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Corruption in America

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Abstract

We use a data set of federal corruption convictions in the U.S. to investigate the causes and consequences of corruption. More educated states, and to a less degree richer states, have less corruption. This relationship holds even when we use historical factors like education in 1928 or Congregationalism in 1890, as instruments for the level of schooling today. The level of corruption is weakly correlated with the level of income inequality and racial fractionalization, and uncorrelated with the size of government. There is a weak negative relationship between corruption and employment and income growth. These results echo the cross-country findings, and support the view that the correlation between development and good political outcomes occurs because more education improves political institutions.

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I. Introduction

Corruption isn't just something that happens to poor countries. Between 1990 and 2002, federal prosecutors convicted more than 10,000 government officials of acts of official corruption, such as conflict of interest, fraud, campaign-finance violations, and obstruction of justice. Recently, the governors of both New Jersey and Connecticut have had to resign amidst allegations of corrupt practices. The past three insurance commissioners of Louisiana have been convicted for official misdeeds (Corporate Crime Reporter, 2004). America's past is even more sordid (see Glaeser and Goldin, 2004). City leaders like William M. Tweed engaged in practices that would look at home in the most corrupt nations today.

But if America's corruption is bad news for the country, it is a mixed blessing for economists studying corruption. Cross-national research on corruption has been forced to rely on opinion surveys that ask private individuals about the levels of corruption in a nation. Empirical work using these surveys have established the perceived corruption increases with ethnic fragmentation, and that there is a strong negative corruption between perceived corruption and investment and a weak negative correlation between perceived corruption and growth (Mauro, 1995). LaPorta, Lopes-de-Silanes, Shleifer and Vishny (1999) confirm that more fractionalized countries are more corrupt and also document a strong relationship between economic development and corruption.

While these opinion surveys contain valuable information, there are many reasons why skeptics might doubt their accuracy. Some of the most exciting work on corruption has used within country data on bribery by firms (Svensson, 2003) and politicians (McMillan and Zoido, 2004). These studies are, however, poorly suited for asking the basic questions about what national characteristics cause corruption and what is the impact of corruption on economic development.

Because there is corruption within the U.S. and because corruption differs across states, it is possible to use cross-state variation to address both of these questions. The negative aspects of using cross-state variation are obvious. No state today is as poor or as corrupt as many countries in the developing world, and so relying on variation across the states in the US limits research to a small part of the distribution of both independent and dependent variables.

However, cross-state variation does have one significant advantage. We actually have a hard measure of corruption— Federal convictions of government officials for corrupt practices.[1] These conviction levels capture the extent to which Federal prosecutors have charged and convicted public officials for misconduct in each of the fifty states. The usual problem with using conviction rates to measure corruption is that in corrupt places, the judicial system is itself corrupt and fewer people will be charged with corrupt practices. This problem is mitigated when focusing on Federal convictions, because the Federal judicial system is relatively constant across space and isolated from local corruption. In this paper, we use the number of Federal corruption convictions by state to ask what state characteristics predict corruption and whether corruption appears to deter economic growth at the state level.

We test three theories about the causes of corruption. The first hypothesis, based loosely on Lipset (1960), is that places with higher levels of income and education are less corrupt. The key element of this hypothesis is that voters with more education and income are more willing and able to monitor public employees and to take action when these employees violate the law. A second hypothesis, connected with Mauro (1995) and Alesina, Bagir and Easterly (2002), is that ethnic heterogeneity increases corruption. As voters become more diverse along ethnic or income lines, then voting will inevitably focus on redistribution rather than on the honesty of government officials. The third hypothesis that we test is that places with more government revenues or regulations will

[1] Fisman and Gatti (2001) and Berkowitz and Clay (2003) also use state conviction data to test theories of corruption.

have higher levels of corruption, as these places will have more assets to steal and more rules to subvert.

We find significant support for the first hypothesis. States that are richer and better educated are less corrupt. The impact of education on corruption is much stronger and more robust. To address the problem that corruption might reduce education, we use state high school graduation rates in 1928 (from Goldin, 1998) and find that this also predicts less corruption today. If we use congregationalism in 1890 as an instrument for schooling, we still find that places with more schooling are less corrupt.

