UNIVERSITY OF HOUSTON

LAW CENTER

MICHAEL A. OLIVAS
William B. Bates
Distinguished Chair in Law
Director, IHELG
molivas@uh.edu
713.743.2078

DEBORAH Y. JONES
Program Manager
dyjones@uh.edu

State Capital Expenditures for Higher Education: Politics and the Economy

IHELG Monograph

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David A. Tandberg
Special Assistant to the Secretary of Education,
Pennsylvania Department of Education
333 Market Street
Harrisburg, PA 17126
717-783-6793
dtandberg@state.pa.us
and
Erik C. Ness
Assistant Professor of Higher Education
Institute of Higher Education
010 Meigs Hall
University of Georgia
Athens, GA 30602
(706) 542-0573
eness@uga.edu

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State Capital Expenditures for Higher Education: Politics and the Economy

David Tandberg
Pennsylvania Department of Education

Erik Ness
University of Georgia

Given the steady attention higher education researchers have paid to state postsecondary education finance, state capital expenditures (e.g., new construction, infrastructure) have received surprisingly little consideration. Scholars have examined trends and determinants of higher education general appropriations (e.g., Delaney & Doyle, 2007; Lowry, 2001; Rizzo, 2006; St. John & Parsons, 2004; Tandberg, in press-a, in press-b) and of student financial aid (e.g., Heller, 2001, 2002). Yet, we are aware of only a single empirical study examining capital expenditures for higher education (White & Musser, 1978). This lack of attention is especially surprising for three reasons: (1) states spend a substantial sum on capital projects, (2) capital spending appears to be more susceptible to state education and economic trends, and (3) the allocation of capital project funds appear to be rife with political influence.

With regard to the first reason, according to the fiscal year 2007 report of the National Associations of State Budget Officers, states provided $12.3 billion dollars to higher education institutions in the form of capital support. Higher education is the second largest single capital expenditure category in state budgets (the first is transportation). In fact, higher education makes up 13% of all state capital expenditures (NASBO, 2008). In addition to the relatively large share of state capital expenses directed to higher education projects, the gross higher education capital spending of $12.3 billion represents roughly 17% of total state higher education appropriations ($72.8 billion in FY 2007 according to Grapevine data). Moreover, gross spending on higher education capital projects is nearly one-third more than total student financial aid spending ($9.3

billion in FY 2007 according to NASSGAP, 2007). Yet, despite this considerable investment by the U.S. states very little empirical analysis has been conducted on state capital support for higher education.

Second, capital expenditures for higher education appear to follow a more volatile trend than do state appropriations, which suggests capital spending is more closely connected with a state's educational and economic context. Similar to Hovey's hypothesis that higher education appropriations serve as the "balance wheel" to state budgets since colleges and universities can replace state funding with student tuition (Delaney & Doyle, 2007; Hovey, 1999), the past decade of higher education capital expenditures includes decreased spending following the 2002 economic downturn, then double-digit percentage increases in fiscal years 2006 and 2007 (NASBO, 2008). Anecdotal evidence from the current recession suggests capital spending on higher education has significantly decreased. Examples include a freeze on 130 capital projects on California State University campuses[1] and Colorado Governor Ritter's imposed state-funded capital project freeze, including roughly $25 million in higher education buildings (Harden, 2009). In addition to capital expenditures' connection with state economic trends, funding for these projects would also seem to be affected by other state higher education policies, particularly matching funds. Indeed, two recent reports indicated that 24 states provide matching funds to encourage private donations for the recruitment of star faculty, student scholarships, endowment growth, and capital projects (CASE, 2004; Knapp, 2002).

Third, given the discretionary nature of capital projects and the appeal of such projects in flush budget years, higher education capital expenditures seem to be especially prone to political influence. Indeed, according to an appropriations committee chair in one large state, "General appropriations for higher education is for the bean counters. Capital support is where the real

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[1] See http://www.calstate.edu/PA/News/2009/construction.shtml

politics happens" (personal communication, 2005). Michael Olivas's studies of the origin of the Ohio Board of Regents provide further support for the highly political nature of capital spending on higher education. Indeed, with higher education capital expenditures in Ohio drastically trailing other states, especially those with Big Ten universities (Olivas, 1990), the in-fighting among Ohio public colleges and universities for sparse capital funds served as a major impetus for creating a new statewide higher education coordinating agency (Olivas, 1984, 1990). In addition to this specific example in Ohio, political scientists have emphasized legislators' efforts to not only represent their constituents' interests, but also to deliver specific projects to their districts (Fenno, 1978; Mayhew, 1974). In fact, Diaz-Cayeros et al. (2003) specifically argue that legislators' efforts to fund district projects can be measured by capital expenditures. Both historically and recently media accounts and empirical studies have examined these "pork barrel" and "earmarked" expenditures by the U.S. Congress. Higher education researchers have paid particular attention to the federal lobbying efforts of colleges and universities to maximize funding for such projects (Cook, 1998; Parsons, 1997). While higher education earmarks are less common in state houses, capital expenditures may often serve similar purposes as they allow legislators to allocate significant resources to campuses in their districts. Taken together, these three reasons suggest the need for a study of capital expenditures for higher education.

