Political Corruption in America

Amanda E. Maxwell

and

Richard F. Winters
Dartmouth College

Abstract

The American states provide a useful arena for testing models of the causes and consequences of political corruption. Substantial variation appears in the two frequently-used measures of corruption, (a) twenty-five years of data on state-by-state rates of corruption convictions from the U.S. Department of Justice and (b) a cross-sectional survey of statehouse journalists' perceptions of statewide corruption. We argue that current models of causes of corruption in the states, however measured, are misspecified.

Our model focuses on seven indicators of four fundamental traits of states. Higher numbers of corruptible constituencies lead to lower corruption rates, but at a diminishing rate. States with well-informed and highly participant political cultures have lower rates of corruption. The greater the population of the state and states that are particularly small sized have greater and lesser corruption, respectively. Finally, high levels of statewide socio-ethnic diversity positively affect corruption rates. We present theoretical rationales for the variables. Our four-factor, seven variable model accounts for 76% of the variance in convictions measure and 49% of the "journalists' perceptions" measure.

We also examine the impact of high rates of corruption on changes in income, employment, median home prices, and business start-ups. We find little evidence in the states that corruption dampens rates of growth of measures of economic wellbeing.

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I. Introduction: Most Americans believe that political corruption is a personal failing of the individual public servant, a view that is reinforced by the press with its focus on individual figures prosecuted on a case-by-case basis.[2] Nevertheless, we demonstrate, as others have,[3] that corruption is peculiarly distributed; not every government – the American states in our analysis -- has its "fair share" of corrupt officeholders or employees.[4] Put directly, an "individualist" understanding is not adequate in explaining public corruption; some states are more corrupt than others.[5] If the distribution of corrupt officials is maldistributed, that is, some states have much higher fractions of this public "bad" than others, then specific sets of conditions must act either to heighten or dampen rates of public wrongdoing. While it may be the case that, on average, individuals in Virginia or Florida are less honest and, therefore, more "corruptible" than those in North Dakota or Vermont, and thus the governments draw from significantly

[1] Winters is the corresponding author (rfw@dartmouth.edu). An earlier version of the paper was presented at the 2004 meeting of the Midwest Political Science Association and as part of the Morton-Kenney Lecture series at Southern Illinos University, Carbondale. A revised version profited from the comments of Nelson Kasfir.

[2] The personal failing observation was advanced in conversation with the second author and Prof. Frank Klingberg, October 7, 2003. Las Vegas Mayor Oscar Goodman pointed out the more general, collective view: "There's a tendency on the part of the people to think politicians are inherently corrupt . . ." (New York Times, December 15, 2003, p. A21). Press treatment recently has focused on Connecticut and Illinois in the cases of now ex-Governors John Rowland and George Ryan. See the New York Times, December 17, 2003, and December 18, 2003, respectively.

[3] See Wilson (1966), Welch and Peters (1978), Nice (1983), Meier and Holbrook (1992), Meier and Schlesinger (2002), and Hill (2003)

[4] The number of convicted corrupt public officials (defined shortly) *relative to population* varies tenfold across the American states. The numbers of corrupt officials *relative to the number of elected officials* in the states range 120-fold, while corrupt officials *relative to the number of governments* in the states varies by 1 to 166.

[5] When Winters informed his spouse that he had been invited to talk at Southern *Illinois* University in Carbondale on corruption in the states, she responded, perhaps betraying her New Hampshire sensibilities, "exactly what can *you* teach *Illinois* about *corruption*?" Corrupt failings of Illinois officials figure prominently in David Kenney's biography of Illinois Governor William G. Stratton (1990), and centrally so in Robert Hartley's biography of former Illinois State Senator and Secretary of State Paul Powell (1999). Kenny focuses on the Hodges corruption case in the Stratton administration and Stratton's own brush with the law while in retirement.

different pools of honesty-in-individuals for public service, we are more comfortable with an explanation that looks at varying conditions and contexts of the fifty states in accounting for variations in corruption.

II. Corruption in the American states: James Q. Wilson, in an influential 1960s article, writes that political corruption was the "shame of the American states"(1966).[6] Wilson argues that state governments are particularly vulnerable to public corruption by comparison with local governments or the wealthier Federal government. The Federal government has higher levels of administrative professionalism; Washington draws both the best and brightest of administrators alongside more professional and reelection-minded politicians who are more mindful of the consequences of their and others' misdeeds. Further, there is putatively greater review and monitoring of subordinates' actions by Washington's leaders. The links between politicians and bureaucrats may be better "buffered" in Washington by, for example, oversight Congressional committees which diminishes corruption. Further, national politicians are subject to closer scrutiny by the more professional national press, as well as by large numbers of interest and watchdog groups.

States, according to Wilson, may be uniquely prone to corruption: State officials may be subject to less voter scrutiny because each voter is more poorly informed about the actions of state officials. Further, many state capitals are located at some geographic distance from the states' larger metropolitan areas which further attenuates press coverage of misdeeds. It is no accident that state officials in Annapolis, Jefferson City, Trenton, and Springfield have national reputations for political corruption. State governments also have more money relative to local governments. "[M]en steal when there is a lot of money lying around loose and no one in watching" (Wilson, 1966 p. 31). One of the by-products of the development of the modern American federal system of governance is that an extraordinary amount of money is funneled through state capitals via the states' own revenue sources, which is then matched, on many occasions, by Federal grants and contracts. State officials control, or have a hand in, via the distribution of contracts, the distribution of a sizable fraction of public monies spent on governmental purchase of goods and services in America. In addition to the sheer amount of intergovernmental transfers, the bulk of Federal largesse is contributed by out-of-state taxpayers which may further diminish state officials' inhibitions in dipping into the "state's" public till that is substantially contributed by "out-of-staters" via Federal grants.

[6] Many popular stories of political corruption are typically couched at the level of state or city governments – Louisiana in Robert Penn Warren's *All the King's Men,* Boston and Massachusetts in Edwin O'Connor's *The Last Hurrah,* New York, New York in William Riordon's *Plunkitt of Tammany Hall,* Providence and Rhode Island in *The Prince of Providence*, and Illinois in Hartley's *Paul Powell of Illinois: A Lifelong Democrat* and Kenney's *The Political Passage: The Career of Stratton of Illinois.*

Wilson argues that local governments are also vulnerable, but less so than state governments. Put simply, there is less to misappropriate, and typically local officials are more likely to be subject to closer scrutiny by local press and voters. The New England experience suggests that there may be greater scrutiny of officials' actions by local voters in local elections, and that scrutiny is heightened as the size of local government shrinks and the population becomes more homogeneous.[7] Wilson argues that local voters more closely monitor local politicians, because local politicians' actions directly affect local tax rates. Further, the display of self-aggrandizing benefits of local corruption may be more obvious to local citizens.