We also find that racial heterogeneity, especially percent African-American, increases corruption, although this effect is less robust. There is little relationship between income inequality and corruption. Finally, we find no evidence whatsoever linking bigger government or more regulation with more corruption. However, as states may be less likely to support a larger government if it is corrupt, this lack of correlation may reflect reverse causality.

Finally, we turn to the connection between state growth and corruption. We regress growth in population, income and housing values between 1990 and 2000 on the average number of corruption convictions in that state during that period. More corrupt places experienced slower income and employment growth in the 1990s. However, this effect becomes statistically insignificant once we control for other factors that limit growth and are correlated with corruption.

In all, the results from state-level regressions are remarkably similar to those at the country level. Per capita income, education and ethnic heterogeneity all predict more corruption. There is no empirical link between bigger government, or more regulation, and more corruption. There is a weak negative relationship between corruption and economic growth at the state or country level. The fact that these findings exist both at the country level using opinion surveys, and at the state level, using conviction data,

lends further support to the validity of both ways of measuring corruption and that corruption declines with income and education and rises with ethnic heterogeneity.

II. The Determinants of Corruption

This paper will address both the causes and consequences of corruption, but in this section, we review only the potential causes of corruption because the reasons why corruption might limit growth are better understood (see e.g. Shleifer and Vishny, 1993, Ehrlich and Lui, 1999). If corruption is defined as crimes by public officials for personal gain (Rose-Ackerman, 1975), then the economic theory of corruption should follow closely the economic theory of crime (Becker, 1968). The potential criminal, in this case a government official, weighs the benefits of crime against its costs. National or state characteristics will influence the level of corruption as they alter the benefits and costs of crime.

The benefits of corruption come from government actors being able to allocate resources, including the right to bypass certain regulations, to private individuals. As such, the benefits to a political actor from being corrupt should be increasing in the size of government and in the individual's discretion over government actions. Greater numbers of regulations also increase the opportunities for helping private actors evade these regulations, therefore increasing the possibilities for bribe taking. The size of the economy can increase the returns to bypassing regulations or to corrupting the legal system (as in Glaeser and Shleifer, 2003). Therefore, we will test whether states with bigger governments and more regulation have more corruption.

The costs of corruption are driven by the probability of being caught and the penalties from being caught, which include imprisonment, electoral defeat and loss of reputation. We focus on two factors that have been the focus of the literature on corruption: economic development and heterogeneity.

While the modern literature on corruption began with work on whether corruption makes countries poor (e.g Mauro, 1995), it is also reasonable to ask whether poor countries naturally tend towards corruption (as in Lipset, 1960, Glaeser, LaPorta, Lopes-de-Silanes and Shleifer, 2004). Empirical research has shown that political involvement rises with income and education. This positive relationship may be because political attention is a luxury good, or because education makes it easier to learn about politics. Furthermore, education may indoctrinate individuals towards having a higher value of staying politically involved. As a result, places with richer and more educated citizens may have people who are more willing to pay attention to corrupt activities and who are better able to take action against these officials. Higher levels of income and education will also increase the ability of private individuals to punish malfeasance by members of the government.

One problem with testing whether income and education decrease corruption is that these variables might themselves be functions of the quality of government. Long standing corruption might induce capital to flee and reduce the quality of schools. While there are no perfect solutions to this problem, we will address it by using long-standing variables that relate to education and wealth, such as the fraction of Congregationalist churches in 1850 and high school graduation rates in 1928. Both of these variables continue to predict schooling to this day, and we believe that they are otherwise uncorrelated with modern-day corruption. However, skeptics might be concerned that these variables might themselves have been determined by historical levels of corruption, and that these levels of corruption have persisted over time. While we do not have a strong defense against that view, our reading of historical commentators, like Steffens (1904) suggests that corruption was ubiquitous 100 years ago and that the characterization of corruption across states historically does not always line up with differences in corruption today (see also Glaeser and Goldin, 2004).

