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Can Contested Primaries and Turnout in Primaries Reduce Corruption and Rent-Seeking?

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Abstract

Rent-seeking and corruption involving elected officials represent a betrayal of citizen trust, and many scholars believe these acts have detrimental impacts on economic growth. This makes the study of rent-seeking and corruption an important topic. The research question presented here is whether contested primary elections and primary election turnout can help reduce rent-seeking and corruption. The reasons this might be true can be seen through connections in the scholarly literature regarding the function of political parties and organized interests, the importance of citizen engagement in holding elected officials accountable, and the increase in safe seats among legislative bodies. With more legislative seats being safe for a particular political party, the primary election may be increasing in importance relative to the general election, in terms of selecting the candidates and holding them accountable. Uncontested primaries and low turnout in primaries might possibly be fostering corruption. Data from U.S. state legislatures will be analyzed in an attempt to determine whether *greater* levels of contested primaries and contested primary turnout are associated with *less* corruption. While not conclusive, the results presented here provide some initial support for the contested primary and turnout hypothesis of corruption.

The Research Question and its Relevance

The research question is whether higher (lower) voter turnout in primary elections results in less (more) corruption or rent-seeking in state legislatures. Naturally, a precondition for such a relationship to exist would be that voters actually have a choice in the primary election, meaning that uncontested primaries would also be associated with greater levels of corruption and rent-seeking, if the research question is supported affirmatively.

This research question is critically important, as will soon be outlined. First, however, some clarification of terms is necessary. The term corruption can have both broad and narrow

applications, and both will be of interest. In one sense, corruption is a very narrow term, because when we operationalize corruption, it is typically based on the number of observed corruption convictions. However, as with most crimes, the number of identified, prosecuted, and convicted offenders is safely assumed to be less than the actual number of offenses. Additionally, it seems reasonable to expect that many elected officials operate in ways that avoid prosecutable quid-pro-quo corruption, yet still take actions that benefit campaign contributors or friendly organized groups. These particularistic favors might be socially harmful, as will soon be discussed. In order to study these types of abuses, a broader definition of corruption is necessary.

If we apply the broader definition of corruption, rent-seeking could be viewed as a particular type of corruption (Alt and Lassen 2003, 345). Rent-seeking can be defined as competition between firms for artificially contrived government transfers, which may be secured by lobbying or campaign contributions (Tollison 1982). A typical example would be a firm lobbying for the rights to have a government-granted monopoly within a particular industry or jurisdiction (Tollison 1982). Government subsidies, whereby consumers purchase goods more cheaply than in a competitive market or whereby producers earn more income, may also be obtained through rent-seeking (Schwartz and Clements 1999). Additionally, most tax preferences and particularistic tax rates can be categorized as rent-seeking (Tullock 2005, 174-177). Successful attempts at rent-seeking can be viewed as a triumph for one type of organized interest (business firms) over the well-being of a broader set of citizens. Of course, a business firm is only one type of organized interest that may attempt to sway public policy for personal gain. Studying rent-seeking by firms, however, offers benefits over studying other organized interests, because one could argue that the motives of rent-seeking firms are clear, their political activities are easy to identify, and their detrimental impacts to the overall economy have been quantified by economists. The research presented here is not meant to castigate

business firms for legitimate *profit*-seeking, but rather to operationalize individually beneficial yet socially harmful *rent*-seeking and explore one potential way to impede this behavior. Indeed, Tullock (2005) argues that an activity *must* be detrimental to society or else we cannot refer to the activity as rent-seeking.

Though corruption and rent-seeking could be thought of as distinct concepts, they are similar in that they can each be construed as a betrayal of citizens' trust, and could possibly be discouraged by an active, vigilant public. Even if one takes the view that corruption and the money influence of rent-seekers are separate concepts, analysis of convictions for illegal activities can be used to check or supplement analysis of money influence (Powell 2012, 151). If the contested primary and turnout hypothesis holds true, one could reasonably expect that higher turnout would have a mitigating effect on both corruption and rent-seeking, as defined here. To state the goal more clearly, the phenomenon to explain is the level of corruption (broadly defined), by looking at smaller, more narrow pieces, which can be more easily studied – illegal activities and rent-seeking activities. Rent-seeking, as stated previously, can be defined as private gains at the expense of broader citizen interests. Studying illegal activities and rent-seeking may be able to tell us a lot about the broadly defined concept of corruption.

The research question should be important to both scholars and citizens, because the ill effects of corruption could possibly be constrained by electoral competition and citizen participation, if the research question is supported affirmatively. The ills of illegal corruption should be readily apparent. That is, corrupt elected officials betray the trust of citizens. The reasons that make rent-seeking important to study may require some elaboration. Because it lacks any productive value, competition for rents is socially wasteful (Tollison 1982). Olson (1982) posited that interest groups seeking benefits for themselves increase the size of government and reduce overall economic growth. Mauro (1995) demonstrated that political corruption can have negative effects on economic growth and investment. Schwartz and

Clements (1999) suggest that government subsidies often lead to inefficient resource allocation, deadweight losses, over-production of subsidized goods, and redistribution of wealth that often benefits wealthy individuals more so than poor individuals. Sobel and Garrett (2002) provide a measure of forgone productive activity associated with rent-seeking. Aidt and Hillman (2008) argue that the social cost of rent-seeking is the present value of the contested rents. When social losses from rent-seeking become extreme, some would say it becomes crony capitalism. Crony capitalism can be defined as a type of rent-seeking characterized by large and consistent rents cemented by strong relationships between rent-seeking firms and elected officials, ultimately threatening market capitalism (Aligica and Tarko 2014). If illegal corruption and rent-seeking are the social ills they portend to be, identifying forms of electoral competition and citizen engagement that might curtail these activities could be quite useful.

Literature Review

Why would greater voter participation in contested primary elections reduce corruption and rent-seeking? The basis for this expectation lies at the intersection of existing literature related to corruption, rent-seeking, voter turnout, the role of elections in holding politicians accountable, and the role of political parties in serving interest groups. Highlights from this literature are briefly sketched below, and a deeper dive into specific works will follow shortly thereafter.

A logical combination of existing theories could be extended into something like the following. If parties and organized interests (rather than rank-and-file voters) dominate primaries, and primaries have become more important than general elections for determining who serves in legislatures, then organized interests should have more influence on policy in jurisdictions where turnout in primaries is relatively low. Competition for seats in general elections has declined, with many more seats becoming "safe seats" (Abramowitz, Alexander,

and Gunning 2006; Carsey et al. 2008; Niemi et al. 2006; Weber, Tucker, and Brace 1991). Thus, in modern years, primary elections may be one of the most important ways that voters express their preferences and hold elected officials accountable. Alt and Lassen (2003) find that open primaries reduce corruption in the American states. Geer and Shere (1992) argue that *intra-party* competition is important toward holding elected officials accountable. Primary elections tend to have significantly less turnout than general elections (Center for the Study of the American Electorate 2008). Thus, despite the emerging importance of primary elections, public participation and scrutiny in this context is relatively low. Many scholars conclude that organized interests are more able to influence policy when public scrutiny is low (Gordon 2001). However, scholars such as Witko (2006) and Hall and Wayman (1990) argue that organized interests can also be successful on issues with high levels of visibility.

Low primary turnout, often combined with the fact that only partisans vote in a closed primary, is likely to result in less public scrutiny of legislators. It is important to examine who benefits from low turnout elections. Despite electoral reforms, parties have been successful at steering primary elections toward electing the party's preferred candidate, particularly at the Presidential level. "Party insiders have won the [Presidential] nomination since 1976 on both sides of the aisle, in spite of the move toward greater openness" (Kaufman, Gimpel, and Hoffman 2003, 472). Advancing the group theory of parties, Bawn et al. (2012) argue that parties are dominated by interest groups, and their office-holders are able to serve organized interests while neglecting the preferences of inattentive citizens. A related concept is the "invisible primary," which refers to competition for campaign funds between candidates, often involving organized interests and occurring prior to the official primary contest when voters indicate their preferences. In the Presidential context, Steger (2013) finds support for both the invisible primary theory and the more traditional momentum theory. Interest groups and the party most sympathetic to their views are heavily linked, and they work together toward policy

goals (Anzia, 34-35). Economic donors, those seeking private gain, tend to give more to incumbents, key committee members, and party leaders (Powell 2012, 39). Regarding the source of contributions, Marshall (1997) points out that 97% of contributions to committee chairs in the Texas legislature come from interest groups. Ultimately, low election turnout benefits organized interests, at least in the context of local, general elections (Anzia 2014). Similarly, in the words of Bawn et al. (2012, 575):

> "The advantageous position of groups at the nomination stage is bolstered by lack of voter interest. Most citizens pay little attention to general elections and less to nominations. The few who vote in primaries lack the anchoring cue of candidate partisanship, rendering them open to persuasion. Media coverage of primaries is generally less heavy than in general elections, thereby increasing the impact of small amounts of paid advertising. The voters who pay closest attention in primaries often have ties to local interest groups and activists, further contributing to the capacity of policy demanders to control the outcome. Thus, the costs of providing selected politicians with what they need to win a primary election are often small. For many reasons, then, the nominations are a natural focus of interest groups and activists."

Why could the alternative hypothesis be correct? Could greater voter turnout actually increase corruption and rent-seeking? Among other variables, Meier and Holbrook (1992) test whether general election turnout or citizen education levels are associated with corruption. In one model specification, general election turnout is shown to decrease corruption; however, college educated citizenry was a more robust predictor of decreased corruption, crowding out the effect of turnout when estimated in the same model (Meier and Holbrook 1992). Powell (2008, 143) finds a negative association between a state's percentage of college-educated citizens and corruption as measured by survey data. In studies where voter turnout is the dependent variable, greater levels of education have been associated with greater voter turnout (Southwell 2008; Plane and Gershtenson 2004; Sigelman et al. 1985). Thus, if more citizens begin to vote in primaries, these marginal voters may not be as equipped to hold politicians accountable as the more educated voters they are drowning out.

Additionally, multiple scholars have demonstrated that contested and competitive races tend to increase the amount of time candidates spend fundraising (Powell 2012, 104; 113). Thus, if efforts are taken to increase voter turnout, candidates with strong backing by parties and interest groups may simply raise more money, which could reduce the ability for turnout to hold elected officials accountable. This phenomenon could present another reason why the contested primary and turnout hypothesis might not prevail over the alternative hypothesis.

Despite much literature documenting low election turnout and how to increase it, relatively little research exists regarding potential ill effects of low voter turnout. A notable exception is Anzia (2014). The theory she puts forth is that off-cycle elections, because of their low turnout, favor organized interests who gain from concentrated benefits with widely distributed costs (Anzia, 1-6). Although her work looks at off-cycle *general* elections, the theory operating in her research is quite similar to the research question under study here. Primary elections have the additional element of *intra*-party competition or lack thereof, but share in common with off-cycle elections a pronounced tendency for low turnout. Anzia (2014) focuses on government employees as an organized interest standing to gain from increased government expenditures or increases in their salaries.

