Appendix

Newspaper Coverage of Big-City Mayors

At the national level, media coverage can both inform citizens about the state of the economy and can frame that information in ways that make it politically relevant (e.g. Iyengar, 1991; Mutz, 1992; Hetherington, 1996). Given the discussion above, it seems plausible that city-level retrospective voting could likewise be shaped by the coverage of mayors and conditions in the local media: if an issue is not covered by local journalists, it is less likely to be a criterion in voters' decision-making. Accordingly, to provide an initial characterization of the issues that are covered in tandem with big-city mayors, we used Lexis Nexis to identify every archived article which mentioned the mayors of nine large cities during 2015.[20] In total, this search recovered 7,467 articles.

To summarize the issues covered across these newspapers, we then applied a common cluster-analytic technique—Latent Dirichlet Allocation (LDA) (Blei, Ng and Jordan, 2003)—to the pre-processed articles.[21] Given a user-defined number of topics, LDA identifies groups of words that co-occur within documents, and has proven to be a highly successful method for identifying topics within texts (Grimmer and Stewart, 2013). Here, we chose 18 topics after some experimentation, and present the words that define 14 substantively meaningful topics in Table 3, sorted by the frequency within which each topic is used.

To be sure, these results reflect coverage in a single year for only 9 cities via one type of media outlet. Nonetheless, they are informative about the issues likely to be linked to big-city mayors. As the Table illustrates, the topic that is used most often is defined by

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[20]Specifically, the cities and newspapers included are: the New York Daily News, the Chicago Daily Herald, the Los Angeles Times, the Philadelphia Inquirer, the San Jose Mercury News, the Florida Times-Union (Jacksonville), the Austin-American Statesmen, the El Paso Times, and the Washington Post. We chose these cities from those available in Lexis Nexis, with New York being the largest and Washington, DC the smallest.

[21]We follow the pre-processing algorithm detailed by Hopkins and King (2010), in which we convert the documents into a term-frequency matrix in which the rows are unique articles and the columns are each word stem that appears in at least 2.5% of articles.

Table 3: This table presents the results of a 18-topic Latent Dirichlet Allocation model fit to 7,467 articles from nine big-city newspapers in 2015. The words are listed in order of their distinctiveness, while the frequencies indicate the overall frequency of each topic. Four catch-all topics without substantive meaning are omitted from the table.

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7
1	develop	tax	council	state	candid	polic	water
2	build	citi	citi	democrat	elect	said	traffic
3	project	budget	member	wage	voter	man	driver
4	hous	million	board	republican	vote	yearold	transport
5	neighborhood	pension	vote	obama	mayor	shoot	car
6	properti	council	meet	senat	democrat	kill	street
7	stadium	fund	staff	clinton	race	shot	road
8	econom	properti	committe	governor	polit	street	project
9	million	year	said	minimum	ward	fire	citi
10	plan	propos	manag	gov	former	offic	park
Freq	0.069	0.066	0.058	0.056	0.054	0.053	0.053

	Topic 8	Topic 9	Topic 10	Topic 11	Topic 12	Topic 13	Topic 14
1	school	polic	council	homeless	attorney	metro	marijuana
2	student	crime	district	shelter	court	train	law
3	educ	offic	mayor	hous	investig	transit	legal
4	program	video	member	famili	case	firefight	district
5	schools	camera	propos	citi	prosecutor	fire	congress
6	charter	shoot	contract	district	offic	system	court
7	teacher	homicid	deal	peopl	lawsuit	board	drug
8	district	black	dward	afford	file	safeti	legisl
9	high	drug	util	health	judg	station	feder
10	children	gun	bid	homelessness	alleg	agenc	rule
Freq.	0.053	0.053	0.049	0.046	0.046	0.037	0.033

word stems like "develop," "build," "project," "hous," and "neighborhood." That topic is clearly centered around economic development and the execution of large-scale construction projects. Similarly, the second topic covers city budgets and fiscal issues, as it is defined by stems including "tax," "city," and "budget." Both are at root economic issues, and so lend credence to the idea that mayors will be evaluated in part for their handling of the economy. Still, mayors are not covered exclusively in connection with economic issues. Topics 6, 9, and 12 all deal with different aspects of the criminal justice system, giving us reason to think that voters may assess big-city mayors relative to crime rates as well. Also, notice

topic 4, which is defined by word stems such as "state," "democrat," "republican," and "obama." That topic reinforces the claim that mayors are often covered in tandem with national politics.

Data Compilation

We obtained demographic data from the 1990 and 2000 decennial censuses. The crime data come from the FBI's Uniform Crime Reporting database, while economic data for various geographies—including housing prices, unemployment, and income—are from the Bureau of Economic Analysis, the Bureau of Labor Statistics and the Federal Housing Finance Agency. Estimates of local unemployment come from a model using various sources, including the Current Population Survey and each state's unemployment insurance system.[22] As these estimates are based on samples and models, it is important to note that they are approximations, and that the resulting correlations might suffer from a (likely downward) bias as a result (Healy and Lenz, 2014*a*).

