.953
Adjusted R^2	0.735	0.753	0.780	0.766	0.774	0.872	0.859	0.917	0.931	0.959	0.930

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.6 ENLs

Tables E.17 and E.18 have the results for models on the number of legislative lists. The estimates indicate that in all treated groups of municipalities, except for those that lost one or two seats, the effective number of legislative lists decreased, either in one or both elections after the 2004 reform.

Table E.17: Effect of a decrease in magnitude on the ENLs in Brazilian municipalities, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	−0.052	−0.008	−0.430**	−0.347***	−0.877***	−0.755***	−1.414***	−0.737***	−1.293***	−0.938**	−0.429
	(0.120)	(0.032)	(0.142)	(0.057)	(0.135)	(0.101)	(0.166)	(0.205)	(0.305)	(0.330)	(0.325)
Effect in 2008	−0.160	−0.044	−0.463**	−0.369***	−0.860***	−0.821***	−1.673***	−0.698**	−1.260***	−1.419**	−0.693**
	(0.137)	(0.038)	(0.154)	(0.059)	(0.135)	(0.101)	(0.157)	(0.261)	(0.277)	(0.446)	(0.261)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.764	0.766	0.777	0.783	0.787	0.788	0.791	0.772	0.769	0.767	0.766
Adjusted R^2	0.646	0.649	0.665	0.674	0.681	0.683	0.686	0.658	0.654	0.650	0.649

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.18: Effect of a decrease in magnitude on the ENLs in Brazilian municipalities, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
Effect in 2004	−0.083	−0.077	−0.641***	−0.504***	−1.038***	−1.117***	−1.746***	−1.416*	−2.291***	−1.708*	−0.988
	(0.135)	(0.048)	(0.188)	(0.083)	(0.201)	(0.271)	(0.297)	(0.568)	(0.668)	(0.813)	(0.624)
Effect in 2008	−0.119	−0.130**	−0.838***	−0.593***	−1.264***	−1.135***	−2.088***	−1.090**	−1.796***	−1.591**	−0.849*
	(0.147)	(0.047)	(0.234)	(0.097)	(0.279)	(0.157)	(0.221)	(0.341)	(0.380)	(0.576)	(0.360)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.777	0.789	0.785	0.795	0.763	0.849	0.849	0.888	0.888	0.908	0.902
Adjusted R^2	0.665	0.684	0.677	0.692	0.644	0.773	0.774	0.833	0.831	0.861	0.853

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.2.7 Disentangling the effect on distribution of seats - Tables

This subsection contains an analysis of the mechanical and psychological effects for each of the eleven treated groups.

Number of Legislative Lists

Table E.19: Mechanical effect of the 2004 reform on the number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.011	-0.088^{***}	0.017	-0.236^{***}	-0.319^{***}	-0.457^{***}	-0.494^{***}	-0.637^{***}	-1.027^{***}	-0.630^{***}	-0.925^{***}
	(0.062)	(0.014)	(0.064)	(0.020)	(0.051)	(0.038)	(0.070)	(0.125)	(0.125)	(0.150)	(0.208)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.960	0.968	0.963	0.970	0.969	0.970	0.968	0.962	0.962	0.960	0.960
Adjusted R^2	0.919	0.936	0.927	0.939	0.938	0.940	0.936	0.924	0.924	0.921	0.919

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.20: Mechanical effect of the 2004 reform on the number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.082	-0.135^{***}	-0.142	-0.326^{***}	-0.456^{***}	-0.583^{***}	-0.727^{***}	-0.730^{***}	-1.156^{***}	-0.542^{***}	-0.896^{***}
	(0.063)	(0.021)	(0.082)	(0.036)	(0.069)	(0.060)	(0.106)	(0.139)	(0.160)	(0.153)	(0.215)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.975	0.977	0.973	0.980	0.981	0.988	0.984	0.989	0.990	0.996	0.989
Adjusted R^2	0.950	0.954	0.946	0.961	0.962	0.975	0.969	0.978	0.980	0.993	0.977

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.21: Psychological effect of the 2004 reform on the number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.016	0.012	-0.660^{***}	-0.264^{***}	-1.077^{***}	-0.686^{***}	-1.561^{***}	-0.840^{***}	-1.161^{***}	-0.774^{*}	0.072
	(0.145)	(0.040)	(0.177)	(0.068)	(0.153)	(0.116)	(0.196)	(0.234)	(0.282)	(0.327)	(0.391)
Effect in 2008	−0.150	0.013	-0.674^{***}	-0.262^{***}	-0.955^{***}	-0.648^{***}	-1.712^{***}	-0.726^{**}	-1.050^{***}	-1.010^{**}	−0.453
	(0.159)	(0.045)	(0.176)	(0.069)	(0.148)	(0.112)	(0.170)	(0.257)	(0.259)	(0.336)	(0.305)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.780	0.776	0.790	0.789	0.801	0.796	0.800	0.786	0.784	0.782	0.781
Adjusted R^2	0.670	0.664	0.684	0.684	0.701	0.695	0.700	0.679	0.676	0.673	0.671

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.22: Psychological effect of the 2004 reform on the number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.106	−0.009	-0.646^{**}	-0.340^{***}	-1.072^{***}	-0.820^{***}	-1.583^{***}	-1.098^{**}	-1.557^{***}	-1.132^{*}	−0.175
	(0.163)	(0.052)	(0.208)	(0.093)	(0.209)	(0.196)	(0.280)	(0.375)	(0.435)	(0.519)	(0.489)
Effect in 2008	−0.143	−0.037	-0.828^{***}	-0.399^{***}	-1.150^{***}	-0.840^{***}	-1.901^{***}	-0.925^{**}	-1.281^{***}	-1.080^{*}	−0.516
	(0.171)	(0.055)	(0.222)	(0.097)	(0.252)	(0.153)	(0.225)	(0.304)	(0.325)	(0.425)	(0.362)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.823	0.828	0.841	0.839	0.837	0.914	0.911	0.954	0.962	0.974	0.957
Adjusted R^2	0.734	0.743	0.761	0.758	0.755	0.871	0.866	0.930	0.943	0.961	0.935

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.23: First Component Psychological effect of the 2004 reform on the number of legislative lists,, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.137	0.226***	0.401**	0.280***	−0.142	0.206*	−0.564**	0.080	−0.831**	0.253	−0.264
	(0.152)	(0.041)	(0.154)	(0.066)	(0.131)	(0.102)	(0.206)	(0.244)	(0.263)	(0.237)	(0.370)
Effect in 2008	−0.115	0.169***	0.138	0.097	−0.428**	−0.224*	−1.059***	−0.542*	−1.502***	−0.404	−1.069**
	(0.165)	(0.046)	(0.151)	(0.070)	(0.145)	(0.111)	(0.208)	(0.241)	(0.298)	(0.291)	(0.337)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.789	0.795	0.807	0.818	0.824	0.830	0.819	0.804	0.798	0.794	0.791
Adjusted R^2	0.684	0.692	0.711	0.727	0.736	0.744	0.729	0.705	0.697	0.692	0.686

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.24: First Component Psychological effect of the 2004 reform on the number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.139	0.079	0.039	−0.008	−0.491**	−0.338	−1.213***	−0.699	−1.824**	−0.444	−0.776
	(0.168)	(0.055)	(0.190)	(0.095)	(0.184)	(0.249)	(0.313)	(0.524)	(0.595)	(0.729)	(0.615)
Effect in 2008	−0.004	0.004	−0.416	−0.279**	−1.040***	−0.710***	−1.789***	−0.980***	−1.980***	−0.418	−1.089**
	(0.175)	(0.056)	(0.229)	(0.107)	(0.275)	(0.145)	(0.268)	(0.261)	(0.359)	(0.363)	(0.368)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.827	0.841	0.868	0.857	0.861	0.918	0.897	0.947	0.945	0.967	0.954
Adjusted R^2	0.741	0.761	0.801	0.785	0.791	0.877	0.846	0.921	0.917	0.950	0.931

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.25: Second Component Psychological effect of the 2004 reform on the number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.121	−0.214***	−1.061***	−0.543***	−0.935***	−0.892***	−0.997***	−0.920***	−0.330	−1.027**	0.336
	(0.109)	(0.034)	(0.155)	(0.066)	(0.147)	(0.109)	(0.202)	(0.205)	(0.267)	(0.392)	(0.365)
Effect in 2008	−0.035	−0.156***	−0.812***	−0.359***	−0.527***	−0.425***	−0.653***	−0.184	0.452**	−0.606	0.616*
	(0.093)	(0.029)	(0.173)	(0.055)	(0.119)	(0.091)	(0.150)	(0.154)	(0.172)	(0.396)	(0.276)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.364	0.410	0.406	0.460	0.435	0.489	0.449	0.432	0.394	0.386	0.371
Adjusted R^2	0.046	0.115	0.108	0.190	0.152	0.233	0.173	0.148	0.090	0.079	0.056

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.26: Second Component Psychological effect of the 2004 reform on the number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Lists										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.245*	−0.088*	−0.685***	−0.332***	−0.580***	−0.482**	−0.370	−0.399	0.267	−0.687	0.601
	(0.112)	(0.044)	(0.172)	(0.079)	(0.163)	(0.148)	(0.239)	(0.278)	(0.349)	(0.489)	(0.432)
Effect in 2008	−0.139	−0.041	−0.412*	−0.121	−0.111	−0.129	−0.112	0.055	0.699**	−0.662	0.573*
	(0.095)	(0.040)	(0.195)	(0.076)	(0.160)	(0.120)	(0.208)	(0.190)	(0.236)	(0.403)	(0.285)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.328	0.427	0.506	0.490	0.505	0.537	0.584	0.695	0.538	0.672	0.440
Adjusted R^2	−0.008	0.140	0.258	0.235	0.257	0.306	0.376	0.543	0.307	0.507	0.159

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

ENLs

Table E.27: Mechanical effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	−0.007	−0.056***	−0.015	−0.141***	−0.157**	−0.260***	−0.176**	−0.297***	−0.484***	−0.625***	−0.545***
	(0.039)	(0.013)	(0.054)	(0.019)	(0.051)	(0.033)	(0.059)	(0.068)	(0.114)	(0.111)	(0.106)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.969	0.973	0.972	0.976	0.975	0.976	0.975	0.971	0.970	0.970	0.969
Adjusted R^2	0.939	0.946	0.944	0.952	0.949	0.953	0.951	0.943	0.941	0.939	0.938

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.28: Mechanical effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.041	−0.089***	−0.123	−0.193***	−0.244***	−0.334***	−0.287***	−0.357***	−0.545***	−0.570***	−0.528***
	(0.040)	(0.017)	(0.063)	(0.025)	(0.060)	(0.043)	(0.073)	(0.079)	(0.124)	(0.113)	(0.115)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.984	0.974	0.976	0.981	0.977	0.984	0.985	0.989	0.985	0.994	0.988
Adjusted R^2	0.968	0.948	0.951	0.962	0.955	0.969	0.970	0.978	0.970	0.988	0.976

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.29: Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.045	0.048	−0.415**	−0.207***	−0.720***	−0.494***	−1.238***	−0.439*	−0.809**	−0.313	0.116
	(0.119)	(0.035)	(0.158)	(0.061)	(0.148)	(0.103)	(0.168)	(0.192)	(0.268)	(0.277)	(0.298)
Effect in 2008	−0.153	0.013	−0.447**	−0.229***	−0.703***	−0.560***	−1.497***	−0.400	−0.777***	−0.794*	−0.148
	(0.137)	(0.040)	(0.161)	(0.062)	(0.150)	(0.103)	(0.159)	(0.242)	(0.235)	(0.385)	(0.201)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.765	0.763	0.776	0.778	0.783	0.784	0.788	0.772	0.769	0.767	0.766
Adjusted R^2	0.648	0.644	0.664	0.666	0.674	0.675	0.682	0.657	0.653	0.650	0.649

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.30: Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.124	0.012	−0.518*	−0.311***	−0.794***	−0.782**	−1.459***	−1.059	−1.746**	−1.138	−0.460
	(0.134)	(0.052)	(0.203)	(0.088)	(0.224)	(0.284)	(0.311)	(0.588)	(0.677)	(0.804)	(0.626)
Effect in 2008	−0.160	−0.041	−0.715**	−0.400***	−1.021***	−0.800***	−1.801***	−0.734*	−1.250***	−1.021	−0.321
	(0.147)	(0.051)	(0.245)	(0.100)	(0.301)	(0.168)	(0.231)	(0.344)	(0.366)	(0.537)	(0.334)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.785	0.781	0.772	0.785	0.738	0.840	0.842	0.887	0.894	0.911	0.903
Adjusted R^2	0.678	0.671	0.658	0.677	0.607	0.760	0.763	0.830	0.841	0.867	0.854

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.31: First Component of the Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.026	0.205***	0.292*	0.213***	−0.026	0.174*	−0.339	0.227	−0.533*	−0.038	−0.063
	(0.129)	(0.034)	(0.142)	(0.056)	(0.114)	(0.088)	(0.176)	(0.179)	(0.237)	(0.279)	(0.271)
Effect in 2008	−0.137	0.124**	0.079	0.057	−0.284*	−0.204*	−0.860***	−0.121	−0.882***	−0.826*	−0.587*
	(0.145)	(0.040)	(0.137)	(0.061)	(0.139)	(0.095)	(0.169)	(0.216)	(0.263)	(0.365)	(0.248)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.772	0.783	0.792	0.806	0.804	0.815	0.805	0.786	0.779	0.776	0.774
Adjusted R^2	0.658	0.675	0.687	0.708	0.706	0.722	0.707	0.679	0.669	0.664	0.661

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.32: First Component of the Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.037	0.075	−0.059	−0.028	−0.343	−0.412	−0.926**	−0.811	−1.895*	−1.210	−0.895
	(0.143)	(0.058)	(0.199)	(0.088)	(0.209)	(0.354)	(0.358)	(0.754)	(0.867)	(1.062)	(0.791)
Effect in 2008	−0.067	−0.010	−0.497	−0.278*	−0.902*	−0.635***	−1.457***	−0.609*	−1.522***	−1.020*	−0.728*
	(0.155)	(0.052)	(0.274)	(0.114)	(0.359)	(0.153)	(0.236)	(0.291)	(0.369)	(0.500)	(0.344)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.789	0.801	0.807	0.814	0.780	0.855	0.839	0.885	0.874	0.891	0.890
Adjusted R^2	0.684	0.701	0.711	0.720	0.670	0.782	0.759	0.827	0.811	0.837	0.835

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.33: Second Component of the Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENLs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.071	−0.157***	−0.707***	−0.420***	−0.694***	−0.668***	−0.899***	−0.666***	−0.276	−0.274	0.178
	(0.074)	(0.027)	(0.111)	(0.051)	(0.106)	(0.081)	(0.150)	(0.138)	(0.179)	(0.189)	(0.154)
Effect in 2008	−0.017	−0.112***	−0.526***	−0.286***	−0.419***	−0.356***	−0.638***	−0.279*	0.105	0.032	0.439**
	(0.065)	(0.022)	(0.124)	(0.040)	(0.085)	(0.062)	(0.101)	(0.134)	(0.101)	(0.218)	(0.137)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.349	0.393	0.389	0.442	0.416	0.474	0.433	0.402	0.371	0.363	0.354
Adjusted R^2	0.022	0.089	0.082	0.162	0.123	0.210	0.149	0.102	0.056	0.043	0.030

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.34: Second Component of the Psychological effect of the 2004 reform on the effective number of legislative lists, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.161*	−0.063	−0.459***	−0.284***	−0.451***	−0.370**	−0.533**	−0.248	0.150	0.071	0.435
	(0.075)	(0.035)	(0.122)	(0.058)	(0.117)	(0.122)	(0.177)	(0.230)	(0.281)	(0.332)	(0.264)
Effect in 2008	−0.093	−0.031	−0.217	−0.122*	−0.119	−0.165*	−0.344**	−0.125	0.272	−0.001	0.407**
	(0.066)	(0.029)	(0.147)	(0.057)	(0.132)	(0.080)	(0.127)	(0.153)	(0.149)	(0.224)	(0.147)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.321	0.411	0.498	0.473	0.502	0.534	0.595	0.641	0.531	0.599	0.467
Adjusted R^2	−0.019	0.116	0.246	0.209	0.253	0.301	0.392	0.461	0.297	0.399	0.199

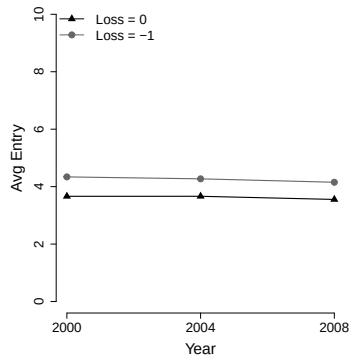
Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

E.3 Raw Data

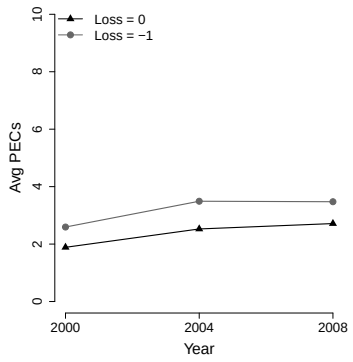
In this Appendix, I present figures for the average values for each of the dependent variables over time. In all figures, the average value for a given treated group is presented together with the average value for the control group (municipalities not affected by the reform). In total, the appendix contains eleven sets of figures, which corresponds to treated groups with at least 10 observations (see Table B.3). Averages were calculated using the dataset used in the analysis.

