Campaign Contribution Limits and Corruption

Evidence from the 50 states

Abstract

Since its 1976 *Buckley v. Valeo* decision, the Supreme Court has allowed only two potential justifications for limiting campaign donations: To prevent corruption or the appearance of corruption. Do campaign finance limits actually mitigate corruption or its appearance? As current challenges to contribution limits wind their way through federal courts, the answer to this question will inform the Supreme Court's decision to uphold or strike down remaining limits on political campaign contributions. Using state-level data from 1990-2012 on contribution limits, corruption convictions, and media mentions of corruption, this paper finds associations between corruption convictions and the presence of limits on donations to political action committees (PACs), the amount of those limits, and the presence of limits on donations to parties. Individual donation limits, however, do not prove associated with either measure of corruption.

Introduction

In 1976, the Supreme Court ruled in *Buckley v. Valeo* that political campaign expenditures are the equivalent of free speech, and therefore protected by the first amendment. At the same time, the Court laid out one mechanism and two permissible reasons for limiting campaign contributions that enable those expenditures. First, it argued that more money contributed does not amount to "more" speech, allowing for the use of campaign contribution dollar amount limits. Donating one dollar or $5,000 to a political campaign amounts to a speech act, the Court held, and so it is permissible to impose limits on the amount of contributions as long as contributions are not prevented. Second, having laid out this mechanism by which money in politics might be limited, the court laid out only two constitutionally permissible reasons for limiting contributions: To prevent corruption or the appearance thereof. As Kang (2012) argues, the holdings in *Buckley v. Valeo* provided "the basic framework of contribution limits and disclosure requirements" for the following four decades. Since *Buckley v. Valeo*, Congress has passed only one campaign finance law, the Bipartisan Campaign Reform Act of 2002. Better know as McCain-Feingold, the bill took aim at unlimited "soft money" contributions to political parties and expanded the Federal Election Commission's disclosure requirements to what it called "electioneering communications," political ads not paid for by campaigns themselves.

Apart from McCain-Feingold, for forty years all changes in the landscape of campaign finance have come from the Supreme Court and appellate courts, which have worked to balance questions of corruption with those of free speech. In 1981, the Court struck down contribution limits related to ballot measures (*Citizens against Rent Control v. City of Berkeley*). Just before the passage of McCain-Feingold, the courts considered state-level limits, allowing low limits in Missouri (*Nixon v. Shrink Missouri*, 2000), though it would later finding Vermont's to be low enough that they had a meaningful impact on political speech (*Randall v. Sorrell*, 2006).

The passage of the McCain-Feingold in 2002 inspired a wave of challenges to campaign

contributions and expenditures, driven mostly by conservative and religious political groups. In 2007, the Court examined the McCain-Feingold ban on airing issue advertisements close to election. Banning such ads, the Court argued, would have a chilling effect on free speech, and it struck down the ban (*FEC v. Wisconsin Right to Life*). Then, in 2010, the Court issued what has become one of its most well-known rulings: In *Citizens United v. FEC* (2010), it struck down limits on independent expenditures by outside groups, including corporations and unions. One critical aspect of *Citizens United* is the establishment of the principle that, according to Justice Anthony Kennedy, "independent expenditures do not lead to, or create the appearance of, quid pro quo corruption." The Court's emphasis on quid pro quo corruption as the only justification for contribution limits extended the following year, as it struck down an Arizona effort to level the political playing field with matching state campaign funds (*Arizona Free Enterprise Club v. Bennett*, 2011).

Since 2011, the network of conservative legal groups behind Citizens United has continued to take aim at contribution limits as an unnecessary restriction of political speech, with a focus on individual contribution limits. The 1971 Federal Election Campaign Act placed a limit on the amount an individual could give to one campaign, in addition to two-year limits on the total amount an individual could give to political campaigns. In *McCutcheon v. FEC* (2014) James Bopp, one of the attorneys behind the Citizens United challenge, convinced the Court of the unconstitutionality of total individual limits. Another case, *Holmes v. FEC* (2017), targeted the distribution of individual campaign contribution across primary and general elections. In yet another, *Lair v. Mangan* (2018), Bopp once again took aim at individual contribution limits, arguing that the state of Montana had not shown compelling evidence that campaign contribution limits decreased the risk of corruption.

