

From the Fieldhouse to the Statehouse
How College Sports (Scandals) Affect Public Funding for Higher Education

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Abstract

Why do so many colleges in the US sponsor big-time sports teams? This paper tests an explanation recently advanced by scholars of higher education, namely, that sports teams help create *political goodwill* that ultimately translates into greater government support for colleges and universities. I first outline the different ways that successful sports teams might endear colleges to policymakers. To isolate the effect of sports on policy, I then analyze how state spending on higher education changes in response to *major college sports scandals*, unexpected and exogenous shocks to teams' reputations. In the budgeting cycles after the worst scandals in NCAA history, I find that states reduced spending on higher education by an average of \$71 million. College teams appear to matter to more than just fans, players, and athletics departments—they matter to voters and politicians, too. And when college teams mess up, higher education often pays a price.

Keywords: legislative politics; college sports; budgeting; higher education

“Even backbenchers [in the Pennsylvania legislature] are offered pairs of Penn State football tickets by the university, which every year begs Harrisburg for more funding.” (Cattabiani 2006, 1)

“Many lawmakers get tickets in Georgia because the Legislature controls the \$6.4 billion higher education budget, including the roughly \$1.9 billion that comes directly from state coffers.” (Associated Press 2013)

“[Legislators in Tennessee] are still using taxpayer money to fund recreational activities as a means of currying favor with those who are in a position of public trust.” (Phil Schoggen, state chairman of Common Cause of Tennessee; quoted in Associated Press 2002).

The United States is the only country in the world where colleges and universities sponsor sports teams that resemble professional franchises. And they do so in spite of a wide range of drawbacks. Sports teams compete for students’ attention, promote partying and alcohol abuse, and can compromise academic standards and performance (Clotfelter 2011a, ch. 3; Lindo, Swensen, and Waddell 2012; Lisha and Sussman 2010; Sperber 2000). Many teams pay their coaches and staffs exorbitant salaries (Zimbalist 1999), and most cost more money than they bring in (Kahn 2007). Many make huge demands on student athletes (Bowen and Levin 2003; Purdy, Eitzen, and Hufnagel 1982; Shulman and Bowen 2001; Zimbalist 1999), especially student athletes of color (Donnor 2005; Hawkins 2010; Kahn 2007; Purdy, Eitzen, and Hufnagel 1982). Sports teams may even promote the commercialization of higher education as a whole (Padilla and Baumer 1994; Zimbalist 1999).

Why, then, do the trustees and administrators of our colleges and universities continue supporting semi-professional college sports programs? Why do we have big-time college sports in the United States?

Scholars of higher education have offered many explanations. Most have focused on how sports affect *students*: having athletic teams—especially good ones—seems to improve campus culture, enhance schools’ reputations, and ultimately improve the quality of the student body.

Colleges with successful big-time sports teams, they note, tend to have higher enrollment rates, higher average standardized test scores, more money in tuition revenue, and higher graduation rates (Alexander and Kern 2009; Sandy and Sloane 2004; Smith 2009; Tucker 2005; McCormick and Tinsley 1987; Tucker 2004; Mixon, Trevino and Minto 2004; Mixon and Ressler 1995; but see Smith 2012).

Research on higher education has also argued that sports teams can improve universities' relationships with their *alumni*. When college teams do better, alums tend to be happier and tend to donate more money (Baade and Sundberg 1996; Goff 2004; Grimes and Chressanthis 1994; Humphreys and Mondello 2007; Rhoads and Gerking 2000; Sigelman and Carter 1979; Tucker 2004; but see Litan, Orszag, and Orszag 2003; Turner, Meserve, and Bowen 2001).

More recently, scholars of higher education have also outlined a third hypothesis about why colleges and universities sponsor big-time sports teams. Sports teams don't just promote a school's image, improve its student body, and keep its alums happy: they may also create *political goodwill*. According to this view, sports teams—especially good ones—endear colleges and universities to the public and to politicians and ultimately increase government support for higher education as a whole. As Clotfelter (2011, 128) recently noted, sponsoring sports teams gives universities “the opportunity to make and solidify valuable connections to the community and the state. . . . [I]n light of how dependent state universities are on the good opinion of their state legislatures, it is a connection that makes sense.” Why do colleges sponsor big-time sports teams? One possibility is that it keeps them popular with voters and politicians in ways that ultimately translate into more favorable policies towards higher education.¹

¹ Of course, another possibility is that colleges and universities value competition and winning for its own sake and simply consider sponsoring sports teams to be part of their core missions

To date, only a handful of studies have ever investigated this hypothesis, and most have had important methodological limitations.² The idea seems well worth testing carefully, however. College sports is a multibillion dollar industry with legions of die-hard fans (Clotfelter forthcoming). If team reputations do in fact influence the politics of higher education, it would represent a previously undocumented and theoretically interesting input into the legislative decisionmaking process. Colleges are also politically important in their own right: federal and state governments spend over \$150 billion a year on them (Woodhouse 2015), the policies that govern them are often hotly contested, and investments in colleges can ultimately affect economic growth, literacy, productivity, income inequality, and technological diffusion (e.g., Barro 2000; Nelson and Phelps 1966; Schultz 1963). And, of course, universities are of paramount significance to the profession of political science itself. If college teams affect government support for higher education, political scientists should know about it.

In this paper, I outline several potential mechanisms by which college sports team performance might influence higher education policy. I then use a new research design to study the *causal* relationship between college sports team reputations and political support for higher education. What little research there is on the politics of college sports has typically documented correlations between sports team performance and political support for universities, which could reflect sports influencing political support for higher education, but could also reflect the

(Clotfelter 2011a; 2011b). Even in those instances, however, sports teams still have other consequences for students and alums—and possibly politicians and voters.

² As Clotfelter (2011, 128) notes, “Surprisingly, political scientists have never, to my knowledge, subjected [the hypothesis that sports teams build political goodwill] to empirical test.”

opposite: maybe political support for universities somehow helps college teams do better. To determine whether college sports teams actually influence the politics of higher education (and not simply the other way around), this paper analyzes data on college teams that are unexpectedly embroiled in *high-profile scandals*. These sudden shocks to team reputations provide rare opportunities to determine whether the performance of college sports teams truly affects government decisions about higher education.

Consistent with recent claims in the literature on higher education, my findings suggest that politicians' decisions about higher education spending are, in fact, connected to the performance of their states' college sports teams. In the budgeting cycle after a scandal, states reduce spending on universities by an average of \$71 million. These findings have important implications for research on public finance, higher education, legislative conduct, and democratic politics. Above all, they illustrate that the painful consequences of athletic scandals can extend far beyond the sports programs involved. College teams matter to more than just fans, players, and athletics departments—they matter to voters and politicians, too. And when teams mess up, higher education as a whole often pays a price.

College Sports and Political Goodwill

Do successful sports teams really create political goodwill for colleges and universities? Do voters and politicians really base decisions about higher education on their views about the performance of athletic teams that are only loosely connected to the teaching and research missions of universities?

On the one hand, the idea is difficult to reconcile with many canonical models of voter behavior and elite decisionmaking. Public opinion is supposed to respond to changes in policy-

relevant information (Erikson, Mackuen, and Stimson 2002; Mueller 1973). Politicians are supposed to respond to what constituents want (Arnold 1990; Downs 1957; Mayhew 1973; Miller and Stokes 1963), what experts say (Krehbiel 1991), and what they think will produce good public policy (Mayhew 1973). Why would we think voters and politicians would judge higher education as a whole on the basis of how college sports teams perform?

On the other hand, scholars also know that voters and politicians don't always make decisions on the basis of considerations that are directly relevant to the issue at hand. Public opinion, for instance, is often based not just on people's concrete interests, but also on symbolic objects, mental shortcuts, and vague impressions about whether things are going well (Downs 1957; Sears and Funk 1990). Voters sometimes evaluate leaders on the basis of the agendas they pursue and the policies they enact (Arnold and Carnes 2012), but they also sometimes punish presidents for things like droughts, floods, and shark attacks (Bartels 2008), punish governors for fluctuations in global oil prices (Wolfers 2007), and punish mayors when their city's professional sports teams lose (Miller 2013). It doesn't seem out of the question, then, that voters' feelings about specific colleges and universities—or higher education as a whole—might be tied at least in part to their feelings about their favorite college sports teams.

Likewise for politicians: elected officials sometimes base their choices on the facts in front of them or the input they get from experts and other leaders. But they also sometimes make decisions on the basis of personal views and opinions that are divorced from the facts at hand or the implications of the public policy under consideration. Members of Congress sometimes base their choices about tobacco policy, for instance, on their views about public health and private-sector regulations. But they also sometimes base their choices on whether they personally smoke (Burden 2007). Politicians are people, too, with all the predictable irrationality that that entails.

As I see it, there are at least three mechanisms by which the performance or reputations of college sports teams might affect government support for higher education as a whole. First, the performance of high-profile college sports teams might affect *public support for universities*, which could in turn constrain lawmakers when they craft higher education policy. For many Americans, attitudes about colleges may be tightly bound to attitudes about college sports: many people never personally visit the universities in their states, and when people hear news about colleges, it is usually news about their sports teams. For some voters, attitudes about college sports may “spill over” into attitudes about higher education as a whole. When voters love a college team in their state, their enthusiasm may sometimes extend to the university that hosts it—and even to higher education as a whole. For some citizens, college and college sports may simply be interchangeable: scholars of higher education have recently argued that sports are so thoroughly integrated into colleges and universities that athletics is now seen as a de facto core function of institutions of higher education (e.g., Clotfelter 2011a; 2011b). Whatever the exact process, if voters feel more favorably towards higher education when they feel more favorably towards specific college sports teams, that could in turn affect how much pressure politicians feel to protect colleges and universities. In states where college teams are beloved, politicians may feel uncomfortable cutting university budgets (perhaps simply to avoid the impression that they have undermined a cherished team). When college teams are less popular, on the other hand, higher education may not have as much backing from the public—and might be an easier target for politicians looking for something to regulate, cut, or scapegoat.