In particular, Anzia (2014) studies elections impacting municipal employees and public school teachers. These are groups whose members have a strong stake in election outcomes and whose voter mobilization efforts are more likely to represent a greater portion of the electorate when turnout is low (Anzia, 20-22). By studying the characteristics and attitudes that distinguish frequent voters from non-voters and Presidential-only voters, we can shed light on how lower electoral participation produces particular outcomes (27). Most local government elections are held off-cycle, meaning the election is held on a different day than a national or statewide election (74-76). A large percentage of Americans are not aware of the election date for local election contests (81). Since the timing of elections is not a salient issue with voters,

state legislators and the interest groups that support them can have a great deal of leeway with

regard to setting the dates for local elections (82-86). Survey data show that 70% of Americans

would prefer to hold local elections on the same day as national elections, supporting the notion

that off-cycle elections are driven by something other than public demand (87-88). Groups that

benefit from off-cycle elections should be expected to resist efforts to move elections on-cycle

(99-101). Case studies in three states, Mississippi, South Dakota, and Montana, support this

claim (102-103). For example, Michigan was conducting school board elections in June,

concurrent with no other elections; voter turnout was typically 7% or less (104). In 2001, nine

Republican state legislators introduced legislation to move school board elections on-cycle; only

one Democrat voted for the bill (104). When Republicans gained control of the legislature, they

passed legislation to move school board elections on-cycle, which is different from what many

would expect, given the tendency for Republican rhetoric to favor local control (106). The results

are not surprising, however, when one considers that Democratic elected officials tend to align

with and work with teachers' unions and school board members, who stand to gain from the

low turnout afforded by off-cycle elections (101-102). To test the theory with respect to public

teachers, data from 672 school districts and eight states were gathered (130-131). Using a fixed-

effects regression model, having off-cycle elections had a statistically significant increase in

teacher pay by 1.5% for inexperienced teachers and 4.2% for experienced teachers (131-134).

To test whether this occurred through the mechanism of low voter turnout, further analysis was

performed within the context of Minnesota, where data were available (137-141). In the

Minnesota analysis, low voter turnout was associated with increased teacher pay (141-143).

Similar results were found in Texas, using a natural experiment wherein certain school elections

were moved on-cycle while others remained off-cycle (145-158).

Anzia (2014) also analyzes municipal elections within California, where data are readily

available. As one would expect, off-cycle voter turnout was lower than on-cycle turnout (173-

180). Police and firefighter unions were the focus of study, given their active participation in

politics (184). Regression analysis showed that firefighters' wages were approximately $5,000

greater when off-cycle elections are held, and their total compensation was $13,000 greater

under these circumstances (188-191). The analysis suggested that off-cycle elections did not

increase police salaries, but they did increase total police department spending (192-198). In the

author's own words,

> "Off-cycle election timing is an electoral rule that substantially reduced the likelihood
> that elected politicians will have to answer to majorities. In a twist of the optimistic
> pluralist conclusion, the electoral process can become a vehicle for interest group
> capture rather than a force that prevents it… especially when it comes to issues not
> visible to the public, the positions political parties take can go against what majorities of
> citizens want if doing so pleases the interest groups that make up their coalitions" (210).

Despite much literature devoted to discussing why citizens abstain from voting, less has

been written regarding what separates primary election voters from other types of electoral

participants. Some notable exceptions are discussed here. As compared to all party identifiers,

Bartels (1988) found that primary voters had only slightly greater incomes, but were

meaningfully older, lived in their communities longer, were more likely to own their home, and

attended religious services more frequently. Additionally, primary voters paid more attention to

politics, were more informed about politics, consumed more media, and were more interested

in the campaign (Bartels 1988, 147). Nownes (1992), using a multinomial logit model, finds only

subtle differences between primary voters and general election voters. Primary voters, relative

to general-election-only voters, have greater levels of campaign interest and histories of prior

voting; the level of competition in the primary may also induce greater primary participation

(Nownes 1992, 216-217). Several scholars agree that older age is a strong predictor of voting in

both elections (primary and general) as opposed to voting only in general elections (Norrander

1996, 888). In the 2008 nominating contests, greater strength of attitudes, political interest, and

political activism were associated with primary turnout, while residing in a caucus state

decreased turnout (Hersh 2012, 702-703). Presuming that attending a caucus is an even greater commitment than primary voting, Hersh (2012) also analyzed the differences between these two participants and found that only community engagement – and not political factors – distinguish caucus goers from primary voters.

The literature regarding why some people vote and others abstain also includes research focused on voter alienation and indifference. This literature is important in the context of this paper, because it touches on how and why voters come to feel that neither political party is serving their interests. Zipp (1985) defined alienation as voters' belief that neither candidate is near to their policy preferences; he defined indifference as voters' belief that the candidates are indistinguishable from one another in their policy positions. Using data from the American National Election Studies (ANES) and measuring the distance between the respondents' issue positions and candidates' issue positions, both alienation and indifference contributed to non-voting between 1968-1980 (Zipp 1985). Indifference, the belief that candidates were echoes of one another, was believed to be a greater factor contributing to non-voting during this period (Zipp 1985, 58). Southwell (2008) found that meaninglessness, powerlessness, and cynicism were significant in lowering turnout, but that cynicism can also be a mobilizing factor for individuals with greater levels of efficacy. Alienation and indifference were associated with non-voting between 1980-1988 (Adams, Dow, and Merrill III 2006). A spatial study of 1988-1992 ANES data showed that citizens abstain from voting when they feel alienated or indifferent with respect to Senate candidates (Plane and Gershtenson 2004).

A great deal of literature, much of it following in the rent-seeking tradition, attempts to analyze the ability of business firms to influence public policy for private gain. Gupta and Swenson (2003) find that campaign contributions to tax-writing committee members that were given by firms' political action committees (PACs) and the firms' senior managers resulted in tax benefits for the firm. After controlling for many drivers of stock market returns, Cooper, Gulen,

and Ovtchinnikov (2010) find that stock market returns are greater for corporations who make campaign contributions to more candidates, to powerful candidates, to candidates in a position to help the firm, and to candidates with whom they have a strong relationship.

In a broader context than firms' rent-seeking, other scholars have also studied the influence of organized interests on public policies. Looking at House committees, Hall and Wayman (1990) argued that campaign donors can influence committee activity and legislator involvement. Coate (2004) argues that interest groups give campaign contributions with the expectation of policy favors. Witko (2005) finds that a $10,000 PAC contribution increased legislators' predicted probability of voting in the group's favor by 4%. Eschewing traditional floor vote studies and instead analyzing an important California state legislative committee, Gordon (2001) found that campaign money influences *critical* committee votes, those where the member's "aye" vote was part of a bare majority voting bloc or one of the "nay" votes. Conducting a meta-analysis of existing literature, Stratmann (2005) rejects the hypothesis that campaign contributions have no effect on voting behavior. Bonica (2013) models the ideological location of several PACs, imputed using PAC contribution data, and shows that most PACs' ideal points lie in between those of the two major parties, thus supporting the notion that PACs are not giving based on an ideological bent, but rather in anticipation of favors. Often times, scholars who believe that campaign contributions influence public policy are described as following an "investment model" of campaign contributions.

Others dispute the investment model of campaign contributions or posit that campaign contributions do not influence policy to a great extent. Ansolebehere, de Figueiredo, and Snyder (2003) note that corporate campaign contributions are relatively small, and they model roll-call voting using controls for district ideology and legislator ideology, finding no significant effect for corporate contributions; the authors view campaign contributions as consumption goods. Cassie and Thompson (1998), looking at PAC contributions to incumbent legislators in certain states,

11

argue that the low level of contributions to incumbents supplies evidence that money influence

may be muted. Milyo, Primo, and Groseclose (2000) also dispute the idea that corporate PAC

contributions are highly influential in public policy and ask us to consider,

> "Why are [PAC contributions] such a small proportion of total campaign spending? Why
> do so few PACs give the maximum contribution allowed by law? Why is so little PAC
> money given to Presidential candidates? Why is so little given to Senators who are not
> running for reelection? Why do corporations allocate so much more money to lobbying?
> Why do corporations allocate even more money to philanthropy?" (85)

Powell (2012), following the investment model of campaign contributions, uses time

spent on fundraising by state legislators to predict survey responses of state legislators

regarding the extent that campaign contributions impact public policy. Survey data is used

instead of floor votes, because studying floor votes can fail to detect influence that manifests

itself in how bills are amended and pigeonholed, while also ignoring the settings and situations

in which influence is more prevalent (Powell, 5-7). In addition, floor votes may fail to detect

influence, because, as pointed out by practitioners in the political world, donors and politicians

use strategies to conceal money influence, given that quid pro quo favors are illegal (17-18).

Legislators attempt to strike a balance between severing donors and remaining attuned to

citizen preferences (7). Legislators are expected to raise money not only for their elections, but

also for the party, and this is especially true for chamber leaders and those with leadership

aspirations (9-10). Measuring corruption through survey data has precedence on a global basis,

as evidenced by wide acceptance of the Transparency International Corruption Perception Index

(19-21). The survey utilized for the author's study was conducted in 2002 and had widespread

participation, with 40% of the nation's state legislators participating (21). Bias should be

minimal, because legislators were asked about money influence in the chamber as a whole,

rather than their personal level of corruption; while legislators could be untruthful regarding the

level of money influence, we have no reason to suspect they would lie in some states more than

others (21-22). Regarding campaign contribution data, these are sourced from the National

Institute on Money in State Politics (53). Survey data included the time a legislator spends fundraising (60). The variable for time spent on fundraising was associated with a statistically significant increase in the chamber-level score measuring the influence of campaign contributions (134).

Powell (2012) did not directly test the level of campaign contributions as a predictor of money influence. Time spent on fundraising is tested instead, because the author believes this measure better reflects the level of contact with donors (Powell 2012, 136). It is unclear how the results might have differed if an alternative specification using total campaign spending had been analyzed.

A rich literature exists regarding how elections and competition may or may not hold elected official accountable. First, several scholars have documented the decline in competitive legislative seats and the related increase in "safe seats." The number of U.S. House races decided by less than 10 percentage points declined steadily from 22% in the 1940s to 7% in the 2002-2004 elections (Abramowitz, Alexander, and Gunning 2006). At the state level, Weber, Tucker, and Brace (1991) find a decline in the number of contested and marginal races in the lower chambers of state legislatures between 1950 and 1986, which they and others refer to as "vanishing marginals." Examining state legislative races between 1972 and 2002, Carsey et al. (2008) show that the percentage of races decided by less than 10 percentage points declined to below 30% for the lower chambers and just over 30% for upper chambers. In 2002, one-fourth of state legislators ran unopposed in both the primary and general election (Powell 2012, 34). In 2004, a total of 172 U.S. House candidates either had no major party competition or won by at least 40 percentage points (Abramowitz, Alexander, and Gunning 2006).