The Ninth Circuit Court of Appeals upheld Montana's campaign contribution limits, and the Fifth Circuit similarly upheld limits in Austin, TX (*Zimmerman v. City of Austin*, 2018). But further challenges to contribution limits are likely. Bopp said that he planned to appeal the Ninth Circuit's ruling. Even if that fails, Bopp and other conservative groups

plan to carry on. "I handle a lot of cases," he said after the 2014 McCutcheon ruling, "and I'm not done yet." Supreme Court Justice Clarence Thomas laid the groundwork for future challenges in his commentary on the McCutcheon decision by arguing that more dollars did, in fact, equate to more speech. Once established, that principle supports the argument that campaign contribution dollar amount limits are a potentially unconstitutional restriction on speech (Hurley & Debenedetti 2014, Zall 2017).

Prior Work

Since the Buckley v. Valeo decision, a wave of scholarship has taken advantage of the campaign contribution data collected by the Federal Election Commission to examine the causes and consequences of political campaign contributions, including whether contributions buy access (not to a meaningful degree, find Welch 1982 and Langbein 1986) and the effectiveness of contributions relative to lobbying efforts (yes, according to Wright 1990). Since the 2010 Citizens United and speechnow.org decisions, another arm of scholarship has examined the flows of money to groups engaging in independent expenditures (Spencer and Wood 2014, Werner and Coleman 2014).

But lobbying, money for access, and independent expenditures all fall outside of the narrow definition of quid pro corruption that the Supreme Court considers a compelling enough state interest to justify campaign contribution limits. The scholarly research on corruption thus narrowly defined is mixed and heated. Stratmann finds evidence that donations determined votes in at least one instance (1991); he also finds that the timing of political action committees (PAC) donations suggests that corporations believe those donations do affect legislators' votes (1998). Reacting to the absence of evidence that donations lead to favorable final votes on bills, Hall and Wayman (1990) look for and find a positive relationship between political donations and the amount of attention that legislators give to a particular issue. Other scholars, however, are not so convinced. Wright finds that once lobbying efforts are factored in, the effects of contributions on voting outcomes

washes out (1990). And it is notoriously difficult to tease out whether political donations change legislators' minds or instead flow to legislators with established, friendly positions (Ansolabehere et al 2003).

As mentioned above, the Court is also interested in the appearance of corruption. On this score, results are more consonant: There seems to be little association between campaign spending and public trust in government (Primo 2002). Other factors, including media coverage of campaign finance law and the professionalization of legislatures, are more predictive of public perceptions of corruptions (Rosenson 2009). And while the public does seem to report viewing campaign finance as a contributor to corruption, there is not evidence that reform efforts will have an effect on those views (Persily & Lammie 2004).

One fundamental limitation of these federal level studies on campaign contributions and corruption is the absence of a counter-factual. Given that contribution limits have been in place since the 1970s, it is difficult to argue what might have happened in their absence. Recent work on campaign finance has attempted to address this problem by focusing on the effects of differences in campaign finance laws at the state level. Variation across states and over time allows room for studying the causes and consequences of campaign finance limits, separate from the question of corruption. Studies suggest that campaign finance limits are associated with less electoral competition (Gross et al 2002, Lott 2006), but that disclosure rules and some organizational limits are associated with greater levels of government trust (Primo and Milyo 2006) and may increase the return on campaign expenditures (Stratmann 2006). As mentioned, Michael Barber's 2016 work finds that lower limits on PAC donations relative to individual donations are associated with higher polarization.