Another set of theories on the determinants of corruption has focused on the effect of ethnic fragmentation on corruption and wasteful redistribution (Mauro, 1995 and Alesina, Baqir and Easterly, 2002). Ethnic fragmentation impacts corruption by reducing the

popular will to oppose corrupt politicians. If an area is torn apart by ethnic divisions and leaders tend to allocate resources towards backers of their own ethnicity, then members of one ethnic group might continue to support a leader of their own ethnic group, even if he is known to be corrupt. American history is replete with examples of ethnic groups supporting leaders, like James Michael Curley or Marion Barry, even when those leaders are in jail. Other forms of division, such as income inequality, may also reduce voters' desire to oppose corruption. To test this hypothesis, we will examine the effects of ethnic heterogeneity and income inequality on corruption.

III. The Empirical Determinants of State Level Corruption

We begin this section by describing our data, and then turn to testing the relationships between corruption income, education, racial heterogeneity and various governmental variables.

Data Description

Our corruption data is derived from the Justice Department's "Report to Congress on the Activities and Operations of the Public Integrity Section." This publication lists the number of federal, state and local public officials convicted of a corruption-related crime by state. We combine information reported in the 1999-2002 reports in order to calculate the total number of convictions in each state between 1990 and 2002. Following a strategy similar to the Corporate Crime Reporter (2004), we then divide these convictions by average state population from the 1990 and 2000 Censuses to form an estimate of the state conviction rate per capita.[2] The conviction levels, state population averages and conviction rates are shown for every state in Appendix Table 1. On average, about 4 public officials for every 100,000 people were convicted of corruption during the 13-year time span. There is a fairly wide degree of variation across states, as the standard deviation is 2.1 convictions per 100,000.

[2] The conviction rates are also adjusted to account for a few states for which convictions were not reported in a few years. In these cases, we divide the observed corruption rate by the fraction of non-missing observations for that state.

The crimes investigated by the Department of Justice (DOJ) include a wide array of topics such as conflict of interest, fraud, campaign-finance violations, and obstruction of justice. While the majority of public corruption cases are handled by the local US attorney's office, the DOJ prosecutes about 2,000 cases per year. These cases are generally brought to the attention of the DOJ through four main channels. First, some cases are referred to the DOJ for federal prosecution if they involve individuals with close ties to local government, thereby making it inappropriate for them to be tried by the local US attorney's office. The DOJ also handles cases that involve multiple jurisdictions. Third, federal agencies can directly refer questionable behavior of public employees to the DOJ for investigation. Finally, the DOJ can be called in to handle cases that require an unusual amount of resources or special supervisory assistance.

In each year, generally about half of the federal corruption convictions involve federal public officials. One such high-profile case was a former Supervisory Deputy U.S. Marshal in Colorado, who was prosecuted by the DOJ and convicted of perjury in relation to false statements made in the 1997 trial of Timothy McVeigh. Another quarter of the federal convictions are state or local officials, and the remaining cases are private citizens involved in public corruption cases. For example, in 2002 six police officers in Alabama were convicted of extortion and soliciting bribes from individuals detained by the police department in exchange for not pursuing criminal charges against them. Election fraud is also a priority of the DOJ. In 1999, an individual was convicted of using fraudulent means to make illegal excessive contributions to a senator's reelection campaign.

Does this variable meaningfully measure corruption? Table 1 ranks corruption levels by state for the ten most and least corruption states. To us, this list lines up reasonably well with our preconceived notions about the areas in the U.S. that are more corruption. Mississippi and Louisiana are among our most corrupt states. New Hampshire and Oregon are among the least corrupt states. While this measure is imperfect, it has distinct advantages over the existing survey-based measures of corruption.

Our data on state demographics, educational attainment, income and housing values, come from the 1990 and 2000 Censuses. Our regressions also include data on the fraction of the workforce that is unionized, which is reported for 1996 in the 1997-98 edition of the State and Metropolitan Area Databook.