Directly relevant for the proposed hypothesis are works attempting to show how turnout, primaries, and *intra*-party competition can change the competitive landscape or reduce corruption. Johnston (1983) showed that greater (general) election turnout is associated with

reduced levels of corruption convictions. Using exit poll data from 1988-2000, Kaufman, Gimpel,

and Hoffman (2003) find that structural differences in presidential primary elections can affect

the demographic composition of the electorate. In Democratic nominating contests, early and

competitive primaries are associated with a younger and more liberal primary electorate

(Kaufman, Gimpel, and Hoffman 2003, 466). In Republican nominating contests, open primaries

are associated with a less conservative and younger primary electorate (Kaufman, Gimpel, and

Hoffman 2003, 466). The authors conclude that,

> "Should states continue to reform their existing primary structures, opening up the
> selection process to greater numbers of nonparty affiliated voters, the hold that
> Democratic and Republican party elites have over their respective nominations will most
> certainly become weaker… On the other hand, parties do have other means of control,
> including fundraising for a now highly front-loaded system where only the party
> anointed stand a chance." (Kaufman, Gimpel, and Hoffman, 471-472)

Ansolebehere et al. (2010) argue that progressive reformers around the turn of the 20th

century had initial success increasing *intra*-party competition for nominations; however, recent

primary elections have been less effective for fostering competition. In the view of progressive

reformers, elites of both political parties chose nominees based upon who would satisfy the

interests of economic elites (Ansolebehere et al. 2010, 192). In many states, "the leading

political party did not compete for the voters' favor because it did not have to. It was a

monopolist, and it acted like one" (192). At work was a combination of corruption within

political parties and a fierce voter allegiance to a chosen political party (193). The authors gather

statewide and federal election data for both primaries and general elections from 1900-2004

(194). From the 1910s through the 1930s, nearly three-quarters of the winning candidates had

to face a significant level of competition either in the primary or the general election; one-

quarter of the time, the only competitive race was the primary (195-196). From the 1940s

through the 1960s, the percentage of primaries that were contested declined from the 50-60

percent level to around 40 percent (197-198). By the 1990s and 2000s, the percentage of

nominees who won their primary by less than 60 percent of the vote declined to less than 20

percent of nominees, compared to the 1930s high of around 40 percent (196-197). The authors

do not take a stance on the normative worth of primaries, but conclude that primary elections

have declined in importance because of the increasing re-election rates of incumbents (201-

203).

Geer and Shere (1992) provide a provocative rhetorical argument that genuine *intra*-

party competition, such as in primaries, is necessary in order for voters' needs to be addressed

by elected officials. Using the logic of the prisoner's dilemma, with political parties in the role of

prisoners, parties attempt to increase their chances of winning by providing benefits to voters,

party workers, and favored interest groups (Geer and Shere 1992, 744-746). Similar to the

prisoners, if the two parties cooperate with each other, they will benefit at the expense of

society, who's "interests are at odds with the interests of the parties" (746). Cooperation

between the major parties might involve ignoring issues that matter to citizens, failing to point

out the major shortcomings of general election opponents, rejecting reform-oriented

candidates, and erecting strategies for deterring third parties and protecting incumbents, as well

as reaching agreement on how to split the benefits of government control (747). If parties

instead acted like the prisoners who defect in the prisoner's dilemma, both parties would

receive fewer benefits from public office-holding and society would benefit (748). Because party

leaders are sophisticated players, we should expect them to cooperate, rendering that "general

elections may systematically fail to meet the needs of the electorate" (750-751). As a remedy,

meaningful *intra*-party competition in nominating contests allows insurgent candidates to

challenge current leadership, forcing these leaders toward the preferences of voters (753). To

the extent that barriers to candidate entry are low and widespread electoral participation

occurs, party leadership may be unable to maintain their positions solely by pleasing favored

groups (753). Shifting from a rhetorical to an historical example, the authors provide the

following depiction of North Dakota government at the turn of the 20th century:

> "[Government] was run by banking, railroad, and shipping interests with the
> cooperation of both Democrats and Republicans. These politicians received their share
> of patronage and graft. More importantly, at the policy level, the farmers, who made up
> nearly 70% of the state, were losing a substantial portion of their income to the business
> interests... Arthur Townley, a bankrupt farmer, organized an insurgent faction – the
> Non-Partisan League (NPL)... because North Dakota had a system of primaries that
> provided access to the nominations for various state offices, the NPL did not face the
> uphill battle of a third-party bid. Instead, the organization used these primaries to
> generate a wave of popular support that allowed it to capture control of the state
> government within three years. Once in office, the NPL enacted its program of
> government to protect the farmers' interests" (757).

The following analyses will test the impact of contested primaries and contested

primary turnout on corruption and rent-seeking. The findings could potentially make a

contribution to what we know about the ill effects of low voter turnout. Additionally, findings

that support the contested primary and turnout hypothesis could argue for shifting attention

away from general elections and toward primary elections, as the latter may be more important

for holding elected officials accountable in the modern-day United States.

Data Collection

In the following analyses, the testing grounds for the contested primary and turnout

hypothesis will be state legislatures in the United States. State legislatures provide a rich cross-

sectional data set wherein one can study the impacts of *intra*-party competition and primary

election turnout on corruption levels.

The dependent variables that measure corruption were obtained though survey data

compiled by Oguzhan Dincer and Michael Johnston. Dincer and Johnston (2014) compiled data

in a similar fashion as Boylan and Long (2003), by conducting a survey of reporters who follow

state politics and asking them to rank the level of corruption they perceive within their state

legislature. Boylan and Long conducted their survey of state reporters during 1999 and received

16

a total of 293 responses (Boylan and Long 2003). A total of 280 reporters responded to the 2014

survey (Dincer and Johnston 2014). The Dincer and Johnston survey data are used in the

following analyses for the obvious reason that the data were compiled more recently. No

reporters responded from the state of Louisiana, which is unfortunate given its history of

perceived corruption (Dincer and Johnston 2014).

The survey produced measures of corruption for both "illegal corruption" and "legal

corruption." The data authors define legal corruption as "the political gains in the form of

campaign contributions or endorsements by a government official, in exchange for providing

specific benefits to private individuals or groups, be it by explicit or implicit understanding."

(Dincer and Johnston 2014). Thus, the legal corruption measure can be viewed as a way to

operationalize rent-seeking. It speaks to the ability of elected officials to favor the interests of

campaign donors without crossing the legally defined line of quid-pro-quo corruption. Regarding

the illegal corruption measure, it is described as "the private gains in the form of cash or gifts by

a government official, in exchange for providing specific benefits to private individuals or

groups." (Dincer and Johnston 2014). If the provided definitions of illegal and legal corruption

seem similar or blurry, that likely reflects the fine line elected officials might be walking when

they tread as close to the legal limits as possible without crossing them. Because both narrow

and broad conceptions of corruption are of interest, both the illegal corruption and legal

corruption variables will be modeled.

From the Dincer and Johnston (2014) survey of political reporters, we have two ordinal

scales, one measuring illegal corruption and one measuring legal corruption. Higher values on

the scales indicate greater levels of corruption as perceived by the respondents. Below, Table 1

shows the states at the most extreme levels on the corruption scales. The raw data from Dincer

and Johnston (2014) include some states with corruption scores in between a full integer value.

Where this occurred, corruption scores were recoded, with the half-point scores becoming a

new integer category. The states in the next bucket of scores were then moved up accordingly,

and so on. For example, on the illegal corruption scale, Wyoming's score was 1.5. Thus,

Wyoming was moved into the "2" category. The states that were already in the "2" category

were then moved into the "3" category, and so on. Prior to rescaling the corruption scores, a

value of "5" indicated the highest level of corruption. After the rescaling, the scores for illegal

corruption ranged from 1 to 7. The rescaled scores for legal corruption ranged from 1 to 8.

Additional recoding of the raw scores occurred later in the analysis, which will be covered later.

Table 1. States Scoring at the Extreme Levels on the Corruption Scales (Raw Scores)
Note: Prior to rescaling, the highest category for the raw scores was 5; however, no state scored in the highest category on the illegal corruption scale.

	Raw Corruption Scores		Raw Corruption Scores
States with the Highest Illegal Corruption		**States with the Highest Legal Corruption**	
Alabama	4	Alabama	5
Arizona	4	Illinois	5
California	4	Kentucky	5
Florida	4	Montana	5
Illinois	4	New Jersey	5
Indiana	4	Nevada	5
Kentucky	4	New York	5
New York	4		
Pennsylvania	4		
Rhode Island	4		
States with the Lowest Illegal Corruption		**States with the Lowest Legal Corruption**	
Idaho	1	Massachusetts	1
Massachusetts	1	Vermont	1
Maine	1		
North Dakota	1		
New Hampshire	1		
South Dakota	1		
Vermont	1		

Dincer and Johnston (2014)

The first independent variable of interest is a variable measuring the degree to which primaries are contested. Contested primaries will be defined as those primaries where the number of candidates running is greater than the number of candidates who will advance to the general election to represent his or her party. Defining contested primaries in this way accounts appropriately for both single-member districts and multi-member districts. In other words, contested primaries give voters a choice, rather than the alternative, where the candidate who filed for the race automatically advances to the general election. If the contested primary and turnout hypothesis is supported, cases where a greater proportion of primary races are contested would be expected to have lower levels of corruption. Underlying the theory is the expectation that *intra*-party competition is an essential component of holding elected officials accountable. In other words, legislators might curtail the degree to which they favor campaign donors and interest groups, if they fear they might face competition in a primary election. Informed by the scholars studying "vanishing marginals," one might expect that primary elections have increased in importance relative to general elections as a way to hold elected officials accountable. To obtain the specific measure of the *percent* of elections that are contested, the number of contested elections is divided by the number of seats that are up for election. Each partisan primary is considered to be a separate election, meaning that the Republican side of the seat might be contested, while the Democratic side might not, and vice versa. The number of contested elections and the seats that are up for election are calculated separately for the lower and upper chambers, resulting in separate percentage figures for each chamber within a state. Then, the two figures (one for each chamber) that measure the percentage of contested elections are averaged, consistent with the idea that the two chambers are roughly co-equal in their ability to create public policies.

The second independent variable of interest is a variable measuring the level of voter

participation in contested primary elections. The hypothesis posits that a greater level of voter

participation in contested primary elections would send a message to elected officials who

might otherwise provide favored policies to donors and interest groups, that doing so may

arouse the interest and anger of a larger and broader audience of voters. Thus, if the hypothesis

holds true, one would expect that increased voter turnout in primaries would reduce corruption.

Turnout in primary elections was calculated in a nuanced way. In order for state legislators, in

the aggregate, to get the message that a large bloc of voters are repudiating their policies,

turnout in primaries would need to be prevalent on a large scale. Moreover, the turnout in

primary elections would need to be focused in the *right* elections, that is, the contested

elections. High voter turnout in elections where the candidate is uncontested would not be

capable of sending a message to elected officials.

For these reasons, primary turnout is calculated as the number of votes cast in

contested primary elections divided by an adjusted figure for voting eligible population (VEP).

That is, the denominator is the number of eligible voters who are represented by the seats that

are up for election in the latest election year. In other words, the VEP is divided by the number

of legislative seats and then multiplied by the number of seats that are up for election. The

number of seats is a more appropriate measure than the number of districts, because some

states use multi-member districts. In dividing the voting eligible population by the number of

seats up for election, one assumes that any given legislative seat within a state represents an

equal number of voters. This is a reasonable assumption, because districts are usually drawn to

have approximately equal numbers of citizens. Similar to the first independent variable, the

number of votes cast and the appropriate population figures are calculated separately for the

lower and upper chambers. Then, the turnout measures for the two chambers are averaged,

consistent with the idea that the two chambers are roughly co-equal in their ability to create

policy. As an aside, Nebraska has a non-partisan, unicameral legislature. In this case, the figures used are those for the one and only chamber. Though Nebraskan legislative elections are non-partisan, the primary does whittle down the field of candidates, as not all candidates advance to the general election.