Second, the performance of college sports teams might affect how *politicians themselves feel about higher education*, too. Like voters, lawmakers’ attitudes about college sports might influence their attitudes about colleges and universities more generally. Many politicians are just

as passionate about college sports as their constituents; some even try to influence NCAA rules and conference schedules (Clotfelter 2011a, ch. 6). Many are themselves alums of their state's colleges and universities (Chatterji, McDevitt, and Kim np). Other things equal, it seems at least plausible that lawmakers who are devoted fans of their state's college sports teams might feel more favorably towards their state's entire university system. When sports teams have good reputations, higher education as a whole might have more fans in the statehouse.

Third, the performance of college sports teams might also influence *the effectiveness of lobbying on behalf of colleges and universities*. Most big colleges employ full-time federal relations officers or even registered lobbyists (many of whom lobby as a state-wide delegation), and many other independent organizations lobby on behalf of higher education as a whole. These pro-university lobbyists often give politicians tickets to college sporting events, VIP game-day parking passes, college sports apparel, and other sports-related perks. (The practice is so common that some states have sought to limit or curtail it.) It is unclear whether these gifts influence legislators' choices or simply buy their time (Hall and Wayman 1990), but whatever effect they have likely depends at least in part on the reputation of the teams themselves. If legislators are more likely to accept tickets to a game when a team is having a record-breaking season—or less likely to want to be seen rooting for a coach embroiled in a sex scandal—the reputation of specific college sports teams may ultimately impact the effectiveness of lobbying on behalf of higher education. College sports might affect the voters who constrain our leaders, the leaders themselves, and the lobbyists who try to influence them.

As it stands, there has been almost no research on any of these mechanisms, or on the larger relationship between sports team performance and government support for higher education. The literatures on higher education and public finance have understandably focused

on other drivers of state spending on colleges and universities. And the research on US politics has seldom considered the ways that sports teams might affect public opinion, legislative decision making, lobbying, or public policy (but see Miller 2013 and Schatzberg 2006).

I know of just three published studies that have tested the hypothesis that college sports teams influence higher education policy. All three compared observational data on team performance and state funding—that is, they asked whether colleges with better teams (measured by win-loss records, conference membership, television coverage, of post-season tournament performance) received more money from the state in subsequent years. Coughlin and Erekson (1986) analyzed data from the 1980-1981 school year and found that colleges that had better football and basketball teams (measured by win-loss records and appearances in postseason tournaments) received more funding from state governments. Humphreys (2006) analyzed state spending on 570 public universities between 1975 and 1996 and found that schools with better football teams (measured as simply having a Division I-A football program) received more in appropriations. And Alexander and Kern (2010) analyzed data on state appropriations to 117 schools from 1983 to 2007 and found that colleges with better basketball teams (measured as both basketball wins *and* Division I-A status) got more aid from the state.

These studies are all squarely in line with the idea that successful sports teams build political goodwill for colleges and universities that ultimately translates into greater state support. However, they all share an important limitation (as many of them note), namely, that they analyze observational data on sports performance and state spending, with all the problems of reverse causality and lurking variables that that entails. With these data alone, it is always possible that state support for higher education somehow *drove* sports performance (e.g., better training facilities, better staffs, more scholarships) in a way that wasn't captured by the

regression models used in these studies. Or that some other political or social force affected both state spending on higher education and team performance simultaneously. Perhaps university officials can anticipate upcoming state budget cuts and begin reducing spending on sports teams (and therefore performance) before the cuts hit. Perhaps a state facing an economic catastrophe might lose talented college athletes to other states *while also* slashing spending on higher education.³ Past studies have observed an association between sports performance and subsequent funding for higher education, but that doesn't guarantee that college sports teams had a unique impact on government support for higher education. All this talk about college sports serving to build political goodwill for universities could simply be a trick play.

Scandals as a Window into the Effects of College Sports

One alternative way to determine whether college sports teams build political goodwill is to study what happens when they are *unexpectedly disgraced*. If successful college sports teams

³ One recent working paper by Tabakovic and Wollman (2015) attempts to address some of these limitations by studying *unexpected* boosts or dips in a team's performance. As a part of a larger effort to measure the effect of state funding on scientific productivity, the study argues that when college sports teams unexpectedly perform better or worse than expected (measured by within-season changes to the number of votes a team receives in the AP Top 25 Poll), universities receive more or less research support during the next budgeting cycle. This approach represents a substantial improvement over past research, although it still remains possible that teams that performed worse than expected (i.e., that were over-estimated at the start of the season) were concentrated in places where economic or political changes were already unfolding that would lead to lower spending on higher education later on.

do, in fact, endear universities to voters or politicians, then sports scandals—sudden and embarrassing incidents involving college athletes, coaches, and athletic staff—should have the opposite effect. And unlike the measures of sports team performance that scholars have used in the past (successful seasons, post-season tournament wins, and membership in prestigious conferences), scandals are essentially *exogenous* shocks to a team’s reputation. Sports scandals are the result of poor judgment, impulsive behavior, previously undiscovered character traits, and bad luck—not government support for higher education or other major social and economic changes in a state. If political support for higher education declines in the wake of a college sports scandal, we can be confident that it was not the result of reverse causality or some lurking variable.

To study how sports scandals affect higher education policy, I first gathered data from the National Association of State Budgetary Officers on the total amount each state spent on higher education in each fiscal year between 1985 and 2013. Whereas past studies have examined state spending on specific universities, I focus here on spending on entire *university systems*. This approach will miss instances when legislators re-allocate funds *between* universities in a zero-sum fashion, but it will detect instances when legislators decrease funds to individual colleges (without making offsetting increases elsewhere in the university system) and instances when legislators increase or decrease funds to higher education as a whole.

To identify states where sports scandals occurred, I worked with a team of research assistants to compile a list of every scandal mentioned in several online articles that ranked college sports scandals. We sought out articles that covered both college sports as a whole and specific high-visibility sports like basketball and football. We also sought out lists on specialized topics, like college recruiting, and on specialized types of scandals, like sex scandals. Obviously,

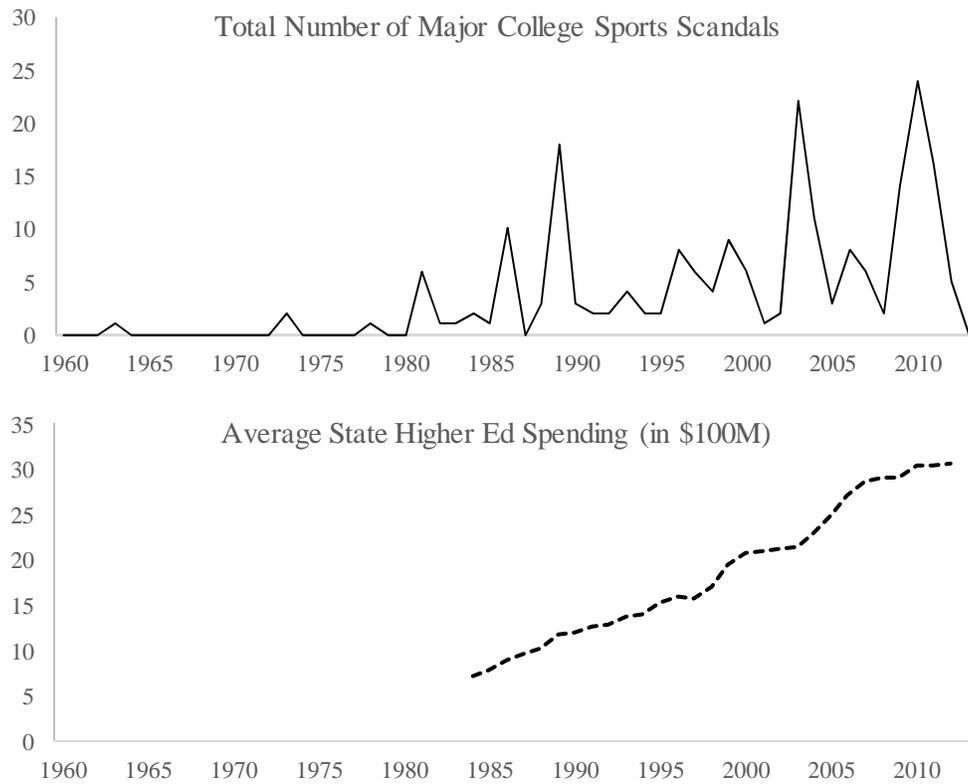
many scandals appeared in multiple articles. In all, we compiled 104 unique scandals from 12 lists:

- Alan Rubenstein’s “The 25 Biggest Scandals in NCAA History,”
- Mike Singer’s “Ranking the 10 Most Shocking Scandals in College Basketball History,”
- Scott Polacek’s “College Basketball: Ranking the 20 Scandals That Rocked the CBB Universe,”
- Adam Lazarus’s “Top 50 Scandals in College Football History,”
- CNN’s “Notable NCAA Scandals,”
- *USA Today*’s “A Look at Some of College Football’s Biggest Scandals,”
- Kristin Watt’s “Top Five College Football Recruiting Scandals in NCAA History,”
- Before It’s News’s “15 Biggest All-time College Sports Scandals,”
- ESPN’s “A List of the Worst Scandals in College Sports,”
- Howard Cosmell’s “The 9 Most Shocking Sex Scandals In College Sports,”
- *The Atlanta Journal Constitution*’s “The Worst Scandals in College Sports History,” and
- *The Suwannee Democrat*’s “10 Major Scandals in College Sports.”