The meaning of corruption: Corruption for our purposes is an official's concealed private, for gain, appropriation of a public right (also, see Rose-Ackerman 1975, Shleifer and Vishney 1993, and Treisman 2000). Gunnar Myrdal unpacked the proximate links between public officials and corruption: there is high value associated with officials' control over the power to positively or negatively coerce individuals.[8] State-issued licenses are required to positively perform certain acts. State permits are necessary in order to engage in many transactions, and state-issued grants of money support and advance local projects. Further, while we ordinarily view a corrupt act as a "positive" one – the public official has to do "some thing" in order to obtain the illegal rewards, there is also the power *to do nothing*, to overlook violations of regulations. In this case, individuals pay for governmental inaction. Myrdal argues that bureaucratic and political control over valuable rights "adds greatly to the incentives for, and the rewards of graft and corruption"[get cite]. Control over the "rights to coerce positively and negatively" constitutes the resource base for corruption.

Among the net perverse effects of corruption are tax costs. Corruption is a non-statutory, that is, illegal, tax on citizens. Corruption "ups the costs" of public activity, a public cost-increase that has not been formally approved by governmental action. Further, as Shleifer and Vishney note, the "imperative of *secrecy* makes bribery more distortionary than taxes" (600, italics in the original).

• Aggregate economic costs: Cross-nationally, corruption appears to dampen economic activity, not only for reasons of corruption acting as if it were a further monetary "tax" on action, but also for reasons that corruption encumbers dealings with heightened transaction costs and more complicated ambiguities of the means to enforce a corrupt bargain (Mauro 1995; Ades and di Tella 1999; Treisman 2000). Corruption in

[7] The New England town meeting form of government probably reaches the limit of greatest voter scrutiny; see Frank Bryan's *Real Democracy* (2004).

[8] reference to cite . . . . Myrdal quote].

the states may also be expected to result, according to a recent paper (Glaeser and Saks 2004) in dampened growth in income, employment and median home prices.

• Transaction costs: Corruption exacts non-monetary costs as transactions multiply. There is a simplicity about buying a license – say, a taxi medallion -- in a public office in order to drive a taxi. But, if, in order to get a taxi medallion, one must pay the license fee, pay the clerk on the side, bribe his boss after hours, pay off his assistant under the table, and buy a ticket for a "roast" of the head of the Taxi Bureau, life becomes more complicated as the numbers and qualities of transactions multiply.

• Civic spirit costs: Hibbing and colleague (1995, 2000) conclude that the American public accepts the outcomes of politicians' actions, but citizens have profound doubts about the process of getting to those actions. It is not a great leap of inference to argue that part of Americans' anxieties about the quality of the political process revolves around doubts and uncertainties about who paid whom, how often, how much, and when, in order to get something done . . . or not done.

III. The political analysis of corruption: Political scientists and economists are interested in the *distribution, causes* and *consequences* of corruption in the American states. We present data on the distribution of corruption by state; we contribute models explaining likely causes of corruption, as well as the consequences of high rates of corruption on state-by-state growth in income, jobs, home values, and business firms. Studies typically focus on the likely causes of corruption such as the impact of judicial resources, whether poverty or economic growth fosters corruption, or whether cultural factors such as other crime rates affect corruption propensities (Meier and Holbrooke 1992, Schlesinger and Meier 2002). Traditional political factors of "size of government, bureaucracy and rent-seeking" and the impact of party and electoral competition (Hill, 2003) also may lead to corruption variations for reasons of political "observability transparency, and trust" (Alt and Lassen 2003, 342). While analyses of the consequences of corruption typically focus on cross-national outcomes, Glaeser and Saks (2004) present a model of state-by-state consequences which we replicate and extend.

In an early study, Welch and Peters (1978b; also see 1978a) surveyed several hundred State Senators in twenty-four American states, asking legislators how best to measure corruption, and concluded by asking about their perceptions of corruption in their state.[9] Weak findings existed for lower tolerance for corruption among women legislators, among freshman members, liberals, and urban legislators. The

[9] Their "scale of corruption" included three survey items: (1) the use of public monies for private travel, (2) the abuse of a committee assignment or chairing the state's appropriations committee so as to enable purchase of land, and/or (3) the promise of campaign contribution for "voting the right way." Political officials considered these items as valid indicators of political corruption by elected officials.

industrial east, midwestern, and southern states had higher perceived corruption, while states in the mountain, prairie, and New England regions were lower.[10]

Meier and Holbrook (1992), Meier and Schlesinger (2002), Hill (2003), Adsera *et al.* (2003), and Glaeser and Saks (2004) analyzed the number of convictions for corruption obtained by the Public Integrity Section of the U.S. Department of Justice state-by-state.[11] We now have a quarter century of data, state-by-state, of 17,000 convicted miscreants.

Michael Johnson and David Nice first analyzed the data from the Public Integrity Section of the Department of Justice on annual convictions for corruption.[12] Johnson (1983) examined early data from reports from all 85 substate U.S. districts (the courts of original jurisdiction) and discovered that the underlying district political cultures and states' level of political participation affect corruption conviction rates. Nice (1983) also found that the predominant "moralistic" political culture in a state dampened corruption rates, as did education.

Meier and Holbrook (1992) conducted the most wide-ranging examination of the causes of corruption convictions, marshalling twenty-two variables analyzed in clusters of judicial resources, historical/cultural, electoral/political, and bureaucratic/structural. They winnowed the list to eight variables that appeared best related to convictions and of these, gambling arrests, government employment, and percent urban were positively related, while factors of percent college graduates and interparty competition were negatively related.[13] The authors were not entirely satisfied with their own

[10] However, by aggregating the results of quizzing senators from, for example, Connecticut, Maine, and Massachusetts into one regional assessment, Peters and Welch were lumping together the reactions of respondents from diverse states which probably exhibited quite varying state-by-state results.

[11] In 1977, after the Watergate episode, the U.S. Congress passed and Jimmy Carter signed into law, the "Ethics in Government Act." The passage of the law was in part a reaction to rising anxiety over campaign finance, and, in part, a response to continuing anxiety over corruption in government. One provision of the 1977 Act was to establish in the U.S. Department of Justice a Section on Public Integrity to prosecute Federal, state, and local officials on corruption charges. According to the Act, the Section is to publish annually the number of elected officials by state convicted for "criminal abuses of the public trust by government officials."

[12] For the most recent editions of their annual report, see http://www.usdoj.gov/criminal/pin.html.

[13] Another factor was also negatively related to corruption convictions: the greater the number of legislative functions for which computers were available. Computer usage for budgeting and auditing performance, for example, was hypothesized to enhance legislative monitoring and oversight and thus dampen corrupt activities. This measure was available from the Book of the States for only two biennia (1986-87 and 1988-89) and was badly right-skewed. In Schlesinger and Meier's (2002) reexamination of the data for 1986-1995 period, the computer variable was not significant, nor was it significant in our replication.

analysis and in a subsequent study, Schlesinger and Meier (2002), reexamined the variables using 1986-1995 data and discovered few persistent causal factors. However, a factor analysis discovered three significant underlying state-by-state traits, which they labeled "cosmopolitan" states (with more prosecutions), "traditionalist" states (also more prosecutions) and states with "low social capital" (also more).