Data for the two independent variables of interest were obtained from individual state government websites, given the need to calculate measures at the legislative seat level. Where necessary, adjustments were made to account for multiple-winner districts and contests where citizens vote for more than one candidate in the same race. When citizens vote for two (or more) candidates in one contested primary election, the number of votes cast are divided by two (or more), in order to avoiding overstating voter turnout. In other words, in two-winner races, each voter went to the polls once even though they voted for two candidates.

Primary election data were not collected for New Hampshire, given the extreme difficulty associated with compiling data in similar fashion as the other states. In New Hampshire, some, but not all districts elect more than one state representative. The state also allows both Republicans and Democrats to run in each party's primary election, thus altering the meaning of the primary as the way a party selects its nominee. Additionally, New Hampshire has more state legislators than any other state (424), which is many more than the next highest state, Pennsylvania, which has 253 legislators and nearly 10 times the population of New Hampshire.

The independent variables, including several control variables, are presented in Table 2 below. The control variables emanate from scholarly literature attempting to explain corruption. Many scholars have modeled the predictors of corruption based on survey responses (see Alt and Lassen 2003; Goel and Nelson 2011; and Powell 2012) and for corruption convictions (see Johnston 1983; Meier and Holbrook 1992; Goel and Nelson 2011). In selecting variables for this

analysis, particular emphasis was placed on those works focusing on survey-based measures of corruption across the American states.

Table 2. Independent Variables

	Studies employing	Our data source	Expected Sign
% of primaries contested	--	State websites	−
Primary election turnout	--	State websites	−
Open primary	Alt and Lassen (2003)	NCSL*	−
General election turnout	Johnston (1983) Meier and Holbrook (1992)	U.S. Election Project[+]	−
Number of ballot measures	Alt and Lassen (2003)	NCSL*	−
Term limits	Powell (2012)	NCSL*	−
Campaign donor limits	Alt and Lassen (2003)	NCSL*	−
Education level	Alt and Lassen (2003) Goel and Nelson (2011) Meier and Holbrook (1992) Powell (2012)	U.S. Census Bureau	−
% metropolitan	Alt and Lassen (2003) Goel and Nelson (2011)	U.S. Census Bureau	+
Number of interest groups	Alt and Lassen (2003)	Internal Rev. Service	+
Number of legislative seats	Powell (2012)	Council of State Gov#	+
Legislative seat population	Powell (2012)	Ratio of VEP to seats	+
Government worker salaries	Alt and Lassen (2003)	U.S. Census Bureau	+

*National Conference of State Legislatures
+McDonald, Michael P. Years 2010 and 2012. "Voter Turnout." *United States Elections Project*. November 2015.
#The Council of State Government's Book of the States for 2010 and 2011

Six of the identified control variables are expected to reduce corruption, according to existing literature. These variables are included in the analyses that follow, in order to account for the possibility that these previously supported predictors explain decreases in corruption to a greater degree than our independent variables of interest. Three of these expected negative predictors represent electoral or participatory features that might reduce corruption. These include the presence of an open primary system, general election turnout, and the number of ballot initiatives.

The variable for open primaries is included to control for the possibility that the mere openness of the primary accounts for observed corruption-reducing effects. Turnout in the general election is included in the models to control for the possibility that the general election remains the best way to hold elected officials accountable, despite the presence of "vanishing marginals." Ballot initiatives have the potential to "increase accountability while decreasing rents" (Alt and Lassen 2003, 350).

Five of the identified control variables are expected to *increase* corruption, including the percentage of the state that is metropolitan, number of interest groups, number of legislators, legislative seat population, and total state government worker salaries relative to total state personal income.

Coding of specific variables involved some discretion. Regarding open primaries, states with a "top two" primary were coded as having an "open" primary, because top-two primaries are consistent with the ideal of freeing up primary elections from being solely partisan. The indicator variable for open primary is thus coded as "1" for both open and top-two primaries and "0" for closed and hybrid primaries.

Data for general election turnout was primarily obtained from the United States Election Project. General election turnout was measured as the votes cast in the election for the highest office, divided by the voting eligible population (VEP). General election turnout was obtained for the same year that the primary election turnout was calculated. Three states, Mississippi, New Jersey, and Virginia, had legislative elections during 2011, so general election turnout data was sourced directly from the state government websites in these cases.

Like many other variables, campaign donor limits were obtained from the National Conference of State Legislatures (NCSL). The indicator variable was coded as "1" for states that had any type of limit on corporate contributions given directly to electoral candidates. The focus on corporate contributions is consistent with our interest in rent-seeking by business firms.

In the following analyses, trade associations are the preferred way to measure interest groups, in light of our particular interest in rent-seeking by business firms. The data source is the Internal Revenue Service's Exempt Organizations Business Master File. Trade associations were identified as those tax-exempt businesses and professional organizations with classification codes that indicate they are a board of trade, business league, or real estate board. Consistent with Bischoff (2003), Chambers of Commerce were excluded. Excluding Chambers of Commerce is also consistent with Olson (1982), who posited that associations representing a broader variety of interests tend to care about overall economic growth more so than narrow favors for particular firms or industries (Olson 1982, 48-50). The number of trade associations were adjusted to a per capita basis, because states with larger populations or larger economies would naturally tend to have more trade associations, which would likely result in a conflation of state size and the presence of organized interests.

Legislative seat population was calculated as the VEP (obtained from the U.S. Elections Project) divided by the number of legislative seats (obtained from the Council of State Governments). Because Nebraska has a unicameral legislature that is widely regarded as the de facto upper chamber, the upper chamber was used for each of the states in order to calculate the average number of constituents per seat. The correlation between the upper chamber figures and lower chamber figures for seat population were 0.91, indicating very little difference between which measure is used.

Wherever possible, data for independent variables were captured for years immediately prior to 2013. This stems from the fact that the survey of corruption asked state reporters about corruption levels during the 2013 legislative session (Dincer and Johnston 2014). The contested primary and turnout figures were collected for various election years. For each state, the most recent legislative election year prior to 2013 was utilized as the year in which primary election data were gathered.

Data Analysis: Method One

Data analysis began with ordered logit regression models. This approach is appropriate because of the ordinal nature of the dependent variable. Each survey response value indicates a higher level of corruption than the preceding value, and the variable can only take on values in increments of one (i.e. it is not continuous). Two different models are estimated, one for the illegal corruption variable and one for the legal corruption variable. Within each of these models, two different specifications were estimated, one for each independent variable of interest. The first of these variables is the percentage of primaries that were contested. The second is the votes cast in contested primaries as a percent of the adjusted VEP. The variable for percent of primaries contested could not be included in the same model as the primary turnout variable, given the high correlation (.70) between the two measures.

Based on analysis of cut-points, certain values of the dependent variable were consolidated into other categories. In the illegal corruption model, category 2 was consolidated into category 1, while categories 5 and 6 were consolidated together. In the legal corruption model, category 3 was combined with category 2, while categories 4 and 5 were consolidated.

Results from the ordered logit regressions are shown in Tables 3 and 4 below. Table 3 shows results for illegal corruption. Table 4 shows results for legal corruption. As expected, the variable for percent of primaries contested shows a negatively signed and statistically significant effect on illegal corruption at the 5% significance level. This evidence provides some initial support for the hypothesis, at least with regard to the contested primary portion of the hypothesis. The other three estimations fail to indicate a statistically significant relationship between corruption and the independent variables of interest. However, the coefficients of interest are signed in the expected (negative) direction in each of the four estimations.

General election turnout and the number of ballot measures are the control variables measuring electoral or democratic participation. Neither general election turnout nor ballot initiatives show a statistically significant impact on corruption in any of the four estimations. However, both are signed in the expected (negative) direction in the model for legal corruption.

Table 3. Ordered Logit Regression Results for Illegal Corruption

	Specification 1		Specification 2	
Number of Observations	48		48	
Log Likelihood	-56.352		-58.250	
AIC	132.703		136.500	
BIC	151.415		155.212	
	Coefficient	z	Coefficient	z
% of primaries contested	−0.068	−2.06	--	--
Votes in contested primaries %VEP	--	--	−0.078	−0.80
General election turnout	0.004	0.13	0.003	0.10
Number of ballot measures	0.025	0.25	0.006	0.06
Education factor	−2.612	−3.35	−2.424	−3.09
% metropolitan (squared)	0.001	3.29	0.001	3.04
Ln trade associations per 1000	0.763	0.50	0.746	0.50

Table 4. Ordered Logit Regression Results for Legal Corruption

	Specification 1		Specification 2	
Number of Observations	48		48	
Log Likelihood	-69.603		-69.332	
AIC	161.206		160.664	
BIC	181.790		181.247	
	Coefficient	z	Coefficient	z
% of primaries contested	−0.009	−0.27	--	--
Votes in contested primaries %VEP	--	--	−0.078	−0.79
General election turnout	−0.025	−0.83	−0.028	−0.91
Number of ballot measures	−0.127	−1.39	−0.124	−1.35
Education factor	−1.973	−2.71	−2.069	−2.82
% metropolitan (squared)	0.000	2.48	0.000	2.39
Ln trade associations per 1000	1.194	0.86	1.330	0.95

The other variable in these models that is expected to reduce corruption is the level of education. The variable for education was created using factor analysis. In this way, the percent of state residents with a high school education was amalgamated with the percent of state residents with a college education. This alleviated the need to pick only one of the variables, which could have resulted in different coefficient estimates for variables that are attempting to measure the same concept of educational attainment. The factor analysis produced an eigenvalue of 0.69, and each of the two separate measures of educational attainment achieved a 0.59 correlation to the new factor. As expected, the factor for educational attainment produced a negative and statistically significant effect on corruption in each of the estimations.

The two factors appearing in this model that are expected to increase corruption are percent metropolitan and trade associations per capita. Non-linear transformations of these variables were utilized in order to address non-normal distributions. Prior to squaring the percent metropolitan variable, it evidenced skewness on the left-hand side of its distribution, which was largely corrected when squared. The natural log was applied to the values for trade associations per capita in order to address skewness on the right-hand side of its distribution. As expected, the percent metropolitan variable showed a positive, statistically significant relationship with corruption in each of the estimations. The variable for trade associations failed to achieve statistical significance.

The ordered logit models estimated above have some meaningful limitations. In order to be an appropriate model, the parallel regression assumption (PRA) must not be violated. In other words, the independent variables are supposed to have a similar impact upon each of the categories of the dependent variable, or else the coefficients cannot be trusted. The estimations shown in Tables 3 and 4 included only those variables that, if included in the model, would not cause the model to badly violate the parallel regression assumption. The parallel regression assumption was tested using the Brant Test. The results from the Brant Tests are shown in Table

6 of the Appendix. Specification 2 of the legal corruption model shows a modest violation of the

Brant Test; the variables largely responsible for the violation are those for percent metropolitan

and trade associations. Again referring to the PRA violation of this particular estimation, the

impact of the independent variables seems to be most uneven at the lowest category of

corruption. Several attempts were made to identify alternative specifications, with either

different variables or a greater number of variables, which would not violate the parallel

regression assumption. However, the variables shown in Tables 3 and 4 are believed to be the

best and only models that are possible to be estimated without badly violating the PRA. This

limitation meant that only a handful of the variables expected to predict corruption were able to

be utilized.