The scandals we identified ran the gamut from heart-wrenching tragedies like the Jerry Sandusky child molestation cases at Penn State, to financial scandals like an incident in which a coach at the University of Miami helped student athletes falsify over \$200,000 in Pell Grant applications, to spontaneous outbursts like a televised incident at the 1978 Gator Bowl in which an Iowa State coach punched a player on the opposing team in the face.

For each scandal, we recorded several attributes, including the year the scandal occurred or was discovered, the state the scandalized college was in, whether the scandal was a spontaneous outburst (like the punch at the Gator Bowl) or the result of a conscious plot or

Figure 1: College Sports Scandals and Higher Education Spending in the US

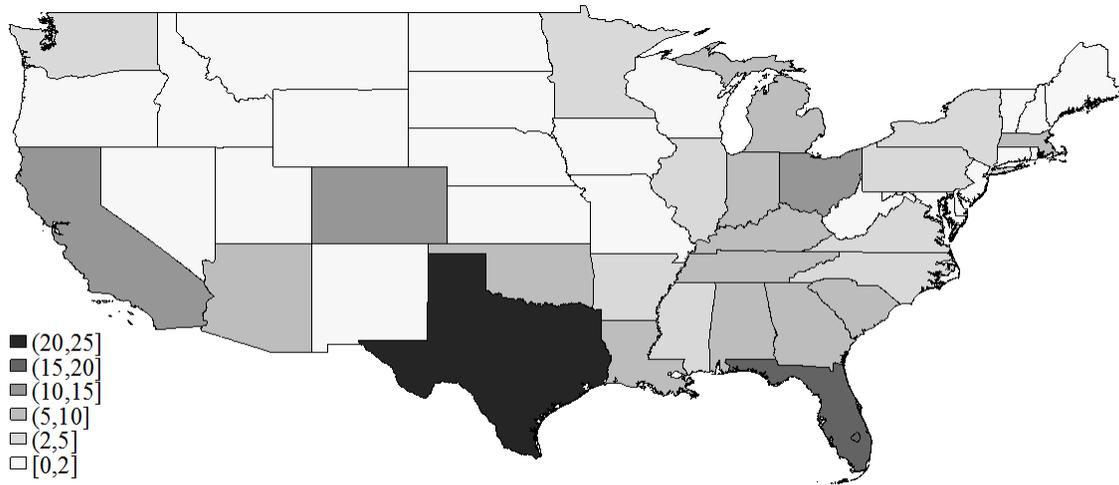


Sources: National Association of State Budgetary Officers; author's data collection.

cover-up (like the Pell Grant scam), and whether the scandal occurred at a public or private university. I then created counts of the number of scandals that occurred in each state in each year and collected other data on the political and social environment in each state.

Figure 1 plots the numbers of major college sports scandals that occurred each year from 1960 to 2013 and the amount that the average state spent on higher education in each year (beginning in 1985, the first year for which I could obtain electronic state-level spending data). Obviously, state spending on colleges and universities has grown steadily over the last three decades. And as the popularity of college sports has boomed since the mid-twentieth century, so

Figure 2: The Frequency of College Sports Scandals, by State



Source: Author's data collection.

too have the number of major college sports scandals. This might reflect the expansion of college sports (more coaches and players means more opportunities for misconduct), the growing popularity of college sports (more fans means more people watching for misconduct), the soaring budgets of athletic departments (more money means more temptation), or the increasing prevalence of scandalous behavior (maybe things really were better in the good old days).

Whatever the reason, colleges, college sports, and college sports scandals have all been growing.

Figure 2 plots the distribution of scandals across states. Major college sports scandals have occurred in all but 13 states (Alaska, Delaware, Hawaii, Idaho, Iowa, Kansas, Maine, Montana, Nevada, New Hampshire, New Jersey, New Mexico, and North Dakota). Some states have experienced multiple scandals; some have had lots. Texas and Florida had an average of one major NCAA scandal every two to three years, a sufficiently high number to prompt additional scrutiny of those cases (as I discuss in the next section).

When scandals like these occur, do cuts in political support for higher education follow?
Do college sports teams create political goodwill that scandals tear down?

Higher Education Funding After a College Sports Scandal

To find out, I estimated regression models that related state spending on higher education in each state and year between 1985 and 2013 to whether scandals occurred in each state. Because most state budgets are developed almost two years before they are fully expended, I lagged my scandal measures by two years. That is, I assumed that if a scandal occurred today, any effect on public or legislative support would matter in next year's budgeting cycle, which would finally be reflect in actual spending the year after that.

Because of the panel structure of the data (and the fact that state budgets are usually incremental changes from the previous year's budget), it would not have been appropriate to estimate a simple regression model relating higher education spending to whether a scandal had happened recently; the amount a state spends on higher education in a given year is not independent of the amount it spent the year before. Unfortunately, one common solution—simply controlling for higher education spending in the previous year (i.e. with an autoregressive model)—was not an option in this application, either, because higher education spending has tended to increase steadily over time in every state (meaning that the state spending outcome variable was clearly non-stationary; an Im-Pesaran-Shin test could not reject the hypothesis of a unit root).

As such, I estimated regression models that measured the relationship between college sports scandals and *changes* in state spending. (The first difference of state spending was clearly stationary; an Im-Pesaran-Shin test reject the hypothesis of a unit root at $p < 0.00001$). That is,

my analyses asked, if there were a college sports scandal today, would higher education get less of a *boost* in state spending when next year's budget goes into effect?

In all of my models, I included state fixed effects, to account for the possibility that some states or regions might generally experience higher or lower average changes (states with bigger college systems, for instance, tend to increase higher education spending by larger amounts each year). I also included year fixed effects in each of my models to account for the possibility of nationwide shocks to higher-education spending (like recessions, changes in federal laws, and so on). That is, I didn't just ask whether states spend less after scandals, I asked whether higher education gets less of a boost after a scandal, *controlling for both the average boost higher education usually gets in that state and any nation-wide change in higher education spending in that year.*

In some models, I also added controls for the partisan and ideological makeup of voters and state legislators (from the update to Berry et al 1998), to account for the possibility that changes in state spending on higher education are driven at least in part by changes in the policy preferences of voters and politicians. And in some models I added controls for changes in state spending on everything except higher education (to account for the possibility, for instance, that scandals somehow coincide with state-wide budget cuts that aren't captured by state or year fixed effects or the ideology of voters and politicians).

Basic Findings

Table 1 summarizes my main analysis of how sports scandals affect public funding for higher education. The first model simply regresses changes in higher education spending (in millions of dollars) on an indicator for whether a state experienced any college sports scandals

Table 1: Models Relating Changes in State Higher Education Spending (in Millions of Dollars) to College Sports Scandals

	#1	#2	#3
Scandal indicator (second lag)	-71.2 ⁺ (37.2)	-75.0* (38.1)	-61.8 ⁺ (36.9)
Intercept	126.8 (81.5)	126.1 (78.2)	246.1 (130.3)
<i>N</i>	1372	1317	1370
Overall <i>R</i> ²	0.09	0.08	0.11
Sample	All cases	Omitting TX & FL	All cases
State and year fixed effects?	Yes	Yes	Yes
Politics and spending controls?	No	No	Yes

⁺ p<0.10, * p<0.05, ** p<0.01, two tailed.

Equation #1 was estimated using the full sample. Equation #2 was estimated without data from two outliers, Texas and Florida. Equation #3 was estimated with additional controls for the political ideology of citizens and elected officials in each state (from the update to Berry et al 1998) and for the change in other state spending in that year. All models are reported in their entirety in the Supplemental Materials.

two years prior (as well as state and year fixed effects). The second model is the same, but omits Texas and Florida (to ensure that these scandal outliers are not driving the results). The third model replicates the first model, but adds additional controls for the average political ideology of citizens and lawmakers in each state and controls for the change in all other forms of state spending that year (to further guard against the possibility that scandals coincided with across-the-board cuts in state spending). Because my scandal data go back to the 1960s, I do not lose any observations by including lagged sports scandals. However, state spending data were missing for 28 of the 1400 possible cases (28 years of higher education spending data × 50 states), and data on the politics and spending controls I use were missing for 2 cases as well.

The models summarized in Table 1 were squarely in line with the idea that sports scandals do, in fact, reduce political goodwill for specific colleges or for higher education as a whole. In the budgeting cycle after a scandal, states increased spending on colleges and universities by an average of \$71 million less (compared to states that did not experience sports scandals).