Corruption and State Characteristics

We now turn to the correlates of corruption. Our first approach is to regress:

(1) Conviction Rate = a • Income + b • Education + Other Controls

In all regressions, we include controls for the logarithm of state population, unionization, the share of the state that works in manufacturing, and dummy variables for each of the four Census regions. Our core income variable is the logarithm of median household income in the state from the 1990 census. Our core education variable is the share of the population with no schooling after high school.

The first column of Table 2 shows regression results controlling for income, but not education. In that specification, a higher income level depresses corruption. The coefficient estimate indicates that a .1 log point increase in median income (approximately 10 percent) is associated with .4 fewer convictions per 100,000 inhabitants, or about one fifth of the standard deviation of corruption rates across states. In this specification, southern states and states with a higher fraction of unionized workers have more corruption convictions. These positive correlations correspond to conventional wisdom concerning the types of areas that tend to be more corrupt. However, as neither of these effects remain after controlling for education, we don't believe that they are particularly meaningful.

On the other hand, the share of the labor force in manufacturing reduces the amount of corruption convictions and this result is robust in the majority of our specifications. A

ten percent increase in the share of the labor force in manufacturing reduces corruption convictions by 1.6 per 100,000 or about three quarters of a standard deviation. One potential explanation is that states with more manufacturing were richer earlier in the century and that they used this wealth to invest in institutions that reduced corruption.

In regression shown in column 2, we replace the income variable with a measure of the level of education in the state, which we define as the fraction of the population with no more than a high school degree. The impact of education on corruption convictions is quite strong and much more robust than the impact of income on corruption convictions. This can be seen in column 3, which shows that when we control for both education and income, only education remains significant. As the share of people with only a high school degree or less declines by 10 percent, the corruption conviction rate decreases by 2, or about one standard deviation. Therefore, a higher level of schooling is strongly associated with a lower corruption conviction rates. Once the effect of education is taken into account, the South no longer appears to have more corruption than other regions.

As education levels may themselves be the result, not the cause, of lower corruption levels, in column 4, we use high school enrollment rates in 1928 from Goldin (1998) as an instrument for schooling attainment today. Education levels have a great deal of permanence and this variable strongly predicts current education levels (the coefficient from the first stage is -.23 with a standard error of .07, and the first stage F is 16.9). Using this instrument, effect of education on corruption remains significant and its value is almost unchanged form the ordinary least squares specifications.

In a final attempt to deal with the reverse causality between education and corruption, we use the share of church members in the state that are Congregationalist, which is available for 45 states in the 1890 Census. Congregationalism was almost never a dominant religion during this time period, but it is generally associated with elites and their commitment to education. As a result, education developed more quickly in those states with more Congregationalists and those states remain more educated today. In regression (5), where we use Congregationalism in 1890 as an instrument for schooling

today, we continue to estimate an effect of schooling that is similar in magnitude to the effects estimated in regressions (2) and (3), lending further support to the idea that places with more schooling have less corruption. Of course, because Congregationalism may influence corruption through channels other than schooling, there is a reasonable argument that it is a flawed instrument.

Finally, again to address reverse causality, we instrument for household income. In regression (6), we instrument for median household income in 1990 using median family wage and salary income from the 1940 Census (calculated from the Integrated Public Use Microdata). In regression (7), we predict income using the geographic location of each state. Geographic characteristics, such as access to a natural harbor or an easily navigable river, can greatly reduce transportation costs and cause economic activity to be more productive. Therefore, proximity to an ocean or major river is strongly correlated with income (Rappaport and Sachs, 2003). As a proxy for proximity to the coasts, we use quadratic functions of latitude and longitude as a second set of instruments for income. Using either lagged income or geography as an instrument, the coefficient on income is larger magnitude than in the OLS regression and at least marginally statistically significant.[3] These results further suggest to us that greater economic development reduces corruption.

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In Table 3, we turn to the role of income and racial heterogeneity. All of the regressions include our basic controls, education and the logarithm of income, but the coefficients on these variables are not reported. The coefficient on education remains statistically significant in all of these specifications. Measures of income inequality are calculated from the 1990 Current Population Survey. Using data on total household income, we estimate state-specific Gini coefficients using the fraction of income earned by each decile of the income distribution. In regression (1) of this table, we find that more income inequality increases corruption but that the effect is weak.