A largely separate body of work has examined the causes and consequences of corruption at the state level, separate from campaign finance. Most use the Department of Justice's Annual Public Integrity Report, which correlate highly with state level perceptions of corruption (Walker and Calcagno 2011, Glaeser and Saks 2006, Liu & Mikesell 2014). Using that data, researchers have found evidence that political corruption leads to inflated

state budgets and that the presence of casinos and subsequent corruption (Liu & Mikesell 2014, Walker & Calcagno 2013). They have also shown the absence of a link between state ethics commissions and reduced corruption (Crider and Milyo 2013).

In response to criticisms of corruption convictions as a proper measure of corruption, researchers have also developed alternative measures of state level corruption. Boylan and Long make use of surveys of state reporters (2003). Cordis and Milyo deploy the recently available Transactional Records Access Clearinghouse (TRAC) database of political corruption (2013). Dincer and Jonhston introduce a Corruption Reflections Index, which tracks mentions of corruption in Associated Press reports (2016).

Fewer scholars have begun connecting these bodies of work to examine the impact of state-level campaign finance regulations on measures of quid pro quo corruption–one of only two questions of import to the Supreme Court as it considers the constitutionality of contribution limits. The exception to this is a 2013 working paper by Cordis and Milyo, which campaign contribution limits have little effect on public perceptions of corruption. This paper seeks to address this gap in research, building on Cordis and Milyo's work putting state level campaign finance data in direct conversation with state level corruption data.

Data and Design

In this paper, I build upon the growing body of state-level political science research to ask whether campaign contribution limits at the state level associated with lower levels of corruption. Given open debate about the proper measure of state-level corruption, I use two measures. The first, a Corruptions Convictions Index, is the traditional measure of state level corruption, built from Department of Justice convictions data. The second, the Corruptions Reflection Index, is a new measure put forward by Dincer and Johnston (2016). I combine these measures with a third data set from Michael Barber's 2016 work on campaign contribution limits and political polarization; and a fourth data set from James Alt and David Dryer Lassen, to provide controls for the full model (Alt and Lassen 2012).

Barber's data set is a panel of contribution limits from 1990-2012 for the lower house of every state legislature. Barber compiled this data set from the FEC, Westlaw, and the Nation Council of State Legislatures. Each dollar amount is inflation indexed to 2010 dollar amounts, and bi-annualized. There are three different types of limits in the Barber database: Individual contribution limits, individual-to-party limits, and PAC limits. Barber utilized individual and PAC contributions in his analysis of polarization, leaving out individual-to-party limits given that party contributions typically make up less than 10% of total political fundraising; I include it this analysis to determine whether parties, rather than PACs or individuals, might be the locus of corruption as measured by our other two data sets (Barber 2016).

Table 1: Descriptive Statistics for State Level Campaign Finance Limits

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Individual Limits	802	3,801	4,236	143	827	5,078	23,164
Individual-to-Party Limits	472	33,222	45,732	834	7,243	32,882	196,470
Party Limits	543	23,804	32,616	246	5,246	24,976	150,904
PAC Limits	742	6,396	9,440	223	1,231	9,302	96,940

Notes: 'N' equals number of state-years (out of n=1150) in which that type of limit is present

The second data set comes from the Department of Justice's "Report to Congress on the Activities and Operations of the Public Integrity Section" by way of the Institute for Corruption Studies.[1] Since 1976, the FBI has tracked political corruption at the state level, and the Corruption Convictions Index (CCI) used here includes the number of corruption convictions in a year normalized by the population in each state. This measure of corruption is widely used in academic research, though not without criticism. Descriptive statistics for corruption convictions are included below.

[1]N.B. According to one of the researchers' curricula vitae, the Institute for Corruption Studies is funded in part by a grant from the Charles Koch Research Foundation. Organizations funded by Charles and David Koch are also funders of legal groups driving legal battles mentioned in the introduction, according to a report by the Center for Public Integrity.