The political/institutional data come from ICMA (International City/County Management Association) surveys and from the 1987 United States Census of Governments.[23] In addition, we recorded whether the cities' elections were formally partisan or nonpartisan. Since some nonpartisan elections allow candidates to indicate their party affiliation on the ballot, we recorded this information separately. From the ICMA surveys, we were also able to include data on whether each city has a mayor-council or council-manager system, although cities must have a directly elected mayor to be included in our analysis. We used newspapers and other archives to identify cities where a major sports team won a championship as well as mayors who were under federal or state investigation for wrongdoing.

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[22]For a detailed description of the methodology, see `https://dlr.sd.gov/lmic/pdfs_and_other_files/technicalnotes_labor_force.pdf`.

[23]In cases where monthly data were available, those data were linked to elections by election month. Similarly, when yearly data were available, those data were linked to elections by election year. See the Appendix for more information on data and sources.

Table 4: Descriptive statistics, full data set.

Variable	Mean	Std. Dev.	Min.	Max.	N
% of Vote for Incumbent	0.66	0.185	0.113	1	653
Δ % of Vote for Incumbent	0.006	0.213	-0.605	0.784	451
Unspecified Retirement	0.203	0.403	0	1	944
Any Retirement	0.3	0.458	0	1	1074
White Retirement	0.727	0.446	0	1	827
Democrat Retirement	0.617	0.486	0	1	732
Incumbent %, lagged	0.661	0.186	0.113	1	520
Monthly unemployment, city	6.528	3.102	1.5	24.5	1231
Annual unemployment, US	5.703	1.342	3.99	9.6	1264
Monthly unemployment, US	5.719	1.396	3.8	10.1	1263
US - city monthly unemployment	-0.802	2.705	-15.3	5.7	1231
US monthly - city yearly unemployment	-0.969	2.797	-15.5	5.8	1232
Δ in city unemployment, 1 yr.	0.002	0.013	-0.035	0.07	689
Income per capita, city	2.606	1.099	0	5.944	914
Income per capita, US	2.957	0.692	1.632	4.156	1264
US - city annual income per capita	0.094	0.685	-5.869	3.734	914
US - MSA housing price index	0.01	0.019	-0.481	0.068	1198
Δ Income per capita, 1 yr.	0.102	0.099	-0.333	0.601	341
US housing price index	1.39	0.584	0.01	2.226	1198
City housing price index	0.024	0.013	0	0.077	1264
Δ Housing price index	0.051	0.151	-0.571	0.565	341
Violent crime, city	0.092	0.064	0	0.389	874
Violent crime, US	0.564	0.114	0.386	0.758	1252
Δ violent crime	-0.01	0.134	-0.641	0.618	306
US - city annual violent crime rate	-0.432	0.588	-3.152	0.63	874
Homicide rate, city	0.001	0.001	0	0.008	837
Homicide rate, US	6.793	1.618	4.7	9.800	1198
Δ Homicide rate	-0.057	0.106	-0.684	0.098	837
US - city annual homicide rate	0	0.004	-0.034	0.013	622
Population, logged (2000)	12.032	1.07	8.288	15.896	1263
Population (2000)	317189.553	664385.089	3975	8008278	1263
% Hispanic	0.185	0.19	0.004	0.942	1263
%Hispanic	0.262	0.21	0.002	0.976	1263
% w/ BA	0.151	0.071	0.022	0.405	1263
Median Home Value (2000)	11.282	6.579	0.001	39.64	1263
Median household income, 1990	27.748	7.315	12.627	56.307	1249
Median household income, 2000	38.139	9.988	20.542	78.722	1263
Mayor/Council	0.416	0.493	0	1	1263
Democratic Vote Share, 1988	0.456	0.1	0.261	0.857	1258
Democratic Incumbent party	0.725	0.447	0	1	559
# incumbent Victories	2.46	1.518	1	8	1264
Is mayor under investigation?	0.071	0.256	0	1	482
Won World Series	0.019	0.136	0	1	1214
Won Super Bowl	0.002	0.041	0	1	1214

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Table 5: Summary statistics: Data set including landslide victories.