In an earlier paper, we took the analysis one step further (Maxwell and Winters 2003) and reexamined four of their models, fifteen variables in all, for the 1987-2000 data set. Cluster by cluster, the only variables that consistently accounted for prosecution variation in 1977-86 period and also in the 1987-2000 period were percent urban, percent college graduates, voter turnout, and gambling arrests. When we pitted identical final sets of variables for the two period data sets (those in Table 6 of the Meier and Holbrook paper), the only consistent predictor was the negative impact of voter turnout on statewide corruption convictions.[14]

Hill's analysis (2003) is consistent with a political/electoral understanding of the causes of corruption convictions. He focused on measures of competition in the states which should "increase the likelihood of the exposure of or punishment for corrupt acts" (613). Hill employed Meier and Holbrook's 1977-1987 conviction measure and finds that a measure of democratization that is a composite of party competition and electoral turnout rates is negatively related to convictions, while controlling for other important factors such as government size, urbanism, and median income.

Adsera, Boix, and Payne (2003) examined the cross-national and cross-American-states corruption and conclude that, in both data sets, rates of public malfeasance is diminished by regular, free elections and by how well informed voters are about political choices. The credible threat of the loss of power via the electoral process disciplines honesty among officials, which is further reinforced by the belief that well-informed voters more closely monitor officials' behaviors. In the American states, they examine the same dependent variable that we employ here and conclude that ". . . having reliable and efficient politicians derives from the presence of politically active, well-informed, sophisticated electorates" (480)

Cross-nationally, Mauro (1993) as well as LaPorta, et al. (1999) claim that ethnic fractionalization, heterogeneity, or, as we put it in this examination, social diversity, also positively affect rates of corruption. Glaeser and Saks (2004) examined the states and concluded, consistent with Adsera *et al.*,

[14] Maxwell & Winters' reanalysis (2003) is at http://www.dartmouth.edu/~rwinters/ in file "papers." The data for that paper and this can be obtained at the same website in file "data."

that their results "…are remarkably similar to those at the country level" (p.3). Higher levels of income and education dampen corruption rates, while racial heterogeneity is positively, albeit more weakly, related.

Two other recent reports look at different data. Boylan and Long (2003) turned to a set of close observers of the political scene -- statehouse reporters -- to get their assessments of state-by-state levels of corruption. They asked six questions that comprised the perceived corruption scale.[15] Among the forty-seven states with data, Rhode Island, Louisiana, New Mexico, Delaware and Oklahoma led the corruption list, while the least corrupt states appeared to be the Dakotas, Colorado, Maine and Vermont. According to Boylan and Long, having better-informed voters, proxied by education levels, was an especially telling predictor of low levels of corruption. Budget size and distributive goods were poorer predictors and the crime rate was least well-related to journalists' estimates of corruption.

Alt and Lassen (2003) employ the Boylan and Long reporters' perception measure in assessing alternative models of corruption that control for what they label the "core control" variables of metropolitan population, real income per capita, percentage of population with a high school diploma, and general real tax revenue per capita.[16] In assessing seventeen multivariate models controlling for the "core," they focus on factors which should enhance voter control in political agency relationships (e.g. initiatives, open primary, etc.) and for a variety of political structure variables and economic opportunity variables.[17]

IV. Measuring political corruption: The 17,000 DoJ cases spread across the 50 states and 25 years raise questions. Do the DoJ numbers appear to be a reasonable proxy for "real corruption?" Put differently, how would we know that we are adequately measuring a real trait of public corruption? We would be encouraged if there was stability in corruption convictions in the states as if the numbers per state appear

[15] These would be, for example, questions about the numbers of recent news stories about corruption, perceived local prosecutorial priority of corruption cases, best journalistic guesstimates about the relative frequency of corruption among public employees and among legislators, and journalists' best guesstimate of where the state would rank among the American states on corruption, and so on. Three states had no responses – New Hampshire (possibly too few reporters in residence in Concord), Massachusetts, and New Jersey. One can imagine the laughter that must have pealed from the ink-stained wretches in the respective Capitol Pressrooms in Boston and Trenton when this particular questionnaire came wafting in over the transom. Nevertheless, some states had substantial numbers of responses -- 25 from California and 22 from Ohio.

[16] Table A-3 compares the impact of Alt and Lassen's four core variables on the Boylan and Long measure and our DoJ-based measure. The four variables gave identical signs and are similarly sized.

[17] Our model, which we set out in Section V, is quite robust in the face of Alt and Lassen's core control variables. Further, when confronted with our "control" variables, Alt and Lassen's political control variables are not significant.

to equilibrate. Further. what appears to be related to corruption? Can we sketch out a "theory of corruption in the American states" that is intuitively plausible and convincing? Finally, what plausible consequences follow on other statewide traits that one might reasonably relate to variations in corruption?

Corruption, if the *de jure* Department of Justice data is a good proxy for the *de facto* statewide trait, does not distribute itself in obvious ways.[18] The typical state averaged about 15 prosecutions per year, but this ranged from 1 per year in Vermont to nearly 80 per year in New York. As this suggests, the conviction rates vary by size of state; highly populated states with their many more officials have many more cases of corruption. At the limit, over the quarter century, New York has recorded 2000 such convictions, while Vermont trails with a scarcely appreciable 17. And, of course, population size does well predict the number of convictions. For every 20,000 increase in population size, on average, the number of convictions goes up by one.

The most frequently used approach, and the one we employ here, is to link corruption convictions to the number of elected officials. Illinois, as is widely known, is the outlier at the upper end of the distribution of officials, averaging about 42,000 officials *per annum* over the 1977-00 period. Hawaii is the opposing outlier, averaging about 180 officials per year.[19] Next lowest in officialdom are Delaware and Rhode Island with 1100 officials. If we divide the number of convictions by the number of officials, we get an ordering of states with Florida at the top of the heap and Vermont at the bottom. There does appear to be some face validity to the five most corrupt states in convictions per the number of elected officials: Florida, Virginia, Maryland, Louisiana, and South Carolina. Perhaps the list of the five "least corrupt" makes even more intuitive sense: Vermont, North Dakota, Nebraska, New Hampshire, and Iowa. We would prefer, of course, to have the number of all elected *and unelected* public officials, which is the universe of the DoJ statutory province. However, the number of elected officials is probably a good proxy for the number of all governmental officials. The number of convictions per thousand officials is strongly curvilinear, and we adopted the formulation used by others in the literature (Meier and Holbrook (1992), Schlesinger and Meier (2002), Adsera and colleagues (2003), and Hill (2003)) that the most appropriate measure of public corruption is the *log of the number of convictions per 1,000 elected officials in a state.*

[18] About 5% of the DoJ data by state by time period were missing or incomplete. Our rule of thumb was to interpolate by averaging the leading two and lagging two observations surrounding the missing value. Where the missing data was either at the leading edge (1976) or last edge (2000), we used the average of the next two, 1977 and 1978, or the preceding two (1999, 1998) for the missing data.