The third data set is the Institute for Corruption Studies' Corruption Reflections Index (CRI), put together by Dincer and Johnston for their 2016 article on state-level corruption, and which they create in response to the limitations of the Corruption Convictions. The Corruption Reflections Index represents the fraction of Associated Press stories about politics in a particular state that mention political corruption (Dincer and Johnston 2016).

Table 2: Descriptive Statistics for Corruption and Reflections

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Corruption Convictions Index (CCI)	1,999	2.96	2.99	0.00	1.03	3.97	33.85
Corruption Reflections Index (CRI)	1,887	0.28	0.19	0.00	0.15	0.37	2.16

The fourth data set provides controls for the panel model. In their 2012 work examining variation in prosecutorial resources, Alt and Lassen follow Glaeser and Saks (2006) in controlling for income and education levels, size of government, legislature control, and urbanization (see Appendix A). Alt and Lassen's data set runs from 1976-2004. When included in the second and third models, this limits the analysis to the years from 1990-2004 and n=720.

This analysis has its limitations, beginning with the data sets themselves. Barber's state campaign contributions data lacks information about upper houses of state legislatures, which are included in both the CCI and CRI. The Corruption Convictions Index suffers from a number of issues, as outlined by Dincer and Johnston in their introduction to the Corruption Reflections Index. They argue that the CCI includes only federal data; that the resources available to prosecutors varies from state to state; that US Attorneys are political appointees; and that the measure records only convictions, which is at best a reflection of underlying corruption.

The Corruption Reflections Index, too, has its flaws: It relies on a single news source, the Associated Press. Similar to federal prosecutors' offices, the resources available to each AP office vary. It also demonstrates high variation in the data; Utah, for example, has a

mean CRI score of 0.46 and standard deviation of 0.38, in a data set with an overall mean of 0.28 and standard deviation of 0.19. The Corruption Reflections Index also seems to assume in its name that media reports of corruption are a mere reflection of corruption, rather than an endogenous variable in the ecosystem that enables corrupt behavior. Previous work, in contrast, has argued that media have a clear bias and play an important role in shaping public perceptions of corruption, rather than just reflecting it (Sorauf 1987; Ansolabehere, Snowberg and Snyder 2005).

Most broadly, this analysis does not directly address the "appearance of corruption," the second of the Supreme Court's reasons for allowing campaign contribution limits; to do so effectively would require time series, state-level data specifically about quid pro quo corruption. It is also the case that this analysis looks to the states intentionally in order to address the issue of the counter-factual inherent in looking at federal data, it may not be the case that statewide results are generalizable to, or distinct from, what is occurring at the federal level. Third, it is also the case that campaign finance laws may not be equally enforced across states, even though the enforcement measures used here are from federal rather than state authorities. Finally, the period in question (1990-2004) is short enough that there may be some factor that influences corruption arrest across a meaningful portion of the data set.

Methods

Having constructed a full 1990-2012 panel data set from these three data sets, I then run a series of time series regressions testing the relationship between contribution limits and both dependent variables, the Corruption Convictions Index and the Corruption Reflections Index.

I include three study variables in both sets of models: Individual contribution limits, individual-to-party contribution limits, and PAC contribution limits. For each of these independent variables, I construct two variables for use in the models. The first is a dummy variable indicating whether there are contribution limits in that state in that year, coded as

"0" if there are no limits and "1" if there are. The second is a continuous variable indicating the dollar amount of the limit in the state in that year. By interacting these two variables, I test two separate associations. The dummy variable tests whether there is a difference in the CCI and CRI in states with limits versus states without limits. The continuous variable tests whether higher or lower limits are associated with higher or lower CCI and CRI scores, within the group of states that have limits in a given year. After performing this transformation on all three independent variables, I test two initial sets of models: (1) Corruption Convictions Index versus campaign contribution limits in a given state-year, and (2) Corruption Reflections Index versus campaign contributions in a given state-year.