Variable	Mean	Std. Dev.	Min.	Max.	N
% of Vote for Incumbent	0.66	0.185	0.113	1	653
Δ % of Vote for Incumbent	0.006	0.213	-0.605	0.784	451
Unspecified Retirement	0.015	0.123	0	1	525
Any Retirement	0.026	0.16	0	1	531
White Retirement	0.729	0.445	0	1	457
Democrat Retirement	0.617	0.487	0	1	423
Incumbent %, lagged	0.656	0.184	0.216	1	299
Monthly unemployment, city	6.468	3.068	1.5	24.5	633
Annual unemployment, US	5.765	1.48	3.99	9.6	653
Monthly unemployment, US	5.789	1.544	3.8	10.1	653
US - city monthly unemployment	-0.67	2.633	-15.3	5.7	633
US monthly - city yearly unemployment	-0.820	2.712	-15.5	5.8	634
Δ in city unemployment, 1 yr.	0.002	0.014	-0.032	0.07	419
Income per capita, city	2.524	1.293	0	5.869	494
Income per capita, US	3.001	0.703	1.632	4.156	653
US - city annual income per capita	-0.01	0.765	-5.869	3.734	494
US - MSA housing price index	0.01	0.025	-0.481	0.068	618
Δ Income per capita, 1 yr.	0.102	0.099	-0.333	0.601	341
US housing price index	1.302	0.655	0.01	2.226	618
City housing price index	0.023	0.014	0	0.077	653
Δ Housing price index	0.051	0.151	-0.571	0.565	341
Violent crime, city	0.085	0.064	0	0.389	497
Violent crime, US	0.555	0.112	0.386	0.758	648
Δ violent crime	-0.01	0.134	-0.641	0.618	306
US - city annual violent crime rate	-0.422	0.574	-3.152	0.595	497
Homicide rate, city	0.001	0.001	0	0.006	478
Homicide rate, US	6.684	1.572	4.7	9.800	613
Δ Homicide rate	-0.049	0.09	-0.513	0.098	478
US - city annual homicide rate	0	0.004	-0.026	0.01	376
Population, logged (2000)	12.205	1.051	8.288	15.896	652
Population (2000)	1.534	0.499	1	2	652
% Hispanic	0.202	0.193	0.004	0.905	652
%Black	0.241	0.205	0.008	0.976	652
% w/ BA	0.155	0.075	0.029	0.405	652
Median Home Value (2000)	11.46	7.366	0.001	39.64	652
Median household income, 1990	28.586	7.439	12.627	56.307	644
Median household income, 2000	1.561	0.497	1	2	652
Mayor/Council	0.405	0.491	0	1	652
Democratic Vote Share, 1988	0.46	0.101	0.277	0.857	651
Democratic Incumbent party	0.716	0.452	0	1	475
# incumbent Victories	2.766	1.587	1	8	653
Is mayor under investigation?	0.075	0.264	0	1	424
Won World Series	0.019	0.138	0	1	622
Won Super Bowl	0.003	0.057	0	1	622

Table 6: Summary statistics: Final data set.

Variable	Mean	Std. Dev.	Min.	Max.	N
% of Vote for Incumbent	0.592	0.129	0.113	0.989	341
Δ % of Vote for Incumbent	-0.035	0.174	-0.54	0.404	247
Unspecified Retirement	0.018	0.132	0	1	282
Any Retirement	0.031	0.175	0	1	286
White Retirement	0.72	0.45	0	1	257
Democrat Retirement	0.592	0.492	0	1	233
Incumbent %, lagged	0.624	0.156	0.251	1	163
Monthly unemployment, city	6.156	2.953	1.5	18.5	341
Annual unemployment, US	5.734	1.433	3.99	9.6	341
Monthly unemployment, US	5.777	1.501	3.9	9.9	341
US - city monthly unemployment	-0.379	2.454	-9.4	5.7	341
US monthly - city yearly unemployment	-0.441	2.397	-9.1	5.8	341
Δ in city unemployment, 1 yr.	0.002	0.013	-0.023	0.063	332
Income per capita, city	2.409	1.378	0	5.869	310
Income per capita, US	3.002	0.679	1.961	4.156	341
US - city annual income per capita	-0.104	0.874	-5.869	3.734	310
US - MSA housing price index	0.008	0.033	-0.481	0.068	332
Δ Income per capita, 1 yr.	0.102	0.099	-0.333	0.601	341
US housing price index	1.247	0.665	0.01	2.226	3328
City housing price index	0.022	0.014	0	0.077	341
Δ Housing price index	0.051	0.151	-0.571	0.565	341
Violent crime, city	0.084	0.066	0	0.389	303
Violent crime, US	0.559	0.112	0.386	0.758	338
Δ violent crime	-0.01	0.134	-0.641	0.618	306
Δ violent crime	-0.416	0.560	-3.152	0.595	303
Homicide rate, city	0.001	0.001	0	0.005	313
Homicide rate, US	6.601	1.582	4.7	9.800	340
Δ Homicide rate	-0.046	0.081	-0.418	0.094	313
US - city annual homicide rate	-0.001	0.004	-0.026	0.01	291
Population, logged (2000)	12.658	0.768	11.805	15.896	341
Population (2000)	1.751	0.433	1	2	341
% Hispanic	0.208	0.207	0.007	0.905	341
%Black	1.358	0.48	1	2	341
% w/ BA	0.168	0.072	0.048	0.363	341
Median Home Value (2000)	11.714	8.609	0.001	39.64	341
Median household income, 1990	29.298	7.306	15.315	56.307	341
Median household income, 2000	1.633	0.483	1	2	341
Mayor/Council	0.428	0.496	0	1	341
Democratic Vote Share, 1988	0.457	0.109	0.287	0.857	341
Democratic Incumbent party	0.667	0.472	0	1	261
# incumbent Victories	2.718	1.448	1	8	341
Is mayor under investigation?	0.069	0.254	0	1	319
Won World Series	0.012	0.108	0	1	340
Won Super Bowl	0.006	0.077	0	1	340