Figure E.3: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 1 seat (Unmatched Dataset)

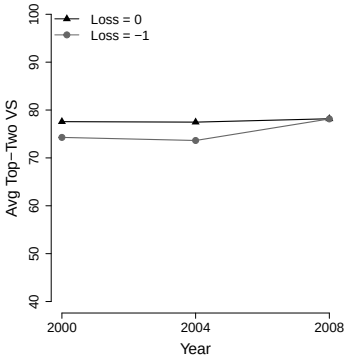
(a) # of List



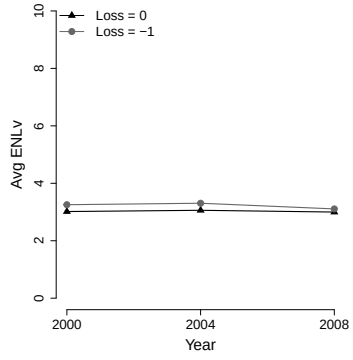
(b) # of PECs



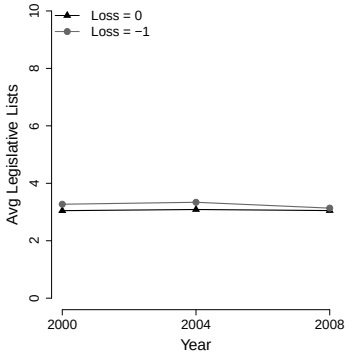
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

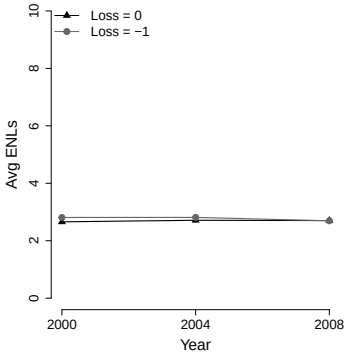
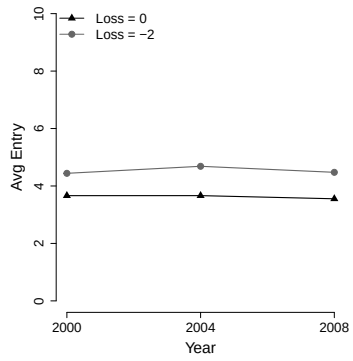
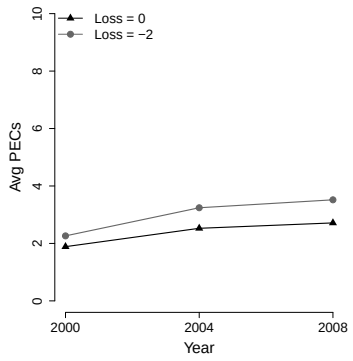


Figure E.4: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 2 seats (Unmatched Dataset)

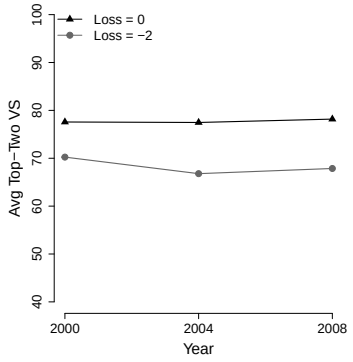
(a) # of List



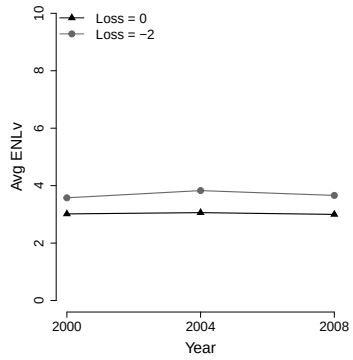
(b) # of PECs



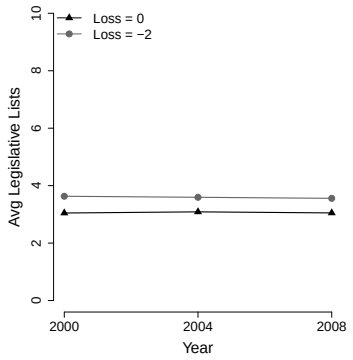
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

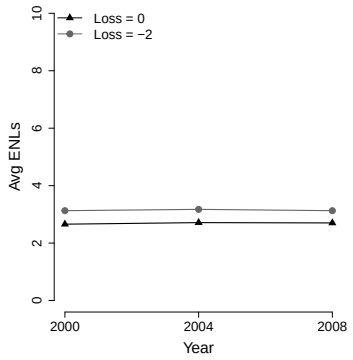
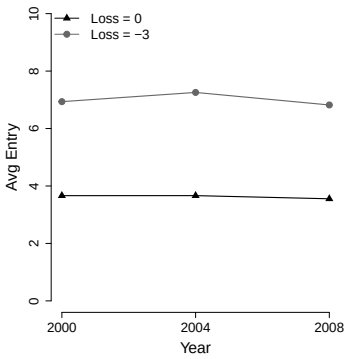
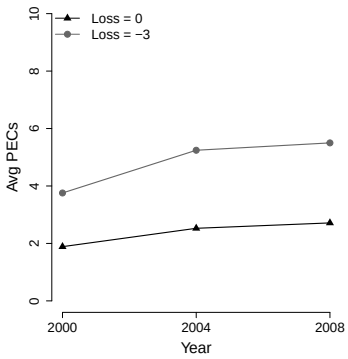


Figure E.5: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 3 seats (Unmatched Dataset)

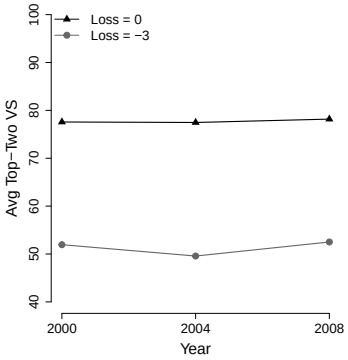
(a) # of List



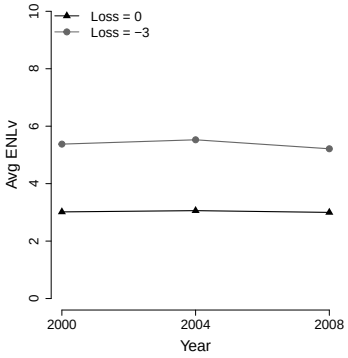
(b) # of PECs



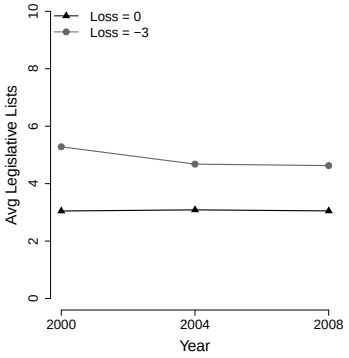
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

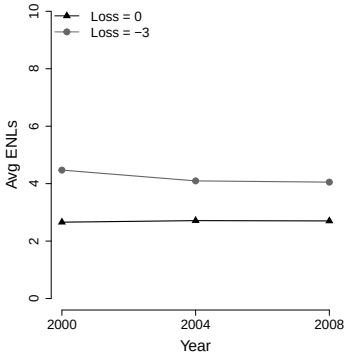
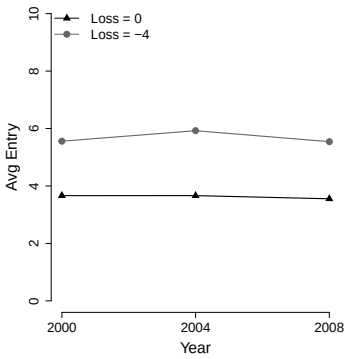
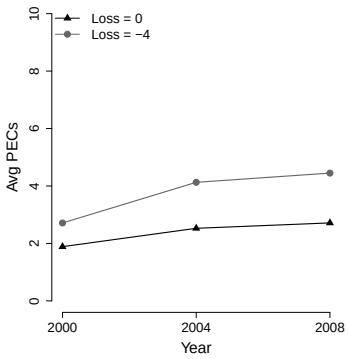


Figure E.6: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 4 seats (Unmatched Dataset)

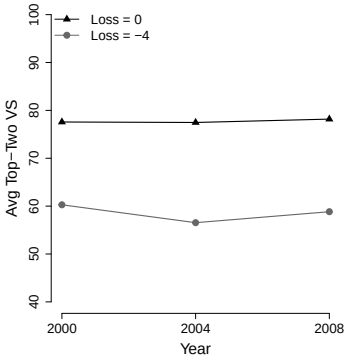
(a) # of List



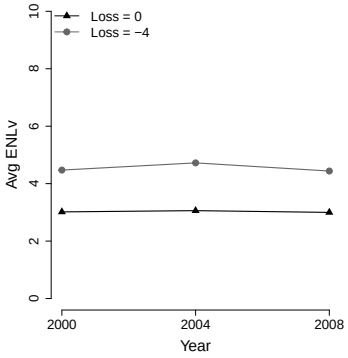
(b) # of PECs



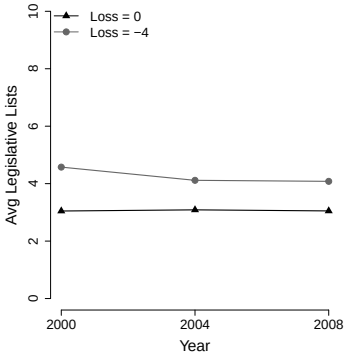
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

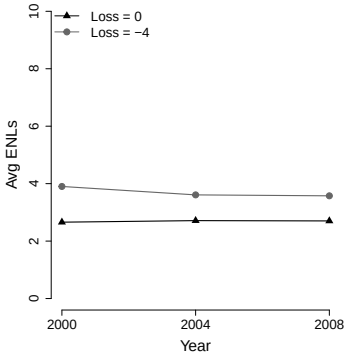
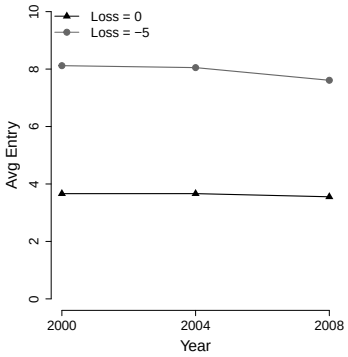
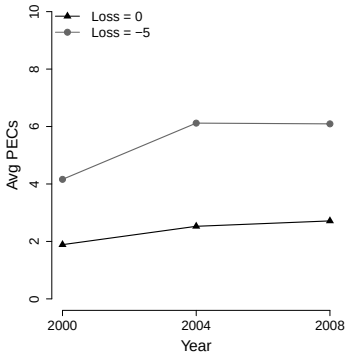


Figure E.7: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 5 seats (Unmatched Dataset)

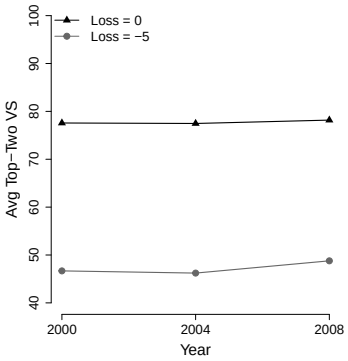
(a) # of List



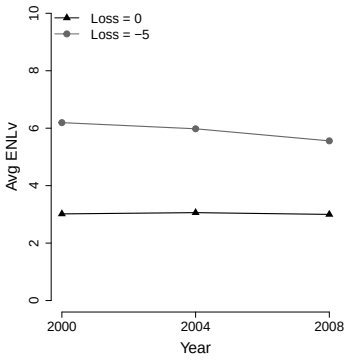
(b) # of PECs



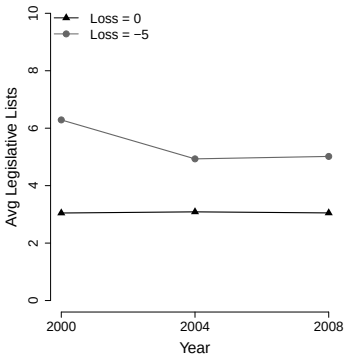
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

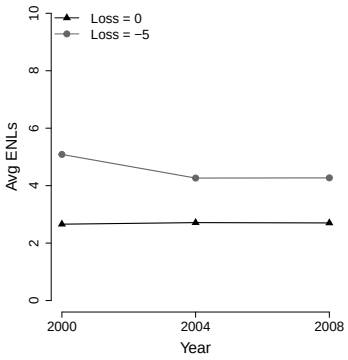
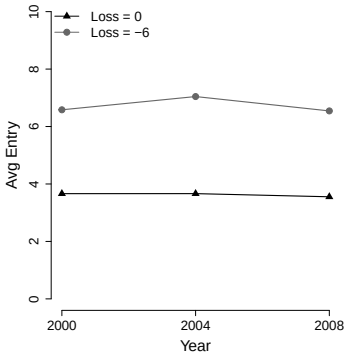
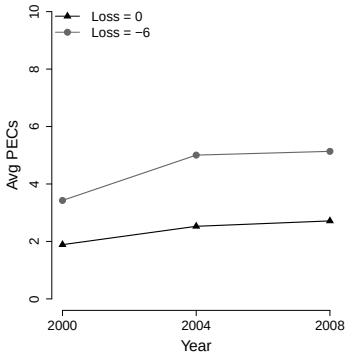


Figure E.8: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 6 seats (Unmatched Dataset)

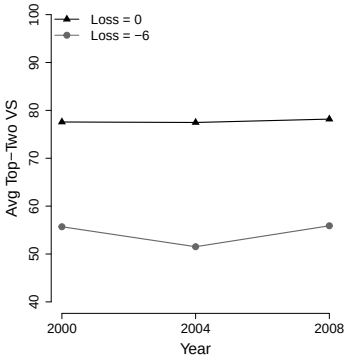
(a) # of List



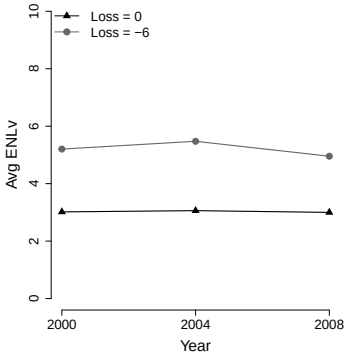
(b) # of PECs



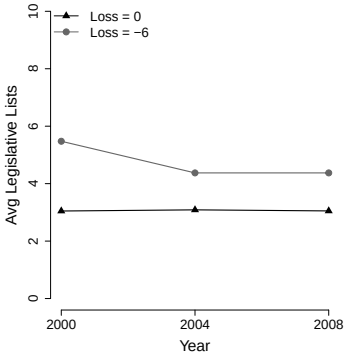
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

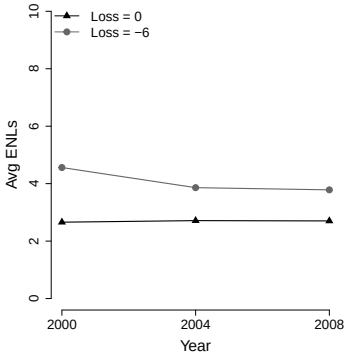
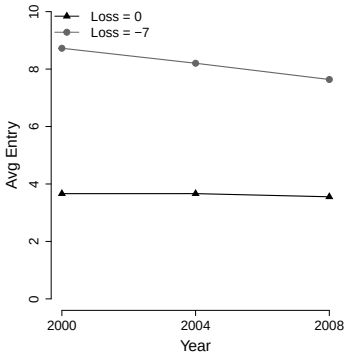
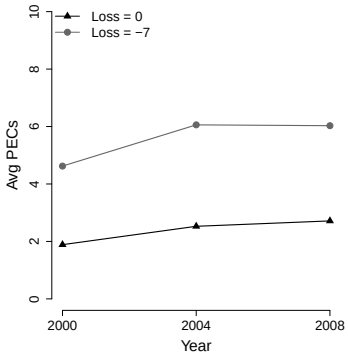


Figure E.9: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 7 seats (Unmatched Dataset)

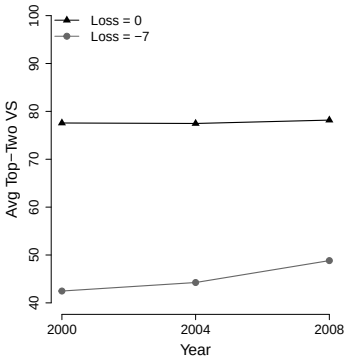
(a) # of List



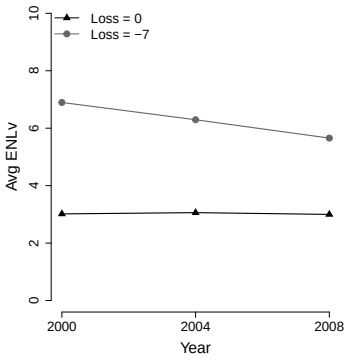
(b) # of PECs



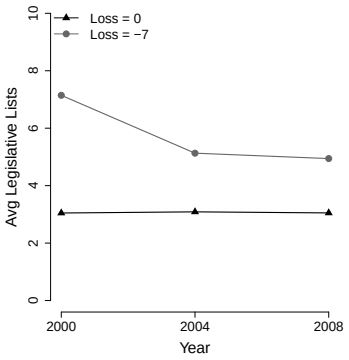
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

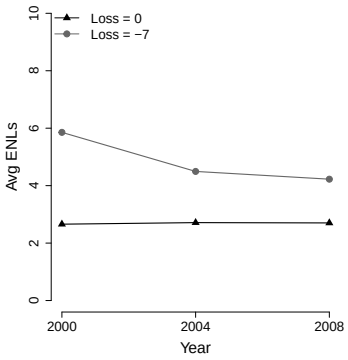
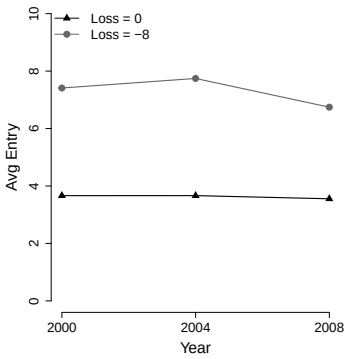
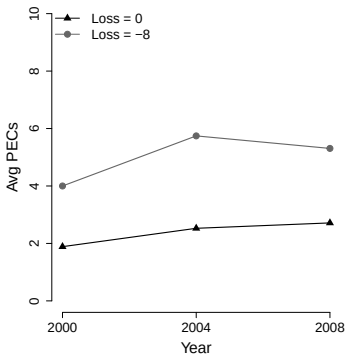


Figure E.10: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 8 seats (Unmatched Dataset)

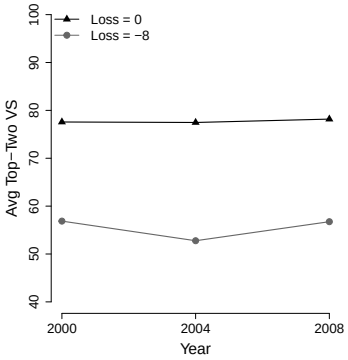
(a) # of List



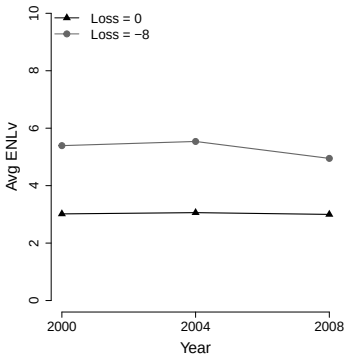
(b) # of PECs



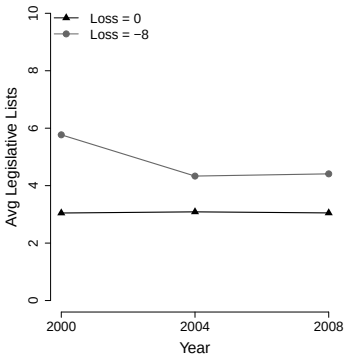
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

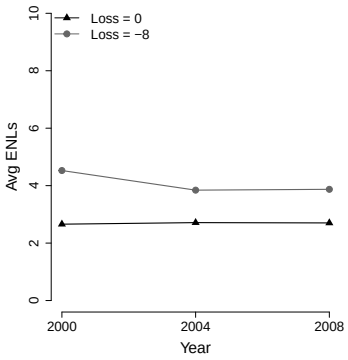
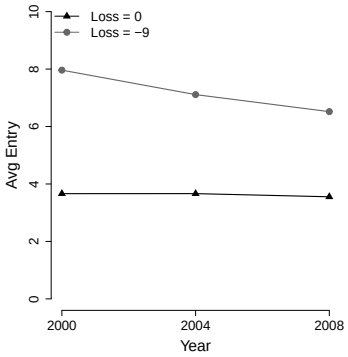
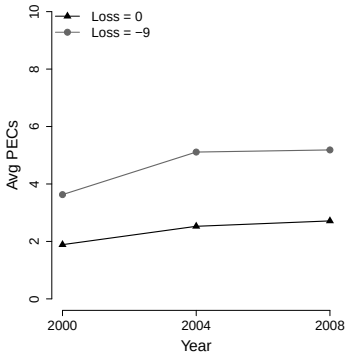


Figure E.11: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 9 seats (Unmatched Dataset)

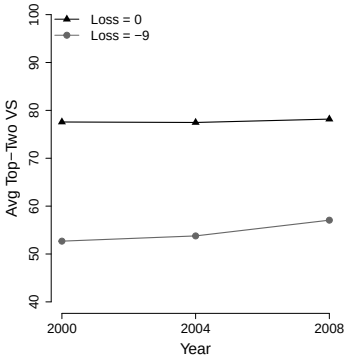
(a) # of List



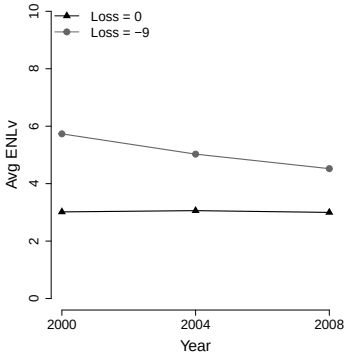
(b) # of PECs



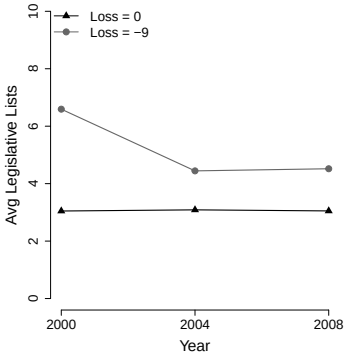
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