I build a model of political corruption using control variables previously demonstrated by Alt and Lassen to be correlated with corruption convictions, resulting in a data set covering 1990-2004, the period of overlap among the data sets listed above. These include controlling for the size and education levels of the population, the ideology of a population, income levels and inequality, education levels, the number and relative income of government employees, and urbanization. Building a model of corruption that includes variables previously demonstrated to be correlated with corruption levels, then adding in campaign finance data, I can better identify the association of campaign finance laws with corruption levels. For each of these models, I test fixed state and year effects and random effects. I also test appropriate transformations of both dependent and independent variables. The models are as follows:

Corruption Convictions Index versus campaign contribution limits in a given state-year: $(log)Convictions = \alpha_{state} +$

$\beta_1 indiv.dummy + \beta_2 indiv.dummy \times indiv.limit +$

$\beta_3 pac.dummy + \beta_4 pac.dummy \times pac.limit +$

$\beta_5 indiv-to-party.dummy + \beta_6 indiv-to-party.dummy \times indiv-to-party.limit +$

$Controls \times \gamma + \epsilon$

Corruption Reflections Index versus campaign contributions in a given state-year: $(log)Reflections = \alpha_{state} +$

$\beta_1 indiv.dummy + \beta_2 indiv.dummy \times indiv.limit +$

$\beta_3 pac.dummy + \beta_4 pac.dummy \times pac.limit +$

$\beta_5 indiv.to.party.dummy + \beta_6 indiv.to.party.dummy \times indiv.to.party.limit +$

$Controls \times \gamma + \epsilon$

Results

The results of the panel regressions reveal multiple correlations between state-level campaign limits and Corruption Convictions; and one correlation between those limits and the Corruption Reflections Index.

The first set of models (Table 3) measures the association of various campaign contribution limits with the Corruption Convictions Index. The first model includes only control variables; the second model adds in campaign finance limit variables. The third layers in fixed effects at the state level, fixed time effects, and logged study variables; the fourth removes fixed effects but maintains the logged variables. Not included here are: models with random effects, models with unlogged dependent variables, and models with other combinations of fixed effects and variable transformations. The resulting models identify correlations between the CCI and the existence individual-to-party limits: The presence of such limits is associated with *greater* corruption as measured by convictions. In Model 2, with unlogged independent variables, both the presence and amount of limits on PAC contributions to campaigns is associated with lower levels of corruption measured in terms of convictions.

The second set of models (Table 4) walks through the same progression of models, measuring the association of various campaign contribution limits and the Corruption Reflections Index (CRI). Model 4, which includes logged independent and dependent variables but not fixed effects, demonstrates that the presence of individual-to-party limits is associated

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with lower levels of corruption as measured by media mention of corruption. As with the CCI models in Table 3, the presence and amount of PAC limits, when unlogged, are associated with lower levels of corruption reflections.