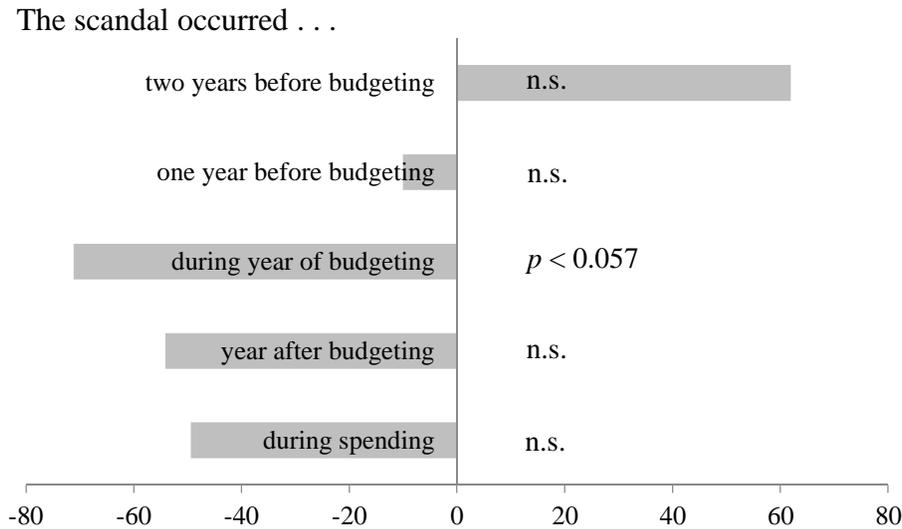
This \$71 million drop was more than half the size of the overall average annual increase in state spending on higher education during this period, \$126 million (which is captured in the intercept in model 1). In short, college sports reputations seem to have real and meaningful effects on higher education spending, at least as far as we can tell from data on major scandals. Consistent with the idea that college sports teams build political goodwill, states do in fact appear to boost spending on higher education by significantly less in the wake of a major college sports scandal.

Auxiliary Models

This effect was robust to several changes to my statistical model. When I omitted the two states with the most scandals, Florida and Texas, the estimated effect (in model #2 in Table 1) was slightly larger and more statistically precise. When I added controls for public opinion, politicians' ideology, and other changes in total state spending, the estimated effect of a major NCAA scandal was still a \$61 million cut in higher education spending (model #3 in Table 1).

And the scandal effects documented in Table 1 appeared to be unique to the year of budgeting. As a simple placebo test, I re-ran my basic regression model (model #1 in Table 1) several times, varying the length of the lag on the scandal variable. That is, in my basic model, I asked what happened to higher education spending when a scandal broke when the budget was

Figure 3: The Effect of College Sports Scandals on State Spending, by the Scandal’s Timing



Sources: Author’s data collection.

being developed (two years prior); in these follow-up models, I asked what happens to higher education spending when a scandal broke much later: either after the budget was already set (in the calendar year immediately prior to spending), or during the year of spending (zero years prior). I also asked what happened when scandals occur one and two years before budgeting (that is, three four years prior to the current spending cycle).

Figure 3 summarizes the estimated effects of scandals in each of these models (which are available in their entirety in the Supporting Materials). The only lag structure that produced significant results was the one that aligned with the state budgeting process: if a scandal occurred in 2011, for instance, it seemed to affect the budgeting decisions policy makers enacted in 2012, which then took effect in the 2013 fiscal year. Consistent with this budgeting schedule, a scandal that occurred in 2012 had a smaller and non-significant effect on 2013 spending (“year after budgeting”); likewise for a scandal that occurred in 2013 itself (“during spending”). And the

effect of a scandals in 2009 and 2010 were also not significantly associated with changes in state spending (“two years before budgeting” and “one year before budgeting”). The effects documented in Table 1 were indeed confined to the expected year. State cuts in higher education spending occur *immediately after* sports scandals, not *during* sports scandals or *long after* them.

Does the *type of scandal* matter? Or the *type of school*? If a scandal truly is an exogenous shock to a team’s reputation, scandals involving spontaneous or unexpected misconduct (like a coach punching an opposing player in frustration) should be more damaging than scandals involving long-term corruption (since politicians may sometimes have an inkling that a coach or program is crooked long before a scandal makes headlines). And if voters’ or politicians’ views about higher education as a whole really are somehow tied to their views about college sports teams, it may not matter whether a scandal involved a public or private university.

Table 2 summarizes two additional models in which I limited my attention to spontaneous scandals like bar fights or misconduct by a coach in the heat of a game (model #5) and to scandals involving teams at public universities (model #6). For comparison, Table 2 also includes the results of my main model from Table 1 (repeated here as model #4).

Both analyses produced results that were similar to what I initially reported in Table 1. As model #5 illustrates, the negative effect of a *spontaneous* scandal was far greater than the negative effect of all scandals combined. The difference between the two point estimates was not statistically significant (perhaps because just 29 scandals were spontaneous), but the thrust of the findings suggested that the more abrupt and unexpected a scandal is, the bigger the effect (consistent with the idea that scandals are exogenous negative shocks to a team’s reputation—shocks that reduce political goodwill). In model #6, there was essentially no difference in the effect when I focused only on scandals involving public universities (again, the point estimate

Table 2: The Effects of Different Types of Scandals

	#4	#5	#6
Scandal indicator (second lag)	-71.2 ⁺ (37.2)	-123.3 ⁺ (70.5)	-62.5 (39.4)
Intercept	126.8 (81.5)	119.8 (81.4)	126.1 (81.6)
<i>N</i>	1372	1372	1372
Overall <i>R</i> ²	0.09	0.09	0.09
Scandals	All scandals	Spontan. mistakes	Public schools

⁺ p<0.10, * p<0.05, ** p<0.01, two tailed.

Equation #4 simply repeats the first model from Table 1. Equation #5 uses an indicator for scandals that involved spontaneous mistakes, like a group of players starting a bar fight (and excludes longer or more conscious misdeeds, like a team engaging in illegal recruiting practices). Equation #6 uses an alternative scandal indicator that only captures scandals involving public colleges and universities (and excludes scandals at private schools). All models are reported in their entirety in the Supplemental Materials.

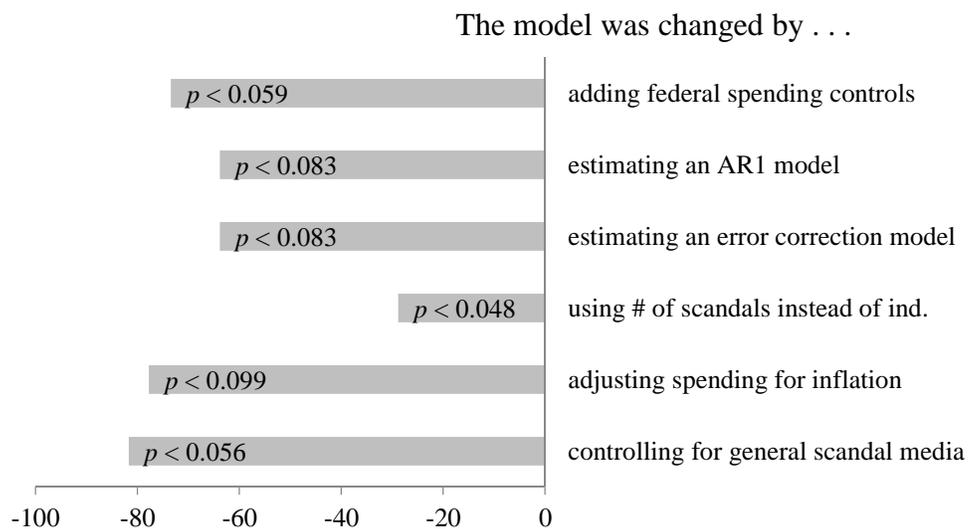
was not statistically distinct from the estimate in model #1, which is repeated in Table 2 as model #4). Lawmakers and voters may realize that even private colleges receive huge benefits from state governments because of their status as non-profit entities. Or they may simply associate colleges a whole with high-profile teams without thinking through the specific legal status of each university. If Duke screws up, North Carolina policy makers might sour on colleges as a whole and opt to give the state's higher education system less of a funding increase.

As a final test of the robustness of my main findings, I estimated several additional iterations of my basic model. I added controls for the amount of money the federal government spent on higher education in each state (to account for the possibility, for instance, that states

might spend less on higher education in years when the federal government spends more on their colleges and universities) and controls for other forms of federal spending in each state (to account for the possibility, for instance, that states might spend more on higher education in years when Uncle Sam shoulders more of the burden of keeping up the state's highways and parks). I also estimated an autoregressive model that used the absolute level of state spending on higher education as its dependent variable (rather than the change in higher education spending) and included a control for higher education spending in the previous year. I estimated an error-correction model (to account for the fact that short-run shocks to higher education might be a part of a larger equilibrium relationship between college sports performance and political support for colleges and universities). I estimated a model that used the *number* of sports scandals in a given state in a given year as its explanatory variable (rather than just an indicator for whether *any* scandal occurred). I estimated a model that adjusted state spending for inflation. And—to account for the possibility that the effects of sports scandals were about scandals (bad news itself) and not sports per se—that is, that that sports scandals are more like other scandals and less like sports team performance—I estimated my main model adding data on the number of newspaper articles in each state (per 100,000 articles) that mentioned the terms *scandal* and either *university* or *college* (computed using the Newsbank online newspaper archive).