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Changes in City Conditions

To consider the potential impact of year-to-year changes, we modified the models reported in Table 1 to include measures of the annual change in each of our core measures. In the first column in Table 7, for example, we see that a one standard deviation increase in city unemployment (0.013 given the scaling here) increases the incumbent's vote share by a substantively small 0.4 of a percentage point on average, an effect that is in the unexpected direction but far from significant (β=0.28, SE=0.65). Increases in city annual income and home prices are associated with substantively small and statistically insignificant changes in the incumbent's vote share as well. For violent crime, the coefficient is 0.068, and although its sign is in the unexpected direction, it is statistically insignificant (SE=0.058) and substantively small. A one standard deviation increase in the homicide rate is associated with a small and insignificant decline in the incumbent's vote share of -0.6 percentage points (β=-1.65,SE=2.22).

Table 7: OLS models predicting the incumbent vote share with one-year changes in key independent variables.

	Base Model	Income	Housing Prices	Violent Crime	Homicides
Δ unemployment	0.282				
	(0.653)				
City monthly unemployment	-0.010*				
	(0.005)				
US monthly unemployment	0.006				
	(0.008)				
Δ income per cap.		-0.009			
		(0.084)			
City annual per cap. personal inc.		0.014*			
		(0.007)			
US personal inc. per cap.		-0.034			
		(0.081)			
Δ housing price index			0.002		
			(0.056)		
US housing price index			0.040		
			(0.021)		
MSA housing price index			-0.849		
			(0.941)		
Δ violent crime rate				0.068	
				(0.058)	
Violent Crime rate, city				0.266	
				(0.185)	
Violent Crime rate, US				0.021	
				(0.284)	
Δ homicide rate					-1.555
					(2.150)
Homicide rate, city					30.204
					(22.941)
US Homicide rate					-0.010
					(0.015)
US unemployment		-0.006	-0.001	-0.007	-0.003
		(0.008)	(0.006)	(0.009)	(0.008)
Median household inc, 1990	0.002	0.003	0.003	0.003	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Population, logged	0.009	0.001	0.008	0.006	0.007
	(0.013)	(0.013)	(0.013)	(0.013)	(0.014)
% Hispanic	0.062	0.041	0.017	-0.017	0.002
	(0.052)	(0.052)	(0.051)	(0.056)	(0.055)
% Black	-0.019	-0.035	-0.063	-0.137	-0.141
	(0.068)	(0.064)	(0.067)	(0.084)	(0.111)
% w/ BA	-0.140	-0.017	-0.017	-0.048	0.045
	(0.148)	(0.141)	(0.136)	(0.144)	(0.143)
Median Home Value	-0.001	-0.003*	-0.003	-0.003	-0.002
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Mayor/Council	0.010	0.024	0.013	0.004	0.003
	(0.020)	(0.021)	(0.021)	(0.022)	(0.022)
Democratic vote share, 1988	-0.009	-0.019	-0.008	-0.009	-0.037
	(0.099)	(0.091)	(0.097)	(0.087)	(0.086)
Constant	-1.242	-5.800	1.230	-3.208	1.978
	(3.299)	(18.936)	(3.337)	(11.047)	(7.584)
R^2	0.048	0.041	0.042	0.053	0.041
N	332	310	332	291	285

* $p<0.05$. Standard errors appear in parentheses.

All models include standard errors clustered at the city level and year indicators. Output omitted for year indicator variables.

Robustness

One clear alternative explanation for the results above emphasizes selective retirement. Like other politicians, mayors might prove more likely to retire if their electoral prospects are weak. Weak local conditions might make incumbents vulnerable in primary elections as well. After considering those alternative explanations, we then report a variety of robustness checks indicating that our core result holds when making a variety of defensible assumptions about measurement and modeling.

In the Table 11, we first use the original data set to model incumbent victories, classifying cases as one where the incumbent wins re-election and zero in any cases where he or she does not, regardless of whether or not she stood for re-election. Such a model groups general election losses with primary losses and retirements, and so allows us to consider the influence of local conditions net of decisions about whether to run again. If it were the case that incumbent mayors chose not to run when the local economy was in comparatively poor share, this model should turn up a strong relationship. But it does not: the estimated coefficient from a logistic regression is 0.028 (SE= 0.030), indicating that as national unemployment rises relative to the city's, mayors are slightly but not significantly more likely to run and to win. In combination with the results above, this suggests no strong selection biases shaping whether the incumbent is on the general election ballot. We then turn to modeling retirement explicitly, coding cases as a "1" when an incumbent retires and "0" when he or she runs again. The coefficients associated with the national-local unemployment difference are negative both when the reason for the retirement is unspecified and when there is any retirement, suggesting that as the national economy performs better relative to the city's, the probability of a mayor's retirement decreases. That is certainly not evidence of selection bias in the expected direction. Moreover, across the model specifications detailed in Table 11, we never find a relationship that is substantively statistically significant.