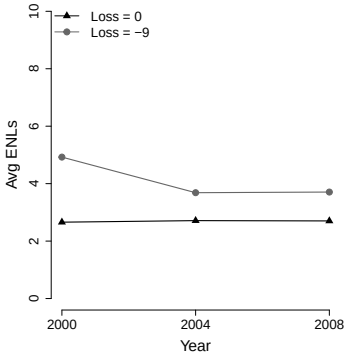
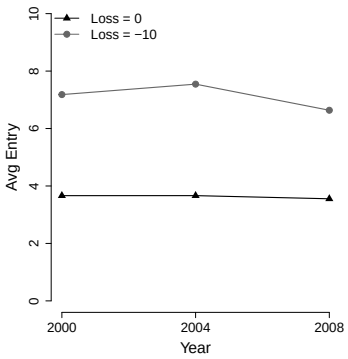
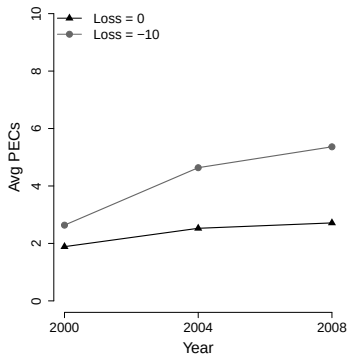


Figure E.12: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 10 seats (Unmatched Dataset)

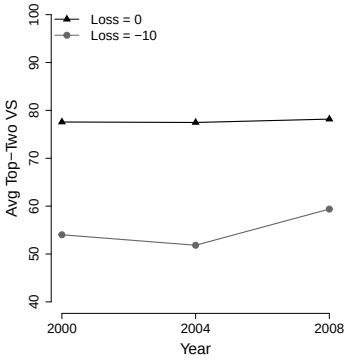
(a) # of List



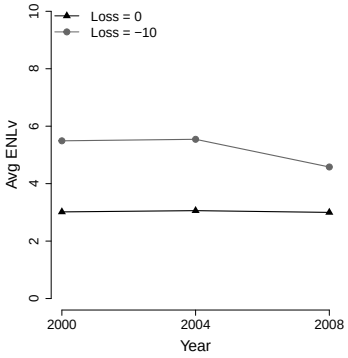
(b) # of PECs



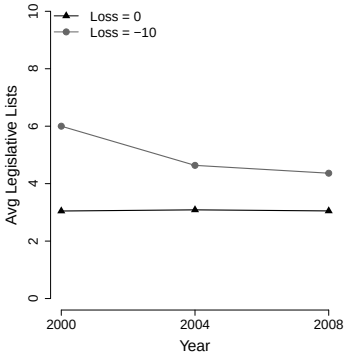
(c) Top-Two Lists VS



(d) ENLv



(e) # of Leg Lists



(f) ENLs

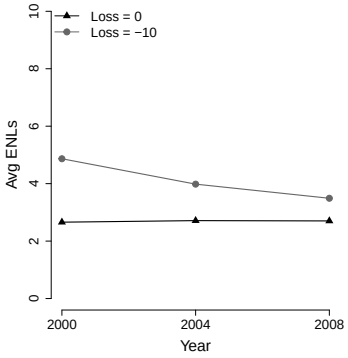
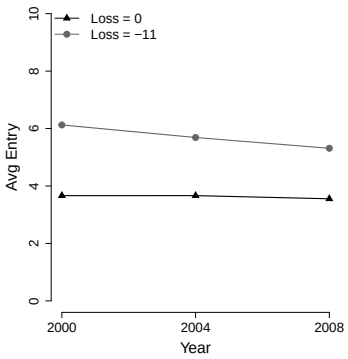
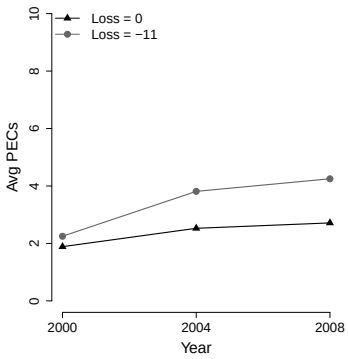


Figure E.13: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 11 seats (Unmatched Dataset)

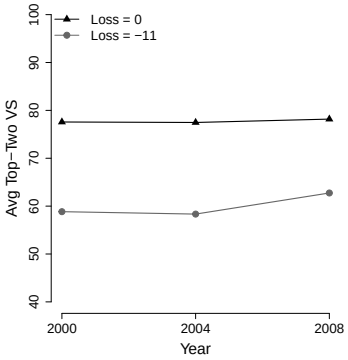
(a) # of List



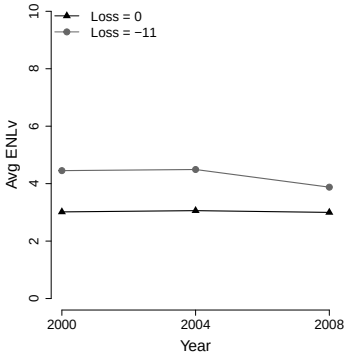
(b) # of PECs



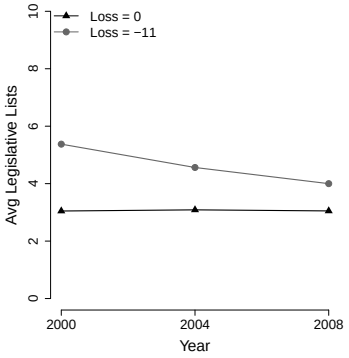
(c) Top-Two Lists VS



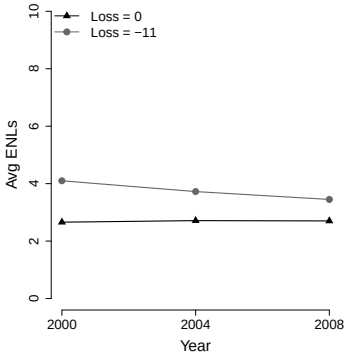
(d) ENLv



(e) # of Leg Lists



(f) ENLs



E.4 First Difference Models

In this Appendix, I show results for first-difference models. I fit models using both the unmatched and matched datasets. Models only include observations in 2004 because there is no change in M between 2004 and 2008. Note that in these models, the independent variable assumes values between -11 and 0.

The estimates in Tables E.35 and E.36 are similar to those in the body of the paper. The number of PECs increased in municipalities that lost seats, legislative fragmentation decreased, and the results for the top-two vote share depend on the sample used (matched or unmatched). The differences are regarding the models for the number of lists entering, which indicate the fewer lists entered the elections (the estimates in the body of the paper are null) and the results for the model on *ENLv*, which shows that voters coalesced around fewer lists only in the model using the matched dataset (such as in the body of the paper.)

Table E.35: Effect of the first difference in magnitude on the first difference in electoral coordination and seat distribution measures, Brazilian Municipal Elections, 2004 (Unmatched Data)

	Dependent variable:					
	# of Lists	# of PECs	ENLv	Top-Two Lists VS	# of Leg Lists	ENLs
	(1)	(2)	(3)	(4)	(5)	(6)
Magnitude	0.183***	−0.157***	−0.004	0.463***	0.183***	0.116***
	(0.007)	(0.008)	(0.007)	(0.095)	(0.007)	(0.006)
Constant	0.097***	0.665***	0.089***	−0.639**	0.097***	0.094***
	(0.019)	(0.022)	(0.020)	(0.249)	(0.019)	(0.016)
Observations	4,825	4,825	4,825	4,825	4,825	4,825
R^2	0.115	0.067	0.0001	0.005	0.115	0.067
Adjusted R^2	0.115	0.067	−0.0001	0.005	0.115	0.067
Residual Std. Error (df = 4823)	1.103	1.271	1.126	14.346	1.103	0.938

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Standard errors in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table E.36: Effect of the first difference in magnitude on the first difference in electoral coordination and seat distribution measures, 2004 (Matched Data)

	Dependent variable:					
	# of Lists	# of PECs	ENLv	Top-Two Lists VS	# of Leg Lists	ENLs
	(1)	(2)	(3)	(4)	(5)	(6)
Magnitude	0.166***	−0.144***	0.065***	−0.171	0.166***	0.123***
	(0.010)	(0.011)	(0.012)	(0.123)	(0.010)	(0.009)
Constant	0.173***	0.614***	0.349***	−2.060***	0.173***	0.230***
	(0.017)	(0.019)	(0.020)	(0.213)	(0.017)	(0.016)
Observations	4,825	4,825	4,825	4,825	4,825	4,825
R^2	0.060	0.037	0.006	0.0004	0.060	0.035
Adjusted R^2	0.059	0.036	0.006	0.0002	0.059	0.034
Residual Std. Error (df = 4823)	0.015	0.017	0.018	0.190	0.015	0.015

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Standard errors in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F Party Level Analysis

In this section, I re-run the entire analysis using the dependent variables at the level of the party. Because data at the party level are available for the 1996 election, I start the appendix with a diagnostic test for the parallel trends assumption. Moreover, I examine groups of municipalities with at least 10 treated units (see Appendix B). These represent 82% of all affected municipalities.

F.1 Parallel Trends Assumption

In this Appendix, I present diagnostic tests for the parallel trends assumption. Specifically, I include pre-treatment periods in the models in order to evaluate whether the trends were parallel before the assignment of the treatment. While the parallel trend assumption posits that, in the absence of the treatment, both treated and control groups would follow parallel trends in the periods *after* the treatment, the use of pre-treatment periods is a standard diagnostic tool in the applied literature (Angrist and Pischke, 2009; Autor, 2003). The logic behind such a test is that groups that followed parallel trends before the treatment would be more likely to follow parallel trends in the post-treatment period, had the treatment never being administrated, than groups that did not follow parallel trends in the pre-treatment period.

Table F.1 shows the results for the number of parties entering. The coefficients for the 2000 election are statistically significant for groups of municipalities that lost two, three, four, five, six, seven, eight, and nine seats. These results indicate that trends were not parallel for these groups of municipalities before the 2004 reform.

Table F.1: Effect of a decrease in magnitude on the number of parties entering in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	0.094	0.174*	1.034***	0.312*	0.976***	0.767***	1.053**	1.009*	2.259***	0.838	0.361
	(0.294)	(0.082)	(0.295)	(0.128)	(0.258)	(0.195)	(0.353)	(0.473)	(0.532)	(0.467)	(0.245)
Effect in 2004	0.733	0.666***	2.275***	1.248***	2.004***	1.792***	1.515***	1.659**	2.548***	2.144**	0.701
	(0.419)	(0.102)	(0.411)	(0.157)	(0.303)	(0.233)	(0.400)	(0.620)	(0.574)	(0.782)	(0.509)
Effect in 2008	1.179**	0.726***	2.593***	1.477***	2.119***	1.704***	0.801*	1.824**	1.967***	2.398**	0.733
	(0.380)	(0.120)	(0.419)	(0.173)	(0.300)	(0.255)	(0.371)	(0.608)	(0.544)	(0.753)	(0.579)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.822	0.822	0.835	0.841	0.853	0.848	0.840	0.829	0.825	0.820	0.820
Adjusted R^2	0.763	0.763	0.780	0.788	0.803	0.797	0.787	0.772	0.766	0.760	0.759

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2 has the estimates for models on *ENPv*. The coefficient for the 2000 election is statistically significant only for the groups of municipalities that lost two, four, and nine

seats, suggesting that the lines for control and treated groups were parallel for the other sets of municipalities in the pre-treatment period.

Table F.2: Effect of a decrease in magnitude on ENPv in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.137	0.113*	0.307	0.250**	−0.022	0.203	−0.038	−0.322	0.878**	0.465	0.291
	(0.177)	(0.052)	(0.198)	(0.084)	(0.201)	(0.132)	(0.254)	(0.368)	(0.339)	(0.253)	(0.189)
Effect in 2004	0.331	0.311***	0.586*	0.636***	0.256	0.490**	−0.042	−0.267	−0.067	0.150	−0.160
	(0.273)	(0.067)	(0.262)	(0.105)	(0.233)	(0.163)	(0.273)	(0.496)	(0.428)	(0.339)	(0.498)
Effect in 2008	0.390	0.233**	0.300	0.457***	−0.277	−0.200	−1.476***	−0.951*	−0.551	−1.216**	−0.118
	(0.255)	(0.075)	(0.262)	(0.116)	(0.222)	(0.181)	(0.245)	(0.454)	(0.445)	(0.456)	(0.551)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.749	0.753	0.759	0.771	0.773	0.774	0.769	0.755	0.750	0.748	0.747
Adjusted R^2	0.665	0.671	0.679	0.694	0.697	0.699	0.692	0.673	0.666	0.664	0.662

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

The results for the number of legislative parties (Table F.3) indicate that trends were parallel in the pre-treatment period only in the analyses for municipalities that lost one, eight, ten, and eleven seats.

Table F.3: Effect of a decrease in magnitude on number of legislative parties in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.321	0.165***	0.591***	0.277***	0.467**	0.723***	0.881***	0.347	0.920**	−0.252	−0.462
	(0.164)	(0.049)	(0.160)	(0.076)	(0.148)	(0.106)	(0.216)	(0.300)	(0.280)	(0.388)	(0.287)
Effect in 2004	−0.302	−0.319***	−0.358	−0.715***	−1.302***	−1.256***	−1.594***	−1.705***	−1.921***	−2.399***	−2.155***
	(0.211)	(0.053)	(0.193)	(0.082)	(0.164)	(0.116)	(0.209)	(0.289)	(0.292)	(0.284)	(0.313)
Effect in 2008	−0.145	−0.312***	−0.475**	−0.795***	−1.170***	−1.321***	−2.066***	−1.911***	−1.723***	−2.501***	−1.938***
	(0.188)	(0.057)	(0.179)	(0.085)	(0.161)	(0.123)	(0.190)	(0.298)	(0.308)	(0.631)	(0.425)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.672	0.667	0.679	0.685	0.695	0.699	0.693	0.680	0.677	0.672	0.672
Adjusted R^2	0.563	0.555	0.571	0.579	0.592	0.598	0.590	0.573	0.569	0.562	0.562

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Lastly, Table F.4 indicates that, for the *ENPs*, lines were parallel in the pre-treatment period in the models for municipalities that lost one, five, eight, ten, and eleven seats.

Table F.4: Effect of a decrease in magnitude on ENPs in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.244	0.147***	0.449**	0.250***	0.237	0.572***	0.422*	0.081	0.532*	0.077	0.002
	(0.152)	(0.041)	(0.137)	(0.065)	(0.124)	(0.095)	(0.187)	(0.240)	(0.264)	(0.350)	(0.215)
Effect in 2004	−0.126	−0.115*	−0.134	−0.308***	−0.836***	−0.689***	−1.056***	−1.079***	−1.042***	−1.474***	−1.016***
	(0.206)	(0.049)	(0.182)	(0.073)	(0.161)	(0.113)	(0.187)	(0.273)	(0.285)	(0.312)	(0.308)
Effect in 2008	0.043	−0.109*	−0.229	−0.418***	−0.823***	−0.813***	−1.671***	−1.243***	−0.924**	−1.749*	−0.696
	(0.179)	(0.054)	(0.187)	(0.080)	(0.151)	(0.117)	(0.158)	(0.284)	(0.294)	(0.714)	(0.490)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.646	0.647	0.653	0.661	0.664	0.671	0.665	0.653	0.648	0.645	0.645
Adjusted R^2	0.528	0.529	0.537	0.548	0.552	0.561	0.553	0.537	0.530	0.526	0.526

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

While the results in this Appendix may raise concerns on the parallel trend assumption, it is essential to remember that the assumption posits that, in the absence of the treatment, both treated and control groups would follow parallel trends in the periods *after* the treatment. However, to increase the confidence in the estimates, I use a matched dataset to achieve a better balance between control and treatment groups when analyzing municipalities and outcome variables for which I found evidence that lines were not parallel in the pre-treatment period. Table F.5 provides a summary for the diagnostic tests. The matched dataset is used to examine municipalities and dependent variables for which the correspondent entry in the table is equal to "No."

Table F.5: Were trends parallel before the intervention? Summary

DV	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
# of Parties	Yes	No	No	No	No	No	No	No	No	Yes	Yes
ENPv	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
# of Leg Parties	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes
ENPs	Yes	No	No	No	Yes	No	No	Yes	No	Yes	Yes

F.2 Electoral Coordination and Distribution of Seats - Tables

Table F.1: Effect of a decrease in magnitude on number of parties entering in Brazilian municipalities, 1996-2008

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	0.094	0.128	0.247	0.144	0.354	0.643**	0.633	0.897	2.208***	0.838	0.361
	(0.294)	(0.098)	(0.432)	(0.175)	(0.420)	(0.238)	(0.451)	(0.489)	(0.559)	(0.467)	(0.245)
Effect in 2004	0.733	0.353**	1.377**	0.651***	1.186**	1.074***	0.924	1.040	2.314**	2.144**	0.701
	(0.419)	(0.123)	(0.492)	(0.196)	(0.381)	(0.299)	(0.503)	(0.690)	(0.710)	(0.782)	(0.509)
Effect in 2008	1.179**	0.474***	1.570**	1.003***	1.576***	1.340***	0.667	1.522*	2.066***	2.398**	0.733
	(0.380)	(0.136)	(0.526)	(0.201)	(0.352)	(0.298)	(0.451)	(0.647)	(0.607)	(0.753)	(0.579)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Matched Data	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.822	0.852	0.896	0.891	0.921	0.921	0.930	0.935	0.945	0.820	0.820
Adjusted R^2	0.763	0.803	0.861	0.855	0.895	0.895	0.906	0.913	0.927	0.760	0.759

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2: Effect of a decrease in magnitude on ENPv in Brazilian municipalities, 1996-2008

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.137	0.169**	0.307	0.418***	−0.022	0.203	−0.038	−0.322	1.054	0.465	0.291
	(0.177)	(0.065)	(0.198)	(0.123)	(0.201)	(0.132)	(0.254)	(0.368)	(0.572)	(0.253)	(0.189)
Effect in 2004	0.331	0.229**	0.586*	0.532**	0.256	0.490**	−0.042	−0.267	−0.498	0.150	−0.160
	(0.273)	(0.088)	(0.262)	(0.164)	(0.233)	(0.163)	(0.273)	(0.496)	(0.948)	(0.339)	(0.498)
Effect in 2008	0.390	0.059	0.300	0.154	−0.277	−0.200	−1.476***	−0.951*	−1.320	−1.216**	−0.118
	(0.255)	(0.100)	(0.262)	(0.170)	(0.222)	(0.181)	(0.245)	(0.454)	(1.169)	(0.456)	(0.551)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Matched Data	No	Yes	No	Yes	No	No	No	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.749	0.766	0.759	0.794	0.773	0.774	0.769	0.755	0.869	0.748	0.747
Adjusted R^2	0.665	0.687	0.679	0.725	0.697	0.699	0.692	0.673	0.826	0.664	0.662

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.3: Effect of a decrease in magnitude on number of legislative parties in Brazilian municipalities, 1996-2008

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.321	0.084	0.223	0.033	0.015	0.380*	0.387	0.347	0.823*	−0.252	−0.462
	(0.164)	(0.061)	(0.212)	(0.124)	(0.223)	(0.177)	(0.317)	(0.300)	(0.396)	(0.388)	(0.287)
Effect in 2004	−0.302	−0.411***	−0.754**	−1.001***	−1.824***	−1.519***	−1.824***	−1.705***	−2.040***	−2.399***	−2.155***
	(0.211)	(0.064)	(0.244)	(0.125)	(0.249)	(0.166)	(0.295)	(0.289)	(0.343)	(0.284)	(0.313)
Effect in 2008	−0.145	−0.538***	−1.061***	−1.246***	−1.779***	−2.071***	−2.856***	−1.911***	−2.724**	−2.501***	−1.938***
	(0.188)	(0.078)	(0.243)	(0.140)	(0.234)	(0.350)	(0.412)	(0.298)	(0.886)	(0.631)	(0.425)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Matched Data	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.672	0.741	0.806	0.772	0.829	0.885	0.865	0.680	0.935	0.672	0.672
Adjusted R^2	0.563	0.654	0.741	0.695	0.772	0.847	0.820	0.573	0.913	0.562	0.562

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.4: Effect of a decrease in magnitude on ENPs in Brazilian municipalities, 1996-2008

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.244	0.082	0.201	0.088	0.237	0.287	0.113	0.081	0.282	0.077	0.002
	(0.152)	(0.051)	(0.165)	(0.091)	(0.124)	(0.178)	(0.261)	(0.240)	(0.474)	(0.350)	(0.215)
Effect in 2004	−0.126	−0.203**	−0.384	−0.539***	−0.836***	−1.088***	−1.382***	−1.079***	−1.691**	−1.474***	−1.016***
	(0.206)	(0.063)	(0.213)	(0.109)	(0.161)	(0.258)	(0.321)	(0.273)	(0.643)	(0.312)	(0.308)
Effect in 2008	0.043	−0.325***	−0.677**	−0.812***	−0.823***	−1.648**	−2.439***	−1.243***	−2.366	−1.749*	−0.696
	(0.179)	(0.086)	(0.262)	(0.122)	(0.151)	(0.501)	(0.477)	(0.284)	(1.305)	(0.714)	(0.490)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Matched Data	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.646	0.683	0.740	0.723	0.664	0.795	0.776	0.653	0.833	0.645	0.645
Adjusted R^2	0.528	0.577	0.653	0.630	0.552	0.727	0.701	0.537	0.777	0.526	0.526

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.3 Disentangling the effect on distribution of seats - Tables

In this Appendix, I show results for the decomposition of the 2004 reform on the distribution of seats. Note that I only estimate models for treated groups that, in the previous section, 1) I detected an effect of the reform and 2) I did not find evidence that the trends were not parallel before the assignment of the treatment.