Figure 4 plots the estimated effect of sports scandals in each of these auxiliary models (which are all available in their entirety in the supporting materials). Regardless of how I re-analyzed these data, my basic findings were essentially unchanged: in the wake of a sports scandal, scandal states typically increase spending on higher education by \$60 to \$80 million less than non-scandal states. The error correction model suggested that the effects of sports scandals were indeed short-lived shocks; I found no evidence of a long-run relationship between scandals

Figure 4: The Effect of College Sports Scandals in Auxiliary Models



Sources: Author's data collection.

and spending. The one point estimate that was smaller in Figure 4 was the estimated effect of the *number* of scandals—states that have multiple scandals seem to reduce funding by even more.

Any way I analyzed these data, I consistently found that sports scandals seem to affect government support for higher education. When college sports teams mess up, states are less generous to higher education the next time they craft their budgets. And that has big consequences for colleges and universities.

Why Sports (and Scandals) Matter

When a college's sports team does poorly, many bright high schoolers choose to enroll elsewhere, and many wealthy alumni choose to donate less. Why shouldn't we expect politicians to reduce their support, too?

In an ideal world, we might want our leaders to base their decisions about higher

education policy on the state's educational needs and nothing else. But the real world of democratic politics seldom works the way we might hope; expensive public programs like higher education are seldom evaluated purely on their merits or stated missions. To the contrary, many depend crucially on vigorous defense, either from effective lobbyists, sympathetic voters, or supportive politicians. Sports teams seem to be one tool that universities use to build political goodwill. But sports teams can stumble, and when they do, political goodwill for colleges and universities may dry up. If smart kids and rich alums are less kind to universities when their sports teams fall on hard times, why shouldn't we expect voters and politicians to be less kind, too?

Scholars of higher education have made this point for years. And some have found clear relationships between sports team performance and public spending on colleges and universities. This paper adds new causal evidence to their claims: when college sports teams are unexpectedly disgraced by major scandals, higher education as a whole gets less of an increase during the state's next budgeting cycle.

The findings reported here have important limitations, of course, that are worth reiterating. First, studying scandals is a useful way to check that sports team performance has some causal effect on government support for higher education. But scandals are relatively rare events; this exercise is not a good way to gauge the total magnitude of the impact of college sports team reputations on higher education spending. Second, studying changes in state spending on higher education is a useful way to gauge the total impact of scandals, but it conflates two possible types of penalties: reduced support for scandalized universities and reduced support for higher education as a whole. And, third, my analysis cannot identify the mechanisms mediating the relationship between college sports team reputations and state support

for higher education: lobbying, public opinion, and legislator attitudes are all feasible possibilities.

Even with these limitations, however, this paper's findings have important implications for research on a wide range of topics. This study strongly corroborates the claims of scholars of higher education, who note that big-time sports teams can help colleges and universities cultivate political goodwill that ultimately advances their research and teaching missions. More generally, this study seems to support the larger idea in higher education research that athletics have become a *de facto* part of many universities' core functions—that university administrators, citizens, and politicians simply see sports teams as full-fledged and legitimate parts of a university's larger mission.

This study also joins a growing body of research suggesting that the inputs to the democratic process in the United States may be less straightforward than our most cherished ideals would suggest (e.g., Achen and Bartels 2016). Just as presidential elections depend in part on shark attacks, states funding for higher education depends in part on how well the college football team does.

Above all, the findings reported in this paper illustrate the important responsibilities that coaches, athletic staff, and student athletes have as representatives of their universities. The consequences of athletic scandals can extend far beyond the sports programs involved. College teams matter to more than just fans, players, and athletics departments—they matter to voters and politicians, too. And when teams mess up, higher education as a whole often pays a price.

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Supplemental Materials

Models Summarized in Table 1

Models Summarized in Figure 3

Models Summarized in Table 2

Models Summarized in Figure 4

Models Summarized in Table 1

Table 1: Models Relating Changes in State Higher Education Spending (in Millions of Dollars) to College Sports Scandals

	#1	#2	#3
L2.any_scandal	-71.23+ (37.24)	-75.01* (38.07)	-61.80+ (36.93)
1986.year	0.00 (.)	0.00 (.)	0.00 (.)
1987.year	4.06 (70.56)	20.60 (68.48)	-21.19 (71.12)
1988.year	-18.54 (70.87)	-21.21 (68.79)	-44.42 (72.26)
1989.year	-9.12 (70.87)	-0.16 (68.78)	-22.41 (70.63)
1990.year	36.10 (71.19)	10.50 (69.12)	21.83 (70.94)
1991.year	-52.94 (72.12)	-31.28 (70.23)	-67.82 (71.83)
1992.year	-9.20 (71.52)	-14.03 (69.47)	-36.51 (72.12)
1993.year	-46.33 (71.19)	-54.18 (69.12)	-60.78 (71.07)
1994.year	-1.74 (70.56)	12.58 (68.48)	-11.52 (70.69)
1995.year	-55.80 (70.57)	-51.09 (68.48)	-85.47 (71.14)
1996.year	5.07 (70.87)	5.41 (68.78)	-24.48 (71.49)
1997.year	-21.87 (70.87)	-6.74 (68.80)	-52.63 (71.55)
1998.year	-87.17 (70.87)	-106.57 (68.80)	-129.67+ (71.56)
1999.year	27.45 (70.91)	19.55 (68.87)	-19.57 (71.80)
2000.year	144.86* (71.23)	148.13* (69.17)	108.17 (72.07)
2001.year	60.47	65.88	3.86

	(70.92)	(68.84)	(71.96)
2002.year	-45.53 (70.94)	-72.27 (68.90)	-78.87 (71.31)
2003.year	-50.34 (70.56)	-23.65 (68.48)	-80.26 (71.16)
2004.year	-71.56 (70.57)	-50.86 (68.48)	-110.23 (71.44)
2005.year	77.57 (70.75)	68.23 (68.65)	26.28 (72.13)
2006.year	110.47 (70.58)	85.52 (68.52)	31.58 (72.30)
2007.year	128.66+ (70.57)	123.41+ (68.49)	52.51 (74.23)
2008.year	77.56 (70.66)	90.66 (68.59)	43.94 (75.13)
2009.year	-35.36 (70.62)	-12.67 (68.59)	-84.55 (72.57)
2010.year	-88.22 (70.57)	-66.94 (68.48)	-80.40 (71.70)
2011.year	44.61 (70.75)	39.45 (68.65)	-13.47 (72.62)
2012.year	-70.44 (71.21)	-84.92 (69.39)	-133.20+ (73.44)
2013.year	-42.93 (70.70)	-45.46 (68.65)	-106.64 (73.05)
1.state_num	0.00 (.)	0.00 (.)	0.00 (.)
2.state_num	-95.16 (92.27)	-96.72 (88.17)	-108.46 (94.27)
3.state_num	-25.90 (89.34)	-26.04 (85.33)	-76.80 (91.91)
4.state_num	-15.78 (89.49)	-16.32 (85.50)	-5.87 (90.49)
5.state_num	66.21 (89.33)	66.21 (85.32)	-31.39 (97.29)
6.state_num	-57.71 (89.33)	-57.71 (85.32)	-105.63 (92.86)

7.state_num	-41.18 (89.49)	-41.72 (85.50)	-57.46 (108.33)
8.state_num	-117.93 (89.58)	-118.61 (85.59)	-111.74 (97.90)
9.state_num	54.65 (89.58)	0.00 (.)	11.00 (91.30)
10.state_num	122.33 (89.42)	121.93 (85.42)	101.53 (89.58)
11.state_num	-90.18 (89.58)	-90.86 (85.59)	-56.14 (118.07)
12.state_num	-111.90 (89.58)	-112.57 (85.59)	-155.89 (96.81)
13.state_num	-96.02 (89.42)	-96.43 (85.42)	-122.13 (96.64)
14.state_num	-73.46 (89.34)	-73.32 (85.33)	-106.99 (91.02)
15.state_num	9.14 (89.58)	8.46 (85.59)	5.17 (91.67)
16.state_num	-76.33 (89.58)	-77.00 (85.59)	-105.09 (90.89)
17.state_num	61.81 (89.37)	61.54 (85.37)	66.30 (89.78)
18.state_num	-50.52 (89.37)	-50.79 (85.37)	-55.43 (89.72)
19.state_num	-120.08 (89.58)	-120.75 (85.59)	-101.50 (107.56)
20.state_num	17.36 (89.49)	16.82 (85.50)	20.72 (104.32)
21.state_num	67.31 (89.37)	67.04 (85.37)	70.57 (124.37)
22.state_num	-86.04 (89.34)	-86.18 (85.33)	-110.45 (97.22)
23.state_num	-92.68 (89.49)	-93.22 (85.50)	-113.88 (95.38)
24.state_num	-33.52 (93.12)	-34.47 (88.95)	-23.17 (92.90)
25.state_num	-99.50 (89.49)	-100.04 (85.50)	-106.86 (91.77)