[19] In subsequent analysis, we drop Hawaii because the paucity of their officials wildly skews the results – any number of convictions divided by only a couple of hundred elected officials will be very high. This is consistent with the literature (Meier and Schlesinger 2002, Hill 2003, Adsera *et al.* 2003).

A state that, by conventional wisdom (see fn 5), should appear high on the list, Illinois, in fact ranks 25th. But the precise median figure for Illinois, we argue, may mask a more profound regularity. Illinois has 30% more elected officials than the 2nd ranking state, Pennsylvania. On the one hand, while political corruption should be linked positively to the number of officials, very large numbers of officials may veil public malefactors. Thus, the middling numbers of the Illinois convictions may imperfectly reflect the underlying higher real rate of undetected corruption. This may be due to an exhaustion factor at the Federal DA's offices in Illinois as the numbers of potential malefactors increase with the number of officials. Many acts of official corruption in Illinois may be too trivial to worry about. Nevertheless, we expect corruption convictions per 1000 officials to fall with rising numbers of governments, but to fall with diminishing decrements.[20] Our model, discussed below, accounts for this by using the number of governments and the number of governments squared as independent variables in explaining corruption per numbers of elected officials.

A further test for validity is the internal consistency of the measure. Meier and Holbrook (1992) examined the data using years 1977 to 1986. The simple correlation between their measure, the log of the number of convictions by state per thousand elected officials, and our equivalent measure for the 1987-2000 period is +.85. Further, the correlation between our 1987-2000 measure of convictions and the Boylan and Long (2003) scores of reporters' perceptions is +.57. We also note that for the most part, corruption convictions over time in states appear to be relatively stable processes. The simple average figures for states for the 25-year period appears to be the best guesstimate for 30 of the 50 states. No states show a decrease in convictions over the quarter century. States that have the steepest rates of increase are Florida, Missouri, California Washington, Ohio, and Texas. A handful of small states show great relative increases – an increase of 2 cases per year in Wyoming and Idaho, with North Dakota and Washington increasing between 1 and 2 cases per year.

V. A model: We propose a model that focuses on seven indicators of four fundamental traits of states that should have predictable effects on corruption.

[20] A different causal argument suggests that corruption may go down as the numbers of officials in a state increases. As the numbers of officials – potential malefactors -- increases, first, the likelihood of other public officials aware of or monitoring for corruption in others may go up. Further as the numbers of governments go up, the relevant size and policy domains of the governmental constituencies must shrink, and the costs of colluding go up as well, suggesting that large numbers of governments may well dampen corruption. We suspect, however, that causality goes in the opposing direction: as the numbers of governments and, therefore, officials, grow, the likelihood of corruption increases, but the *rate of convictions* per N of officials falls.

(1) Corruption prosecutions in the states should vary negatively with "numbers of 'corruptible' governmental bodies" – falling as the numbers of governments in states rise. Stated at the limit, states with few governmental bodies are likely to have high rates of prosecutions per 1000 elected officials.[21] The relationship, we believe, will be non-linear. States that have particularly large numbers of governments – Illinois and Pennsylvania, for example, will have fewer prosecutions, given our definition of the dependent variable as the log of the number of convicted officials per 1000 elected officials. Thus we expect a negative sign from the linear term and a positive sign from the squared term reflecting the distribution of values at the tails. Why so? We do not believe that the US Department of Justice distributes its attorneys for cases on Public Integrity to the states based on numbers of governments; rather, they are probably distributed as a function of the *general caseload*. If so, Illinois with its 6,800 governments (many containing "elected officials"[22]) will probably have a number of US Attorneys overseeing public integrity cases roughly equal to states of similar size, such as North Carolina and Florida, each with about 1,000 governments – 10% to 15% of the number of Illinois governments. The *potential* caseload of possible corruption may be many times higher in Illinois due simply to the larger numbers of governments. We would expect, however, that Illinois with its many more governments will have fewer corruption convictions when stated, as we and others do, as proportional to the number of officials. There may be a simple legal behavioral explanation, as well. As the number of governments increases, the likely scale of corruption – the gains from the corrupt act -- becomes smaller, and thus of less interest to the prosecutorial ambitions of energetic U. S. Attorneys.

(2) The "greater the size of state" (defined as state population), the greater the corruption. As size increases, the public treasury will appear to the corruptible official to be more and more a common pool into which officials can dip with barely observable consequences, and appearing to hurt no one. If so, we suspect that there may be an opposing effect, that "very small sized states" (defined as the reciprocal of population) will have sharply lower levels of corruption. In small states, corruption may pose such a perceived threat to the "idea" of the "state" as a community that it serves to deter officials. If so, particularly small states such as Vermont will have markedly lower corruption as compared with Massachusetts. Further, those in small states may well understand their position as being in the employ of

[21] At the lower limit, Rhode Island has 128 governmental bodies, Alaska 176, Nevada, 212, Delaware, 281, and Maryland, 416. At the upper limit, Illinois has 6810 governmental units, Pennsylvania 5397, Texas, 4919, California, 4495, and Kansas 3918.

[22] The simple correlation among the 49 states (excluding Hawaii) between the number of governments and the number of elected officials is a not surprising .90.

the commonwealth of all, and thus have higher internalized norms of self-restraint. To steal from another in the smaller "all" is, in effect, to steal from those much like one's self.

(3) We pursue a parallel line of argument and resurrect a form of J.Q. Wilson's original observation about the ethnic makeup of a state. States with high levels of "demographic diversity" will have correspondingly high levels of corruption.[23] Diversity in the states suggests that the contributions via taxes to the public treasury are collected from a variety of constituencies – ethnic ones in our conception.[24] Corrupt officials can rationalize dipping into the public fisc by arguing that they are primarily skimming from the many *unlike* themselves.[25] Diversity rationalizes corruption as extraction from others unlike the self.[26]

(4) Finally, states with "civic-minded, well-informed political cultures" (as measured by high percentages of college graduates and a Census Bureau-derived measure of high levels of individual-level civic involvement[27]) will have lower rates of corruption. Well-educated citizens, we believe, are less tolerant of corruption. Such citizens are better informed and more likely to wreak electoral vengeance on public malefactors and their sponsors/colleagues. High levels of civic involvement also lead to closer ties

[23] Our ethnic homogeneity index is a nine-element Herfindahl index of state-by-state ethnic composition and was constructed from data obtained from the 1994 *Almanac of American Politics* on the percentages of states' populations that were Black, Hispanic, Asian-American, and Native American; and from the 1990 U.S. Census on the percentage of the population that claimed English, German, Irish, Italian, and a summary percentage of "other European" ancestry. This, and other measures novel to this study, appear in Appendix A-4. The original data can be obtained from the corresponding author.