Table 8: Robustness of the core results across various modeling decisions.

	Δ in Incumbent %	Lagged DV with Monthly Unemp.	Lagged DV with Yearly Unemp.	City and US Unemp.	City Unemp. Only
US - city monthly unemployment	0.022***	0.017**			
	(0.006)	(0.005)			
Lagged incumbent %		0.308***	0.303***		
		(0.085)	(0.086)		
US mon.- city ann. unemployment			0.016**		
			(0.005)		
US annual unemployment rate			-0.068		
			(0.046)		
City monthly unemployment rate				-0.010*	-0.010*
				(0.004)	(0.004)
US monthly unemployment rate	0.011	0.017		0.020	
	(0.046)	(0.038)		(0.028)	
Population, logged	0.033**	0.008	0.007	0.008	0.008
	(0.012)	(0.012)	(0.012)	(0.011)	(0.011)
% Hispanic	-0.030	0.088	0.083	0.065	0.063
	(0.075)	(0.059)	(0.058)	(0.053)	(0.053)
% Black	0.012	-0.024	-0.031	-0.030	-0.033
	(0.079)	(0.061)	(0.061)	(0.066)	(0.066)
% w/ BA	-0.774**	-0.365	-0.358	-0.140	-0.133
	(0.251)	(0.208)	(0.210)	(0.148)	(0.148)
Median Home Value	0.002	0.001	0.000	-0.002	-0.002
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Median household income, 1990	-0.001	0.001	0.001	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Mayor/Council	-0.008	0.026	0.027	0.014	0.014
	(0.023)	(0.023)	(0.024)	(0.019)	(0.020)
Democratic vote share, 1988	0.012	-0.056	-0.045	-0.016	-0.015
	(0.125)	(0.103)	(0.107)	(0.091)	(0.091)
Constant	-0.394	0.297	0.886*	0.390	0.500***
	(0.301)	(0.304)	(0.363)	(0.201)	(0.145)
R^2	0.132	0.325	0.318	0.122	0.121
N	247	163	163	341	341

* $p < 0.05$. Standard errors appear in parentheses.

All models include standard errors clustered at the city level and year indicators. Output omitted for year indicators.

We consider a variety of alternative specifications in Table 8. In the first column, we restrict the data set to the 247 elections in which we have data on the incumbent's prior vote share, and then re-specify the dependent variable as the change in the incumbent's vote share from the prior election. Here, the coefficient for the national-city difference in unemployment is 0.023 with a standard error of 0.006, indicating an effect that is sizeable and statistically different from zero.[24] As the second column indicates, we observe a slightly smaller but still sizeable and significant effect when we instead re-specify the model to include the lagged incumbency measure.

In nationally oriented studies, one important question is about the time-frame for retrospection. Accordingly, in the third column in Table 8, we consider an alternative specification in which we consider unemployment measured for the year prior to the election rather than simply the month. In the fourth, we demonstrate that the effect of local unemployment holds irrespective of whether it is specified as a difference or not, although the effect does just drop below the 0.05 significant level ($\beta = -0.009, SE = 0.005$)). The fifth column illustrates that even when removing national conditions entirely, the effect of local unemployment remains significant and nearly identical in size. In short, the results prove quite robust to alternative specifications.[25] City-level unemployment influences mayoral support.

To this point, the models have assumed that the relationship between city unemployment and incumbent support is linear—but that is simply an assumption. To test it, we re-specify the independent variable as five indicator variables for five groups of the unemployment difference, and then we include all but the first in our baseline model. Figure 3 in the Appendix illustrates the results, and clarifies that the effect is driven primarily by those cities in the top group of national-local unemployment, meaning cities with unemployment rates at least 1.5 percentage points lower than the nation's. Incumbents earn a vote premium

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[24]This model is effectively the same as including candidate fixed-effects. Only 34 cities contribute more than 3 observations to our data set, so it is wholly unsurprising that the inclusion of city fixed-effects leaves the result statistically indistinguishable from zero, although still positive (0.008, SE=0.007).

[25]The effect also remains similar in size when iteratively removing each city.

that is most pronounced when local unemployment is significantly better than national unemployment. Omitting the year fixed effects, our key coefficient becomes 0.009 with a standard error of 0.004. As yet another robustness check, we also re-ran our model when expanding the data set to include all 418 contested general mayoral elections, even those that were landslides. There, the effect of the national-local unemployment difference remains meaningful and significant, at $\beta = 0.015$ (SE= 0.04).