In perusing alternative model estimations, attempts were made to utilize a different

regression technique, namely a generalized ordered choice model. However, attempts at

generating a workable model using this method were frustrated by the fact that negative

predicted probabilities were being estimated. In the estimations that were attempted, negative

predicted probabilities were frequently present in a majority or more of the cases, rendering

these models unworkable.

<u>Data Analysis: Method Two</u>

In order to more fully assess the impact of contested primaries and their related

turnout, an additional method was utilized. The two dependent variables were morphed into a

form that could be estimated using ordinary least squares (OLS) regression. The raw Dincer and

Johnston (2014) corruption scores for illegal corruption and legal corruption, which were 0.70

correlated, were combined into one standardized, scaled corruption index. With this

transformation, 25 unique values exist among the 49 states with corruption data. Thus, the

dependent variable has begun to have characteristics that are more in line with those of a

continuous variable. This approach had certain advantages. First, the ability to perform

diagnostics and their related corrections was enhanced. Secondly, each of the control variables

from Table 2 could be introduced. This contrasts meaningfully with the ordered logit models.

With the ordered logit models, only five control variables could be utilized, and still, a small

violation of the PRA was present in one estimation. With the ordered logit models, attempts at

including more than those five control variables resulted in extreme violations of the PRA,

leaving us unable to account for the effects of six control variables identified as important in the

literature.

Using OLS regression, each of the control variables from Table 2 were regressed against

the new dependent variable that measures overall corruption. Diagnostic tests revealed the

presence of high-leverage and influential cases (see Figures 5 and 6 of the Appendix). This was

true despite several independent variables having been transformed by taking the natural log or

the square of their initial values. The highly influential cases were likely biasing the t-tests of the

OLS model. When overall corruption was regressed on the percent of contested primaries and

the control variables, the influential cases included Arkansas, Michigan, Montana, Texas, and

Virginia, based on Cook's d. When overall corruption was regressed on contested primary

turnout and the control variables, the influential cases included Montana, Texas, and Virginia. To

correct for these persistent high-influence cases, the final regression estimations were produced

using the robust regression technique. Texas and Virginia were assigned no weighting in the

robust regression of corruption on percent of contested primaries, effectively dropping them

from the model. Likewise, Montana, Texas, and Virginia were assigned no weighting in the

robust regression of corruption on contested primary turnout. The results of the robust

regressions are shown in Table 5 below. Residual plots from the robust regressions are shown in

Figures 7 and 8 of the Appendix.

As shown in Table 5 below, the coefficient for percent of primaries contested was in the expected (negative) direction and statistically significant at the 5% level. The coefficient for contested primary turnout was negative and significant at the 10% level. In both specifications, each of the control variables that were statistically significant were signed in the expected direction. For sake of comparison, the OLS regressions estimated prior to the robust regressions produced a t-statistic for contested primaries of -1.01 and a t-statistic for contested primary turnout of -0.42. However, as previously mentioned, the t-statistics from the OLS regressions may be biased due to the presence of high-leverage cases.

Table 5. Robust Regression Results for the Standardized Corruption Index

	Specification 1		Specification 2	
Number of Observations	48		48	
Model degrees of freedom	12		12	
Error degrees of freedom	35		35	
F	8.64		9.00	
Pr > F	0.00		0.00	
	Coefficient	**t**	**Coefficient**	**t**
% of primaries contested	−0.024	−2.22	--	--
Votes in contested primaries %VEP	--	--	−0.059	−1.70
Open Primary (1=Yes)	0.077	0.34	0.005	0.02
General election turnout	−0.028	−2.72	−0.026	−2.61
Number of ballot measures	−0.069	−1.91	−0.053	−1.45
Term limits (1=Yes)	0.167	0.62	−0.103	−0.38
Corporate donor limits (1=Yes)	−0.103	−0.37	−0.205	−0.75
Education factor	−1.213	−5.34	−1.095	−4.83
% metropolitan (squared)	0.000	3.69	0.000	2.88
Ln trade associations per 1000	1.619	3.44	1.250	2.66
Ln number of legislators	0.663	1.98	0.480	1.45
Ln seat population	0.234	1.26	0.300	1.60
Ln govt. pay % of personal income	−0.063	−0.14	−0.107	−0.24
Constant	−2.926	−1.24	−2.996	−1.28

The substantive meaning of the robust regression results can now be evaluated, particularly for Specification 1, which was significant at conventional levels. The model suggests that a one percentage point increase in contested primaries would result in a .024 decline on the standardized corruption scale. The percent of primaries contested had a mean value of 19.7% and ranged from a low of 4.1% (Connecticut) to a high of 46.5% (Michigan). Starting at the mean, a five percentage point increase in contested primaries would move the average state up twelve rankings (out of 50 states) on this measure. This five percentage point increase in contested primaries would result in a .12 decrease on the standardized corruption scale. The mean value of the standardized corruption scale is near zero. Moving lower from the mean value on the corruption scale by .12 would move a state down four rankings (out of 50 states) on the standardized corruption scale. In other words, moving up twelve rankings in terms of contested primaries is associated with moving down four rankings on the corruption scale.

Although the variable for contested primary turnout was only statistically significant at the 10% level, a brief substantive interpretation for this variable may still be worthwhile. The model suggests that a one percentage point increase in contested primary turnout results in a .059 decline on the standardized corruption scale. The mean value for contested primary turnout is 5.0% and ranged from a low of 0.5% (New York) to a high of 13.9% (West Virginia). If these numbers sound small, recall that contested primary turnout is measured as votes cast in contested primary elections within a state divided by the adjusted VEP; these turnout figures are, therefore, lower than the rate of turnout *within* contested primary elections. Starting at the mean, a five percentage point increase in contested primary turnout would move the average state up fifteen rankings (out of 50 states) on this measure. This five percentage point increase in contested primary turnout would result in a .29 decrease on the standardized corruption scale. The mean value of the standardized corruption scale is near zero. Moving lower from the

mean value on the corruption scale by .29 would move a state down eight rankings (out of 50 states) on the standardized corruption scale. In other words, moving up fifteen rankings in terms of contested primary turnout is associated with moving down eight rankings on the corruption scale.

Table 7 of the Appendix contains alternative specifications of the robust regression model. In these specifications, steps were taken to address variables with somewhat high correlations to one another. Ballot measures and term limits, which share a 0.45 correlation, were combined using factor analysis, with the new factor deemed to represent restraints that citizens can place on government officials. Through ballot measures, voters can implement their preferred policies, which may differ from those of their elected officials. Through term limits, citizens restrain the ability of legislators to serve unconstrained terms in office. The new factor for government restraint produced an eigenvalue of 0.65. Secondly, the variables that measure percent metropolitan and the number of citizens per legislative seat were both highly correlated to state size (0.55 and 0.84, respectively). Since these variables may be serving as a proxy for state size, the voting eligible population was substituted for these two variables in the alternative specifications.

This newly estimated model somewhat reduced the multicollinearity relative to the model presented in table 5. This can be seen by observing the variable inflation factor (VIF) that these models exhibited in the OLS regressions that were conducted prior to the robust regressions. The highest VIF for the OLS version of Specification 1 was 4.31, compared to the 3.18 VIF for the OLS version of Specification 3. Similarly, the highest VIF for the OLS version of Specification 2 was 4.44, compared to the 3.20 VIF for the OLS version of Specification 4.

Despite the reduction in multicollinearity produced by robust regression Specifications 3 and 4, in some ways, these models may be inferior to robust regression Specifications 1 and 2. First, the adjusted R-squared for Specification 1 prior to estimating robust regression was 0.35,

comparing favorably to the 0.27 adjusted R-squared for the pre-robust-regression of

Specification 3. Similarly, the pre-robust-regression adjusted R-squared for Specification 2 is

0.33, comparing favorably to the 0.27 pre-robust-regression adjusted R-squared for

Specification 4. Secondly, while slightly greater multicollinearity is present in Specifications 1

and 2, the offending variables seem to measure largely distinct concepts that are supported by

scholarly research. The combination of variables through factor analysis results in a loss of

granularity and specificity that each of the raw variables brought to bear. In reality, ballot

measures are a fairly distinct concept relative to term limits. The population variable, which was

substituted for two well-theorized variables, feels more like a demographic characteristic than a

true predictor of corruption. Finally, Specifications 1 and 2 of the robust regressions are the

most fully specified models of any that were estimated, taking into consideration a greater

number of components and their interplay in the complex, multifaceted problem of corruption.

For these reasons, Specifications 1 and 2 of the robust regression model are believed to be the

most appropriate for substantive interpretation.

Conclusion

The preceding analyses provide initial support for the contested primary and turnout

hypothesis of corruption. The mere presence of contested primary elections appears to have

greater corruption-reducing potential than does contested primary turnout. At the 5%

significance level, two different model estimations showed a statistically significant and negative

relationship between corruption and contested primaries. Regarding the effect of contested

primary turnout, one model estimation showed a statistically significant and negative

relationship at the 10% level. For both the level of contested primaries and the contested

primary turnout, the sign of the coefficients were negative, as predicted by the hypothesis, in

each of the model estimations.

The robust regression results in Table 5 are believed to be the most appropriate tests of the hypothesis from among the available model estimations and using the available data set. Once again, the advantage of these specifications is that they utilize each of the eleven control variables identified in the most relevant literature, and multicollinearity is still kept to a reasonable level. In these specifications, the percent of primaries contested has a reducing effect on corruption that is significant at the 5% level; contested primary turnout has a reducing effect on corruption that is significant at the 10% level.

While certainly not conclusive, this initial evidence argues for greater study of primary elections. For example, the relationship between contested primaries and corruption could be evaluated using time series analysis of the U.S. Congress. Time-series cross-sectional analysis could be performed using the American states to determine whether increases in contested primaries and turnout *within* states is associated with reductions in corruption. Other ways of measuring corruption could also be studied, in order to explore whether similar relationships hold between contested primaries and corruption levels. In addition to corruption, additional ill-effects of lowly contested and low-participation primaries could also be studied. From a normative standpoint, with respect to corruption, citizens may be better-served when more primaries are contested. Although evidence was less compelling for the effect of contested primary turnout, this should not be construed as a license for continued non-participation in what might be important, underappreciated electoral contests. If contested primaries and turnout in contested primaries truly have the corruption-reducing effects suggested here, scholars and activists may be well-advised to consider what could be done to encourage contested primaries and voter participation in primary elections.