[3] Alaska and Hawaii are excluded from regression (6) because they were not states in 1940 and so were not included in the 1940 Census. They are also excluded from regression (7) because they are not part of the continental United States.

In regression (2), we use the ratio of household income at the 75^{th} percentile to household income at the 25^{th} percentile to capture income inequality. In this case, we find that there is more corruption in more unequal places. As this ratio increases by .4 (which is about equal to the standard deviation across states), the number of corruption convictions per 100,000 increases by .8.

In regression (3), we turn to racial dissimilarity. In that regression, we find that corruption convictions increase with the share of the population that is Black and decrease with the share of the population that is Hispanic. The former effect is statistically significant; the latter effect is not. As the share of the population that is Black rises by 10 percent, the number of corruption convictions per 100,000 rises by 1.

In regression (4), we use a more common measure of racial fractionalization: an index that is defined as $1-Ss_i^2$, where s_i is the population share of group *i*. The index is calculated from the population shares of the following racial and ethnic categories: Hispanic (all races), White, Black, Asian, Native American, and other races. In this regression, we find that the impact of racial fractionalization is insignificant. This insignificance is driven primarily by a few states that have a large Hispanic population and low corruption levels. In regression (5), we exclude New Mexico (the state with the highest fraction of Hispanics) and the impact of racial fragmentation becomes statistically significant. These results suggest that fragmentation has a weak positive effect on the level of corruption convictions in the state.

Finally, in Table 4, we turn to the role of government. The first four regressions examine general measures of government size. In regression (1), we use gross state product of state and local government in 1990 relative to total gross state product, which is estimated by the Bureau of Economic Analysis. In regression (2), we use the number of state legislators per capita in 1997, which comes from the Report on Economic Freedom published by Clemson University. In regression (3), we use data on state and local expenditures per capita in 1995, as reported in the 1997-98 edition of the State and Metropolitan Area Databook. In regression (4), we use average tax burden in 1994,

defined as total state tax revenues as a percent of personal income, which again comes from the Report on Economic Freedom published by Clemson University. None of these measures have any correlation with the level of corruption.

In regression (5) and (6), we use measures of general state regulation that are also taken from Clemson's Economic Freedom report. The index of regulation includes information on labor regulation, environmental regulation, and regulation in particular industries such as public utilities and insurance. This regulation index is not correlated with corruption. We also use this study's assessment of general economic freedom, which includes the measures of regulation and government size mentioned above, as well as many other indicators of government spending, taxation, and the judicial system. This measure is also uncorrelated with corruption.

Finally, in regression (7), we estimate the effect of state-level laws that are specifically designed to limit corruption. In particular, we use a state ranking of integrity created by the Better Government Association, which takes into account freedom of information laws, whistleblower protection laws, campaign finance laws, gifts, trips and honoraria laws, and conflict of interest laws. This data is reported by the Corporate Crime Reporter (2004). This regression shows that states with stricter anti-corruption laws have fewer corruption convictions, so these laws appear to have an effect of dampening corruption.

Overall, the results on government give no support to the view that bigger governments or governments with more regulation are more corrupt. Of course, this non-finding might reflect the fact that people in more corrupt states are more opposed to bigger government. There is, however, a weak association between laws that are meant to prevent corruption and lower corruption levels. While this result is provocative, there are many unobservable state characteristics that might explain this correlation.

Other researchers have also estimated the effect of local government on the number of federal corruption convictions by state, with mixed results. Fisman and Gatti (2002) also find no meaningful relationship between government size and corruption. On the other

hand, Goel and Nelson (1998) find that state and local expenditures increase corruption after controlling for police expenditures and other factors that deter corruption. Besides examining the effect of government size, Fisman and Gatti find that state corruption convictions are positively related to the amount of federal transfers. They interpret this result as suggesting that a decentralized government is less corrupt. An alternative interpretation is that states with poorer fiscal policy, and therefore higher expenditures compared with revenues, have an environment that is conducive to corrupt practices. Combining our results with this other research, we conclude that endogeneity problems make any effect of government on corruption difficult to assess. An important direction of future work is to use panel data or other more credible identification strategies to explore this relationship further.