One might also wonder if the results are driven by the inclusion of particular cities. In Figure 4 in the Appendix, we show the stability of the result when omitting each city in turn. Similarly, in Figure 5 in the Appendix, we illustrate the key coefficient—the national-local unemployment difference—when including various potentially omitted variables, from a city's percentage Irish or Italian to the presence of term limits or the type of election. In all cases, the core result holds.

Table 9: This table presents 3 OLS models of the percentage of ballots cast for the incumbent in big-city elections between 1990 and 2011.

	Model 1	Model 2	Model 3
Intercept	0.609*	0.376	0.390
	(0.028)	(0.201)	(0.203)
US - city monthly unemployment	0.005	0.007*	0.010*
	(0.003)	(0.003)	(0.004)
US monthly unemployment	−0.003	0.013	0.010
	(0.005)	(0.028)	(0.028)
Logged Population, 2000		0.010	0.008
		(0.010)	(0.010)
Year Fixed-Effects	N Y	Y	
City-level Controls	N	N	Y
Adj. R^2	0.006	0.021	0.034
Num. obs.	341	341	341

*$p < 0.05$

Table 10: Difference in retrospective voting for various subsets of cities.

	Mean	β_1	β_2	$|\beta_1 - \beta_2|$	P-value
High Dem. Voting '88	0.50	0.016*	0.005	0.011	0.103
Party Affiliation- Democrat	0.62	0.016	0.013*	0.003	0.400
Mayor/Council System	0.43	0.011	0.009	0.002	0.606
Council Elected At-Large	0.25	-0.027***	-0.019	0.046	0.099
Council Elected by Ward	0.32	0.004	0.039*	0.035	0.008*
Partisan Ballot	0.29	0.013*	-0.002	0.101	0.101
Partisan Nomination	0.13	0.011*	0.022	0.011	0.317
Term Limits	0.75	0.011	0.011*	0.000	0.501
November Election	0.57	0.014*	0.008	0.006	0.761
Local and Ntl Election	0.21	0.011*	0.008	0.003	0.620

Note: This table compares the coefficient estimate on our key independent variable (national minus city unemployment) across various subsets of our data. The first column indicates the share of observations with the binary characteristic, while columns two and three show the estimated coefficient given its absence or presence, respectively. Column 4 shows the absolute value of the difference between those subsets, and Column 5 shows the p-value associated with that difference from Wald tests.

Table 11: Predicting Mayoral Retirements

	Victories vs. Loss/Retire	Unspecified	Any retirement
US - city monthly unemployment	0.027	-0.087	-0.071
	(0.029)	(0.088)	(0.057)
US monthly unemployment rate	-0.027	0.154	0.036
	(0.247)	(0.421)	(0.405)
Median household income, 2000	-0.001	0.000	-0.019
	(0.017)	(0.050)	(0.028)
Population, logged	-0.083	0.054	0.216*
	(0.054)	(0.131)	(0.088)
% Hispanic	0.588	-1.680	-0.951
	(0.412)	(1.148)	(0.828)
% Black	0.752	-2.402*	-0.939
	(0.402)	(1.132)	(0.790)
% w/ BA	1.173	-2.748	0.712
	(1.202)	(3.025)	(1.998)
Median Home Value	-0.018	-0.105**	-0.031
	(0.013)	(0.039)	(0.022)
Median household income, 1990	0.017	0.033	0.034
	(0.024)	(0.070)	(0.041)
Mayor/Council	0.057	-0.159	-0.063
	(0.104)	(0.278)	(0.194)
Democratic vote share, 1988	0.389	-0.582	0.291
	(0.555)	(1.695)	(1.045)
# Victories	0.782***	-0.991***	-0.827***
	(0.069)	(0.245)	(0.142)
White		-0.041	-0.117
		(0.372)	(0.260)
Democrat		0.018	-0.090
		(0.271)	(0.195)
Constant	-0.362	1.207	-1.483
	(2.325)	(3.400)	(2.861)
R^2			
N	1208	468	570

Note: The first model is fit to the full data set with all available mayoral elections, while the second and third are fit to data where either the incumbent ran or was known to have retired. All models include standard errors clustered at the city level and year dummies. Output omitted for year indicators.