[24] We also argue that ethnic diversity in our research is a proxy for other dimensions of diversity, e.g. religious, economic, occupations, etc.

[25] Unlike Wilson, our argument is *not* that some ethnic groups – the Italian-American and Irish-American communities in his analysis are -- prone to corruption, but rather the presence of a highly diverse community of many ethnic groups leads to greater corruption. As our subsequent analysis demonstrates, there is no relationship between the statewide fractions of Black or Hispanic, for example, that predicts corruption; rather the simple presence of many ethnic groups does.

[26] A similar argument is in Lassen (2003).

[27] Drawn from a 1989 Current Population Survey of the US Department of Commerce. The texts of the questions according to the CPS codebook were, "Last week, did [you] do any unpaid volunteer work?" and "For what type of organization did [you] do most of [your] unpaid volunteer work?" The options for responding were: "hospital or other health organization," "school or other educational institution," "social or welfare organization," "*civic or political organization*," "sport or recreational organization," "church or other religious organization," and "other type of organization." (See p. 8-17, May 1989, *Current Population Survey, Multiple Job Holdings, Flextime and Volunteer Work.* U.S. Department of Commerce, Bureau of the Census, ICPSR Study #9472.

between citizens and officials and likely constrain officials to be more open and transparent in their dealings with the public.[28]

VI. Model results: Table 1 presents the results of the simple OLS test for this model in panel (A) and the robust regression estimates for the same model in panel (B). The overall results are impressive. As the numbers of governments in the states rise, corruption convictions fall. We explain this with reference to scarce Department of Justice resources that must be spread over a larger number of possible corruption sites in states with large number of governments. Alternatively, as the numbers of governments grow in these states, the possible benefits of corruption fall, so there may be less incentive for dipping into the public till. Alternatively, large numbers of governments necessarily draw out large numbers of amateur and part-time officials – both elected and unelected – with an unknown consequence, but conjecturally positive, on the probability of corruption.[29] The size and significance of the coefficients, negative in the linear term and positive in the squared term, indicate that this is a curvilinear effect. It appears likely that states with small numbers of governments have higher appreciable corruption conviction rates per 1000 elected officials, and/or the rate of convictions fall among those with particularly large numbers, but at a declining rate. The coefficients for these two measures are significant in both the simple OLS test and in the results of the robust analysis.[30]

[Table 1 here]

We further hypothesized that population size of the states would have non-obvious effects. Officials in states with large populations might be more tempted to corruption given the anonymity of their position in a large organization and the appearance of the diminished impact of their personal corruption on the state. Officials in very small states may have a greater sense of the proximity of their own corrupt activities on the public treasury through embezzlement and the negative impact on the public interest of, for example, their extra-legal activity. We also believe that a corollary trait is that officials in small states may have a heightened sense of being engaged in common activities that gives meaning to the notion of

[28] Note that the rate of civic involvement varies fourfold across the states, from about 1% in TN, GA, KY and NY to better than 3.5% in ID, OR, NE, and WY.

[29] An incorrect inference from our findings, in our opinion, is that one can dampen public corruption by increasing the number of governments.

[30] We include in the appendix a table which contains the states' values (less Hawaii) on our dependent variable – the value of the 1987-2000 log of the number of corrupt officials per 1,000 officials, the residual from the OLS regression and the "rweight" by state that is used in the weighted regression to adjust for and correct for outliers. We also include in this table the data array for the two novel variables that we calculated for this paper – the rates of "civic involvement" and the "Herfindahl rates of ethnic homogeneity."

the commonwealth of all, and that sense may decline with rising population. In the OLS test, both coefficients are sizable, and the linear, population term is significant in the robust regression estimates.

We also argue that the likelihood of corruption rises in American states as the states' populations become more diverse. Our proxy measure for the more general trait of social diversity was a nine-element Herfindahl index of ethnic homogeneity. The results of both the ordinary OLS and the robust regression argues that as *ethnic homogeneity* in states rises, corruption rates fall. This highly positive relationship holds when calculated with the Black or Hispanic percentages of the states' populations excluded from the Herfindahl index, and when both are excluded. Thus, it seems unlikely to us that any single element of an index of homo/heterogeneity account for corruption rates. Furthermore, when we included as a simple test each of these two ethnic components of the states' populations as independent variables, neither -- and both in a combined test -- are significantly related to corruption, while controlling for the diversity of the rest of the states' populations. It appears to us, then, that a very strong case can be made for the impact, not of any particular ethnic group's impact on heightened corruption, but instead the combined effect of diversity; states that have *many* population components appear to have greater corruption rates. Our explanation for this is simple: in a state with a heterogeneous population any single official will perceive his or her act of malfeasance as largely affecting a population that is unlike the self. Diversity diminishes officials' moral constraints that might limit exploitation of the commonwealth. In diverse states, the population appears less "common" to the corrupt official.

We argue, as do others before us (Hill 2003), that a participant, well-informed population should lead to public honesty. We measure this (1) via the percent of the states' populations that are college graduates and (2) by a direct measure of the proportion of the states' populations that claim to have volunteered in some kind of civic activities. In the simple OLS model the education variable is a strong predictor of corruption rates, while the civic involvement variable is a weaker one.[31] In the robust regression, both factors are strongly related to corruption in the predicted direction – falling as the educated fraction of the

[31] Following on the analysis by Hill (2003), we included in an unreported test (obtainable from the corresponding author) a measure of statewide Congressional turnout and the Ranney index of interparty competition. Neither was significant, and both were inferior to the impact of our civic involvement variable on corruption. Hill generously provided us with a measure of Elazar's state-by-state "moralism index, which we also included in an unreported text to no effect. In a further effort to isolate a cultural trait, we included a measure of the distribution of fundamentalist Protestants by state (M. Berry and Winters 2003) with, also, no effect.

electorate rises and falling as the rates of popular civic involvement rise.[32] We note that the adjusted r-square for the model accounts for 72% of the variance in the dependent variable.[33]

In panel (C) of Table 1, we employ as the dependent variable the Boylan and Long (2003) measure of reporters' perceptions of statewide public malfeasance. Our model diminishes in statistical power, although the factors all have the predicted signs. The variables of size, very-small-size, ethnic homogeneity, and percent college graduates fail to reach significance.

Panel D employs the Department of Justice-based measure and incorporates Alt and Lassen's (2002) four control variables. None of the hypothesized factors of metropolitan population, per capita real income, and real tax revenues were significant. The education measure of high school diploma percentage is inferior to our measure of percent college graduates and also probably impacts the homogeneity variable. We conclude that the addition of the core controls degrades the model. Finally, in panel (E), we employ our seven control variables and examine indicators of political transparency as employed in Adsera et al. (2003). None of the variables that measure enhanced transparency, and thus ease of voter control, appears to affect prosecution rates.