IV. **Does Corruption Impact State Growth**

In this section, we ask whether growth is slower in states with more corruption convictions. Following the literature on local economic growth (e.g. Glaeser and Saiz, 2004), we use population, income and housing value growth to measure local development. We have examined growth in these variables between 1980-2000 and between 1990-2000 and the results are generally similar. We focus on the results for the 1990-2000 period due to the timing of the data on corruption.

One problem with the regressions estimated below is that corruption is measured during the 1990s and not during some previous time period. This problem also plagues many of the international growth regressions that use corruption (e.g. Mauro, 1995), so while it might be preferable to have measures of corruption for some period prior to the 1990s, comparability with prior research makes it appropriate to use the contemporaneous data.

Our basic specification is:

$$(2)\ Log\left(\frac{\text{Outcome in 2000}}{\text{Outcome in 1990}}\right) = a + b \bullet \text{Conviction Rate} + \text{Initial State Characteristics},$$

where "Outcome in 2000" and "Outcome in 1990" refers to the levels of income, population and median housing values in both of those years. We are interested in the estimate of b, the relationship between corruption and growth over this time period. In all specifications, we will always include initial values for the three key dependent variables, as well as regional dummies. In more complete specifications, we will add racial fractionalization and unionization.

In the first regression of Table 5, we find that states with more corruption convictions have modestly lower levels of employment growth. One extra conviction per 100,000 reduces employment growth by less than one percent over the decade. This result is statistically significant, but after controlling for racial fractionalization and unionization, the coefficient falls in half and becomes insignificant.

In the third and fourth regressions, we look at the connection between corruption convictions and income growth. One extra conviction per 100,000 reduces employment growth by about one-half of one percent over the decade. Again, the result is not robust to including other controls. In the context of an analysis concerning legal institutions and economic growth, Berkowitz and Clay (2003) find that the level of state corruption convictions has a negative impact on household income and poverty rates. This evidence is consistent with our results, although they do not demonstrate that the effect is robust to controlling for other state characteristics. Finally, in the last two regressions in the table, we find that there is little correlation between corruption and changes in property values.

V. Conclusion

In this paper, we have supplemented the international evidence on the causes of consequences of corruption by using data on corruption convictions across U.S. states. We have found that many of the basic patterns that hold for countries, hold for states as well, even when corruption is defined on the basis of convictions rather than opinion surveys (which is the norm in the cross-country literature). States with higher per capita

income, and more education are generally less corrupt. States with more ethnic heterogeneity and income inequality are more corrupt. There is little relationship between the size of government and corruption and little connection between measures of regulation and corruption. There is a modest negative connection between corruption and state economic growth, which becomes statistically insignificant once we control for a rich enough set of covariates.

Taken together, these results support the view put forth in Glaeser, LaPorta, Lopes-de-Silanes and Shleifer (2004) that development improves political institutions rather than political institutions determining development. Historical levels of education, including high school graduation rates in 1928 and Congregationalism in 1850, predict less corruption today. Per capita income in 1940 strongly predicts less corruption convictions today. However, the connection between corruption and current economic development is weak.

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Table 1
States with Most and Least Convictions per Capita

Most Convictions		Fewest Convictions	
State	Convictions per 100,000 pop	State	Convictions per 100,000 pop
Mississippi	9.19	Kansas	2.01
Louisiana	8.95	Arkansas	1.99
North Dakota	8.27	Arizona	1.98
Montana	7.41	Wisconsin	1.91
Alaska	6.97	Iowa	1.65
Illinois	6.88	Minnesota	1.59
Florida	6.62	Utah	1.52
South Dakota	6.62	New Hampshire	1.30
New York	6.04	Oregon	.99
Ohio	5.88	Nebraska	.79