Figure 3: The impact of the national-city unemployment difference when divided into quintiles. For higher quintiles, national unemployment outpaces local unemployment to a greater extent.
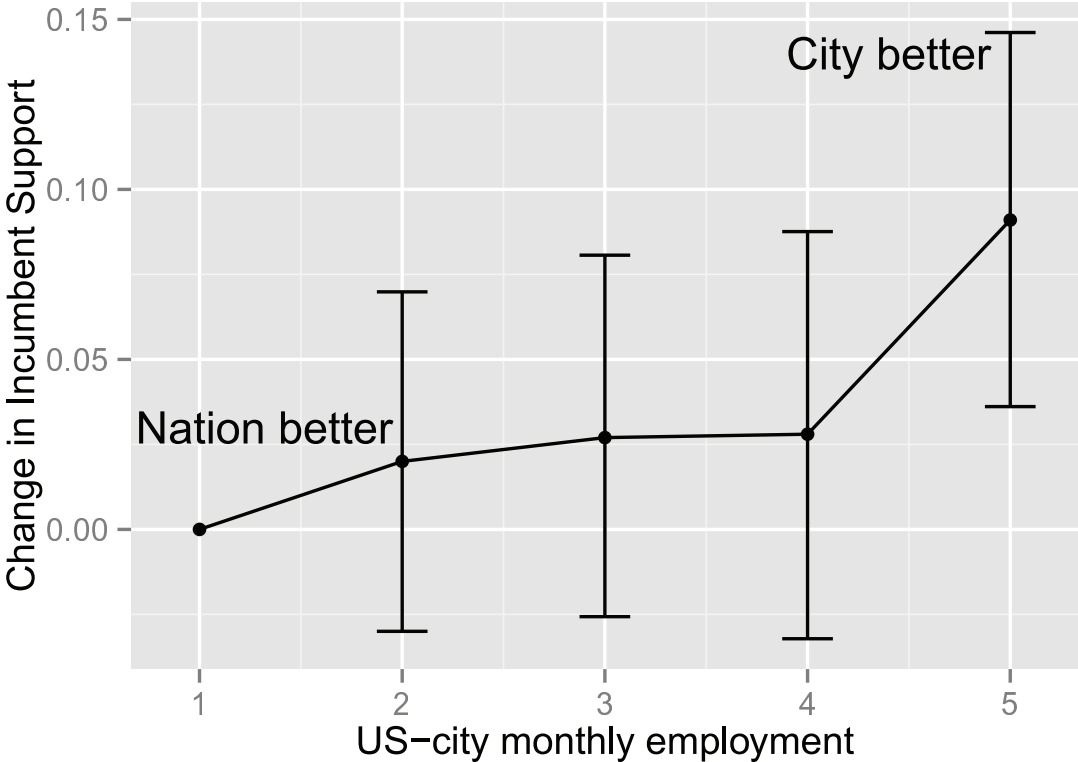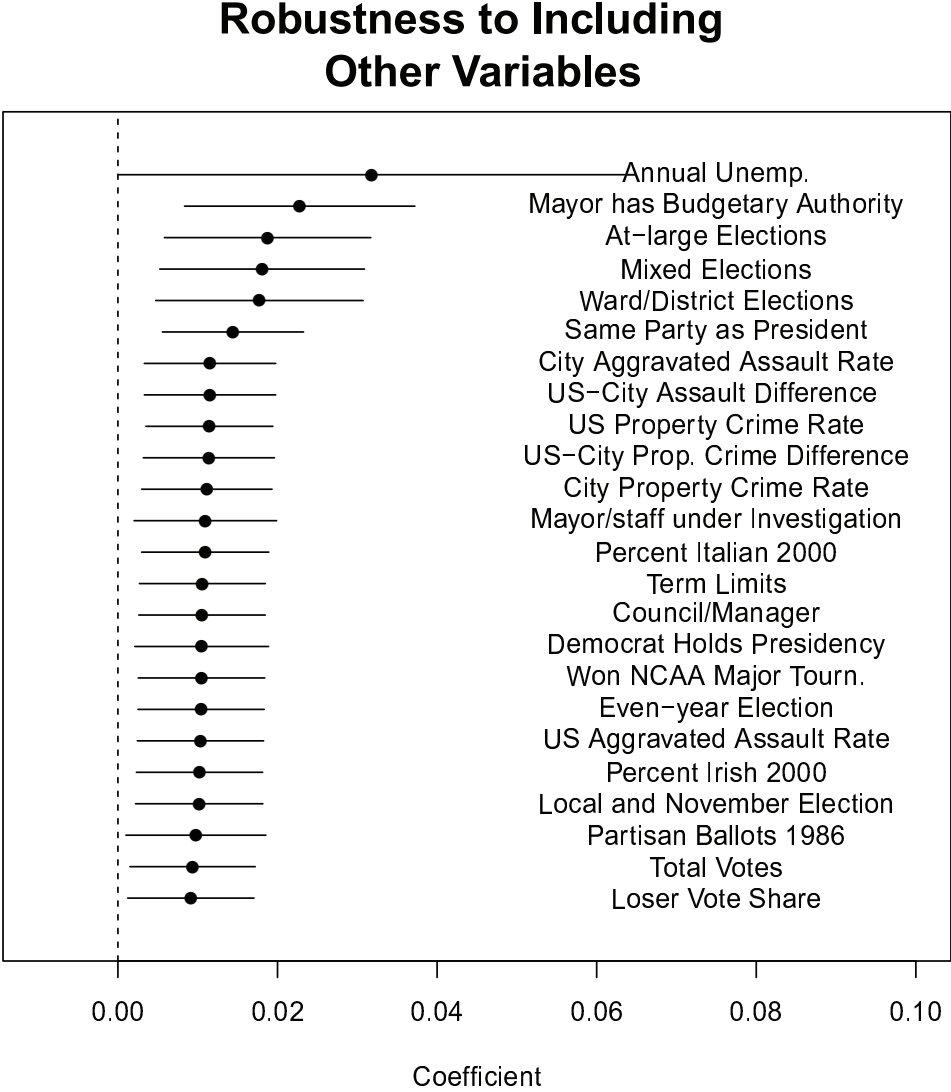
Figure 4: The impact of the national-city unemployment difference when omitting one city at a time.