Figure 1. Scatter Plot of Illegal Corruption and % Contested Primaries

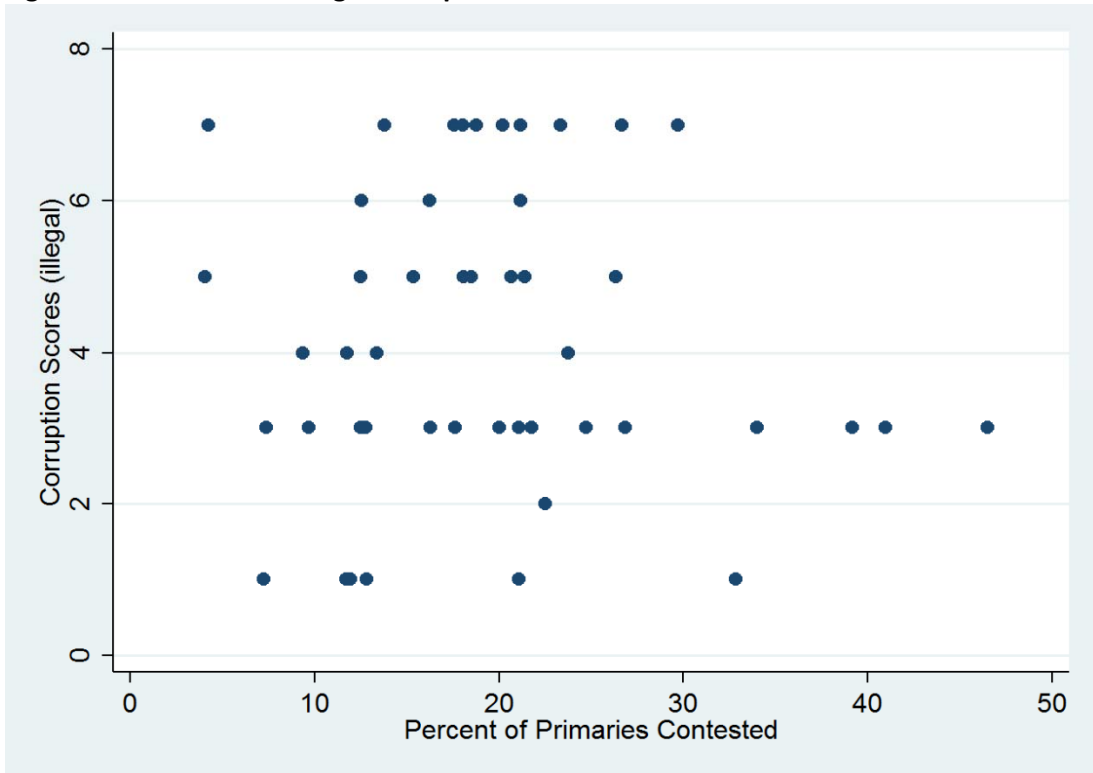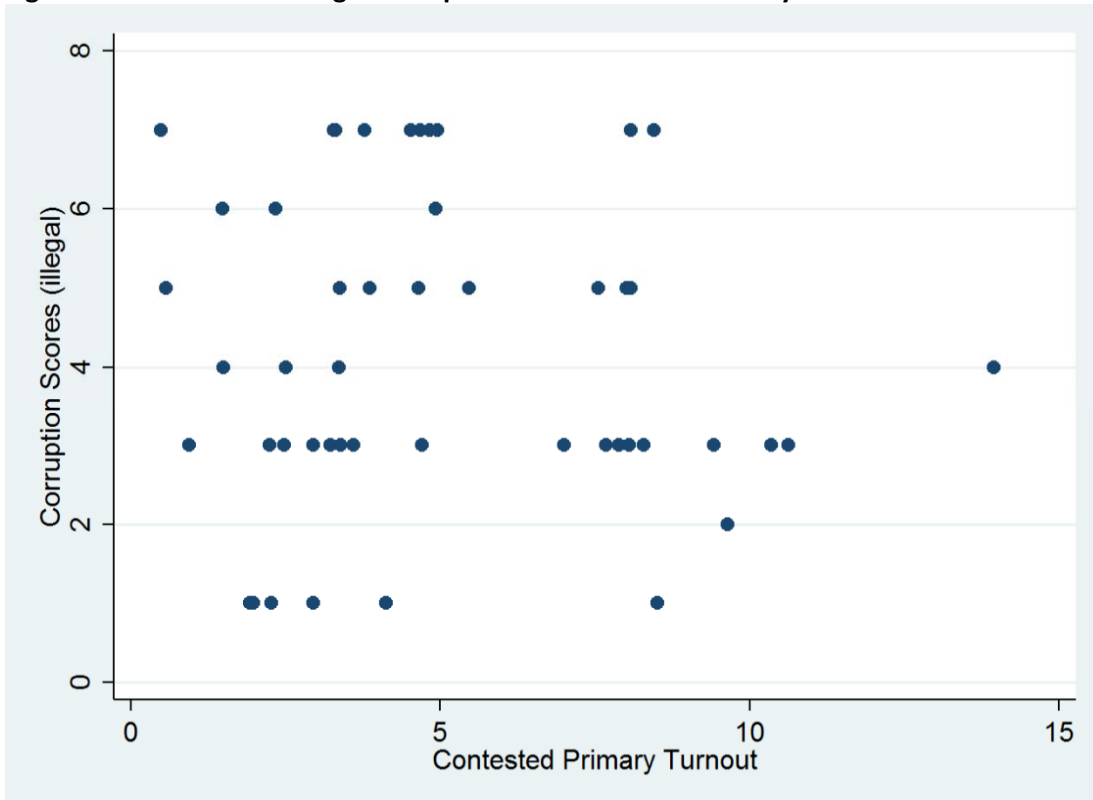**Figure 2. Scatter Plot of Illegal Corruption and Contested Primary Turnout**

Figure 3. Scatter Plot of Legal Corruption and % Contested Primaries
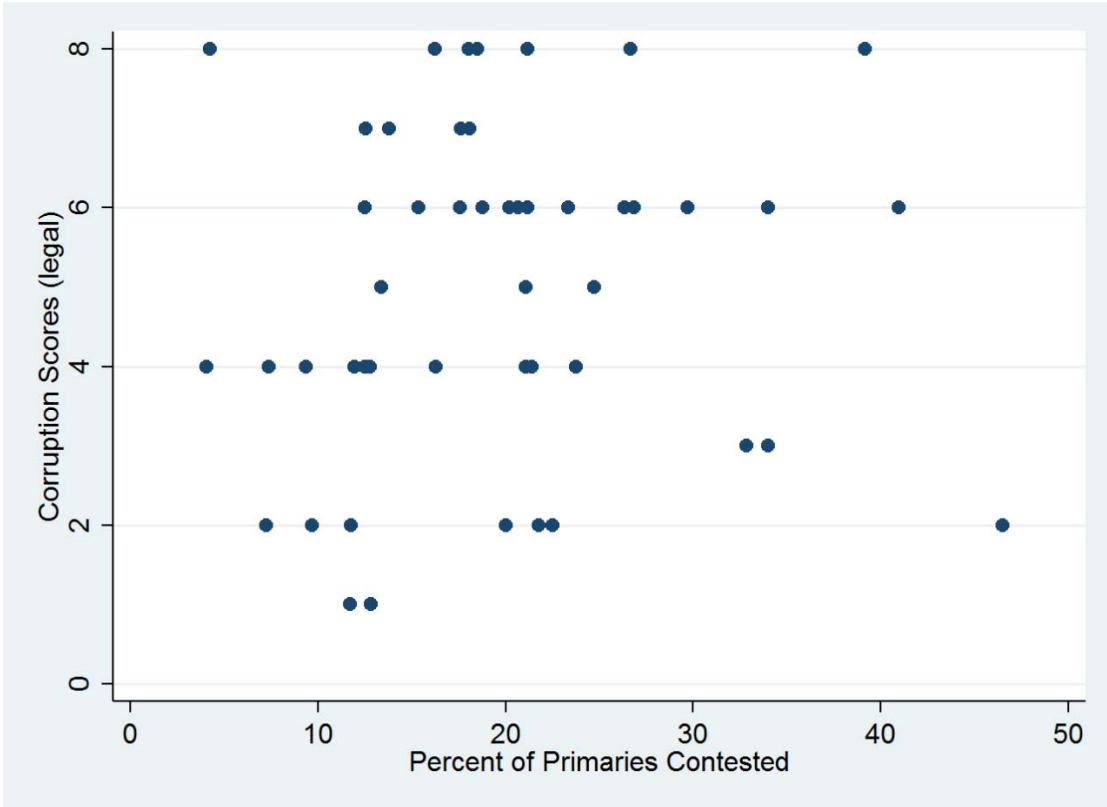

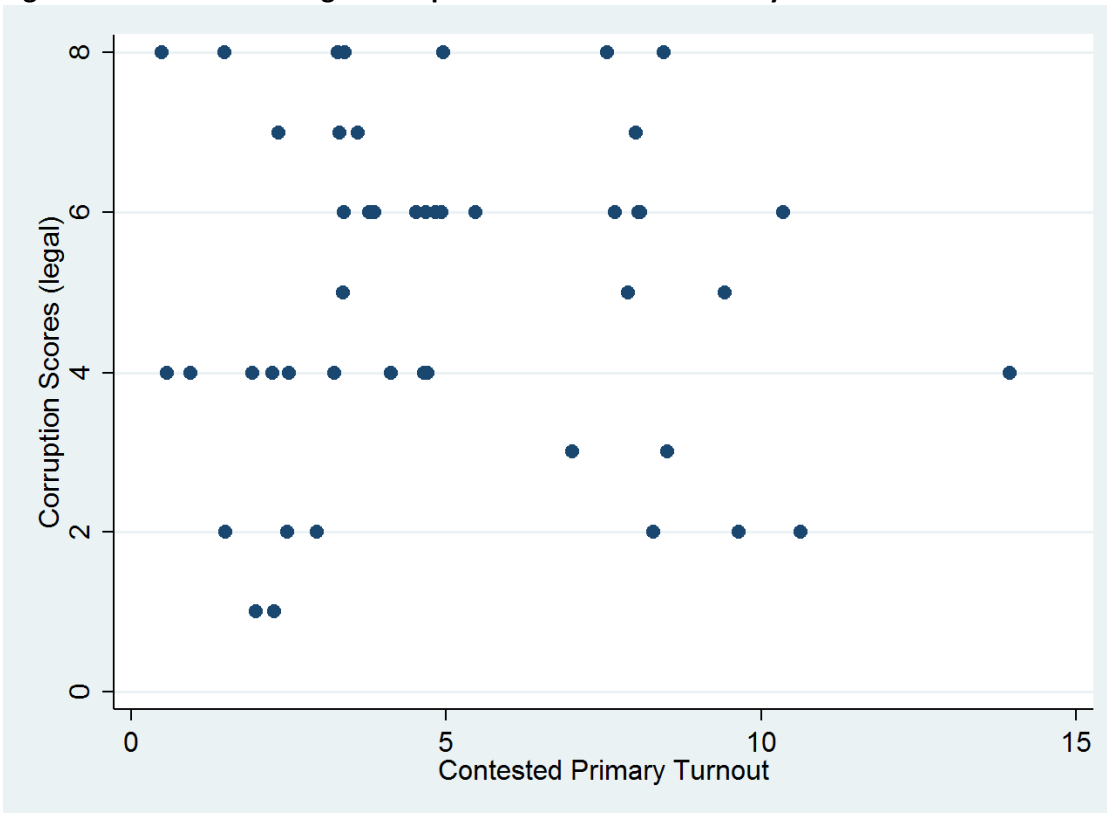**Figure 4. Scatter Plot of Legal Corruption and Contested Primary Turnout**

Table 6. Brant Tests of the Parallel Regression Assumption in the Ordered Logit Regressions