26.state_num	-111.22 (89.58)	-111.89 (85.59)	-115.88 (91.71)
27.state_num	-65.89 (89.49)	-66.43 (85.50)	-76.16 (89.91)
28.state_num	-118.34 (101.45)	-120.57 (96.94)	-144.39 (104.96)
29.state_num	-125.23 (90.43)	-125.96 (86.41)	-158.87+ (93.26)
30.state_num	-10.75 (89.58)	-11.43 (85.59)	-40.35 (101.37)
31.state_num	-60.25 (92.29)	-61.60 (88.18)	-48.98 (95.95)
32.state_num	137.08 (89.42)	136.68 (85.42)	84.26 (108.17)
33.state_num	23.49 (90.27)	23.04 (86.23)	2.72 (92.08)
34.state_num	-119.68 (89.58)	-120.36 (85.59)	-120.37 (100.48)
35.state_num	-67.54 (89.34)	-67.68 (85.33)	-108.42 (93.30)
36.state_num	19.62 (90.18)	19.60 (86.13)	18.14 (93.41)
37.state_num	-139.99 (89.42)	-140.39 (85.42)	-131.13 (99.90)
38.state_num	-99.49 (89.42)	-99.89 (85.42)	-151.02 (96.38)
39.state_num	-91.78 (89.49)	-92.32 (85.50)	-66.25 (117.65)
40.state_num	-6.72 (89.34)	-6.86 (85.33)	-43.04 (91.12)
41.state_num	-99.53 (89.49)	-100.07 (85.50)	-95.31 (96.02)
42.state_num	6.48 (89.37)	6.21 (85.37)	-1.70 (89.70)
43.state_num	246.40** (90.18)	0.00 (.)	176.69+ (91.26)
44.state_num	-79.42	-79.82	-122.73

	(89.42)	(85.42)	(92.88)
45.state_num	-122.96 (89.49)	-123.50 (85.50)	-96.80 (120.20)
46.state_num	44.59 (89.37)	44.32 (85.37)	16.54 (90.18)
47.state_num	10.63 (89.37)	10.36 (85.37)	21.36 (95.98)
48.state_num	-35.89 (90.34)	-36.48 (86.30)	-29.13 (102.28)
49.state_num	-7.74 (89.42)	-8.14 (85.42)	-63.66 (94.98)
50.state_num	-111.37 (92.18)	-112.24 (88.07)	-124.60 (93.68)
Citizen ideology			-0.37 (2.18)
Government Ideology (ADA/COPE)			2.44 (1.95)
Government Ideology (DWNOM)			-3.66+ (2.11)
Change in other state spending			0.00** (0.00)
Intercept	126.80 (81.49)	126.11 (78.20)	246.09+ (130.34)
<i>N</i>	1372	1317	1370
Overall R^2	0.09	0.08	0.11
Sample	All cases	Omitting TX & FL	All cases
State and year fixed effects?	Yes	Yes	Yes
Politics and spending controls?	No	No	Yes

⁺ p<0.10, * p<0.05, ** p<0.01, two tailed.

Equation #1 was estimated using the full sample. Equation #2 was estimated without data from two outliers, Texas and Florida. Equation #3 was estimated with additional controls for the political ideology of citizens and elected officials in each state (from the update to Berry et al 1998) and for the change in other state spending in that year.

Model Summarized in Figure 3

L4.any_scandal	61.94 (40.65)
L3.any_scandal	-10.05 (38.40)
L2.any_scandal	-71.13+ (37.37)
L.any_scandal	-54.11 (36.73)
any_scandal	-49.41 (37.08)
1986.year	0.00 (.)
1987.year	4.04 (70.51)
1988.year	-18.83 (70.82)
1989.year	7.12 (71.70)
1990.year	52.41 (72.04)
1991.year	-50.47 (72.06)
1992.year	-7.55 (72.47)
1993.year	-64.75 (72.22)
1994.year	-2.01 (70.51)
1995.year	-54.92 (70.51)
1996.year	7.19 (70.82)
1997.year	-19.20

	(70.85)
1998.year	-82.84 (70.85)
1999.year	29.36 (70.87)
2000.year	149.31* (71.26)
2001.year	60.00 (70.94)
2002.year	-45.57 (70.90)
2003.year	-44.32 (70.74)
2004.year	-65.83 (70.74)
2005.year	80.80 (70.71)
2006.year	116.55+ (70.82)
2007.year	129.65+ (70.90)
2008.year	80.48 (70.69)
2009.year	-27.71 (70.87)
2010.year	-73.30 (71.53)
2011.year	59.73 (71.59)
2012.year	-60.95 (71.57)
2013.year	-46.85 (71.60)
1.state_num	0.00 (.)

2.state_num	-104.64 (93.34)
3.state_num	-25.53 (89.35)
4.state_num	-19.45 (90.00)
5.state_num	70.28 (89.31)
6.state_num	-51.81 (89.29)
7.state_num	-48.54 (90.15)
8.state_num	-127.14 (90.65)
9.state_num	62.01 (90.25)
10.state_num	119.02 (89.85)
11.state_num	-99.39 (90.65)
12.state_num	-121.10 (90.65)
13.state_num	-101.55 (89.76)
14.state_num	-65.71 (89.36)
15.state_num	-0.06 (90.65)
16.state_num	-85.53 (90.65)
17.state_num	60.34 (89.54)
18.state_num	-54.11 (89.65)
19.state_num	-129.28 (90.65)

20.state_num	10.00 (90.15)
21.state_num	63.62 (89.48)
22.state_num	-85.67 (89.35)
23.state_num	-100.04 (90.15)
24.state_num	-35.60 (93.46)
25.state_num	-104.65 (90.26)
26.state_num	-120.42 (90.65)
27.state_num	-73.25 (90.15)
28.state_num	-128.06 (102.44)
29.state_num	-134.57 (91.51)
30.state_num	-19.96 (90.65)
31.state_num	-70.56 (93.31)
32.state_num	133.41 (89.92)
33.state_num	20.26 (90.68)
34.state_num	-128.89 (90.65)
35.state_num	-69.74 (89.35)
36.state_num	22.12 (90.11)
37.state_num	-143.30

	(89.85)
38.state_num	-103.16 (89.92)
39.state_num	-99.14 (90.15)
40.state_num	-10.42 (89.29)
41.state_num	-106.89 (90.15)
42.state_num	5.01 (89.54)
43.state_num	248.61** (90.11)
44.state_num	-83.09 (89.92)
45.state_num	-130.32 (90.15)
46.state_num	43.12 (89.54)
47.state_num	6.95 (89.48)
48.state_num	-43.32 (90.99)
49.state_num	-13.26 (89.76)
50.state_num	-118.69 (92.81)
Intercept	132.37 (82.10)
<i>N</i>	1372
Overall R^2	0.09

⁺ p<0.10, * p<0.05, ** p<0.01, two tailed.

Models Summarized in Table 2

	#4	#5	#6
L2.any_scandal	-71.23+ (37.24)		
L2.spontaneous_scandals		-123.31+ (70.46)	
L2.state_scandals			-62.54 (39.37)
1986.year	0.00 (.)	0.00 (.)	0.00 (.)
1987.year	4.06 (70.56)	4.41 (70.58)	2.88 (70.60)
1988.year	-18.54 (70.87)	-17.09 (70.90)	-19.90 (70.90)
1989.year	-9.12 (70.87)	-7.28 (70.88)	-8.85 (70.90)
1990.year	36.10 (71.19)	34.90 (71.21)	36.02 (71.22)
1991.year	-52.94 (72.12)	-74.91 (71.21)	-55.55 (72.26)
1992.year	-9.20 (71.52)	-10.40 (71.54)	-9.26 (71.56)
1993.year	-46.33 (71.19)	-45.91 (71.21)	-46.22 (71.22)
1994.year	-1.74 (70.56)	-1.39 (70.58)	-1.67 (70.59)
1995.year	-55.80 (70.57)	-56.87 (70.58)	-55.90 (70.60)
1996.year	5.07 (70.87)	5.45 (70.88)	5.17 (70.90)
1997.year	-21.87 (70.87)	-17.90 (70.95)	-20.67 (70.92)
1998.year	-87.17 (70.87)	-88.24 (70.88)	-89.80 (70.90)
1999.year	27.45	25.94	27.00

	(70.91)	(70.91)	(70.94)
2000.year	144.86* (71.23)	143.74* (71.24)	143.48* (71.26)
2001.year	60.47 (70.92)	60.47 (70.94)	60.21 (70.95)
2002.year	-45.53 (70.94)	-49.50 (70.92)	-45.96 (70.97)
2003.year	-50.34 (70.56)	-49.99 (70.58)	-51.52 (70.60)
2004.year	-71.56 (70.57)	-67.70 (70.64)	-71.66 (70.60)
2005.year	77.57 (70.75)	75.35 (70.71)	73.93 (70.70)
2006.year	110.47 (70.58)	110.44 (70.60)	108.94 (70.60)
2007.year	128.66+ (70.57)	130.06+ (70.60)	128.56+ (70.60)
2008.year	77.56 (70.66)	78.19 (70.71)	75.51 (70.66)
2009.year	-35.36 (70.62)	-38.24 (70.60)	-35.99 (70.66)
2010.year	-88.22 (70.57)	-86.82 (70.60)	-88.32 (70.60)
2011.year	44.61 (70.75)	42.39 (70.71)	43.47 (70.81)
2012.year	-70.44 (71.21)	-81.21 (70.71)	-73.88 (71.22)
2013.year	-42.93 (70.70)	-46.20 (70.64)	-45.15 (70.70)
1.state_num	0.00 (.)	0.00 (.)	0.00 (.)
2.state_num	-95.16 (92.27)	-86.88 (92.09)	-93.58 (92.34)
3.state_num	-25.90 (89.34)	-23.36 (89.36)	-25.59 (89.38)