Figure 5: The impact of the national-city unemployment difference when including other variables in the basic model.

Robustness to Including Other Variables

Data Sources

1. Candidate data

    (a) Vote percentages, Race, Party, Retirement status, FBI investigation: Lexis-Nexis and web searches. Additional gaps were filled by a dataset provided by Fernando Ferreira and Joseph Gyourko.

2. Economic data

    (a) National Unemployment rates, Annual data: 1947-2002 `http://www.census.gov/compendia/statab/hist_stats.html` and 2003-2010 `http://www.bls.gov/cps/prev_yrs`.

    (b) National Unemployment rates, monthly data for all years: `http://data.bls.gov/timeseries/LNS14000000`

    (c) Local Unemployment rates, annual and monthly data extracted from BLS Local Area Unemployment Statistics: `http://data.bls.gov/cgi-bin/dsrv`. Data are *not* seasonally unadjusted.

    (d) National Income: Census Bureau's Statistical Abstracts 1999-2002 `http://www.census.gov/prod/www/statistical_abstract.html` and 2003+ `http://www.bea.gov/regional/reis/default.cfm?selTable=CA1-3&section=2`,

    (e) Local Income: Bureau of Economic Analysis' "Local Areas Personal Income and Employment/ Per Capital Personal Income, Table CA1-3" `http://www.bea.gov/iTable/iTable.cfm?reqid=70&step=1#reqid=70&step=1&isuri=1`. Where city data were not available, MSA-level data were used.

    (f) National Housing Prices: HPI from The Federal Housing Finance Agency: `http://www.fhfa.gov/DataTools/Downloads/Documents/HPI/HPI_AT_us_and_census.csv`. HPI was divided by 100 for estimation and data are not seasonally adjusted.

(g) Local Housing Prices: HPI from The Federal Housing Finance Agency: `http://www.fhfa.gov/DataTools/Downloads/Documents/HPI/HPI_AT_metro.csv`

3. Demographic Data

(a) Median household income (1990 and 2000) (transformed to tens of thousands of dollars), plus logged population, percent Hispanic, percent Black, percent of population with a bachelor's degree or higher, median home value (transformed to tens of thousands of dollars) logged percentage of population with Italian ancestry, logged percentage of population with Irish ancestry (all 2000): 2000 Decennial Census. All files downloaded using American Fact Finder `http://factfinder2.census.gov`.

4. Institutional Variables

(a) Variables indicating whether a mayor or council system is in place, a council or manager system is in place, the mayor has budget authority and method of council selection: International City/County Management Association's 1996 "Municipal form of Government Survey"

(b) Party ballot: International City/County Management Association's 1986 "Municipal Form of Government Survey"

(c) Partisan nomination: 1987 "United States Census of Governments"

5. Media variables

(a) Media Market data: Kantar Media SRDS (Standard Rate & Data Service) DMA Maps and Profiles.

(b) Newspaper data: Data were kindly provided by Jessica Trounstine at the University of California, Merced. In our dataset, '0' indicates that there is no local

paper over the panel, or the loss of one. '1' indicates a local paper throughout the panel.

6. Additional Data

   (a) Violent and Property Crime rates: Data extracted online from FBI's Uniform Crime Reports `http://www.ucrdatatool.gov/`. FBI crime rates are per 100,000 population, re-scaled to per 1,000.[26]

   (b) Democratic vote share (per county) in 1988: from Brad Gomez at Florida State University `http://myweb.fsu.edu/bgomez/Weather_Public_File.zip` [27]

   (c) World Series or Super Bowl wins: Lexis-Nexus and web searches.

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[26]Reporting is not mandatory, and a lack of funds is usually reason for non-reporting. See `http://www.fbi.gov/about-us/cjis/ucr/frequently-asked-questions/ucr_faqs`

[27]County-level data. When cities fell into more than one county, the average across all applicable counties was used. This includes: Huntsville AL, Aurora CO, Aurora IL, Hattiesburg MS, Jackson MS, Kansas City MO, New York NY, Rocky Mount NC, Columbus OH, Youngstown OH, Oklahoma City OK, Salem OR, Portland OR, Charlestown SC, Columbia SC, SanAntonio TX, Plano TX, Dallas TX, Houston TX, Corpus Christi TX, Amarillo TX, Milwaukee WI, Peoria AZ, Chicago IL, Grand Prairie TX, and Fort Worth TX.