	Pr > Chi-squared			
	Illegal Spec 1	Illegal Spec 2	Legal Spec 1	Legal Spec 2
All	0.238	0.680	1.000	0.032
% of primaries contested	0.108	--	1.000	--
Votes in contested primaries %VEP	--	0.594	--	0.577
General election turnout	0.902	0.833	0.680	0.876
Number of ballot measures	0.325	0.352	0.259	0.518
Education factor	0.844	0.866	0.796	0.867
% metropolitan (squared)	0.344	0.117	0.176	0.003
Ln trade associations per 1000	0.617	0.522	0.000	0.001

Table 7. Robust Regression for the Standardized Corruption Index (alternative specifications)

	Specification 3		Specification 4	
Number of Observations	48		48	
Model degrees of freedom	10		10	
Error degrees of freedom	37		37	
F	2.60		3.55	
Pr > F	0.02		0.00	
	Coefficient	t	Coefficient	t
% of primaries contested	−0.013	−0.82	--	--
Votes in contested primaries %VEP	--	--	−0.053	−1.15
Open Primary (1=Yes)	−0.168	−0.55	−0.144	−0.48
General election turnout	−0.020	−1.41	−0.023	−1.72
Government restraint factor	0.038	0.18	−0.057	−0.28
Corporate donor limits (1=Yes)	0.047	0.12	−0.053	−0.14
Education factor	−0.511	−2.12	−0.575	−2.38
Ln voting eligible population	0.468	2.07	0.523	2.42
Ln trade associations per 1000	0.169	0.29	0.259	0.46
Ln number of legislators	0.060	0.13	−0.020	−0.05
Ln govt. pay % of personal income	0.233	0.37	0.229	0.38
Constant	−5.795	−1.60	−5.798	−1.71

Figure 5. High-influence Cases in OLS Regression of Corruption on % Contested and Controls
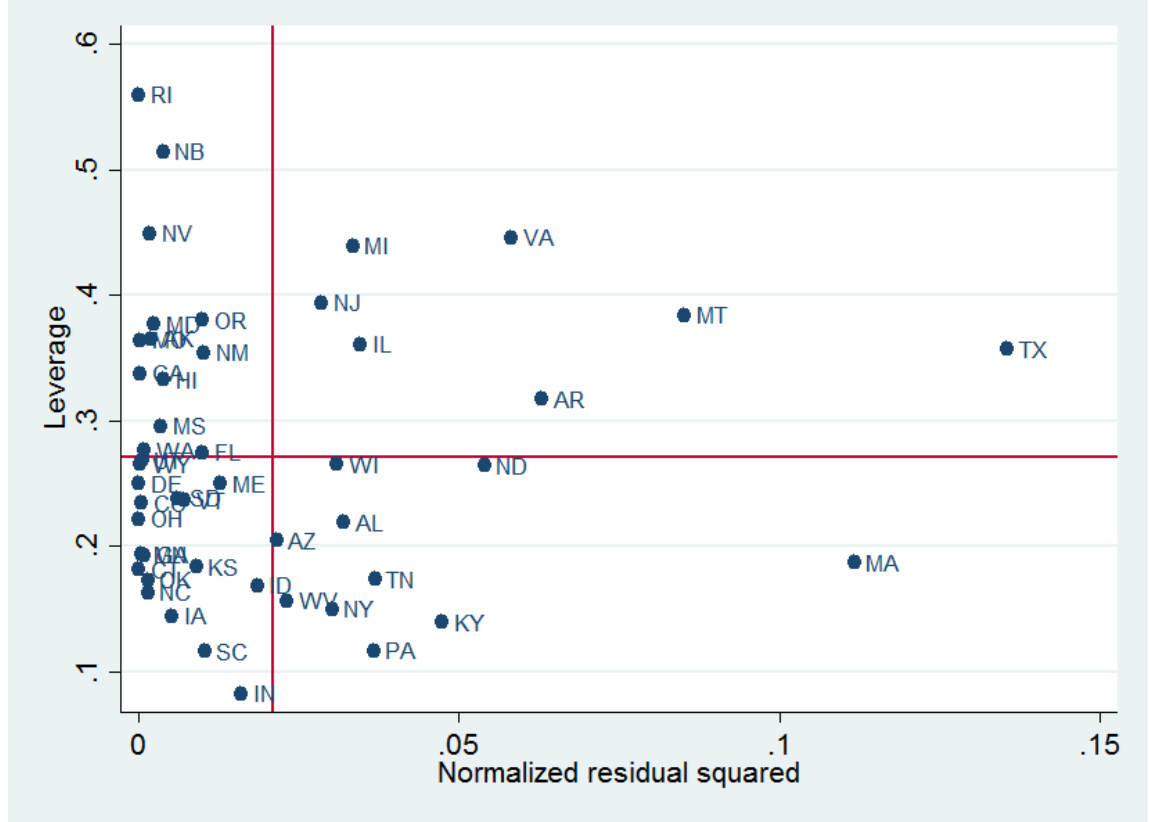

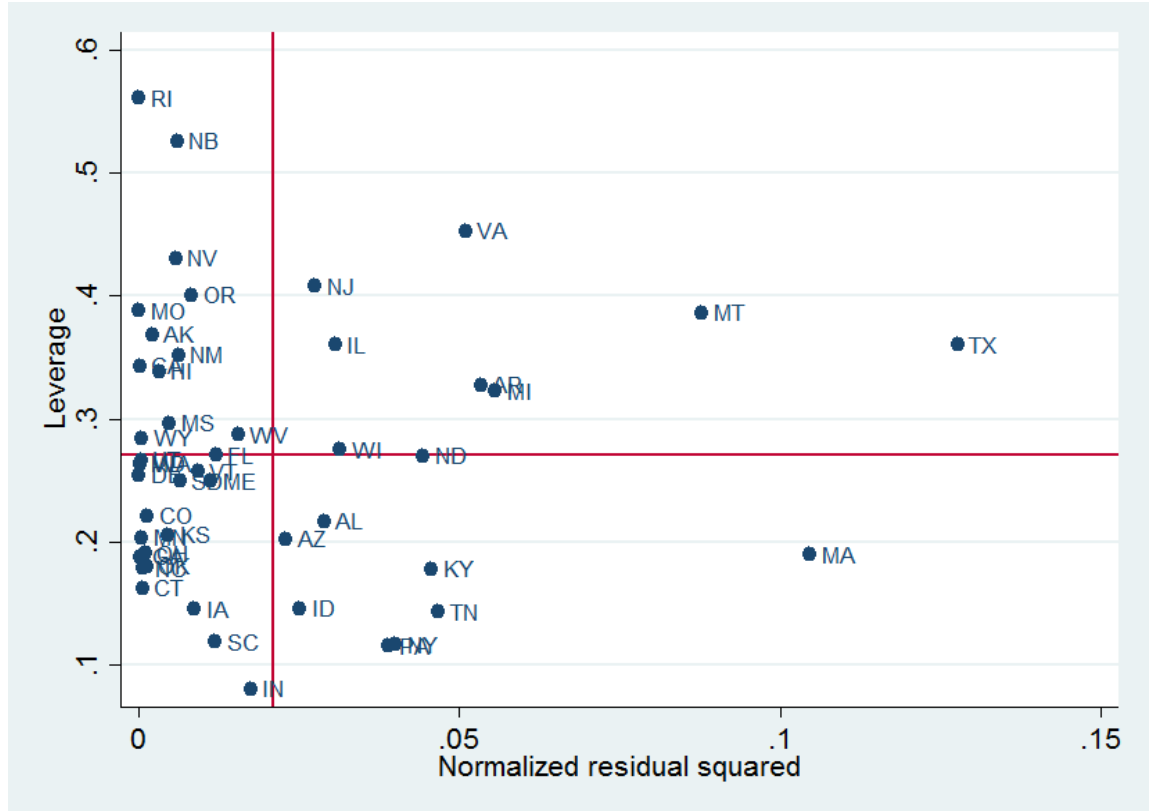**Figure 6. High-influence Cases in OLS Regression of Corruption on Turnout and Controls**

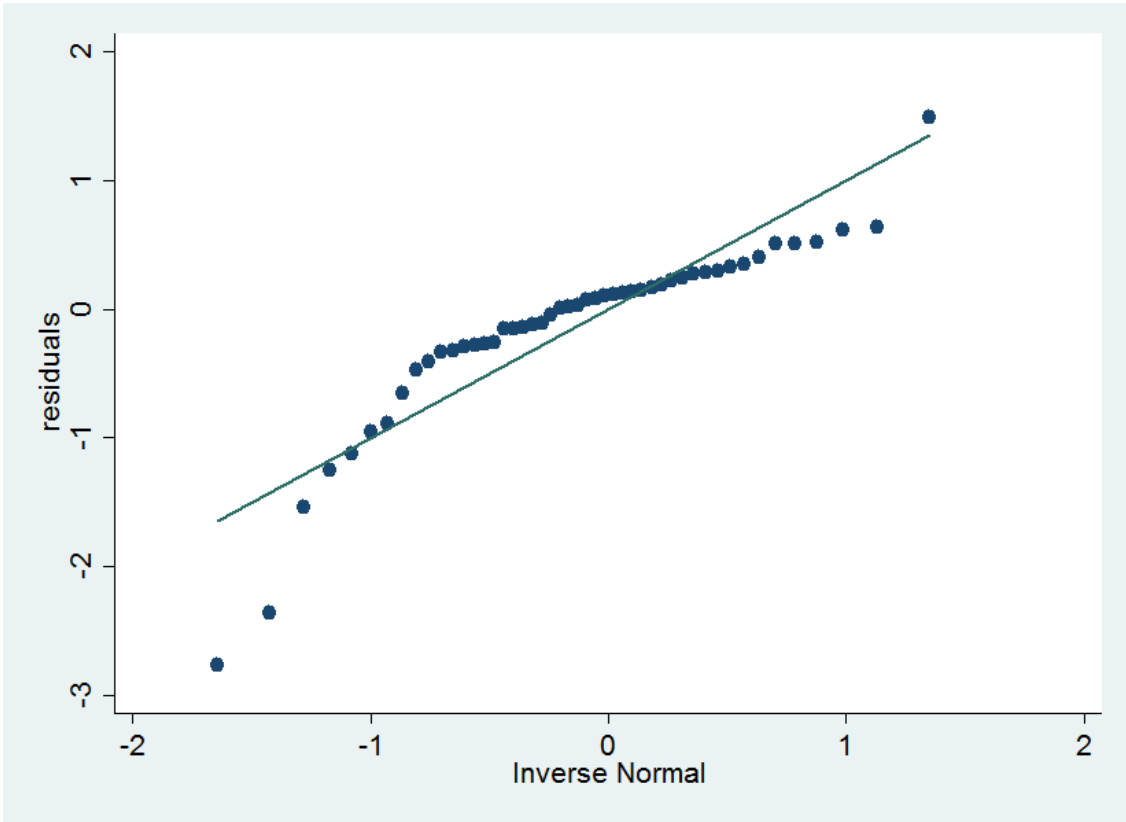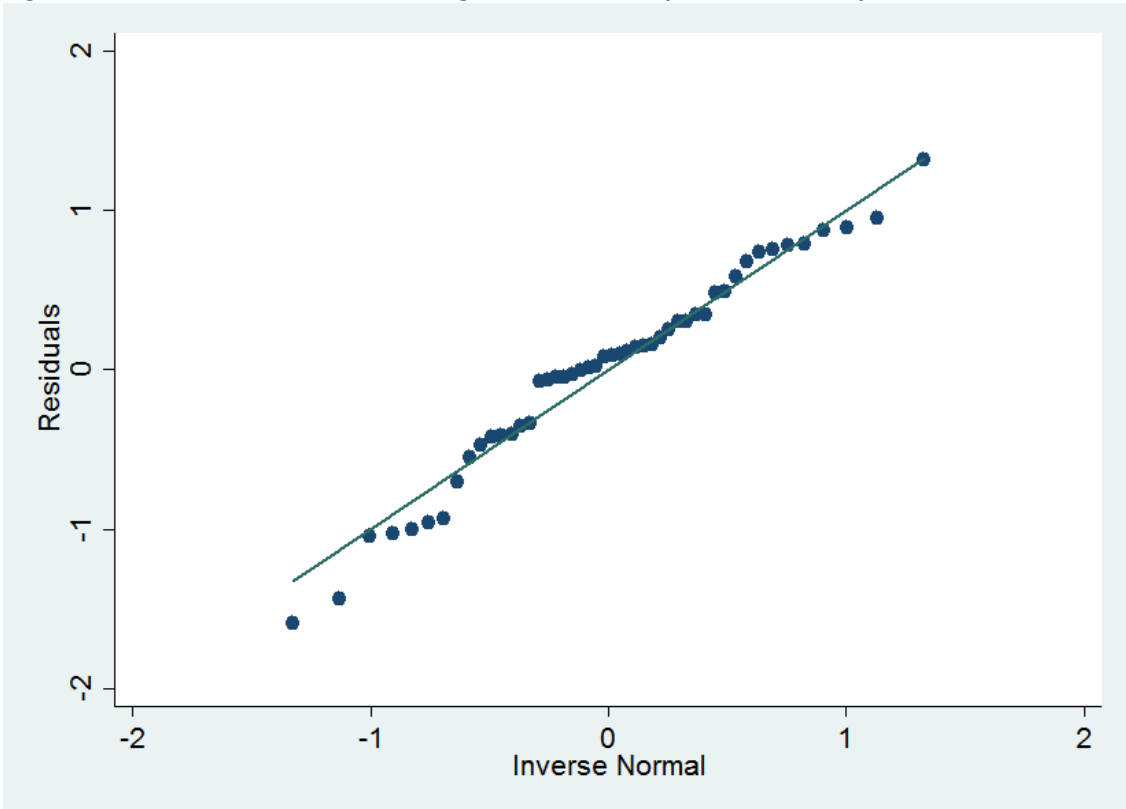**Figure 7. Residual Plots for Robust Regression of Corruption on % Contested and Controls**