Table 2
Effect of Income and Education on Corruption

	OLS			IV			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ln(Income)	-3.89*		-.27			-8.77**	-5.26*
	(1.96)		(2.36)			(3.45)	(3.15)
Share with HS		22.4**	21.8**	25.8*	33.4*		
degree or less		(6.84)	(8.84)	(13.7)	(17.9)		
Ln(Population)	.08	-.22	-20	-.05	.02	.52	.34
	(.33)	(.30)	(.33)	(.31)	(.30)	(.38)	(.36)
Share	-16.1**	-21.2**	-21.1**	-20.6**	-24.4**	-14.7**	-14.4**
Manufacturing	(6.08)	(5.96)	(6.09)	(6.56)	(7.3)	(6.13)	(5.96)
Share	11.8*	5.50	5.88	.11	5.17	9.25	7.00
Unionized	(6.40)	(5.54)	(6.51)	(6.31)	(7.49)	(7.01)	(6.77)
South	2.28**	.19	.24	-.26	-1.78	1.76*	2.06**
	(.92)	(1.11)	(1.20)	(1.68)	(2.44)	(.95)	(.92)
Northeast	1.49	.59	1.01	.88	.36	2.61**	2.06*
	(.98)	(.90)	(.84)	(.92)	(.99)	(1.10)	(1.06)
Midwest	.83	1.03	.63	1.26	.75	.85	1.04
	(.88)	(.81)	(.99)	(.80)	(.84)	(.90)	(.87)
Constant	42.7**	1.78	4.52	-1.32	-2.79	86.0**	52.8*
	(19.5)	(4.10)	(24.1)	(4.73)	(5.12)	(32.9)	(30.0)
Adj. R2	.15	.26	.24	.30	.37	.15	.19
# Obs.	50	50	50	50	45	48	48

Note. Except where noted, all dependent variables are from the 1990 Census. Income is measured as median household income in the state. Low education is defined as the share of the population 25 and older whose highest level of education is a high-school degree or less. Unionization rate is in 1996 from the State and Metropolitan Data Book. The IV regression in column 5 instruments for low education with the state high school graduation rate in 1928 (Goldin, 1998). Column 6 instruments with the share of Congregationalist churches in 1850. Column 7 instruments for 1990 income with 1940 family income from the Census.

Table 3
Effect of Income Inequality and Racial Heterogeneity on Corruption

	(1)	(2)	(3)	(4)	(5)
Income Inequality (Gini)	29.05 (20.3)				
Income Inequality (75/25 ratio)		2.11** (.90)			
Share Black			11.2** (4.95)		
Share Hispanic			-8.42 (5.40)		
Racial Dissimilarity				4.28 (3.39)	6.97** (3.40)
Adj. R2	.26	.32	.38	.25	.34
# Obs.	50	50	50	50	49

Note. Results are from an OLS regression. Income inequality measures are from the 1990 Current Population Survey. Racial dissimilarity is a fractionalization index equal to $1 - \Sigma s_i^2$, where s_i are the population shares for the following racial/ethnic groups: Hispanic (all races), Black, Asian, Native American, and other races. All regressions control for ln(income), the share of the population with a high school degree or less, ln(population), unionization, share of manufacturing employment, and Census regions. See notes to Table 2 for details.

Table 4
Effect of Government Size and Regulation on Corruption

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Relative State and Local Government Product/ Gross State Product	-27.7 (26.7)						
State Legislators per Capita		.063 (.082)					
Expenditures per Capita			-.659 (.780)				
Tax Revenues / Per Capita Income				-26.0 (21.4)			
Regulation Index					-.480 (.586)		
General Economic Freedom						.532 (.552)	
State Integrity							-.038* (.020)
Adj. R2	.38	.37	.39	.39	.37	.38	.29
# Obs.	50	50	50	50	50	50	50

Note. Results are from an OLS regression. Relative state and local GSP is the 1990 value of state and local gross state product relative to total state GSP from the Bureau of Economic Analysis. Expenditures per capita are from the 1997-98 edition of the State and Metropolitan Area Databook. All variables in the remaining rows are from Clemson's report on Economic Freedom. All regressions control for ln(income), the share of the population with a high school degree or less, ln(population), unionization, share of manufacturing employment, and Census regions. See notes to Table 2 for details.