F.3.1 Number of Legislative Parties

Table F.1: Mechanical effect of the 2004 reform on the number of legislative parties, 2000-2008

	Dependent variable:							
	# of Legislative Parties							
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -7$	$\Delta = -8$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Effect in 2004 and 2008	-0.390^{***}	-0.454^{***}	-0.717^{***}	-0.881^{***}	-1.350^{***}	-1.313^{***}	-1.224^{***}	-1.383^{***}
	(0.027)	(0.119)	(0.045)	(0.090)	(0.131)	(0.158)	(0.272)	(0.226)
N of Treated Units	944	78	424	118	69	39	11	16
Matched Data	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,554	5,822	6,514	5,902	5,804	5,744	5,688	5,698
R^2	0.968	0.955	0.971	0.977	0.981	0.964	0.962	0.962
Adjusted R^2	0.937	0.910	0.941	0.954	0.961	0.927	0.924	0.923

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2: Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008

	Dependent variable:							
	# of Legislative Parties							
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -7$	$\Delta = -8$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Effect in 2004	-0.106	-0.523^{*}	-0.317^{**}	-0.958^{***}	-0.862^{***}	-0.739^{**}	-0.923^{***}	-0.310
	(0.061)	(0.218)	(0.097)	(0.192)	(0.247)	(0.247)	(0.267)	(0.314)
Effect in 2008	-0.233^{**}	-0.830^{***}	-0.562^{***}	-0.913^{***}	-1.894^{***}	-0.945^{**}	-1.025	-0.093
	(0.073)	(0.229)	(0.106)	(0.214)	(0.337)	(0.306)	(0.691)	(0.447)
N of Treated Units	944	78	424	118	69	39	11	16
Matched Data	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	8,706	8,616	8,532	8,547
R^2	0.769	0.834	0.805	0.860	0.887	0.709	0.705	0.705
Adjusted R^2	0.654	0.751	0.707	0.790	0.831	0.564	0.558	0.557

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.3: First Component of the Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008

	Dependent variable:							
	# of Legislative Parties							
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -7$	$\Delta = -8$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Effect in 2004	0.108	0.325	0.264**	0.049	−0.016	0.459	0.359	0.052
	(0.060)	(0.209)	(0.100)	(0.167)	(0.255)	(0.242)	(0.311)	(0.353)
Effect in 2008	0.025	−0.114	0.035	−0.162	−1.319***	0.413	0.016	0.426
	(0.072)	(0.240)	(0.108)	(0.206)	(0.322)	(0.331)	(0.637)	(0.493)
N of Treated Units	944	78	424	118	69	39	11	16
Matched Data	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	8,706	8,616	8,532	8,547
R^2	0.807	0.861	0.844	0.890	0.909	0.752	0.734	0.734
Adjusted R^2	0.710	0.791	0.766	0.835	0.864	0.627	0.601	0.600

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.4: Second Component of the Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008

	Dependent variable:							
	# of Legislative Parties							
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -7$	$\Delta = -8$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Effect in 2004	−0.213***	−0.848***	−0.582***	−1.007***	−0.846***	−1.198***	−1.282**	−0.362
	(0.046)	(0.182)	(0.084)	(0.165)	(0.241)	(0.229)	(0.434)	(0.394)
Effect in 2008	−0.258***	−0.716***	−0.597***	−0.751***	−0.575*	−1.358***	−1.041*	−0.518
	(0.042)	(0.207)	(0.081)	(0.166)	(0.225)	(0.191)	(0.447)	(0.337)
N of Treated Units	944	78	424	118	69	39	11	16
Matched Data	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	8,706	8,616	8,532	8,547
R^2	0.510	0.550	0.605	0.659	0.708	0.523	0.399	0.396
Adjusted R^2	0.265	0.325	0.408	0.487	0.562	0.284	0.098	0.093

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.3.2 ENPs

Table F.5: Mechanical effect of the 2004 reform on the effective number of legislative parties, 2000-2008

	Dependent variable:									
	ENPs									
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Effect in 2004 and 2008	-0.198^{***}	-0.318^{**}	-0.366^{***}	-0.299^{***}	-0.607^{***}	-0.486^{***}	-0.551^{***}	-0.844^{***}	-1.030^{***}	-0.650^{***}
	(0.022)	(0.097)	(0.034)	(0.065)	(0.058)	(0.102)	(0.108)	(0.160)	(0.218)	(0.142)
N of Treated Units	944	78	424	118	206	69	39	27	11	16
Matched Data	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.965	0.951	0.971	0.969	0.979	0.978	0.968	0.983	0.966	0.966
Adjusted R^2	0.931	0.901	0.942	0.938	0.958	0.955	0.935	0.966	0.932	0.931

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.6: Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008

	Dependent variable:									
	ENPs									
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Effect in 2004	-0.087	-0.267	-0.261^{**}	-0.774^{***}	-0.767^{***}	-1.009^{***}	-0.609^{**}	-1.130^{**}	-0.521	-0.369
	(0.058)	(0.208)	(0.092)	(0.161)	(0.158)	(0.269)	(0.222)	(0.407)	(0.310)	(0.268)
Effect in 2008	-0.209^{**}	-0.560^{*}	-0.534^{***}	-0.762^{***}	-1.328^{***}	-2.065^{***}	-0.773^{*}	-1.805	-0.797	-0.048
	(0.077)	(0.252)	(0.107)	(0.161)	(0.389)	(0.398)	(0.306)	(0.970)	(0.702)	(0.414)
N of Treated Units	944	78	424	118	206	69	39	27	11	16
Matched Data	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.714	0.752	0.747	0.698	0.833	0.806	0.691	0.886	0.686	0.686
Adjusted R^2	0.571	0.628	0.620	0.547	0.750	0.709	0.536	0.830	0.529	0.529

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.7: First Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008

	Dependent variable:									
	ENPs									
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Effect in 2004	0.059	0.308	0.194*	0.223	−0.138	−0.130	0.306	−1.036	−0.352	−0.234
	(0.059)	(0.199)	(0.092)	(0.141)	(0.222)	(0.285)	(0.223)	(0.581)	(0.301)	(0.288)
Effect in 2008	−0.047	−0.187	−0.105	0.071	−0.935*	−1.498***	0.002	−1.565	−1.236*	0.135
	(0.076)	(0.262)	(0.111)	(0.169)	(0.367)	(0.375)	(0.313)	(0.940)	(0.596)	(0.421)
N of Treated Units	944	78	424	118	206	69	39	27	11	16
Matched Data	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.760	0.795	0.794	0.738	0.863	0.849	0.722	0.900	0.709	0.709
Adjusted R^2	0.639	0.693	0.690	0.607	0.794	0.773	0.583	0.849	0.564	0.564

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.8: Second Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008

	Dependent variable:									
	ENPs									
	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Effect in 2004	−0.147***	−0.575***	−0.456***	−0.997***	−0.629***	−0.878***	−0.915***	−0.094	−0.169	−0.135
	(0.040)	(0.148)	(0.071)	(0.130)	(0.139)	(0.200)	(0.200)	(0.318)	(0.244)	(0.253)
Effect in 2008	−0.162***	−0.374*	−0.429***	−0.832***	−0.393***	−0.567***	−0.774***	−0.240	0.439	−0.184
	(0.037)	(0.178)	(0.069)	(0.105)	(0.098)	(0.171)	(0.165)	(0.269)	(0.357)	(0.218)
N of Treated Units	944	78	424	118	206	69	39	27	11	16
Matched Data	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.443	0.479	0.521	0.464	0.603	0.627	0.435	0.608	0.359	0.358
Adjusted R^2	0.164	0.218	0.282	0.196	0.404	0.440	0.152	0.412	0.039	0.036

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.4 First-Difference Models

In this Appendix, I show results for first-difference models. I fit models using both the unmatched and matched datasets. Models only include observations in 2004 because there is no change in M between 1996 and 2000, and between 2004 and 2008. Note that in these models, the independent variable assumes values between -11 and 0, depending on the analyzed group.

F.4.1 Number of Parties Entering

The results in Tables F.1 and F.2 are similar. All coefficients are negative, indicating that more parties entered municipalities that lost seats.

Table F.1: Effect of the first difference in magnitude on the first difference in number of parties entering in Brazilian municipalities, 2004 (Unmatched Dataset)

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	-0.639^{*}	-0.246^{***}	-0.414^{***}	-0.234^{***}	-0.206^{***}	-0.171^{***}	-0.066	-0.081	-0.032	-0.131^{*}	-0.031
	(0.284)	(0.041)	(0.083)	(0.029)	(0.041)	(0.026)	(0.038)	(0.043)	(0.046)	(0.065)	(0.049)
Constant	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}	1.785^{***}
	(0.041)	(0.041)	(0.041)	(0.042)	(0.041)	(0.041)	(0.041)	(0.041)	(0.040)	(0.040)	(0.040)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.002	0.009	0.008	0.020	0.008	0.014	0.001	0.001	0.0002	0.001	0.0001
Adjusted R^2	0.001	0.009	0.008	0.019	0.008	0.013	0.001	0.001	−0.0002	0.001	−0.0002

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013).*p<0.05; **p<0.01; ***p<0.001.

Table F.2: Effect of the first difference in magnitude on the first difference in number of parties entering in Brazilian municipalities, 2004 (Matched Dataset)

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	-0.192^{*}	-0.113^{**}	-0.377^{***}	-0.127^{***}	-0.166^{***}	-0.072^{***}	-0.042^{**}	-0.018	-0.012	-0.109^{***}	0.012
	(0.092)	(0.037)	(0.036)	(0.023)	(0.021)	(0.015)	(0.015)	(0.012)	(0.010)	(0.007)	(0.007)
Constant	2.232^{***}	2.052^{***}	1.895^{***}	2.215^{***}	1.982^{***}	2.380^{***}	1.955^{***}	2.293^{***}	1.968^{***}	1.998^{***}	2.259^{***}
	(0.065)	(0.053)	(0.076)	(0.064)	(0.075)	(0.064)	(0.074)	(0.067)	(0.065)	(0.053)	(0.052)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.001	0.002	0.036	0.009	0.020	0.007	0.003	0.001	0.0005	0.071	0.001
Adjusted R^2	0.001	0.002	0.036	0.009	0.020	0.007	0.002	0.0004	0.0001	0.070	0.001

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

F.4.2 ENPv

The results for *ENPv* show that the coefficients for the first difference in magnitude in the models using the unmatched dataset were null, positive, or negative, depending on the

treated group. A similar pattern is observed when using the matched dataset. Even though these results are mixed, they are, in general, similar to the ones from the main analysis in which I find that voters' behavior did not change consistently across the different treated groups.

Table F.3: Effect of the first difference in magnitude on the first difference in ENPv in Brazilian municipalities, 2004 (Unmatched Dataset)

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	-0.468^{*}	-0.099^{***}	-0.093	-0.096^{***}	-0.056^{*}	-0.048^{**}	0.0005	-0.007	0.105^{***}	0.031	0.041
	(0.184)	(0.027)	(0.054)	(0.019)	(0.027)	(0.017)	(0.025)	(0.028)	(0.030)	(0.042)	(0.032)
Constant	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}	0.879^{***}
	(0.026)	(0.027)	(0.026)	(0.027)	(0.026)	(0.027)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.002	0.004	0.001	0.008	0.001	0.003	0.00000	0.00002	0.004	0.0002	0.001
Adjusted R^2	0.002	0.003	0.001	0.008	0.001	0.002	-0.0003	-0.0003	0.004	-0.0002	0.0002
Note:											*p<0.05; **p<0.01; ***p<0.001

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

Table F.4: Effect of the first difference in magnitude on the first difference in ENPv in Brazilian municipalities, 2004 (Matched Dataset)

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	-0.286^{***}	-0.030	-0.030	-0.029^{*}	-0.019	0.034^{**}	0.057^{***}	0.063^{***}	0.172^{***}	0.053^{***}	0.073^{***}
	(0.060)	(0.024)	(0.022)	(0.014)	(0.013)	(0.010)	(0.010)	(0.008)	(0.007)	(0.005)	(0.005)
Constant	1.061^{***}	1.018^{***}	1.070^{***}	1.151^{***}	1.062^{***}	1.369^{***}	1.274^{***}	1.441^{***}	1.486^{***}	1.093^{***}	1.234^{***}
	(0.042)	(0.034)	(0.047)	(0.041)	(0.045)	(0.044)	(0.050)	(0.043)	(0.044)	(0.036)	(0.041)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.008	0.0004	0.001	0.001	0.001	0.004	0.011	0.023	0.177	0.036	0.064
Adjusted R^2	0.007	0.0001	0.0003	0.001	0.0004	0.003	0.011	0.023	0.177	0.036	0.064

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

F.4.3 Number of Legislative Parties

Regarding the first difference in the number of legislative parties, the results in both Table F.5 and F.5 indicate that, except for municipalities that lost one seat in Table F.5, a decrease in magnitude led to a decrease in the number of parties winning seats.

Table F.5: Effect of the first difference in magnitude on the first difference in number of legislative parties in Brazilian municipalities, 2004 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	−0.019	0.242***	0.316***	0.248***	0.354***	0.330***	0.354***	0.256***	0.316***	0.215***	0.154***
	(0.167)	(0.024)	(0.049)	(0.017)	(0.024)	(0.015)	(0.022)	(0.026)	(0.027)	(0.038)	(0.029)
Constant	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***	0.693***
	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.00000	0.026	0.014	0.062	0.068	0.130	0.079	0.033	0.045	0.011	0.010
Adjusted R^2	−0.0003	0.025	0.014	0.062	0.068	0.130	0.079	0.033	0.044	0.011	0.010
Note:											*p<0.05; **p<0.01; ***p<0.001

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

Table F.6: Effect of the first difference in magnitude on the first difference in number of legislative parties in Brazilian municipalities, 2004 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	0.169***	0.248***	0.326***	0.259***	0.368***	0.317***	0.316***	0.235***	0.318***	0.164***	0.146***
	(0.049)	(0.022)	(0.019)	(0.012)	(0.011)	(0.009)	(0.009)	(0.008)	(0.006)	(0.005)	(0.004)
Constant	0.881***	0.704***	0.721***	0.735***	0.763***	0.613***	0.429***	0.519***	0.715***	0.187***	0.606***
	(0.034)	(0.031)	(0.040)	(0.035)	(0.038)	(0.038)	(0.044)	(0.043)	(0.041)	(0.032)	(0.034)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.004	0.033	0.093	0.120	0.287	0.297	0.300	0.253	0.465	0.318	0.283
Adjusted R^2	0.004	0.033	0.092	0.119	0.287	0.297	0.300	0.253	0.464	0.318	0.283

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

F.4.4 ENPs

Lastly, the first difference models for *ENPs* reveal evidence that a loss of seats led to a decrease in the effective number of legislative parties. Again, the exception is the group of municipalities that lost one seat.

Table F.7: Effect of the first difference in magnitude on the first difference in ENPs in Brazilian municipalities, 2004 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	−0.118	0.131***	0.194***	0.139***	0.215***	0.210***	0.211***	0.145***	0.175***	0.155***	0.093***
	(0.156)	(0.023)	(0.046)	(0.016)	(0.023)	(0.015)	(0.021)	(0.024)	(0.026)	(0.036)	(0.027)
Constant	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***	0.589***
	(0.022)	(0.023)	(0.022)	(0.023)	(0.023)	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.0002	0.009	0.006	0.023	0.030	0.065	0.034	0.013	0.016	0.007	0.004
Adjusted R^2	−0.0001	0.009	0.006	0.023	0.029	0.064	0.033	0.012	0.016	0.006	0.004

Note: *p<0.05; **p<0.01; ***p<0.001

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

Table F.8: Effect of the first difference in magnitude on the first difference in Brazilian municipalities, 2004 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First Difference in M	−0.091	0.142***	0.195***	0.157***	0.216***	0.229***	0.214***	0.170***	0.219***	0.154***	0.110***
	(0.047)	(0.020)	(0.017)	(0.011)	(0.010)	(0.008)	(0.008)	(0.007)	(0.007)	(0.005)	(0.004)
Constant	0.616***	0.612***	0.590***	0.658***	0.597***	0.702***	0.605***	0.786***	0.987***	0.578***	0.777***
	(0.033)	(0.028)	(0.037)	(0.032)	(0.036)	(0.035)	(0.042)	(0.037)	(0.043)	(0.035)	(0.029)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Observations	2,892	3,777	2,911	3,257	2,951	3,039	2,902	2,872	2,860	2,844	2,849
R^2	0.001	0.013	0.041	0.054	0.133	0.202	0.179	0.192	0.265	0.259	0.233
Adjusted R^2	0.001	0.013	0.041	0.054	0.132	0.202	0.179	0.191	0.265	0.259	0.233

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). *p<0.05; **p<0.01; ***p<0.001.

F.5 Percentage of the vote received by the two most voted parties

In this Appendix, I fit models for the percentage of vote share received by the top-two parties. Because I find evidence that trends were not parallel in the pre-treatment period for municipalities that lost five and seven seats, I also fit models using a matched dataset for these groups.

The results in Tables F.1 and F.2 suggest that the vote share received by the top-two parties increased either in 2004 or 2008 in the majorities of the groups analyzed. Note that even though the top-two parties received more votes, in most of these municipalities vote dispersion (when considering the entire vote distribution) did not decrease (see Table F.2).