Table 3: Models of Contribution Limits and Corruption Convictions

	Dependent variable:			
	Corruption Convictions Index (logged)			
	(1)	(2)	(3)	(4)
Individual limit (amount)		0.00		
		(0.00)		
Individual limit (logged)			0.14	0.05
			(0.09)	(0.04)
Individual limit (dummy)		0.69	0.47	0.12
		(0.79)	(0.38)	(0.16)
Individual-to-party limit (amount)		0.00		
		(0.00)		
Individual-to-party limit (logged)			0.02	0.04
			(0.07)	(0.03)
Individual-to-party limit (dummy)		0.19**	0.19	0.16*
		(0.09)	(0.21)	(0.09)
PAC limit (amount)		−0.00**		
		(0.00)		
PAC limit (logged)			−0.09	−0.06
			(0.06)	(0.04)
PAC limit (dummy)		−0.99**	−0.13	−0.14
		(0.41)	(0.24)	(0.13)
Divided government	−0.14***	−0.13***	−0.09*	−0.14***
	(0.05)	(0.05)	(0.05)	(0.05)
AUSAs per population (MMs)	0.03***	0.03***	0.03**	0.03***
	(0.00)	(0.01)	(0.01)	(0.01)
Percent high school grads	−2.63***	−2.62***	0.47	−2.73***
	(0.61)	(0.62)	(1.67)	(0.63)
Gov revenues per capita (1000s)	0.00***	0.00**	0.00*	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)
Urbanization	−0.00*	−0.00**	−0.02	−0.00**
	(0.00)	(0.00)	(0.03)	(0.00)
Log of population (MMs)	0.22***	0.21***	2.08***	0.22***
	(0.03)	(0.04)	(0.72)	(0.04)
Constant	1.67***	2.01**		1.44**
	(0.30)	(0.87)		(0.59)
	Base Model	Full Model	Fixed Effects	Pooled
Observations	671	671	671	671
R^2	0.13	0.14	0.03	0.14
Adjusted R^2	0.12	0.13	−0.08	0.12
F Statistic	16.60*** (df = 6; 664)	9.23*** (df = 12; 658)	1.76* (df = 12; 598)	8.92*** (df = 12; 658)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4: Models of Contribution Limits and Corruption Reflections

	Dependent variable:			
	Corruption Reflections Index (logged)			
	(1)	(2)	(3)	(4)
Individual limit (amount)		0.00		
		(0.00)		
Individual limit (logged)			−0.00	0.01
			(0.02)	(0.01)
Individual limit (dummy)		0.20	−0.01	0.03
		(0.17)	(0.07)	(0.03)
Individual-to-party limit (amount)		0.00		
		(0.00)		
Individual-to-party limit (logged)			0.01	0.00
			(0.01)	(0.01)
Individual-to-party limit (dummy)		−0.03*	−0.05	−0.05***
		(0.02)	(0.04)	(0.02)
PAC limit (amount)		−0.00**		
		(0.00)		
PAC limit (logged)			−0.01	−0.01
			(0.01)	(0.01)
PAC limit (dummy)		−0.18**	−0.03	−0.01
		(0.09)	(0.04)	(0.03)
AUSAs per million population	0.00**	0.00***	−0.00	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Citizen ideology measure	−0.00***	−0.00***	−0.00	−0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Percent high school graduates	−0.42***	−0.35***	−0.54*	−0.38***
	(0.13)	(0.13)	(0.31)	(0.13)
Real per capita gov revenues (1000s)	0.00***	0.00***	0.00**	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Inequality: Male wages	−0.01***	−0.00**	−0.00	−0.00**
	(0.00)	(0.00)	(0.00)	(0.00)
Urbanization	0.00***	0.00***	−0.01	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Log of population (millions)	0.03***	0.02***	−0.04	0.03***
	(0.01)	(0.01)	(0.13)	(0.01)
Constant	0.30***	0.22		0.22*
	(0.07)	(0.20)		(0.13)
	Base Model	Full Model	Fixed Effects	Pooled
Observations	672	672	672	672
R^2	0.21	0.24	0.04	0.24
Adjusted R^2	0.20	0.23	−0.08	0.22
F Statistic	24.92*** (df = 7; 664)	16.19*** (df = 13; 658)	1.71* (df = 13; 598)	15.61*** (df = 13; 658)

Note: *p<0.1; **p<0.05; ***p<0.01

Discussion

On their face, the models above support two tentative conclusions and present one puzzle: First, in none of the specifications above are limits on individuals' campaign contributions correlated with either corruption convictions or corruption reflections. This evidence of absence is not absence of evidence, of course, but consistent with the hypothesis that individual donations are not a primary source of political corruption.