4.state_num	-15.78 (89.49)	-10.01 (89.39)	-14.54 (89.55)
5.state_num	66.21 (89.33)	61.81 (89.39)	66.21 (89.37)
6.state_num	-57.71 (89.33)	-57.71 (89.36)	-57.71 (89.37)
7.state_num	-41.18 (89.49)	-31.00 (89.36)	-39.93 (89.55)
8.state_num	-117.93 (89.58)	-109.62 (89.39)	-116.38 (89.65)
9.state_num	54.65 (89.58)	59.54 (89.92)	53.10 (89.65)
10.state_num	122.33 (89.42)	129.96 (89.36)	123.26 (89.47)
11.state_num	-90.18 (89.58)	-81.87 (89.39)	-88.63 (89.65)
12.state_num	-111.90 (89.58)	-103.58 (89.39)	-110.35 (89.65)
13.state_num	-96.02 (89.42)	-92.80 (89.39)	-97.33 (89.55)
14.state_num	-73.46 (89.34)	-71.60 (89.39)	-80.47 (89.42)
15.state_num	9.14 (89.58)	17.45 (89.39)	10.69 (89.65)
16.state_num	-76.33 (89.58)	-68.01 (89.39)	-74.77 (89.65)
17.state_num	61.81 (89.37)	62.49 (89.39)	62.43 (89.42)
18.state_num	-50.52 (89.37)	-45.43 (89.36)	-52.13 (89.47)
19.state_num	-120.08 (89.58)	-111.76 (89.39)	-118.52 (89.65)
20.state_num	17.36 (89.49)	27.54 (89.36)	18.60 (89.55)
21.state_num	67.31 (89.37)	67.99 (89.39)	65.69 (89.47)

22.state_num	-86.04 (89.34)	-79.10 (89.39)	-85.73 (89.38)
23.state_num	-92.68 (89.49)	-86.90 (89.39)	-91.43 (89.55)
24.state_num	-33.52 (93.12)	-31.93 (93.12)	-32.66 (93.17)
25.state_num	-99.50 (89.49)	-89.32 (89.36)	-98.26 (89.55)
26.state_num	-111.22 (89.58)	-102.90 (89.39)	-109.67 (89.65)
27.state_num	-65.89 (89.49)	-55.71 (89.36)	-64.65 (89.55)
28.state_num	-118.34 (101.45)	-110.24 (101.28)	-116.58 (101.52)
29.state_num	-125.23 (90.43)	-116.87 (90.24)	-123.65 (90.50)
30.state_num	-10.75 (89.58)	-2.44 (89.39)	-9.20 (89.65)
31.state_num	-60.25 (92.29)	-51.80 (92.09)	-58.59 (92.36)
32.state_num	137.08 (89.42)	140.31 (89.39)	135.78 (89.55)
33.state_num	23.49 (90.27)	26.58 (90.24)	22.11 (90.39)
34.state_num	-119.68 (89.58)	-111.37 (89.39)	-118.13 (89.65)
35.state_num	-67.54 (89.34)	-69.40 (89.39)	-67.23 (89.38)
36.state_num	19.62 (90.18)	19.36 (90.20)	19.60 (90.22)
37.state_num	-139.99 (89.42)	-132.36 (89.36)	-139.06 (89.47)
38.state_num	-99.49 (89.42)	-96.26 (89.39)	-98.56 (89.47)
39.state_num	-91.78	-86.01	-90.54

	(89.49)	(89.39)	(89.55)
40.state_num	-6.72 (89.34)	-4.18 (89.36)	-6.41 (89.38)
41.state_num	-99.53 (89.49)	-93.76 (89.39)	-98.29 (89.55)
42.state_num	6.48 (89.37)	7.17 (89.39)	7.10 (89.42)
43.state_num	246.40** (90.18)	250.71** (90.24)	241.74** (90.26)
44.state_num	-79.42 (89.42)	-71.79 (89.36)	-80.72 (89.55)
45.state_num	-122.96 (89.49)	-117.19 (89.39)	-121.72 (89.55)
46.state_num	44.59 (89.37)	49.68 (89.36)	45.21 (89.42)
47.state_num	10.63 (89.37)	11.31 (89.39)	11.25 (89.42)
48.state_num	-35.89 (90.34)	-30.17 (90.24)	-34.63 (90.39)
49.state_num	-7.74 (89.42)	-4.51 (89.39)	-6.81 (89.47)
50.state_num	-111.37 (92.18)	-105.84 (92.09)	-110.13 (92.24)
Intercept	126.80 (81.49)	119.84 (81.38)	126.14 (81.56)
<i>N</i>	1372	1372	1372
Overall R^2	0.09	0.09	0.09
Scandals	All scandals	Spontan. mistakes	Public schools

⁺ p<0.10, * p<0.05, ** p<0.01, two tailed.

Equation #4 simply repeats the first model from Table 1. Equation #5 uses an alternative scandal indicator that only captures scandals involving public colleges and universities (and excludes scandals at private schools). Equation #6 uses an indicator for scandals that involved spontaneous mistakes, like a group of players starting a bar fight (and excludes longer or more conscious misdeeds, like a team engaging in illegal recruiting practices).

Models Summarized in Figure 4

	Fed. spend.	AR1	ECM	# scandals	Infl. adj.	Scandal Media
L2.any_scandal	-73.44+ (38.85)	-63.86+ (36.83)	-63.86+ (36.83)		-77.73+ (47.13)	-81.69+ (42.74)
L.higher_ed_spending		0.93** (0.01)	-0.07** (0.01)			
L2.num_scandals				-28.81* (14.54)		
D.federal_spending_highered	-0.00+ (0.00)					
D.other_fed	-0.00 (0.00)					
L2.scandal_articles_per_100k						0.13 (0.20)
1986.year	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)
1987.year	-20.16 (80.42)	9.19 (69.74)	9.19 (69.74)	3.32 (70.56)	-29.43 (89.29)	-108.40 (166.82)
1988.year	-53.51 (81.61)	-8.05 (70.06)	-8.05 (70.06)	-15.43 (70.89)	-89.06 (89.68)	-92.72 (160.66)
1989.year	-56.16 (81.55)	6.76 (70.09)	6.76 (70.09)	-8.98 (70.87)	-90.54 (89.68)	-89.74 (159.33)
1990.year	5.26 (81.15)	57.68 (70.46)	57.68 (70.46)	35.04 (71.18)	-38.95 (90.08)	-30.39 (155.11)
1991.year	-68.72 (83.18)	-24.45 (71.44)	-24.45 (71.44)	-65.77 (71.33)	-189.72* (91.25)	-158.59 (154.26)
1992.year	-58.55 (82.76)	22.48 (70.90)	22.48 (70.90)	-10.26 (71.51)	-82.93 (90.50)	-89.32 (152.93)
1993.year	-75.81 (80.52)	-8.90 (70.66)	-8.90 (70.66)	-46.45 (71.18)	-149.40+ (90.08)	-136.31 (152.52)
1994.year	-33.82 (80.46)	39.62 (70.11)	39.62 (70.11)	-1.91 (70.56)	-71.01 (89.29)	-92.49 (152.17)
1995.year	-93.66 (79.71)	-8.29 (70.24)	-8.29 (70.24)	-56.23 (70.56)	-161.24+ (89.29)	-146.80 (151.52)

1996.year	-28.72 (80.03)	54.29 (70.57)	54.29 (70.57)	4.93 (70.86)	-87.20 (89.67)	-80.87 (151.28)
1997.year	-56.47 (79.71)	34.12 (70.73)	34.12 (70.73)	-23.46 (70.86)	-103.96 (89.68)	-107.19 (150.72)
1998.year	-126.51 (79.71)	-26.35 (70.85)	-26.35 (70.85)	-85.24 (70.88)	-184.81* (89.68)	-175.31 (150.07)
1999.year	16.66 (80.62)	88.29 (70.89)	88.29 (70.89)	25.26 (70.87)	-41.38 (89.72)	-56.50 (149.75)
2000.year	107.07 (80.54)	214.10** (71.44)	214.10** (71.44)	144.42* (71.22)	74.25 (90.13)	52.23 (152.07)
2001.year	31.87 (78.91)	146.67* (71.72)	146.67* (71.72)	61.54 (70.92)	-16.89 (89.74)	-30.20 (150.60)
2002.year	-74.28 (78.99)	51.23 (72.15)	51.23 (72.15)	-47.68 (70.90)	-162.71+ (89.76)	-131.40 (149.76)
2003.year	-77.10 (78.62)	49.29 (71.92)	49.29 (71.92)	-51.08 (70.56)	-148.87+ (89.29)	-131.23 (149.12)
2004.year	-104.31 (78.56)	30.67 (72.03)	30.67 (72.03)	-73.15 (70.56)	-219.83* (89.29)	-162.15 (150.37)
2005.year	46.63 (78.72)	180.01* (72.22)	180.01* (72.22)	78.96 (70.78)	-44.41 (89.52)	-9.12 (149.79)
2006.year	78.08 (78.53)	225.00** (72.62)	225.00** (72.62)	112.64 (70.60)	6.26 (89.30)	17.65 (150.90)
2007.year	94.21 (78.55)	257.62** (73.36)	257.62** (73.36)	127.65+ (70.56)	-11.88 (89.29)	42.60 (149.58)
2008.year	43.47 (78.62)	221.64** (74.31)	221.64** (74.31)	73.73 (70.57)	-84.22 (89.41)	-9.74 (149.83)
2009.year	-55.95 (79.20)	120.43 (75.02)	120.43 (75.02)	-38.92 (70.56)	-69.04 (89.36)	-119.48 (149.37)
2010.year	-99.48 (79.97)	71.44 (75.22)	71.44 (75.22)	-89.81 (70.56)	-213.37* (89.29)	-170.67 (149.21)
2011.year	11.13 (78.69)	203.26** (75.32)	203.26** (75.32)	41.39 (70.63)	-103.77 (89.52)	-35.12 (149.09)
2012.year	-111.79 (79.40)	96.27 (76.28)	96.27 (76.28)	-76.45 (70.83)	-226.63* (90.11)	-148.96 (149.25)
2013.year	-81.09	124.74	124.74	-43.58	-139.45	-129.83