Table F.1: Effect of a decrease in magnitude on vote share received by the top-two parties in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	Two Top Vote Share										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	1.329	−0.169	0.067	−0.588	2.088*	−0.413	3.614***	2.933	−3.152	−0.226	−1.342
	(1.758)	(0.458)	(1.217)	(0.626)	(0.915)	(0.818)	(1.047)	(1.842)	(1.748)	(1.765)	(1.883)
Effect in 2004	0.554	0.216	3.165*	0.217	5.095***	1.851*	7.598***	4.278*	3.955	4.576***	3.570
	(2.077)	(0.518)	(1.472)	(0.686)	(1.135)	(0.939)	(1.128)	(2.178)	(2.433)	(1.341)	(3.399)
Effect in 2008	−0.180	0.616	5.484***	1.862*	8.032***	5.395***	13.800***	5.772*	6.163*	11.597***	2.918
	(1.930)	(0.570)	(1.510)	(0.741)	(1.134)	(1.063)	(1.037)	(2.641)	(2.784)	(3.239)	(3.764)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,565	15,102	11,640	13,025	11,801	12,153	11,605	11,485	11,437	11,373	11,393
R^2	0.731	0.740	0.738	0.748	0.745	0.747	0.742	0.734	0.733	0.732	0.731
Adjusted R^2	0.641	0.653	0.650	0.664	0.660	0.662	0.656	0.645	0.643	0.642	0.641

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2: Effect of a decrease in magnitude on on vote share received by the top-two parties in Brazilian municipalities, 1996-2008 (Matched Dataset)

	Dependent variable:	
	Two Top Vote Share	
	$\Delta = -5$	$\Delta = -7$
	(1)	(2)
Effect in 2000	−0.779	0.476
	(1.185)	(1.399)
Effect in 2004	0.687	3.344*
	(1.391)	(1.664)
Effect in 2008	5.289***	9.645***
	(1.288)	(1.453)
N of Treated Units	118	69
Year FE	Yes	Yes
Municipality FE	Yes	Yes
Observations	11,801	11,605
R^2	0.777	0.821
Adjusted R^2	0.703	0.761

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.6 Results using the unmatched dataset

This Appendix shows the results for models in which I only utilize the unmatched dataset. Tables F.1, F.2, F.3, and F.4 are also in Appendix F.1. Note that I do not interpret in the body of the paper models for treated groups that I find evidence that the trends were not parallel before 2004. For these treated groups and dependent variables, I utilize a matched dataset (see Appendices F.1 and F.7).

Table F.1: Effect of a decrease in magnitude on number of parties entering in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	0.094	0.174*	1.034***	0.312*	0.976***	0.767***	1.053**	1.009*	2.259***	0.838	0.361
	(0.294)	(0.082)	(0.295)	(0.128)	(0.258)	(0.195)	(0.353)	(0.473)	(0.532)	(0.467)	(0.245)
Effect in 2004	0.733	0.666***	2.275***	1.248***	2.004***	1.792***	1.515***	1.659**	2.548***	2.144**	0.701
	(0.419)	(0.102)	(0.411)	(0.157)	(0.303)	(0.233)	(0.400)	(0.620)	(0.574)	(0.782)	(0.509)
Effect in 2008	1.179**	0.726***	2.593***	1.477***	2.119***	1.704***	0.801*	1.824**	1.967***	2.398**	0.733
	(0.380)	(0.120)	(0.419)	(0.173)	(0.300)	(0.255)	(0.371)	(0.608)	(0.544)	(0.753)	(0.579)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.822	0.822	0.835	0.841	0.853	0.848	0.840	0.829	0.825	0.820	0.820
Adjusted R^2	0.763	0.763	0.780	0.788	0.803	0.797	0.787	0.772	0.766	0.760	0.759

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2: Effect of a decrease in magnitude on ENPv in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.137	0.113*	0.307	0.250**	−0.022	0.203	−0.038	−0.322	0.878**	0.465	0.291
	(0.177)	(0.052)	(0.198)	(0.084)	(0.201)	(0.132)	(0.254)	(0.368)	(0.339)	(0.253)	(0.189)
Effect in 2004	0.331	0.311***	0.586*	0.636***	0.256	0.490**	−0.042	−0.267	−0.067	0.150	−0.160
	(0.273)	(0.067)	(0.262)	(0.105)	(0.233)	(0.163)	(0.273)	(0.496)	(0.428)	(0.339)	(0.498)
Effect in 2008	0.390	0.233**	0.300	0.457***	−0.277	−0.200	−1.476***	−0.951*	−0.551	−1.216**	−0.118
	(0.255)	(0.075)	(0.262)	(0.116)	(0.222)	(0.181)	(0.245)	(0.454)	(0.445)	(0.456)	(0.551)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.749	0.753	0.759	0.771	0.773	0.774	0.769	0.755	0.750	0.748	0.747
Adjusted R^2	0.665	0.671	0.679	0.694	0.697	0.699	0.692	0.673	0.666	0.664	0.662

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.3: Effect of a decrease in magnitude on number of legislative parties in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.321	0.165***	0.591***	0.277***	0.467**	0.723***	0.881***	0.347	0.920**	−0.252	−0.462
	(0.164)	(0.049)	(0.160)	(0.076)	(0.148)	(0.106)	(0.216)	(0.300)	(0.280)	(0.388)	(0.287)
Effect in 2004	−0.302	−0.319***	−0.358	−0.715***	−1.302***	−1.256***	−1.594***	−1.705***	−1.921***	−2.399***	−2.155***
	(0.211)	(0.053)	(0.193)	(0.082)	(0.164)	(0.116)	(0.209)	(0.289)	(0.292)	(0.284)	(0.313)
Effect in 2008	−0.145	−0.312***	−0.475**	−0.795***	−1.170***	−1.321***	−2.066***	−1.911***	−1.723***	−2.501***	−1.938***
	(0.188)	(0.057)	(0.179)	(0.085)	(0.161)	(0.123)	(0.190)	(0.298)	(0.308)	(0.631)	(0.425)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.672	0.667	0.679	0.685	0.695	0.699	0.693	0.680	0.677	0.672	0.672
Adjusted R^2	0.563	0.555	0.571	0.579	0.592	0.598	0.590	0.573	0.569	0.562	0.562

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.4: Effect of a decrease in magnitude on ENPs in Brazilian municipalities, 1996-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.244	0.147***	0.449**	0.250***	0.237	0.572***	0.422*	0.081	0.532*	0.077	0.002
	(0.152)	(0.041)	(0.137)	(0.065)	(0.124)	(0.095)	(0.187)	(0.240)	(0.264)	(0.350)	(0.215)
Effect in 2004	−0.126	−0.115*	−0.134	−0.308***	−0.836***	−0.689***	−1.056***	−1.079***	−1.042***	−1.474***	−1.016***
	(0.206)	(0.049)	(0.182)	(0.073)	(0.161)	(0.113)	(0.187)	(0.273)	(0.285)	(0.312)	(0.308)
Effect in 2008	0.043	−0.109*	−0.229	−0.418***	−0.823***	−0.813***	−1.671***	−1.243***	−0.924**	−1.749*	−0.696
	(0.179)	(0.054)	(0.187)	(0.080)	(0.151)	(0.117)	(0.158)	(0.284)	(0.294)	(0.714)	(0.490)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.646	0.647	0.653	0.661	0.664	0.671	0.665	0.653	0.648	0.645	0.645
Adjusted R^2	0.528	0.529	0.537	0.548	0.552	0.561	0.553	0.537	0.530	0.526	0.526

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.6.1 Disentangling the effect on distribution of seats: Number of Legislative Parties

Table F.5: Mechanical effect of the 2004 reform on the number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	−0.048	−0.340***	−0.402***	−0.643***	−0.743***	−1.089***	−1.162***	−1.313***	−1.726***	−1.224***	−1.383***
	(0.061)	(0.023)	(0.101)	(0.037)	(0.078)	(0.067)	(0.111)	(0.158)	(0.205)	(0.272)	(0.226)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.962	0.960	0.962	0.963	0.966	0.965	0.967	0.964	0.962	0.962	0.962
Adjusted R^2	0.924	0.921	0.924	0.927	0.932	0.931	0.933	0.927	0.925	0.924	0.923

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.6: Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.067	−0.145**	−0.547**	−0.350***	−1.026***	−0.890***	−1.313***	−0.739**	−1.115***	−0.923***	−0.310
	(0.174)	(0.050)	(0.191)	(0.077)	(0.156)	(0.104)	(0.216)	(0.247)	(0.294)	(0.267)	(0.314)
Effect in 2008	0.225	−0.137*	−0.663***	−0.430***	−0.894***	−0.955***	−1.785***	−0.945**	−0.917**	−1.025	−0.093
	(0.173)	(0.057)	(0.189)	(0.080)	(0.152)	(0.118)	(0.202)	(0.306)	(0.283)	(0.691)	(0.447)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.707	0.696	0.711	0.709	0.720	0.718	0.717	0.709	0.707	0.705	0.705
Adjusted R^2	0.560	0.544	0.566	0.563	0.580	0.577	0.575	0.564	0.561	0.558	0.557

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.7: First Component Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.448*	0.187***	0.510**	0.403***	0.287*	0.366***	0.104	0.459	−0.268	0.359	0.052
	(0.199)	(0.050)	(0.177)	(0.079)	(0.144)	(0.108)	(0.212)	(0.242)	(0.219)	(0.311)	(0.353)
Effect in 2008	0.451*	0.226***	0.310	0.367***	0.248	−0.084	−0.756***	0.413	−0.408	0.016	0.426
	(0.188)	(0.059)	(0.203)	(0.087)	(0.172)	(0.129)	(0.229)	(0.331)	(0.349)	(0.637)	(0.493)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.733	0.745	0.748	0.773	0.773	0.787	0.768	0.752	0.744	0.734	0.734
Adjusted R^2	0.599	0.618	0.622	0.660	0.659	0.680	0.651	0.627	0.615	0.601	0.600

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.8: Second Component Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.381***	−0.332***	−1.057***	−0.753***	−1.313***	−1.256***	−1.418***	−1.198***	−0.848***	−1.282**	−0.362
	(0.110)	(0.037)	(0.163)	(0.073)	(0.149)	(0.121)	(0.200)	(0.229)	(0.253)	(0.434)	(0.394)
Effect in 2008	−0.226*	−0.364***	−0.974***	−0.797***	−1.141***	−0.870***	−1.029***	−1.358***	−0.509	−1.041*	−0.518
	(0.103)	(0.034)	(0.186)	(0.064)	(0.128)	(0.106)	(0.180)	(0.191)	(0.308)	(0.447)	(0.337)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.352	0.501	0.437	0.592	0.550	0.642	0.552	0.523	0.470	0.399	0.396
Adjusted R^2	0.028	0.252	0.155	0.388	0.325	0.463	0.328	0.284	0.205	0.098	0.093

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.6.2 Disentangling the effect on distribution of seats: Effective Number of Legislative Parties

Table F.9: Mechanical effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.006	-0.157^{***}	-0.272^{**}	-0.313^{***}	-0.299^{***}	-0.523^{***}	-0.369^{***}	-0.551^{***}	-0.755^{***}	-1.030^{***}	-0.650^{***}
	(0.052)	(0.019)	(0.083)	(0.030)	(0.065)	(0.050)	(0.093)	(0.108)	(0.152)	(0.218)	(0.142)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.966	0.964	0.966	0.968	0.969	0.970	0.970	0.968	0.966	0.966	0.966
Adjusted R^2	0.932	0.928	0.932	0.935	0.938	0.940	0.939	0.935	0.932	0.932	0.931

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.10: Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.113	-0.105^{*}	-0.311	-0.245^{**}	-0.774^{***}	-0.738^{***}	-1.109^{***}	-0.609^{**}	-0.820^{**}	-0.521	-0.369
	(0.177)	(0.048)	(0.182)	(0.074)	(0.161)	(0.103)	(0.222)	(0.222)	(0.317)	(0.310)	(0.268)
Effect in 2008	0.281	-0.099	-0.406^{*}	-0.355^{***}	-0.762^{***}	-0.862^{***}	-1.724^{***}	-0.773^{*}	-0.701^{*}	-0.797	-0.048
	(0.161)	(0.055)	(0.197)	(0.082)	(0.161)	(0.119)	(0.197)	(0.306)	(0.277)	(0.702)	(0.414)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.688	0.681	0.692	0.692	0.698	0.702	0.698	0.691	0.688	0.686	0.686
Adjusted R^2	0.532	0.521	0.537	0.538	0.547	0.552	0.547	0.536	0.532	0.529	0.529

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.11: First Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.370	0.134**	0.427*	0.330***	0.223	0.192	0.160	0.306	−0.253	−0.352	−0.234
	(0.191)	(0.047)	(0.171)	(0.074)	(0.141)	(0.100)	(0.210)	(0.223)	(0.332)	(0.301)	(0.288)
Effect in 2008	0.422**	0.150**	0.196	0.232**	0.071	−0.276*	−0.854***	0.002	−0.276	−1.236*	0.135
	(0.162)	(0.056)	(0.200)	(0.087)	(0.169)	(0.124)	(0.207)	(0.313)	(0.364)	(0.596)	(0.421)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.710	0.722	0.723	0.742	0.738	0.751	0.735	0.722	0.715	0.709	0.709
Adjusted R^2	0.565	0.583	0.584	0.613	0.607	0.626	0.602	0.583	0.572	0.564	0.564

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.12: Second Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Unmatched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.258*	−0.239***	−0.738***	−0.575***	−0.997***	−0.930***	−1.270***	−0.915***	−0.567**	−0.169	−0.135
	(0.102)	(0.034)	(0.133)	(0.064)	(0.130)	(0.096)	(0.168)	(0.200)	(0.215)	(0.244)	(0.253)
Effect in 2008	−0.141	−0.249***	−0.603***	−0.587***	−0.832***	−0.586***	−0.870***	−0.774***	−0.426	0.439	−0.184
	(0.095)	(0.031)	(0.160)	(0.056)	(0.105)	(0.084)	(0.148)	(0.165)	(0.247)	(0.357)	(0.218)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.344	0.430	0.399	0.502	0.464	0.538	0.462	0.435	0.395	0.359	0.358
Adjusted R^2	0.016	0.144	0.098	0.252	0.196	0.307	0.192	0.152	0.091	0.039	0.036

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.7 Results using Matching

In this Appendix, I present an analysis in which I use a matched dataset for all treated groups of municipalities analyzed in the paper. Figure E.2 shows that the use of CBPS improves the balance in all subsamples. Note that as explained in Appendix F.1, I utilize models (in the party level analysis) with a matched dataset only when I detect evidence that treated and control groups did not follow parallel trends before the assignment of the treatment

Table F.1: Effect of a decrease in magnitude on number of parties entering in Brazilian municipalities, 1996-2008 (Matched Dataset)

	Dependent variable:										
	# of Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	0.392	0.128	0.247	0.144	0.354	0.643**	0.633	0.897	2.208***	1.110*	0.895*
	(0.374)	(0.098)	(0.432)	(0.175)	(0.420)	(0.238)	(0.451)	(0.489)	(0.559)	(0.488)	(0.348)
Effect in 2004	0.584	0.353**	1.377**	0.651***	1.186**	1.074***	0.924	1.040	2.314**	2.203*	0.760
	(0.454)	(0.123)	(0.492)	(0.196)	(0.381)	(0.299)	(0.503)	(0.690)	(0.710)	(0.949)	(0.675)
Effect in 2008	1.040*	0.474***	1.570**	1.003***	1.576***	1.340***	0.667	1.522*	2.066***	3.010***	1.149
	(0.437)	(0.136)	(0.526)	(0.201)	(0.352)	(0.298)	(0.451)	(0.647)	(0.607)	(0.844)	(0.677)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.885	0.852	0.896	0.891	0.921	0.921	0.930	0.935	0.945	0.954	0.947
Adjusted R^2	0.846	0.803	0.861	0.855	0.895	0.895	0.906	0.913	0.927	0.938	0.929

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.2: Effect of a decrease in magnitude on ENPv in Brazilian municipalities, 1996-2008 (Matched Dataset)

	Dependent variable:										
	ENPv										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	0.190	0.169**	0.415	0.418***	0.293	0.308	0.293	−0.382	1.054	0.097	0.329
	(0.190)	(0.065)	(0.250)	(0.123)	(0.258)	(0.214)	(0.359)	(0.480)	(0.572)	(0.441)	(0.383)
Effect in 2004	0.476	0.229**	0.504	0.532**	0.389	0.106	−0.104	−0.889	−0.498	−0.432	−0.477
	(0.290)	(0.088)	(0.314)	(0.164)	(0.322)	(0.365)	(0.484)	(0.834)	(0.948)	(1.022)	(0.855)
Effect in 2008	0.447	0.059	−0.219	0.154	−0.734	−0.764	−1.692***	−1.803	−1.320	−1.991	−0.562
	(0.288)	(0.100)	(0.411)	(0.170)	(0.394)	(0.444)	(0.485)	(0.989)	(1.169)	(1.356)	(1.078)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.789	0.766	0.778	0.794	0.800	0.832	0.827	0.859	0.869	0.891	0.860
Adjusted R^2	0.719	0.687	0.703	0.725	0.734	0.775	0.770	0.812	0.826	0.855	0.813

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.3: Effect of a decrease in magnitude on number of legislative parties in Brazilian municipalities, 1996-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.097	0.084	0.223	0.033	0.015	0.380*	0.387	0.014	0.823*	−0.537	−0.189
	(0.181)	(0.061)	(0.212)	(0.124)	(0.223)	(0.177)	(0.317)	(0.362)	(0.396)	(0.476)	(0.431)
Effect in 2004	−0.266	−0.411***	−0.754**	−1.001***	−1.824***	−1.519***	−1.824***	−1.864***	−2.040***	−2.178***	−1.795***
	(0.227)	(0.064)	(0.244)	(0.125)	(0.249)	(0.166)	(0.295)	(0.315)	(0.343)	(0.371)	(0.369)
Effect in 2008	−0.121	−0.538***	−1.061***	−1.246***	−1.779***	−2.071***	−2.856***	−2.930***	−2.724**	−3.248**	−2.309**
	(0.218)	(0.078)	(0.243)	(0.140)	(0.234)	(0.350)	(0.412)	(0.751)	(0.886)	(1.222)	(0.885)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.741	0.741	0.806	0.772	0.829	0.885	0.865	0.918	0.935	0.932	0.927
Adjusted R^2	0.655	0.654	0.741	0.695	0.772	0.847	0.820	0.891	0.913	0.909	0.902

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.4: Effect of a decrease in magnitude on ENPs in Brazilian municipalities, 1996-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2000	−0.068	0.082	0.201	0.088	−0.045	0.287	0.113	−0.304	0.282	−0.454	0.039
	(0.167)	(0.051)	(0.165)	(0.091)	(0.154)	(0.178)	(0.261)	(0.384)	(0.474)	(0.530)	(0.436)
Effect in 2004	0.023	−0.203**	−0.384	−0.539***	−1.126***	−1.088***	−1.382***	−1.661**	−1.691**	−1.994**	−1.169
	(0.221)	(0.063)	(0.213)	(0.109)	(0.200)	(0.258)	(0.321)	(0.556)	(0.643)	(0.771)	(0.616)
Effect in 2008	0.133	−0.325***	−0.677**	−0.812***	−1.300***	−1.648**	−2.439***	−2.603*	−2.366	−3.140	−1.512
	(0.200)	(0.086)	(0.262)	(0.122)	(0.230)	(0.501)	(0.477)	(1.103)	(1.305)	(1.682)	(1.227)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,568	15,108	11,644	13,028	11,804	12,156	11,608	11,488	11,440	11,376	11,396
R^2	0.700	0.683	0.740	0.723	0.767	0.795	0.776	0.830	0.833	0.817	0.819
Adjusted R^2	0.600	0.577	0.653	0.630	0.689	0.727	0.701	0.774	0.777	0.756	0.758