VII. The consequences of corruption in the states: Economists have been quick to exploit a number of data sets that measure business leaders' perceptions of corruption cross-nationally (Mauro 1995; Ehrlich and Lui 1999; Treisman, 2000; Adsera et al, 2003).[34] Mauro summarizes the expected consequences: "Corruption is found to lower investment, thereby lowering economic growth" (681). Ehrlich and Lui (1999) note that corruption appears to adversely affect per capita gross domestic product, albeit unrelated to the rate of growth in real domestic product. Glaeser and Saks (2004) extend the analysis of corruption consequences to the American states, and employ a model that we replicate for the broader time period. We draw on slightly different measures of their concepts and add another economic outcome variable.

[32] The means, standard deviations, minimums and maximums for our variables appear in an appendix to the paper.

[33] A quick check on the robustness of our findings is to use the independent variables in our 1987-2000 data analysis to predict average levels of corruption in the states across the entire time period, 1976-2000, and the average for the earlier time period examined by Meier and Holbrook (1992). Similar results occur. However, note that we are using independent variables drawn from 1990 (the per cent college educated, for example) to predict corruption in an earlier time period. The results for both tests are in the Appendix and confirm the relevance of these indicators.

[34] These studies typically rely on data available by, for example, the "International Country Risk Guide" issued by the Political Risk Services Group at http://www.prsgroup.com/icrg/icrg.html (Adsera et al. 2003) or similar data generated by Transparency International, at http://www.transparency.org/ (Treisman 2000).

Glaeser and Saks pose the question of "whether growth is slower in states with more corruption convictions" (14). They employ the Justice Department data for the period 1995-2000 and examine the impact of corruption on growth in employment, income and housing prices in the states over the 1990-2000 time period. Hypothetically, corruption should dampen growth rates in each of the indicators. We adopt their indicators and add a further one of number of business firms by state over the 1990-2000 time period. They employ two basic specifications for each dependent variable. We replicate their choice of the "richer set," using the logged corruption measure plus the log of each of the initial values of the key economic indicators (logged value of income, job, median house price, and business firms), the per cent unionized by state, the degree of "racial fractionalization" as well as dummy variables for south, midwest, and northeast.[35] We tried various other formulations and include an illustrative one where only the initial value of the economic factor under examination is included.

[Table 2 here]

Corruption appears to be, as expected, negatively related to growth in personal income equation (a), but positively related to job growth in equation (b).[36] Corruption measured over the entire period (1976-2000) and predicting changes in economic aggregates over the 1980-2000 period is negatively related to growth in home value and growth in business firms, but not significantly so. The remaining factors in equations (a) – (d) are not surprising – income growth is dampened by high rates of unionization and the states' original high position in income. States in the south, northeast and midwest, *ceteris paribus*, are advantaged. Equations (e) – (h) use only the leading value of the economic indicator of choice in each equation, and the results are significantly worse. None of the corruption measures are importantly related to the economic measures. We conclude that there is little systematic evidence of the impact of corruption on economic growth in the American states.

[35] This is the specification employed in columns 2, 4, and 6 of Table 5, p 23 of their unnumbered text available at http://post.economics.harvard.edu/faculty/glaeser/papers.html. We substitute our measure of ethnic homogeneity for their measure of "racial fractionalization."

[36] Major differences between our and Glaeser and Saks' measurement strategies preclude direct comparisons with their results. Their measure of corruption is "convictions per 100,000 population," while ours divides convictions by the number of elected officials. Secondly, they examined the 1990-2000 economic period and measured corruption over the 1995-2000 years. Third, we drew on different data sets for obtaining measures of economic change. Finally, we also include a fourth measure of economic change in the equations – log of growth in the number of business firms over the 1988-2000 period.

VIII. Conclusion: In an earlier paper (2003), we carried out a good faith replication of Meier and Holbrook (1992),[37] and concluded that there was little that we could confidently carry forward. Instead, we asked: what factors should reasonably and proximately relate to variations in statewide corruption? The question led us to focus on some of the manifest observables of the states such as the number of governments, the size and diversity of state, and statewide social and political qualities such as civic involvement and education.

We are encouraged by the results that we obtain. Whether one adopts a point of view that is methodological in origin or more analytic, the sheer number of governments in the states and its square appear to shape the dependent variable as we and others set it out. Increasing the numbers of governments affect both the disposition to corruption (more corruption for reasons of the size of the "pot"), but also its observation, impact, evaluation and consequence. Illinois may have a reputation for being a corrupt state because it has so many arenas for public corruption to occur. But nevertheless, not all of these will rise to the attention of, nor be cause for action by the office of the U.S. Attorney. Some will be handled via the state criminal codes, a data set that we do not have. Alternatively, it may be the case that as the numbers of governments increase, bringing government closer to the people and involving greater numbers of local officials, government becomes more transparent, and thereby attenuating corrupt activities.

The states' increasing size and heightened diversity appear to loosen internalized norms constraining official acts. Put simply, small size and socio-political homogeneity heightens identification among officials and citizens in the community, precisely the kinds of contexts where corruption will be less likely. We also find support for the classical political economy lesson (Adsera et al. 2003; Hill 2003; Boylan and Long 2004) that corruption is dampened in states with well-educated and highly-involved citizens. What also matters is the nature of the population in the states. Population heterogeneity heightens corruption. The simplest reason is the public goods explanation that moral restraints are attenuated in states with diverse populations. Our null findings should be of interest, as well. Contrary to Alt and Lassen (2003) the core political economy variables of metropolitan population, and per capita real income and real tax revenue, are not significant; a finding that reinforces a politico-cultural perspective on the determinants of corruption. Finally, many conventional measures of political transparency and

[37] Meier and Schlesinger (2003) conducted a similar replication effort for the components of the various discrete models that constituted the Meier and Holbrook (1992) original research. However, they did not reproduce Meier and Holbrook's final table, instead they chose to go a factor analytic route so as to derive a more parsimonious and understandable model.

control at the state level are not good explanations of corruptions after controlling for factors in our model.

Cross-national lessons on the consequences of corruption do not apply well to the American states. We marshaled four indicators of economic change and on only one, change in per capita income, can we identify a seeming cost of corruption. Growth rates in jobs, valued assets, and business firms are unrelated to rates of corruption in the states. We conclude, agnostically, as do Glaeser and Saks (2004, 16), that there is weak evidence, at best, for the economic costs of corruption in the states.