The second tentative conclusion is that there is a yet-unspecified relationship between limits on PAC contributions and corruption. This is true in models in which *unlogged* PAC limits are included in the models, but not when that variable, with a skew of 3.468, is logged. Given the non-normality of that variable, even when logged, it may be that a different transformation would more accurately specify these relationships. If those relationships hold, two possibilites may explain why limiting PAC donations might be associated with lower levels of corruption convictions and media coverage when individual limits are not. First, it may be that actors engaged enough in the political process to be able to corrupt public officials are likely to be entwined with, and work through, political action committees. Second, it may be that when corruption is routed through an institution such as a PAC, the number of people involved may make it more likely to be discovered, prosecuted and reported.

The puzzle in this data is the varying effects of limits on individual-to-party donations. The amount of those limits has no relationship in these models to either corruption convictions or reflections. But the presence of a limit is associated with *higher* levels of corruption convictions and *lower* levels of media coverage of corruption.[2] This suggests that states with limits on individual donations to political parties see more corruption, but less reporting on those convictions.

What are the legal and policy implications of these results? The Supreme Court

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[2]These relationships remain robust to changes in model specification, including when other donation limit variables are removed from the model.

presently equates political donations with political speech, meaning that it is protected by the first amendment, but that preventing corruption or its appearance in the political system is so important that first amendment rights can be abridged to ensure it. For the Court, no other justification–including creating a more informed electorate, or stimulating more competitive elections, or equality of financial participation in elections–is an important enough concern that we should limit political speech in the form of campaign donations. The results above suggest that state-level restrictions on donations from individuals may not be demonstrably associated with lower corruption, but that other types of donation limits (on contributions from PACs to campaigns, and from individuals to parties) may indeed be associated with lowering corruption. Such results might allow for courts to be more open to the possibility of restricting donations to and from organized groups such as PACs and parties, without having to restrict individual donations and participation in the electoral process.

Appendix A: Descriptions and Descriptive Statistics of Control Variables

In their 2012 paper "Enforcement and Public Corruption: Evidence from the American States," Glaeser and Saks make use of the following control variables, which we have included here:

- *AUSAs per million population*, where the number of general attorneys in the U.S. Attorney's office serves as a proxy for the number of federal resources focused on corruption in a particular state

- *Relative government wages*, the wages of government workers relative to that of the state in which they live, under the hypothesis that lower relative wages will make government workers more prone to corruption

- *Divided government*, where legislature and executive are controlled by different parties, *Binding one-term limits* and *Binding two-term limits*, which Alt and Lassen call "shadow of the future" variables

- *Real per capita income ($1000)*, *Unemployment*, *Citizen ideology measure*, *Percent high school graduates*, *Real per capita gov revenues ($1000)*, *Inequality: Male wages*, *Urbanization* and *Log of population (millions)*, which are included as social and demographic controls

Table 5: Descriptive Statistics of Control Variables

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Divided government	1,392	0.45	0.50	0	0	1	1
Binding one-term limit	1,392	0.06	0.23	0	0	0	1
Binding two-term limit	1,392	0.21	0.41	0	0	0	1
Real per capita income (1000s)	1,392	13,117.77	2,830.47	7,707.26	11,042.72	14,894.11	23,280.97
AUSAs per million population	1,344	12.36	5.61	2.18	8.21	15.34	36.53
Unemployment	1,296	5.88	2.01	2.30	4.50	6.90	17.40
Citizen ideology measure	1,392	46.94	15.05	8.45	36.12	56.86	95.97
Percent high school graduates	1,392	0.48	0.08	0.27	0.42	0.54	0.62
Real per capita gov revenues (1000s)	1,392	1,666.10	459.65	825.12	1,327.91	1,957.08	4,184.86
Inequality: Male wages	1,392	17.08	3.72	8.24	14.45	19.38	31.42
Relative government wages	1,392	0.10	0.01	0.08	0.09	0.10	0.12
Urbanization	1,392	67.14	21.25	24.99	48.80	83.66	100.00
Log of population (millions)	1,392	1.19	0.99	−0.93	0.47	1.79	3.57

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