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.7.1 Disentangling the effect on distribution of seats: Number of Legislative Parties

Table F.5: Mechanical effect of the 2004 reform on the number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.013	-0.390^{***}	-0.454^{***}	-0.717^{***}	-0.881^{***}	-1.206^{***}	-1.350^{***}	-1.406^{***}	-1.888^{***}	-1.177^{***}	-1.393^{***}
	(0.062)	(0.027)	(0.119)	(0.045)	(0.090)	(0.078)	(0.131)	(0.166)	(0.228)	(0.273)	(0.232)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.980	0.968	0.955	0.971	0.977	0.982	0.981	0.989	0.987	0.993	0.990
Adjusted R^2	0.960	0.937	0.910	0.941	0.954	0.963	0.961	0.978	0.973	0.986	0.980

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.6: Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.182	−0.106	-0.523^{*}	-0.317^{**}	-0.958^{***}	-0.694^{***}	-0.862^{***}	−0.472	-0.975^{**}	−0.464	−0.213
	(0.193)	(0.061)	(0.218)	(0.097)	(0.192)	(0.137)	(0.247)	(0.265)	(0.325)	(0.293)	(0.392)
Effect in 2008	−0.037	-0.233^{**}	-0.830^{***}	-0.562^{***}	-0.913^{***}	-1.246^{***}	-1.894^{***}	-1.538^{*}	-1.659^{*}	−1.534	−0.727
	(0.205)	(0.073)	(0.229)	(0.106)	(0.214)	(0.287)	(0.337)	(0.628)	(0.694)	(1.072)	(0.697)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.779	0.769	0.834	0.805	0.860	0.903	0.887	0.936	0.949	0.942	0.937
Adjusted R^2	0.669	0.654	0.751	0.707	0.790	0.855	0.831	0.905	0.924	0.913	0.906

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.7: First Component Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.305	0.108	0.325	0.264**	0.049	0.185	−0.016	0.219	−0.743*	0.423	−0.155
	(0.216)	(0.060)	(0.209)	(0.100)	(0.167)	(0.153)	(0.255)	(0.292)	(0.312)	(0.437)	(0.424)
Effect in 2008	0.271	0.025	−0.114	0.035	−0.162	−0.629*	−1.319***	−0.386	−1.408*	−0.458	−0.199
	(0.218)	(0.072)	(0.240)	(0.108)	(0.206)	(0.262)	(0.322)	(0.583)	(0.659)	(1.008)	(0.700)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.786	0.807	0.861	0.844	0.890	0.919	0.909	0.947	0.954	0.954	0.946
Adjusted R^2	0.679	0.710	0.791	0.766	0.835	0.878	0.864	0.921	0.931	0.932	0.919

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.8: Second Component Psychological effect of the 2004 reform on the number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	# of Legislative Parties										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.487***	−0.213***	−0.848***	−0.582***	−1.007***	−0.879***	−0.846***	−0.691*	−0.232	−0.887	−0.058
	(0.112)	(0.046)	(0.182)	(0.084)	(0.165)	(0.160)	(0.241)	(0.303)	(0.344)	(0.525)	(0.456)
Effect in 2008	−0.308**	−0.258***	−0.716***	−0.597***	−0.751***	−0.617***	−0.575*	−1.152***	−0.250	−1.076*	−0.528
	(0.106)	(0.042)	(0.207)	(0.081)	(0.166)	(0.126)	(0.225)	(0.212)	(0.343)	(0.452)	(0.344)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.425	0.510	0.550	0.605	0.659	0.684	0.708	0.803	0.742	0.777	0.700
Adjusted R^2	0.137	0.265	0.325	0.408	0.487	0.526	0.562	0.705	0.612	0.666	0.550

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.7.2 Disentangling the effect on distribution of seats: ENPs

Table F.9: Mechanical effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004 and 2008	0.044	−0.198***	−0.318**	−0.366***	−0.395***	−0.607***	−0.486***	−0.624***	−0.844***	−0.997***	−0.655***
	(0.053)	(0.022)	(0.097)	(0.034)	(0.072)	(0.058)	(0.102)	(0.115)	(0.160)	(0.219)	(0.149)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,784	7,554	5,822	6,514	5,902	6,078	5,804	5,744	5,720	5,688	5,698
R^2	0.982	0.965	0.951	0.971	0.974	0.979	0.978	0.988	0.983	0.988	0.988
Adjusted R^2	0.963	0.931	0.901	0.942	0.948	0.958	0.955	0.975	0.966	0.975	0.975

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.10: Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.047	−0.087	−0.267	−0.261**	−0.686***	−0.767***	−1.009***	−0.733*	−1.130**	−0.543	−0.552
	(0.196)	(0.058)	(0.208)	(0.092)	(0.183)	(0.158)	(0.269)	(0.315)	(0.407)	(0.470)	(0.374)
Effect in 2008	0.157	−0.209**	−0.560*	−0.534***	−0.860***	−1.328***	−2.065***	−1.675	−1.805	−1.689	−0.895
	(0.186)	(0.077)	(0.252)	(0.107)	(0.211)	(0.389)	(0.398)	(0.856)	(0.970)	(1.360)	(0.891)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.740	0.714	0.752	0.747	0.782	0.833	0.806	0.875	0.886	0.874	0.877
Adjusted R^2	0.609	0.571	0.628	0.620	0.673	0.750	0.709	0.813	0.830	0.811	0.816

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.11: First Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	0.384	0.059	0.308	0.194*	0.092	−0.138	−0.130	−0.260	−1.036	−0.760	−0.691
	(0.210)	(0.059)	(0.199)	(0.092)	(0.157)	(0.222)	(0.285)	(0.468)	(0.581)	(0.704)	(0.522)
Effect in 2008	0.351	−0.047	−0.187	−0.105	−0.310	−0.935*	−1.498***	−1.061	−1.565	−2.119	−0.696
	(0.188)	(0.076)	(0.262)	(0.111)	(0.228)	(0.367)	(0.375)	(0.810)	(0.940)	(1.278)	(0.872)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.755	0.760	0.795	0.794	0.829	0.863	0.849	0.898	0.900	0.897	0.897
Adjusted R^2	0.633	0.639	0.693	0.690	0.743	0.794	0.773	0.848	0.849	0.846	0.845

Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

Table F.12: Second Component of the Psychological effect of the 2004 reform on the effective number of legislative parties, 2000-2008 (Matched Dataset)

	Dependent variable:										
	ENPs										
	$\Delta = -1$	$\Delta = -2$	$\Delta = -3$	$\Delta = -4$	$\Delta = -5$	$\Delta = -6$	$\Delta = -7$	$\Delta = -8$	$\Delta = -9$	$\Delta = -10$	$\Delta = -11$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Effect in 2004	−0.337**	−0.147***	−0.575***	−0.456***	−0.777***	−0.629***	−0.878***	−0.473	−0.094	0.217	0.138
	(0.103)	(0.040)	(0.148)	(0.071)	(0.140)	(0.139)	(0.200)	(0.283)	(0.318)	(0.382)	(0.338)
Effect in 2008	−0.194*	−0.162***	−0.374*	−0.429***	−0.549***	−0.393***	−0.567***	−0.614***	−0.240	0.430	−0.199
	(0.098)	(0.037)	(0.178)	(0.069)	(0.132)	(0.098)	(0.171)	(0.180)	(0.269)	(0.363)	(0.225)
N of Treated Units	59	944	78	424	118	206	69	39	27	11	16
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,676	11,331	8,733	9,771	8,853	9,117	8,706	8,616	8,580	8,532	8,547
R^2	0.383	0.443	0.479	0.521	0.569	0.603	0.627	0.707	0.608	0.624	0.583
Adjusted R^2	0.074	0.164	0.218	0.282	0.353	0.404	0.440	0.561	0.412	0.436	0.374

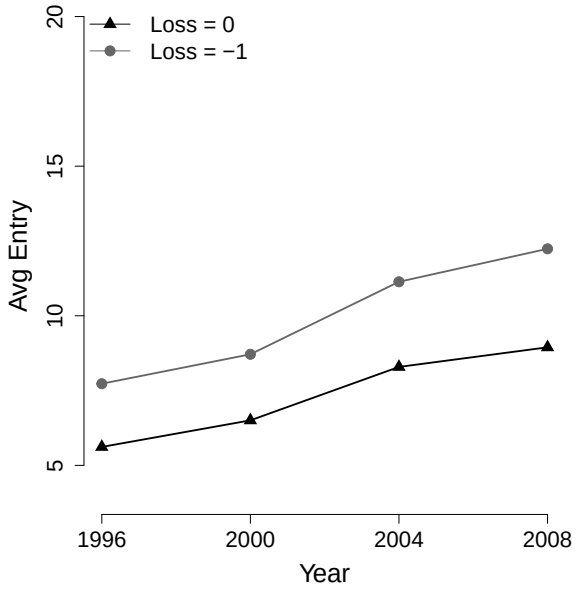
Note: Table's entries are unstandardized regression coefficients from linear regression models using the method of alternating projection (Gaure, 2013). Clustered robust standard errors by municipality in parentheses. *p<0.05; **p<0.01; ***p<0.001.

F.8 Raw Data

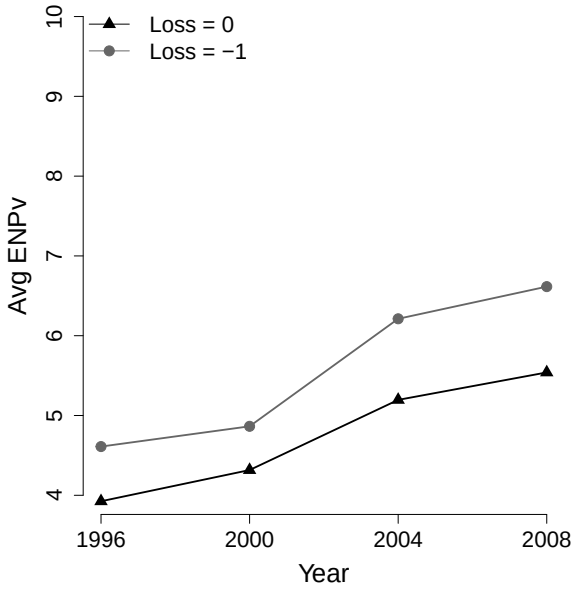
In this Appendix, I present figures for the average values for number of parties, effective number of parties, number of legislative parties, and effective number of legislative parties. In all figures, the average value for a given treated group is presented together with the average value for the control group (municipalities not affected by the reform). In total, the appendix contains eleven sets of figures, which corresponds to treated groups with at least 10 observations (see Table B.3). Averages were calculated using the dataset used in the analysis.

Figure F.1: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 1 seat (Unmatched Dataset)

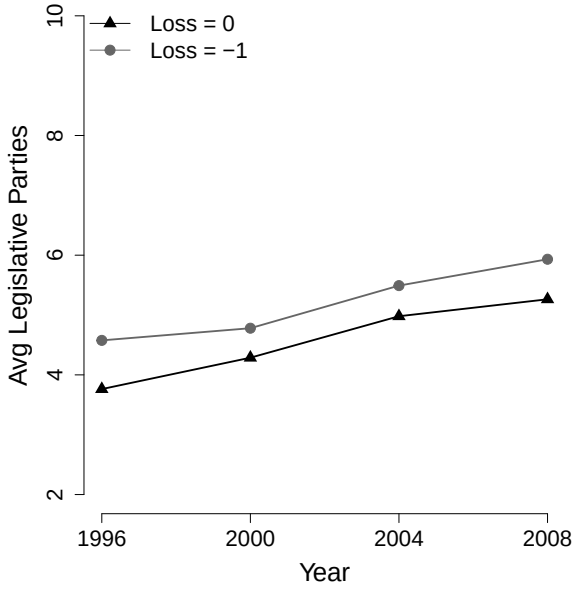
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

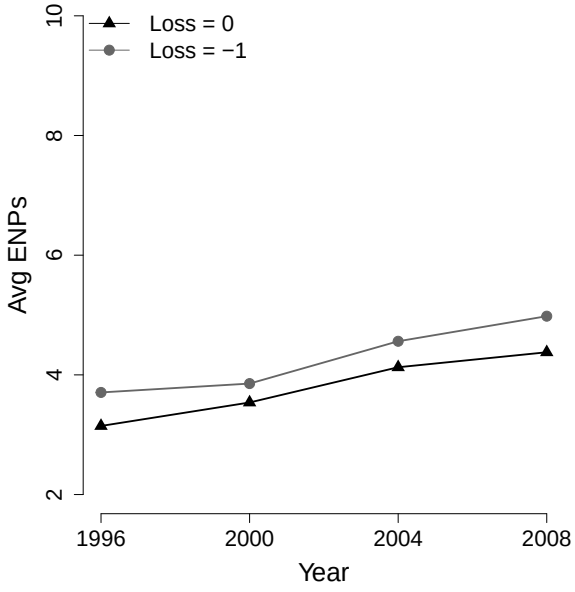
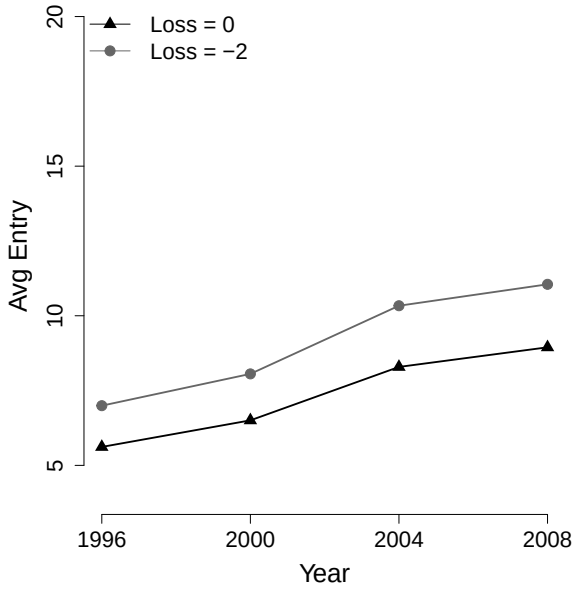
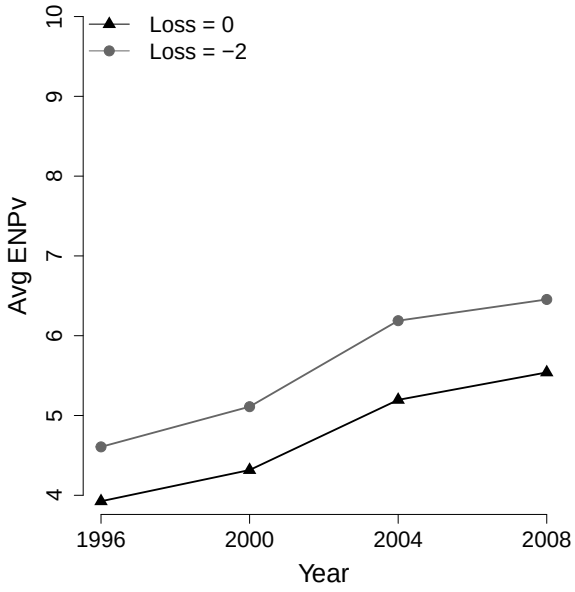


Figure F.2: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 2 seats (Unmatched Dataset)

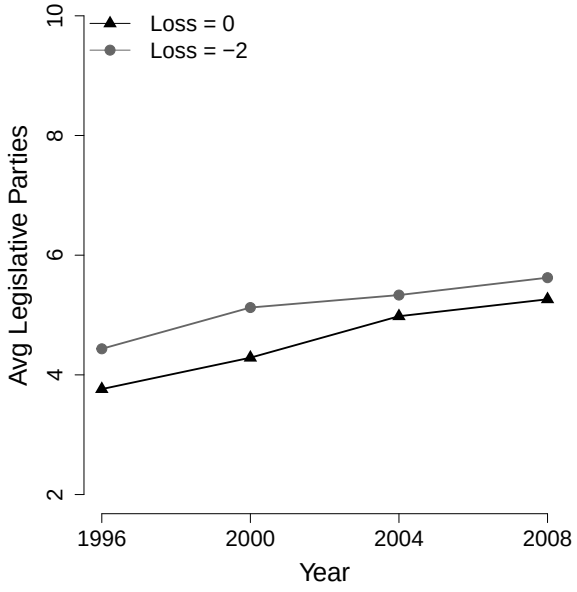
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

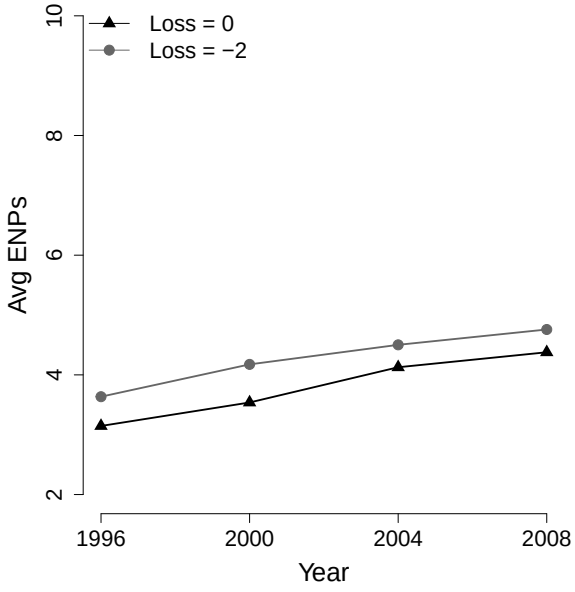
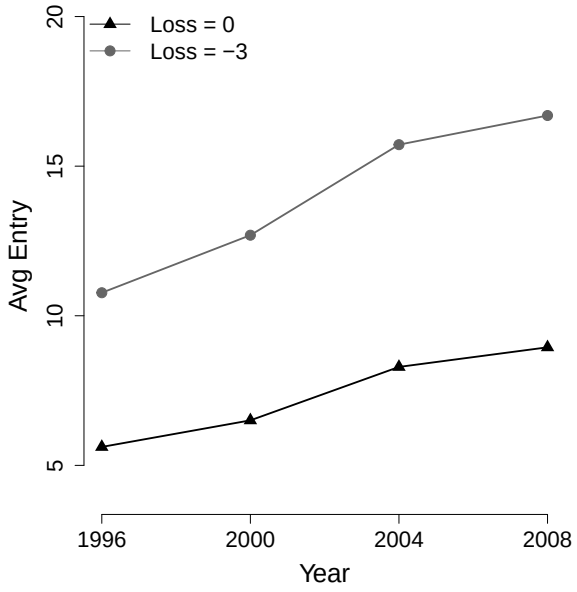
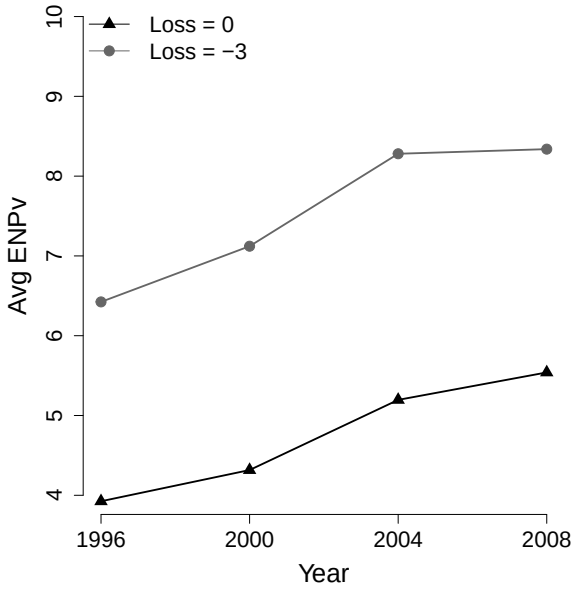