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Table 1: Models of Corruption in the American States

	A) Simple OLS Using log of DoJ measure	B) OLS with robust s.e. DoJ measure	C) OLS with robust s.e. using Boylan/Long	(D) OLS w/ DOJ robust s.e. w/ "core controls"	F) OLS w/DOJ robust s.e. using w/ pol. Transp.
(1) *The N of governments:*					
(a) Number of all governments (-)	-.39***	-.35***	-.81**	-.42***	-.39***
	(0.09)	(0.07)	(0.32)	(0.089)	(0.08)
(b) N of all governments sqrd. (+)	.038***	.036***	.13**	.042***	.04***
	(0.014)	(0.012)	(0.05)	(0.014)	(0.013)
(2) Size and very small size					
(a) Population in 100K (+)	.004***	.004***	-0.003	.004***	.003***
	(0.001)	(0.0009)	(0.003)	(0.001)	(0.0009)
(b) Small size (-)	-2.45**	-0.98	-4.2	-1.42	-1.50#
	(0.99)	(0.81)	(3.4)	(1.23)	(0.89)
(3) *Socio-ethnic homogeneity* (-)					
index of ethnic homogeneity	-.0002***	-.0001*	-0.0003	-0.00006	-.00016*
	(0.00008)	(0.00007)	(0.0003)	(0.00008)	(0.0007)
(4) *A civic, well-informed population:*					
(a) Percent college graduates (-)	-.044***	-.039***	-0.066	------	-.041***
	(0.011)	(0.009)	.043)	(0.027)	(0.009)
(b) Civic involvement (-)	-10.77*	-23.24***	-64.3***	-15.1*	-25.07***
	(5.8)	(4.82)	(21.2)	(7.34)	(5.62)
(c) % of popul. with high school diploma (-)				0.017	
				(0.011)	
(5) Metropolitan population				-0.001	
				(0.004)	
(6) Real income growth per capita				-0.000007	
				(0.00002)	
(7) General real tax revenue, p.c.				0.00009	
				(0.00003)	
(8) Direct initiatives					0.115
					(0.09)
(9) Direct initiatives, threshold					0.0046
					(0.01)
(10) Camp. Expend. Restrictions					0.031
					(0.087)
(11) Open party primaries					-0.08
					(0.071)
Constant	2.57***	2.30***	8.48***	4.48***	2.74***
	-0.43	-0.355	-1.65	-1.03	-0.45
Adjusted R sqd. =	0.72	0.72	0.49	0.76	0.72
F test:	(7, 41)=18.7	(7,41)=26.55	(7,38)=7.12	(7,38)=21.31	((11,36)=11.88

Table 2
Some Economic Consequences of Corruption in the American States

(A) Full model

	(a) Log of % income growth 1980 – 2000		(b) Log of % job growth 1980 – 2000		(c) Log of % growth in home values 1980 – 2000		(d) Log of % growth in business firms, 1990-2000	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Log corruption[38]	-.034**	.014	.070*	.031	-.032	.058	-.092	.377
Ethnic homogeneity	-.000	.000	.000	.000	-.000	.000	.000	.000
Per cent unionized	-.003*	.001	-.0041	.0025	-.002	.004	-.007	.015
log 1980 income	-.352***	.123	.048	.27	-.314	.506	.902	1.56
log 1980 job	.036	.079	-.671***	.173	-.156	.325	-.554	.955
log of 1980 home value	.150	.083	.078	.182	.909***	.341	-.017	1.05
log of 1990 bus. firms	.018	.082	.702***	.181	.333	.340	1.50	1.00
South	.118***	.040	-.076	.087	-.012	.164	-.247	.51
Northeast	.197***	.028	-.181***	.061	.256*	.115	-1.52***	.347
Midwest	.090***	.036	-.051	.079	-.081	.149	-.793	.430
Constant	3.49***	1.01	1.17	2.21	3.48	4.15	-8.32	12.71
Adj. R-sq.	.65		.52		.55		.61	

(B) Using only leading indicator

	(e) Log of % income growth 1980 – 2000		(f) Log of % job growth 1980 – 2000		(g) Log of % growth in home values 1980 – 2000		(h) Log of % growth in business firms, 1990-2000	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Log corruption	-.028	.016	.033	.034	-.027	.061	-.377	1.24
Ethnic homogeneity	-.000	.000	.000	.000	-.000	.000	.000	.000
Per cent unionized	-.001	.001	-.005	.0027	-.003	.004	.039	.045
log 1980 income	-.175	.108	--------		--------		--------	
log 1980 job	--------		-.004	.031	--------		--------	
log of 1980 home value	--------		--------		.877***	.266	--------	
log of 1990 bus. firms	--------		--------		--------		1.15*	.55
South	.139***	.039	-.147	.080	.167	.166	-.476	1.31
Northeast	.180***	.031	-.214***	.064	.268*	.124	-3.84***	1.07
Midwest	.097***	.034	-.213***	.072	-.017	.141	-1.57	1.17
Constant	2.82**	1.05	.603	.322	1.09	1.28	-4.37	3.75
Adj. R-sq.	.48		.36		.43		.25	

[38] Corruption is measured from 1976-2000 for regressions (a) - (c) and (e) – (g); and from 1990-2000 for regressions (d) and (h).

Appendix 1: Data sources

(1) Metropolitan population	U.S. Statistical Abstract, 1994, p. xiii
(2) Real income per capita	State Policy data bank at http://www.unl.edu/SPPQ/datasets.html
(3) % of population with high school diploma	State Policy data bank at http://www.unl.edu/SPPQ/datasets.html
(4) General real tax revenue per capita	State Policy data bank at http://www.unl.edu/SPPQ/datasets.html
(5) Number of all governments	U.S. Statistical Abstract, 199X, Table 472, p. 297.
(6) Number of all governments sqrd.	Square of above
(7) Population in 100K	
(8) Small size	Reciprocal of variable (7)
(9) Socio-ethnic homogeneity	As calculated by the authors; see Appendix
(10) Percent college graduates	
(11) Civic involvement	As calculated by the authors
(12) Median home prices: 1980 and 2000	U.S. Statistical Abstract, 1985 (Table 1312); 2003 (Table 967).
(13) Per capita income, 1980 and 2000	Calculated by authors from data file 02REX1.xls at ftp://ftp2.census.gov/pub/outgoing/govs/Finance/
(14) Jobs: total employed labor force, 1980 and 2000	U.S. Statistical Abstract, 1981 Ttable 638); 2001 (Table 565).
(15) Business firms by state, 1990 and 2000	1990 and 2000 figures at Table 749, U.S. Statistical Abstract, 2003, p. 507.
(16) per cent unionized	U.S. Statistical AbstractXXXXXXXXXXXXXXXXXXXXXXXXXX
(17) Direct initiatives	Gerber and Morton (Table X, 19XX), code =1 for direct initiative states,.
(18) Direct initiatives, threshold	Tolbert et al. (1999); Hug (2001)
(19) Campaign expenditure restrictions	obtained by email from David Dreyer Lassen
(20) Open primaries	Book of the States
(21) Corruption	Derived from tables in the annual reports to Congress on the activities and operations of the Public Integrity Section of the U.S. Department of Justice. Latest reports available at: http://www.usdoj.gov/criminal/pin.html.
(22) Corruption per Boylan and Long	Boylan and Long (2003)