Figure 8. Residual Plots for Robust Regression of Corruption on Primary Turnout and Controls

REFERENCES

Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. "Incumbency, Redistricting, and the Decline of Competition in U.S. House Elections." *The Journal of Politics* 68 (February): 75-88

Adams, James, Jay Dow, and Samuel Merrill III. 2006. "The Political Consequences of Alienation-Based and Indifference-Based Voter Abstention: Applications to Presidential Elections." *Political Behavior 28* (March 2006): 65-86.

Aidt, Toke S. and Arye L. Hillman. 2008. "Enduring Rents." *European Journal of Political Economy* 24: 545-553.

Aligica, Paul Dragos and Vlad Tarko. 2014. "Crony Capitalism: Rent Seeking, Institutions and Ideology." *Kyklos* 67 (2): 156-176.

Alt, James E. and David Dreyer Lassen. 2003. "The Political Economy of Institutions and Corruption in American States." *Journal of Theoretical Politics* 15 (3): 341-365

Ansolabehere, Stephen, John Mark Hansen, Shigeo Hirano, and James M. Snyder, Jr. 2010. "More Democracy: The Direct Primary and Competition in U.S. Elections." *Studies in American Political Development* 24 (October): 190-205.

Ansolabehere, Stephen, John M. de Figueiredo, and James M. Snyder, Jr. 2003. "Why Is There So Little Money in U.S. Politics?" *Journal of Economic Perspectives* 17: 105-30.

Anzia, Sarah. 2014. *Timing and Turnout*. Chicago and London: The University of Chicago Press.

Bawn, Kathleen, Martin Cohen, David Karol, Seth Masket, Hans Noel, and John Zaller. 2012. "A Theory of Political Parties: Groups, Policy Demands and Nominations in American Politics." *Perspectives on Politics* 10 (3): 571-591.

Bartels, Larry M. 1988. *Presidential Primaries and the Dynamics of Public Choice*. Princeton: Princeton University Press.

Bischoff, Ivo. 2003. "Determinants of the Increase in the Number of Interest Groups in Western Democracies: Theoretical Considerations and Evidence from 21 OECD Countries." *Public Choice* 114: 197-218.

Bonica, Adam. 2013. "Ideology and Interests in the Political Marketplace." *American Journal of Political Science* 57 (April): 294-311.

Boylan, Richard T. and Cheryl X. Long. 2003. "Measuring Public Corruption in the American States: A Survey of State House Reporters." *State Politics and Policy Quarterly* 3 (4): 420-438.

Carsey, Thomas M., Richard G. Niemi, William D. Berry, Lynda W. Powell, and James M. Snyder Jr. 2008. "State Legislative Elections, 1967-2003: Announcing the Completion of a Cleaned and Updated Dataset." *State Politics and Policy Quarterly* 8 (4): 430-443.

Cassie, William E. and Joel A. Thompson. 1998. "Patterns of PAC Contributions to State Legislative Candidates." In *Campaign Finance in State Legislative Elections*, ed. Joel A. Thompson and Gary F. Moncrief. Washington, DC: Congressional Quarterly.

Center for the Study of the American Electorate. 2008. "The Primary Turnout Story: Presidential Races Miss Record High Senate and Governor Contests Hit Record Low." *AU News.* Washington: Media Relations. http://www.american.edu/spa/cdem/upload/csae081001.pdf (December 15, 2014)

Coate, S. 2004. "Political Competition with Campaign Contributions and Informative Advertising." *Journal of the European Economic Association* 2 (5): 772-804.

Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov. "Corporate Political Contributions and Stock Returns." *The Journal of Finance* 65 (2): 687-724.

Dincer, Oguzhan and Michael Johnston. 2014. "Measuring Illegal and Legal Corruption in American States: Some Results from the Corruption in America Survey." *Harvard University Edmond J. Safra Center for Ethics.* http://ethics.harvard.edu/blog/measuring-illegal-and-legal-corruption-american-states-some-results-safra (November 5, 2015).

Geer, John G. and Mark E. Shere 1992. "Party Competition and the Prisoner's Dilemma: An Argument for the Direct Primary." *The Journal of Politics* 54 (3): 741-761.

Goel, Rajeev K. and Michael A. Nelson. 2011. "Measures of Corruption and Determinants of U.S. Corruption." *Economics of Governance* 12 (June): 155-176.

Gordon, Stacy B. 2001. "All Votes Are Not Created Equal*." The Journal of Politics* 63 (1): 249-269.

Gupta, Sanjay and Charles W. Swenson. 2003. "Rent Seeking by Agents of the Firm." *Journal of Law and Economics* 46 (1): 253-268.

Hall, Richard L. and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *The American Political Science Review* 84 (September): 797-820.

Hersh, Eitan. 2012. "Primary Voters versus Caucus Goers and the Peripheral Motivations of Political Participation." *Political Behavior* 34 (December 2012): 689-718.

Johnston, Michael. 1983. "Corruption and Political Culture in America: An Empirical Perspective." *Publius* 13 (1): 19-39.

Kaufman, Karen M., James G. Gimpel, and Adam H. Hoffman. 2003. "A Promise Fulfilled? Open Primaries and Representation." *The Journal of Politics* 65 (2): 457-476.

Marshall, Thomas R. 1997. "Bundling the Cash: Why Do Interest Groups Bundle Donations?" *American Review of Politics* 18: 291-308.

Mauro, P. 1995. "Corruption and Growth." *Quarterly Journal of Economics* 110: 681-712.

Meier, Kenneth J. and Thomas M. Holbrook. 1992. "I Seen My Opportunities and I Took 'Em: Political Corruption in the American States." *The Journal of Politics* 54 (1): 135-155.

Milyo, Jeffrey, David Primo, and Timothy Groseclose. 2000. "Corporate PAC Campaign Contributions in Perspective." *Business and Politics* 2 (1): 75-88.

Niemi, Richard G., Lynda W. Powell, William D. Berry, Thomas M. Carsey, and James M. Snyder Jr. 2006. "Competition in State Legislative Elections, 1992-2002." In *Electoral Competition in American Politics*, ed. Michael P. McDonald and John Samples. Washington, DC: Brookings.

Norrander, Barbara. 1996. "Presidential Nomination Politics in the Post-Reform Era." *Political Research Quarterly* 49 (December 1996): 875-915.

Nownes, Anthony J. 1992. "Primaries, General Elections, and Voter Turnout." *American Politics Quarterly* 20 (April 1992): 205-226.

Olson, Mancur. 1982. *The Rise and Decline of Nations*. New Haven: Yale University Press.

Plane, Dennis L. and Joseph Gershtenson. 2004. "Candidates' Ideological Locations, Abstention, and Turnout in U.S. Midterm Senate Elections." *Political Behavior* 26 (March 2004): 69-93.

Powell, Lynda W. 2012. *The Influence of Campaign Contributions in State Legislatures: The Effects of Institutions and Politics*. Ann Arbor: University of Michigan Press.

Schwartz, Gerd and Benedict Clements. 1999. "Government Subsidies." *Journal of Economic Surveys* 13 (2): 119-147.

Sigelman, Lee, Phillip W. Roeder, Malcom E. Jewell, and Michael A. Baer. 1985. "Voting and Nonvoting: A Multi-Election Perspective." *American Journal of Political Science* 29 (4): 749-765.

Sobel, Russell S. and Thomas A. Garrett. 2002. "On the Measurement of Rent Seeking and its Social Opportunity Cost." *Public Choice* 112: 115-136.

Southwell, Priscilla L. 2008. "The Effect of Political Alienation on Voter Turnout: 1964-2000." *Journal of Political and Military Sociology* 36 (Summer): 131-145.

Steger, Wayne. 2013. "Two Paradigms of Presidential Nominations." *Presidential Studies Quarterly* 43 (2): 377-387.

Stratmann, Thomas. 2005. "Some Talk: Money in Politics. A (partial) Review of the Literature." *Public Choice* 124: 135-156.

Tollison, Robert D. 1982. "Rent Seeking: A Survey." *Kyklos* 35: 575-602.

Tullock, Gordon. 2005. *The Selected Works of Gordon Tullock, Volume 5: The Rent-Seeking Society.* Indianapolis: Liberty Fund, Inc.

Weber, Ronald E., Harvey J. Tucker, and Paul Brace. 1991. "Vanishing Marginals in State Legislative Elections*." Legislative Studies Quarterly* 16 (1): 29-47.

Witko, Christopher. 2006. "PACs, Issue Context, and Congressional Decision-making." *Political Research Quarterly* 59: 283-295.

Zipp, John F. 1985. "Perceived Representativeness and Voting: An Assessment of the Impact of 'Choices' vs. 'Echoes'." *The American Political Science Review* 79 (1): 50-61.