Table 5
Effect of Corruption on Economic Growth 1990-2000

	Employment		Income		Housing Prices	
Corruption rate	-.009*	-.005	-.005**	-.002	-.007	-.004
	(.004)	(.005)	(.002)	(.003)	(.006)	(.007)
Racial		-.065		-.080		-.263**
dissimilarity		(.094)		(.048)		(.128)
Unionization		-.425**		-.284**		.242
rate		(.207)		(.106)		(.281)
Ln(Employment)	.001	.009	.009	.016**	.033**	.047
	(.010)	(.011)	(.005)	(.006)	(.013)	(.016)
Ln(Income)	.064	.111	-.143**	-.112**	.341**	.301**
	(.107)	(.107)	(.057)	(.054)	(.148)	(.145)
Ln(Median	-.128**	-.112*	-.035	-.016	-.491**	-.446**
Housing Value)	(.055)	(.056)	(.029)	(.006)	(.076)	(.076)
South	-.107**	-.126**	-.018	-.030**	-.217**	-.198**
	(.028)	(.029)	(.015)	(.015)	(.038)	(.039)
Northeast	-.136**	-.149**	-.035**	-.052**	-.286**	-.342**
	(.028)	(.034)	(.015)	(.017)	(.039)	(.046)
Midwest	-.152**	-.154**	.006	.001	-.167**	-.198**
	(.032)	(.032)	(.017)	(.017)	(.044)	(.044)
Constant	1.03	.328	1.83**	1.27**	1.87**	1.53
	(.66)	(.750)	(.35)	(.38)	(.91)	(1.02)
Adj. R2	.53	.55	.64	.69	.82	.84
# Obs.	50	50	50	50	50	50

Note. Each column shows a separate regression with the dependent variable equal to the growth rate of the variable named in the column heading. The corruption rate pertains to an average over 1990-2002 and the unionization rate is for 1996. All other independent variables pertain to 1990.

Appendix Table 1
Convictions by State

	Corruption Rate	Convictions 1990-2002	Average Population 1990-2000
Mississippi	9.19	257	2708937
Louisiana	8.95	384	4344474
North Dakota	8.27	53	588488
Montana	7.41	64	640500
Alaska	6.97	42	14460152
Illinois	6.88	857	11924948
Florida	6.62	933	850630
South Dakota	6.62	50	725424
New York	6.04	1011	3863532
Ohio	5.88	655	18483456
Kentucky	5.82	214	724884
Tennessee	5.46	275	11100128
Hawaii	5.35	61	1159883
Virginia	5.01	309	1150351
Georgia	4.91	312	4243844
Pennsylvania	4.77	554	8072269
Delaware	4.41	32	12081348
New Jersey	4.31	353	5283234
Wyoming	4.22	20	5356142
Missouri	4.20	215	7332334
Alabama	4.19	183	1600045
Rhode Island	4.19	39	6632936
Idaho	4.17	50	1025892
Maine	3.92	48	3749358
South Carolina	3.73	160	31815834
California	3.70	1182	3298120
West Virginia	3.66	63	18919164
Oklahoma	3.30	115	473685
Massachusetts	3.29	187	6182761
Texas	3.08	580	1251426
Connecticut	2.90	103	1800910
Nevada	2.87	41	3346340
New Mexico	2.84	46	2582996
Michigan	2.62	252	5812322
Vermont	2.39	11	585792
Indiana	2.37	134	9616870
Washington	2.34	110	7338975
Maryland	2.32	118	5380406
North Carolina	2.21	143	1667058
Colorado	2.08	54	4397930

Kansas	2.01	51	5038977
Arkansas	1.99	47	5127722
Arizona	1.98	87	2512062
Wisconsin	1.91	101	1978010
Iowa	1.65	46	3797828
Minnesota	1.59	65	4647289
Utah	1.52	30	2851540
New Hampshire	1.28	14	1172519
Oregon	0.99	36	3131860
Nebraska	0.79	11	1644824