Appendix 2: Means, Std. Devs., Minimums and Maximums of Data

Appendix 3: Alt and Lassen "core control variables" related to Boylan and Long's "press perceptions of corruption" and the 1987-2000 Justice Department measure of convictions

Alt and Lassen "core" control variables predicting Boylan and Long's perception of corruption estimated with robust standard errors, as reported in Alt and Lassen (2002, 24):

(1) Metropolitan population	.0414**	.0073	n.r.
(2) Real income per capita	-.0003*	.0001	n.r.
(3) % of population with high school diploma	-.1012**	.0240	n.r.
(4) General real tax revenue per capita	.0013**	.0004	n.r.

r^2 = .57 Constant 9.6321** (1.4415) N=45

Alt and Lassen "core" control variables predicting log of convictions per 00 elected officials estimated with robust standard errors:

(1) Metropolitan population	.013**	.003	4.02
(2) Real income per capita	-.001	.004	.73
(3) % of population with high school diploma	-.053**	.010	5.34
(4) General real tax revenue per capita	.0001**	.00003	2.96

r^2 = .59 Constant 3.32** (0.66) N=49

Note: ** and * denote significance at 95% and 90% levels, respectively.

Simple correlation between Boylan and Long measure and the 1987-2000 Justice Department measure of convictions is .57.

Appendix 4: Measure novel to this research

state	logNuC~00	resid	civcvlnt	ethnichomog
Alabama	0.5297336	0.0623094	0.016219	3747
Alaska	0.2552725	0.0847731	0.0251079	2632
Arizona	0.5189126	0.0278622	0.0222099	2586
Arkansas	-0.2253093	-0.6335906	0.013876	4219
California	0.7869174	-0.0611868	0.0171161	2321
Colorado	-0.25042	0.0197936	0.0231214	3146
Connecticut	-0.0139358	-0.1963432	0.0213499	2759
Delaware	0.2138798	-0.1571266	0.018262	2832
Florida	1.173588	0.124652	0.0117822	2585
Georgia	0.6935917	0.0929407	0.0113402	3243
Idaho	-0.1014576	0.306922	0.0439716	3919
Illinois	0.2925581	0.0803522	0.0197348	2549
Indiana	0.1212426	-0.0605588	0.0184989	3696
Iowa	-0.4852391	-0.1781465	0.0329506	3877
Kansas	-0.6310982	-0.0783232	0.027122	3601
Kentucky	0.4421843	-0.0061881	0.0115123	4425
Louisiana	0.845098	0.0871418	0.0135613	3292
Maine	-0.0917704	-0.0494898	0.0265534	4342
Maryland	0.7715207	0.40602	0.0189655	2713
Massachusetts	-0.1451421	-0.4031307	0.0168468	2898
Michigan	0.0676206	-0.1646899	0.0184775	3502
Minnesota	-0.3419634	0.2348022	0.0283964	3809
Mississippi	0.6877376	0.0481441	0.0139829	3447
Missouri	0.1096988	0.1286813	0.0122154	4287
Montana	0.0263289	0.2209757	0.0273224	3744
Nebraska	-0.9197317	-0.2285559	0.0388971	3748
Nevada	0.4890205	-0.0857173	0.0250765	2820
New Hampshire	-0.845098	-0.8533872	0.0168831	4422
New Jersey	0.5638276	0.1950815	0.0154015	2223
New Mexico	0.31037	-0.1381103	0.0190909	2763
New York	0.6424607	0.0545561	0.0117201	2046
North Carolina	0.4008257	-0.1587479	0.0192251	3222
North Dakota	-0.4798963	-0.0048018	0.0287993	3389
Ohio	0.4970161	0.2670974	0.0162426	3534
Oklahoma	0.0511525	-0.068066	0.0195293	3632
Oregon	-0.3622997	0.0807935	0.0391548	4055
Pennsylvania	0.2055232	-0.0126185	0.0166472	3058
Rhode Island	0.5149098	0.0540906	0.0169824	2871
South Carolina	0.5175499	-0.0310077	0.019657	3331
South Dakota	-0.3521825	0.0423617	0.0328619	3394
Tennessee	0.624724	0.0195041	0.0109507	3992
Texas	0.2587057	-0.2184653	0.0166814	2564
Utah	-0.0321847	-0.1173745	0.0243902	3700
Vermont	-0.8154756	-0.3583435	0.032858	4365
Virginia	1.029776	0.7739539	0.0249688	3116
Washington	0.1836444	0.5396511	0.0351922	3690
West Virginia	0.4198946	0.0141126	0.0191499	4865
Wisconsin	-0.3160937	-0.1358901	0.0288594	3490
Wyoming	-0.1006702	0.152687	0.0368139	3919

Variable	Obs	Mean	Std. Dev.	Min	Max
logNuCnvc~00	49	.1578636	.4898571	-.9197317	1.173588
pccollgrad	49	22	3.921097	14	30
etnichomog	49	3395.51	653.8526	2046	4865
civcvlnt	49	.02197	.0082504	.0109507	.0439716
pop100k	49	53.06122	57.68427	5	314
allgovtsX001	49	1.769776	1.521963	.128	6.81
allgovtsX0~D	49	5.401205	8.897491	.016384	46.3761

```
smallsize |      49    .0493446   .0510049   .0031847         .2
```

Appendix-5

(A) A Model of Political Corruption 1977-2000: the OLS version

		coeff.	std. err.	t-ratio
(1) *The N of governments:*				
(a)	Number of all governments	-.87***	.17	4.30
(b)	Number of all governments sqrd.	.088***	.028	3.11
(2*) Size and very small size*				
(a)	Population in 100K	.006***	.002	2.86
(b)	Small size	-6.60***	1.93	3.42
(3) *Socio-ethnic homogeneity*		-.0006***	.0001	3.87
(4) *A civic, well-informed population:*				
(a)	Percent college graduates	-.093***	.021	4.30
(b)	Civic involvement	-30.38***	11.5	2.64

$r^2 = .81$ Adj. $r^2 = .78$ F (7, 41) = 25.3

(B) A Model of Political Corruption, 1976-1987, the OLS version

		coeff.	std. err.	t-ratio
(1) *The N of governments*:				
(a)	Number of all governments	-.39***	.10	4.08
(b)	Number of all governments sqrd.	.039**	.015	2.59
(2) *Size and very small size:*				
(a)	Population in 100K	.0013	.0011	1.12
(b)	Small size	-4.44***	1.04	4.24
(3) *Socio-ethnic homogeneity:*		-.0003***	.00008	3.42
(4) *A civic, well-informed population:*				
(a)	Percent college graduates	-.036***	.011	5.07
(b)	Civic involvement	-16.75***	6.23	2.69

$r^2 = .77$ Adj. $r^2 = .73$ F (7, 41) = 19.6