Figure F.3: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 3 seats (Unmatched Dataset)

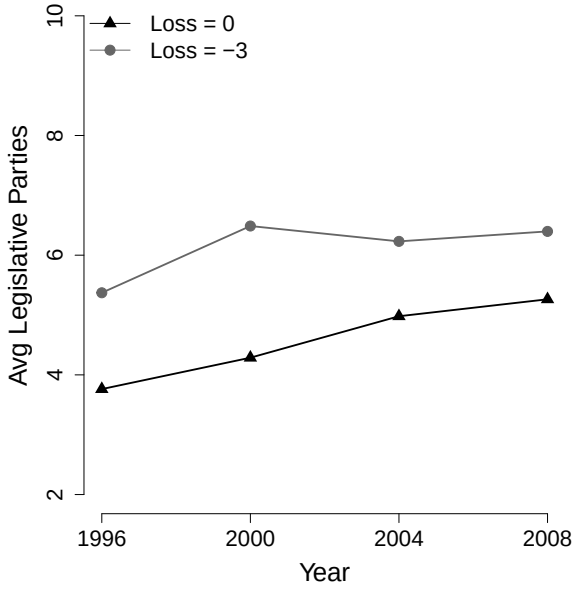
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

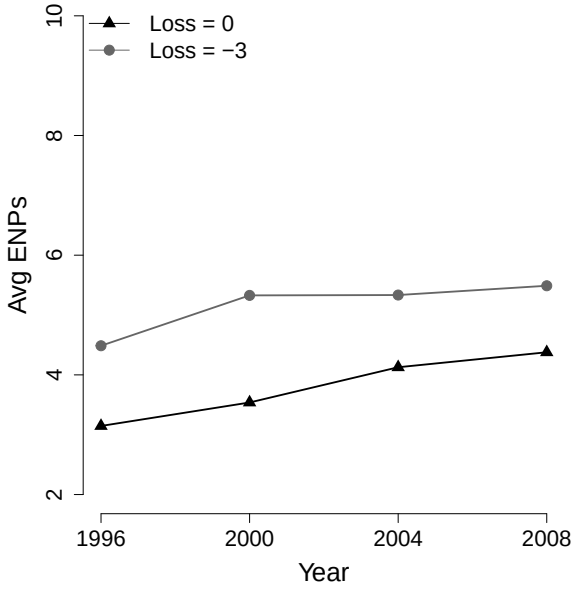
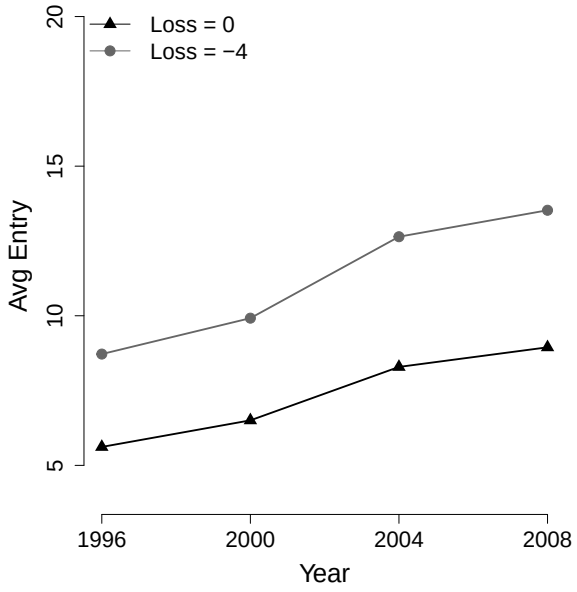
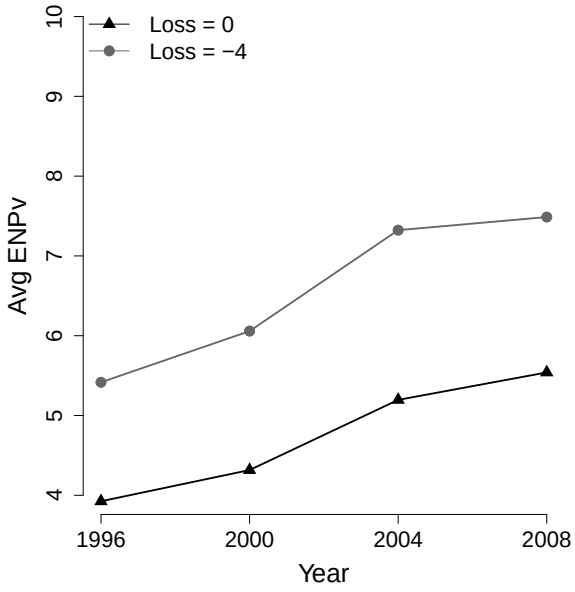


Figure F.4: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 4 seats (Unmatched Dataset)

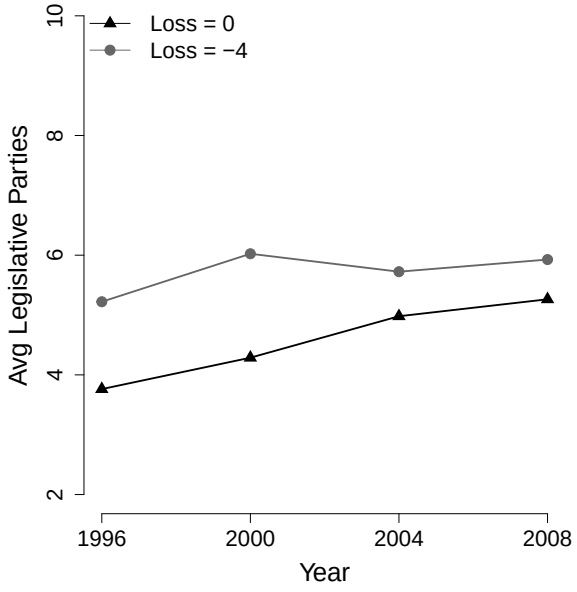
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

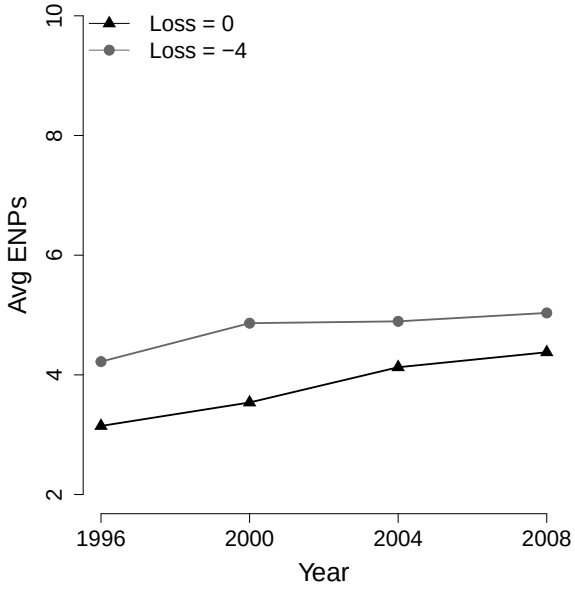
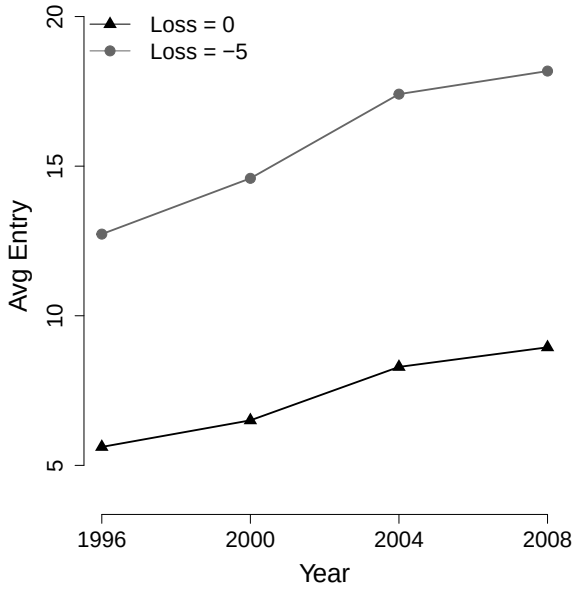
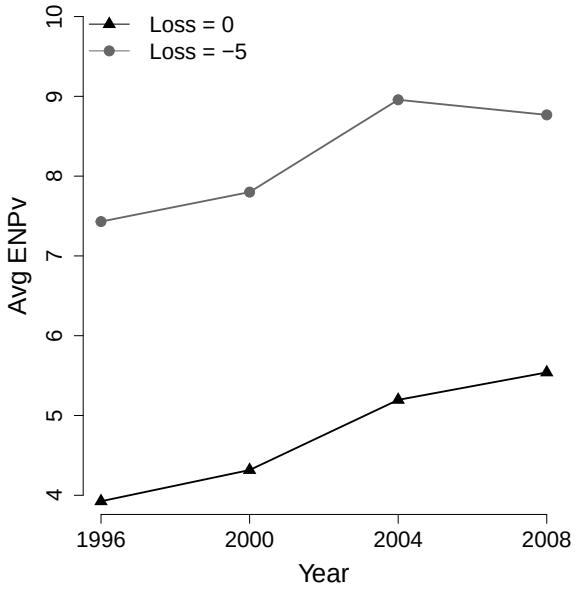


Figure F.5: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 5 seats (Unmatched Dataset)

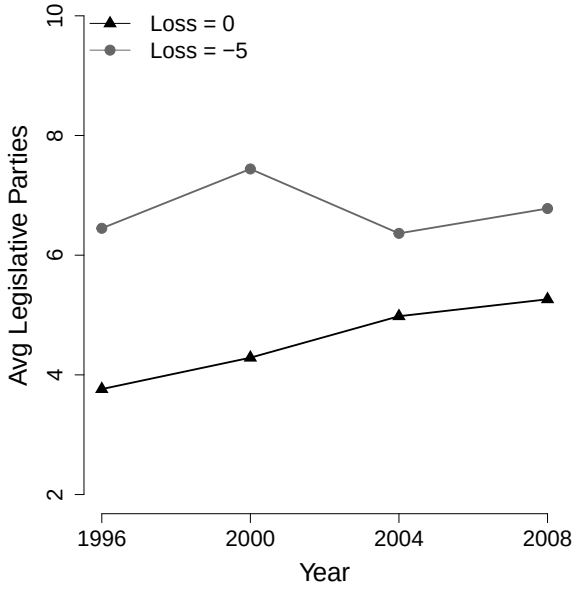
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

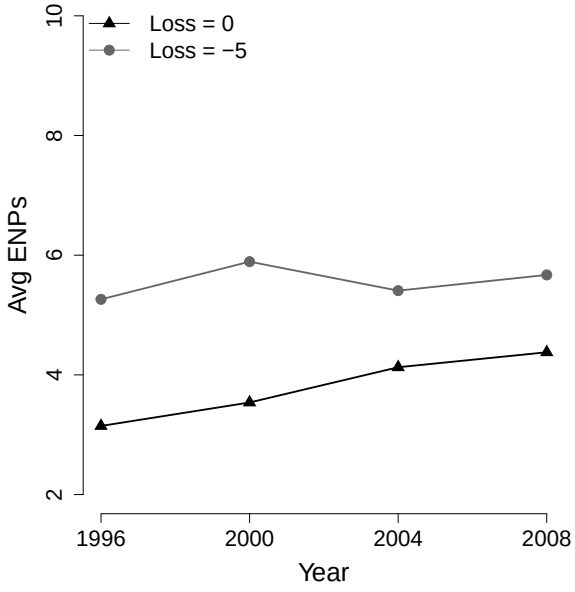
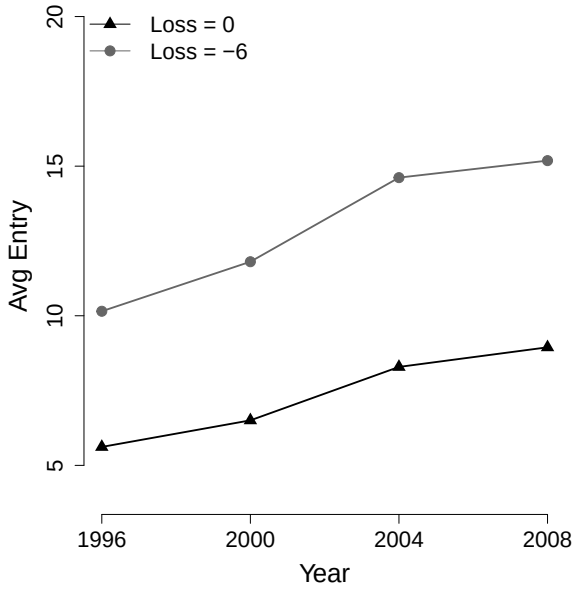
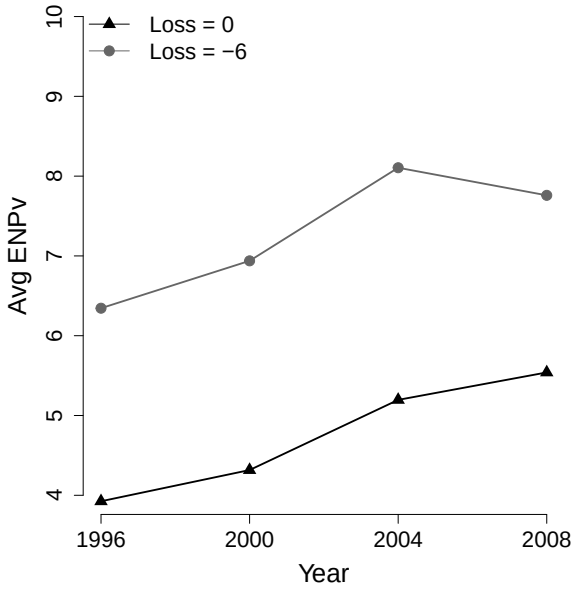


Figure F.6: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 6 seats (Unmatched Dataset)

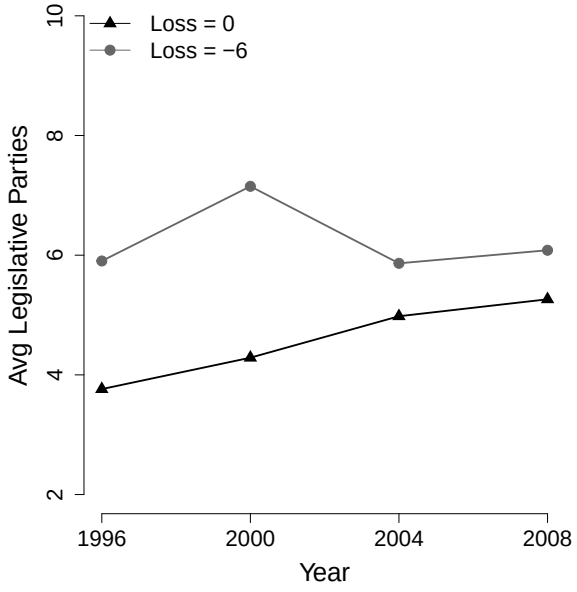
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

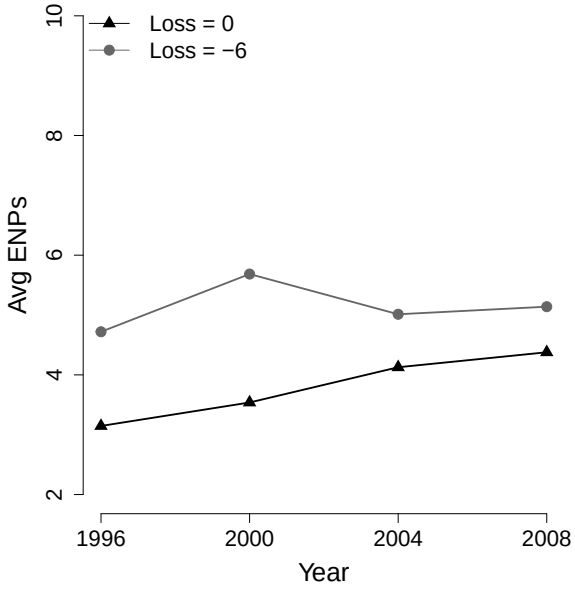
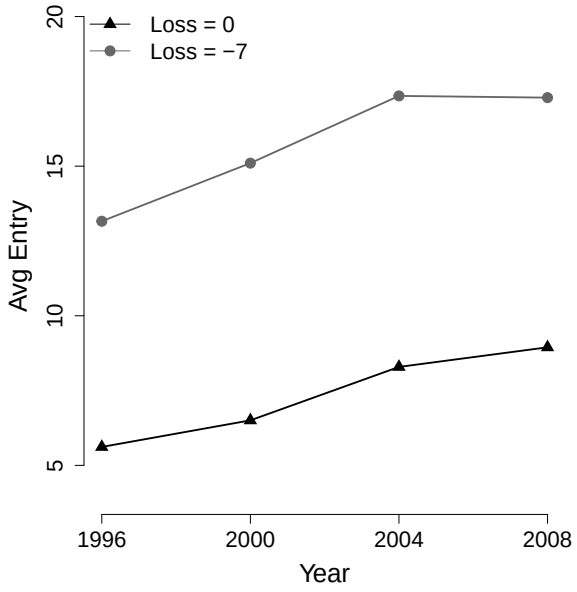
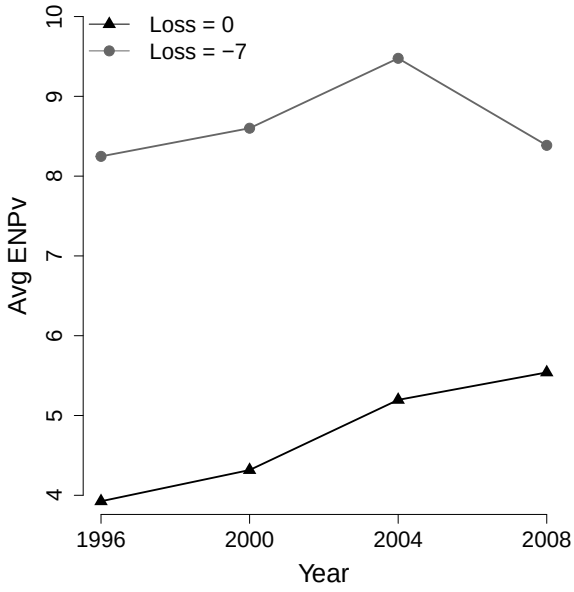


Figure F.7: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 7 seats (Unmatched Dataset)

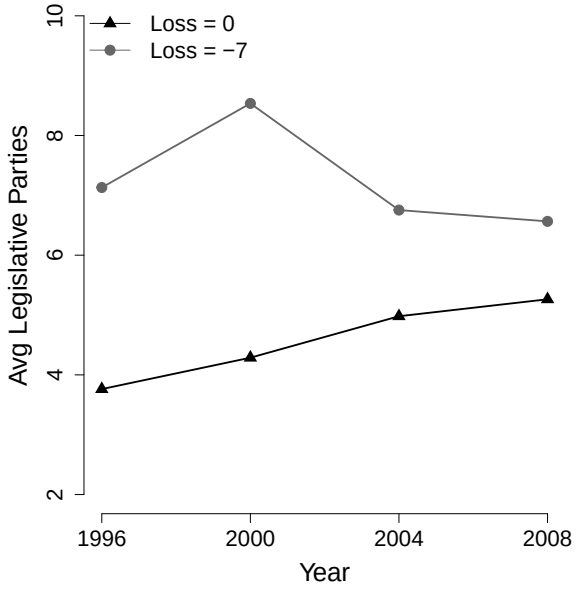
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