	(78.68)	(75.88)	(75.88)	(70.66)	(89.46)	(149.79)
1.state_num	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)
2.state_num	-99.90 (95.20)	-214.76* (93.60)	-214.76* (93.60)	-90.58 (92.11)	-86.77 (116.76)	-93.06 (106.06)
3.state_num	-22.69 (93.95)	-57.32 (88.46)	-57.32 (88.46)	-25.41 (89.33)	-37.12 (113.05)	2.90 (108.06)
4.state_num	-17.19 (96.10)	-52.46 (88.67)	-52.46 (88.67)	-12.81 (89.40)	-6.77 (113.24)	-10.98 (123.53)
5.state_num	84.14 (93.08)	509.79** (118.01)	509.79** (118.01)	71.36 (89.36)	-84.21 (113.04)	54.90 (100.39)
6.state_num	-59.53 (92.17)	-94.66 (88.52)	-94.66 (88.52)	-54.63 (89.34)	-53.37 (113.04)	-80.74 (104.33)
7.state_num	-50.31 (94.14)	-88.29 (88.83)	-88.29 (88.83)	-38.20 (89.40)	-32.66 (113.24)	-57.60 (104.33)
8.state_num	-122.53 (92.47)	-255.98** (91.82)	-255.98** (91.82)	-113.45 (89.42)	-102.67 (113.35)	-121.95 (110.77)
9.state_num	56.58 (92.51)	154.08+ (90.25)	154.08+ (90.25)	51.19 (89.45)	33.50 (113.35)	47.91 (100.64)
10.state_num	133.97 (93.09)	185.23* (89.06)	185.23* (89.06)	128.94 (89.33)	94.06 (113.15)	120.11 (101.86)
11.state_num	-95.28 (94.24)	-198.74* (90.58)	-198.74* (90.58)	-85.70 (89.42)	-79.94 (113.35)	-97.24 (117.74)
12.state_num	-118.06 (98.53)	-243.04** (91.50)	-243.04** (91.50)	-107.41 (89.42)	-97.39 (113.35)	-118.79 (107.03)
13.state_num	-96.23 (92.29)	-82.21 (88.40)	-82.21 (88.40)	-91.48 (89.34)	-135.58 (113.15)	-102.82 (101.29)
14.state_num	-75.87 (92.18)	-134.21 (88.94)	-134.21 (88.94)	-77.03 (89.33)	-79.07 (113.05)	-72.30 (102.69)
15.state_num	6.38 (92.45)	30.02 (88.60)	30.02 (88.60)	13.63 (89.42)	-3.64 (113.35)	-0.16 (110.02)
16.state_num	-79.23 (92.46)	-139.41 (89.22)	-139.41 (89.22)	-71.84 (89.42)	-77.99 (113.35)	-83.32 (100.89)
17.state_num	61.01 (92.22)	98.14 (88.55)	98.14 (88.55)	65.86 (89.33)	47.34 (113.09)	49.57 (100.48)

18.state_num	-52.61 (92.22)	-87.27 (88.56)	-87.27 (88.56)	-49.54 (89.35)	-60.80 (113.09)	-52.59 (102.49)
19.state_num	-127.24 (108.40)	-260.16** (91.92)	-260.16** (91.92)	-115.59 (89.42)	-104.06 (113.35)	-126.14 (110.68)
20.state_num	15.41 (92.35)	49.38 (88.62)	49.38 (88.62)	20.33 (89.40)	-2.54 (113.24)	6.63 (107.49)
21.state_num	87.96 (94.99)	38.48 (88.47)	38.48 (88.47)	69.31 (89.34)	63.37 (113.09)	89.22 (104.40)
22.state_num	-86.36 (92.21)	-108.32 (88.38)	-108.32 (88.38)	-82.47 (89.33)	-107.88 (113.05)	-108.84 (115.26)
23.state_num	-95.71 (92.36)	-114.40 (88.52)	-114.40 (88.52)	-85.59 (89.34)	-100.21 (113.24)	-123.30 (103.53)
24.state_num	-35.03 (95.99)	-87.06 (92.51)	-87.06 (92.51)	-31.78 (93.08)	-34.40 (117.83)	-33.92 (112.91)
25.state_num	-102.77 (92.36)	-190.98* (89.90)	-190.98* (89.90)	-96.52 (89.40)	-96.62 (113.24)	-115.24 (104.29)
26.state_num	-115.78 (92.47)	-245.56** (91.65)	-245.56** (91.65)	-106.73 (89.42)	-96.71 (113.35)	-120.91 (117.50)
27.state_num	-69.47 (92.37)	-139.24 (89.38)	-139.24 (89.38)	-62.92 (89.40)	-62.18 (113.24)	-69.30 (101.25)
28.state_num	-136.01 (110.67)	-255.59* (103.14)	-255.59* (103.14)	-113.80 (101.30)	-101.42 (128.37)	-130.53 (119.63)
29.state_num	-128.89 (93.28)	-271.90** (93.04)	-271.90** (93.04)	-120.70 (90.27)	-104.96 (114.42)	-129.54 (105.72)
30.state_num	-12.98 (92.45)	-13.26 (88.53)	-13.26 (88.53)	-6.27 (89.42)	-21.74 (113.35)	-14.10 (101.47)
31.state_num	-67.17 (97.29)	-115.24 (91.72)	-115.24 (91.72)	-55.66 (92.12)	-52.36 (116.78)	-70.22 (113.27)
32.state_num	141.80 (92.46)	385.29** (98.64)	385.29** (98.64)	140.60 (89.35)	47.55 (113.15)	112.70 (102.15)
33.state_num	22.98 (93.09)	133.58 (91.29)	133.58 (91.29)	28.08 (90.18)	-11.79 (114.22)	17.13 (101.25)
34.state_num	-118.05 (102.84)	-247.46** (91.35)	-247.46** (91.35)	-115.20 (89.42)	-107.06 (113.35)	-119.30 (104.11)

35.state_num	-69.02 (92.19)	-56.07 (88.31)	-56.07 (88.31)	-62.94 (89.33)	-93.64 (113.05)	-77.14 (101.14)
36.state_num	32.35 (95.91)	-11.54 (89.28)	-11.54 (89.28)	17.37 (90.17)	12.31 (114.11)	17.90 (101.44)
37.state_num	-133.03 (96.01)	-192.54* (88.85)	-192.54* (88.85)	-138.53 (89.38)	-150.80 (113.15)	-149.09 (103.52)
38.state_num	-98.43 (92.34)	-126.59 (88.50)	-126.59 (88.50)	-95.97 (89.35)	-126.68 (113.15)	-109.54 (100.50)
39.state_num	-102.78 (106.36)	-214.16* (91.04)	-214.16* (91.04)	-88.81 (89.40)	-76.58 (113.24)	-101.29 (100.60)
40.state_num	-8.29 (92.19)	-7.36 (88.29)	-7.36 (88.29)	-7.27 (89.34)	-12.76 (113.05)	-17.77 (102.97)
41.state_num	-104.18 (92.37)	-231.15* (91.44)	-231.15* (91.44)	-96.56 (89.40)	-85.54 (113.24)	-97.97 (118.75)
42.state_num	5.33 (92.23)	-3.61 (88.34)	-3.61 (88.34)	9.51 (89.33)	5.18 (113.09)	4.79 (106.71)
43.state_num	274.91** (95.07)	564.10** (105.30)	564.10** (105.30)	260.15** (90.45)	166.18 (114.11)	232.39* (101.74)
44.state_num	-83.57 (92.29)	-178.15* (90.07)	-178.15* (90.07)	-77.96 (89.38)	-69.83 (113.15)	-84.92 (104.16)
45.state_num	-137.19 (116.10)	-272.52** (92.30)	-272.52** (92.30)	-119.99 (89.40)	-105.38 (113.24)	-146.52 (125.52)
46.state_num	44.67 (92.23)	98.99 (88.84)	98.99 (88.84)	44.53 (89.36)	16.63 (113.09)	44.89 (101.29)
47.state_num	-10.53 (98.32)	64.85 (88.84)	64.85 (88.84)	11.60 (89.35)	-17.96 (113.09)	14.44 (101.36)
48.state_num	-38.28 (93.17)	-116.86 (90.41)	-116.86 (90.41)	-32.93 (90.24)	-29.14 (114.31)	-26.15 (117.39)
49.state_num	-6.38 (92.29)	23.26 (88.54)	23.26 (88.54)	-6.28 (89.38)	-35.51 (113.15)	-11.67 (105.45)
50.state_num	-114.00 (95.05)	-255.20** (94.57)	-255.20** (94.57)	-108.53 (92.10)	-95.24 (116.64)	-119.98 (126.33)
Intercept	162.41+ (90.87)	202.23* (81.62)	202.23* (81.62)	123.57 (81.40)	203.64* (103.11)	203.17 (159.08)
N	1284	1372	1372	1372	1372	1151

Total R^2	0.09	0.97	0.11	0.09	0.06	0.09
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⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, two tailed.