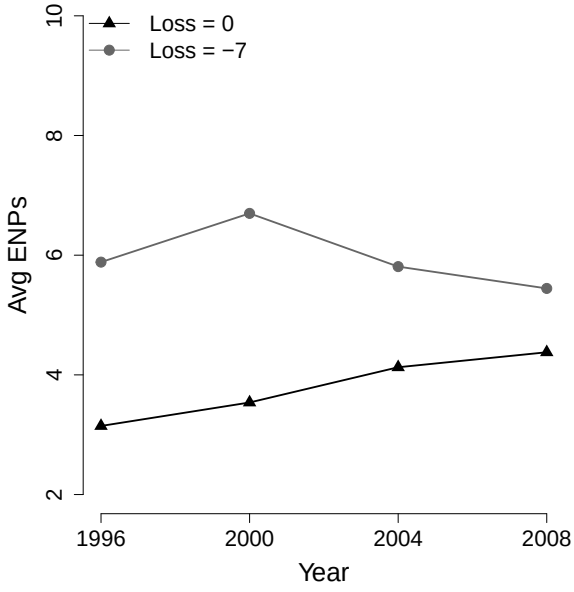
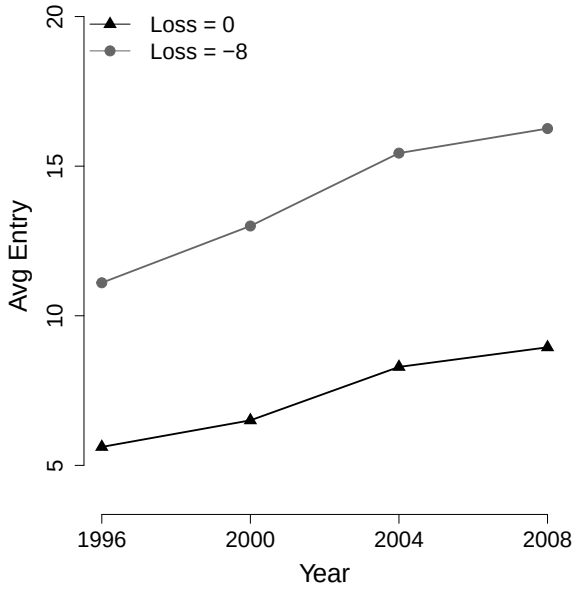
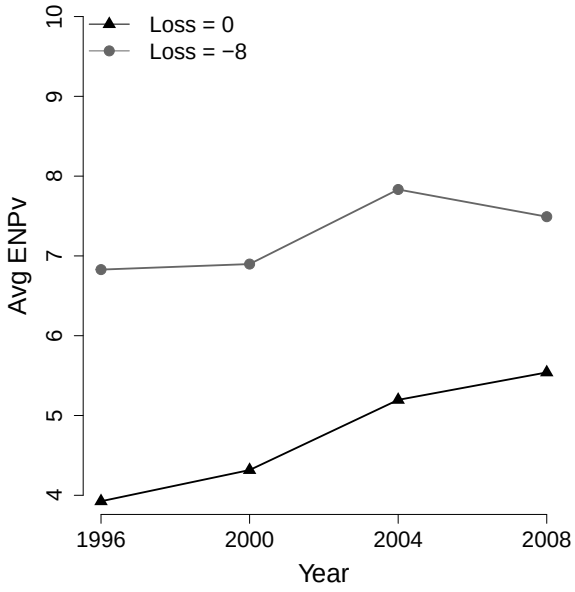


Figure F.8: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 8 seats (Unmatched Dataset)

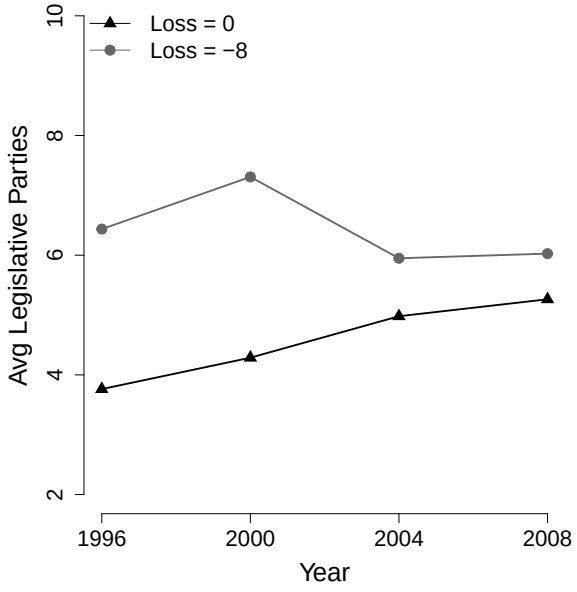
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

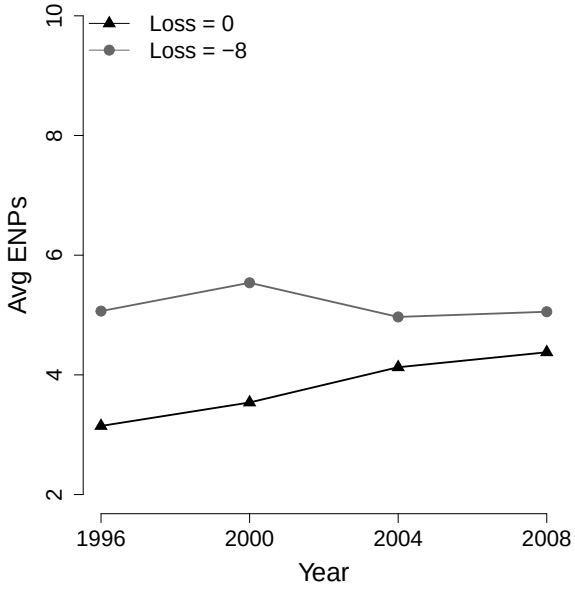
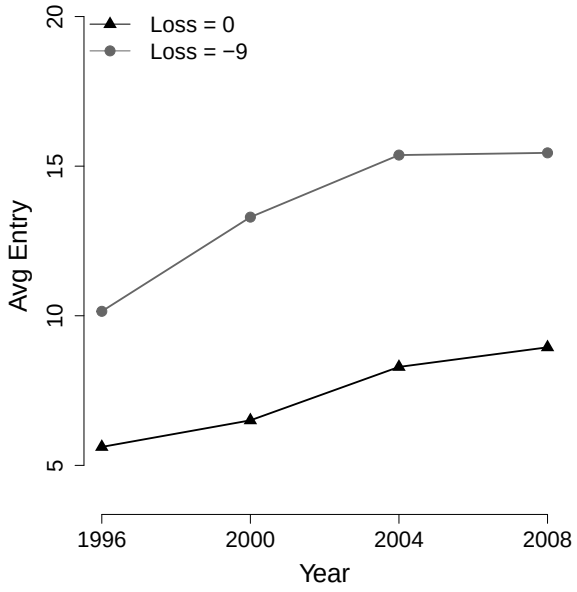
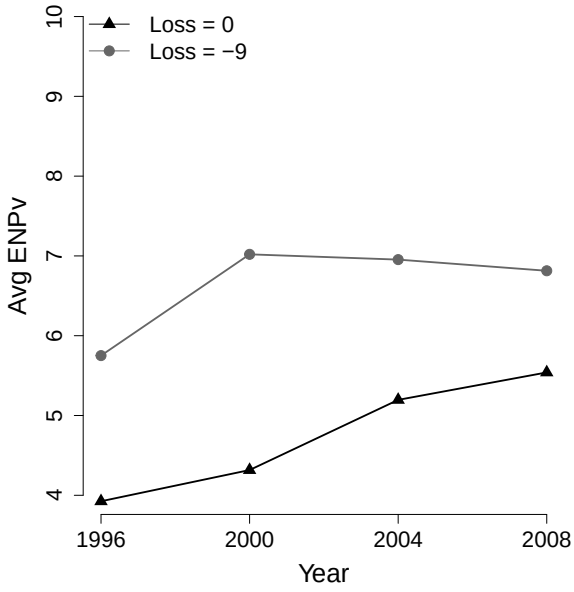


Figure F.9: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 9 seats (Unmatched Dataset)

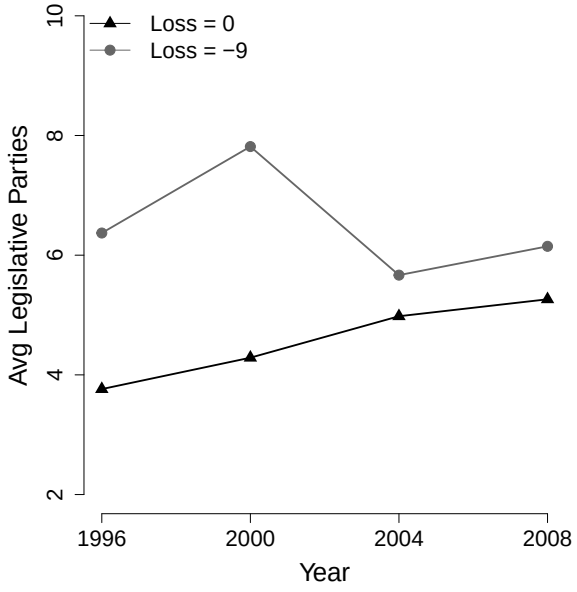
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

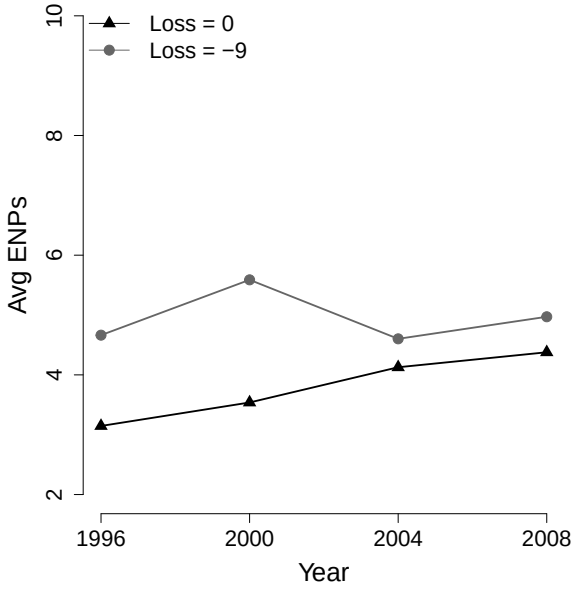
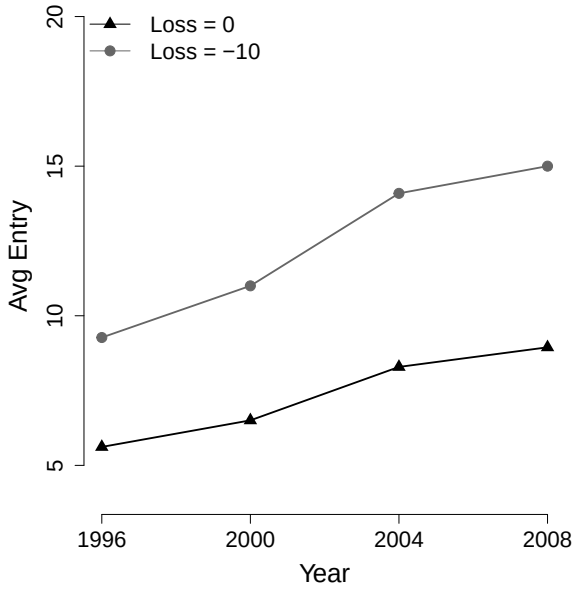
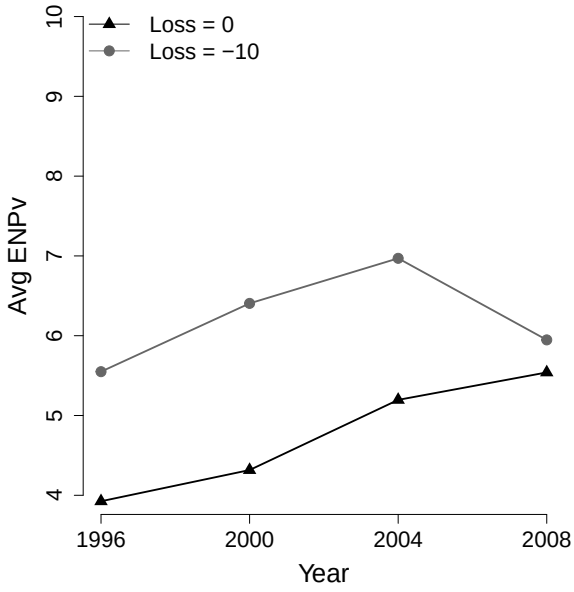


Figure F.10: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 10 seats (Unmatched Dataset)

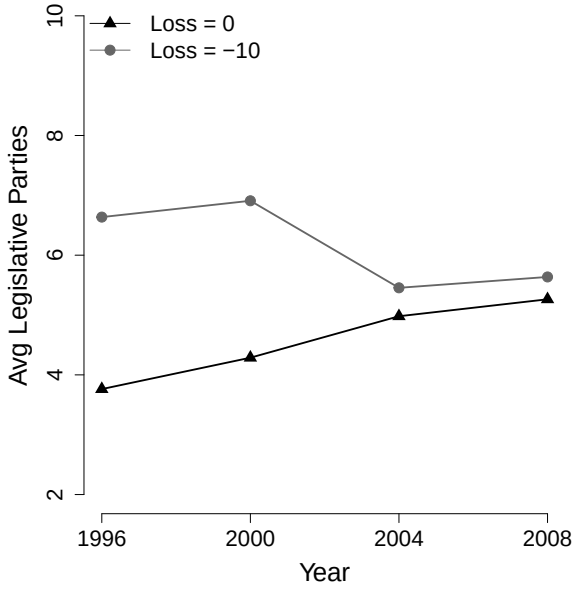
(a) # of Parties



(b) ENPv



(c) # of Leg Parties



(d) ENPs

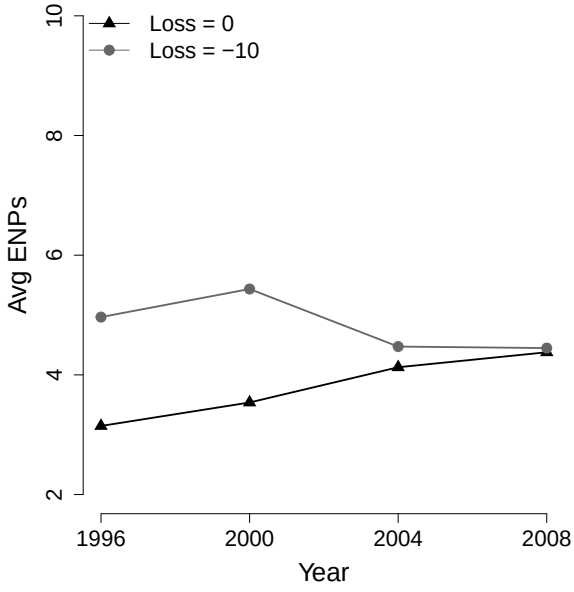
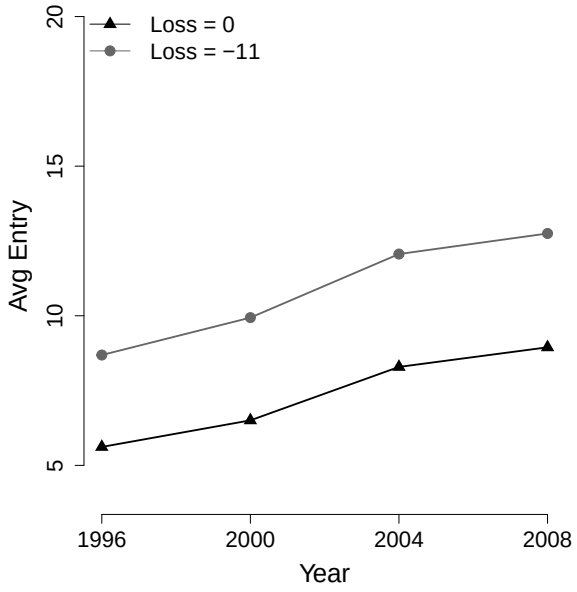
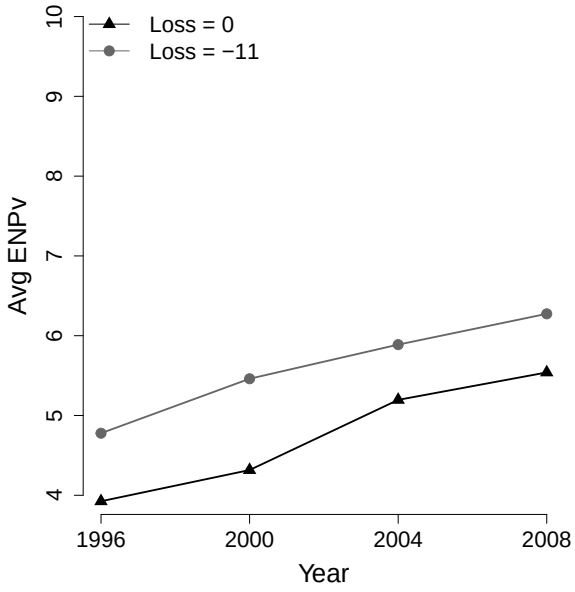


Figure F.11: Average value for each outcome variable for municipalities that were not affected by the reform and those that lost 11 seats (Unmatched Dataset)

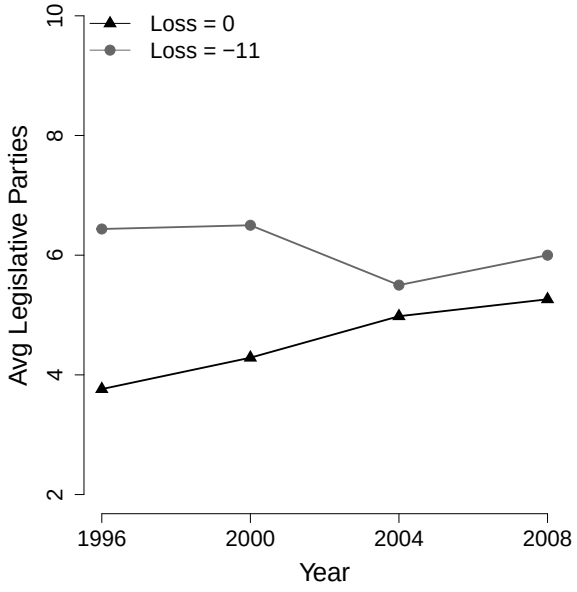
(a) # of Parties



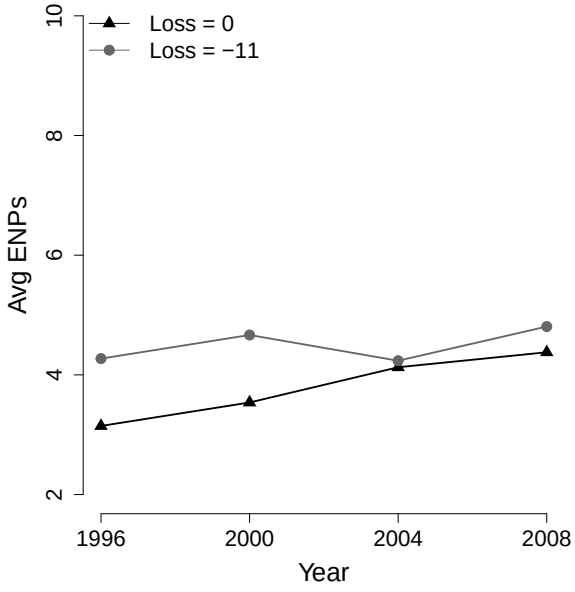
(b) ENPv



(c) # of Leg Parties



(d) ENPs



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