In this study, we examine the influences of political, economic, demographic, and higher education characteristics on state capital expenditures for colleges and universities. First, we briefly review the literature related to our topic, which includes the limited studies of capital expenditures and a broader stream of research related to state higher education spending. We then introduce the Fiscal Policy Framework (Hofferbert, 1974; Tandberg, in press-a, in press-b), which provides the conceptual underpinning of our study. From this framework, we specify 12

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hypotheses related primarily to political characteristics of the states. Employing a pooled, cross-sectional time-series analysis, we test the predictive power of political, economic, demographic, and higher education characteristics on state capital expenditures for higher education. Finally, after reporting the results of our analysis, we discuss the conceptual implications of our study.

Studies Examining State Capital Expenditures

State higher education capital expenditures are those funds provided by the state to higher education institutions for new construction, infrastructure, major repairs and improvements, land purchases and the acquisition of major equipment and existing structures. These funds are considered separate from general fund expenditures for higher education which are traditionally provided through the normal appropriations process and go towards the general operations of the colleges and universities (NASBO, 2008). As mentioned earlier, the balance wheel trend for higher education capital spending appears to be more pronounced that general appropriations. According to the most recent NASBO report (2008), for instance, higher education capital expenditures increased by 19.7% compared to a more modest 6.6% increase in total state higher education spending.

Very little has been published on predictors of state capital spending. In the only study to specifically analyze state capital spending for higher education, White and Musser (1978) found that state capital spending for higher education was more elastic than state education and general fund appropriations for higher education. In fact by their estimates a one percent decrease in personal income resulted in more than a 1% decrease in capital expenditures for higher education. They also found that state higher education expenditures in general were more elastic than any other state expenditure area.

In a study of all state capital expenditures, Poterba (1995) found that states with actual capital budgets (as opposed to lumping capital spending in with everything else) spent an average of $1.94 per capita per year more on education institutions (close to one third more) than states without capital budgets. Furthermore, states with "pay as you go" financing policies reduce capital spending in education. These findings are important because according to the National Association of State Budget Officers data higher education expenditures represent the vast majority of all state education capital expenditures as most K-12 education capital spending occurs at the local level. Given the dearth of empirical work on state capital expenditures, our study builds upon the more robust literature on state spending for higher education.

Studies Examining State Spending on Higher Education

Although measures of state support of higher education generally do not include capital expenditures (Tandberg, 2006a), the growing literature that attempts to determine the factors that influence levels of state support for higher education may prove helpful in developing a model to explain levels of state capital support for higher education. Most state spending studies have shown that state economic factors (e.g., tax revenue, gross state product, per capita income, spending on other state expenditure areas, and changes in the business cycle) have a significant and measurable impact on state support of higher education (Archibald & Feldman; 2006; Hossler et al., 1997; Kane, Orszag, & Gunter, 2003; Lowry, 2001; Peterson, 1976; Rizzo, 2006). More recent studies have integrated measures of state politics and political institutions in to the more traditional models for explaining state support of higher education. These studies have shown that after controlling for state economic, demographic, and higher education attributes a number of political variables have a significant and measurable impact on state support for

higher education. Such political variables include: powers of the governor, interest groups, attributes of the legislature, partisanship (both of the governor and the legislature), political ideology, and if a state has term limits (e.g., Tandberg, 2006b, in press-a, in press-b; McLendon, Hearn, & Mokher, 2009; McLendon, Mokher, & Doyle, 2009). These findings compliment recent studies that have routinely shown the impact of politics on state-level higher education policy adoption, including merit scholarships (Doyle, 2006), governance reform (McLendon, Deaton, & Hearn, 2007), accountability initiatives (McLendon, Hearn, & Deaton, 2006; McLendon, Heller, & Young, 2005), and student data systems (Hearn, McLendon, & Mokher, 2008; Mokher & McLendon, 2009). While these policy adoption and state spending studies consistently find political influences, the specific characteristics that impact adoption or spending vary by study. Some studies, for instance, find evidence that party control influences the adoption of accountability and governance reform (McLendon, Hearn, & Deaton, 2006; McLendon, Deaton, & Hearn, 2007); yet, in other studies party control is not a significant predictor of policy adoption or higher education spending.

Based on these state-level higher education studies and on the mounting anecdotal evidence, such as the appropriations committee chair's comment that "capital support is where the real politics happens," a study of capital support of higher education ought pay attention to the political element. This study extends the recent research that includes politics, state economic, demographic, and higher education attributes in a model designed to explain state capital expenditures for higher education. As outlined in the next section, our study also applies Tandberg's (in press-a) Fiscal Policy Framework, which is based on similar institutional rational choice models (Hofferbert, 1974; Ostrom, 2007), to state capital expenditures for higher education.

Conceptual and Theoretical Framework

The Fiscal Policy Framework follows in the tradition of new institutionalism and specifically institutional rational choice (March & Olsen, 1984; Shepsle, 1979, 1989; Coriat & Dosi, 1998; Ostrom, 2007). Building on the work that has been done in political science and more recently in higher education policy research (e.g., McLendon, Heller, & Young, 2005) the framework assumes that political actors, while seeking their own self interest, are impacted by their environment. Simply put, various attributes of both the actors themselves and the political, economic, demographic, and higher education environment they find themselves in, shape the level of support they are willing to give higher education. According to Tandberg (in press-a), the relative mix of political actors and contextual factors will decide whether higher education receives more or less funding for a given year. The resulting framework is depicted in Figure 1.
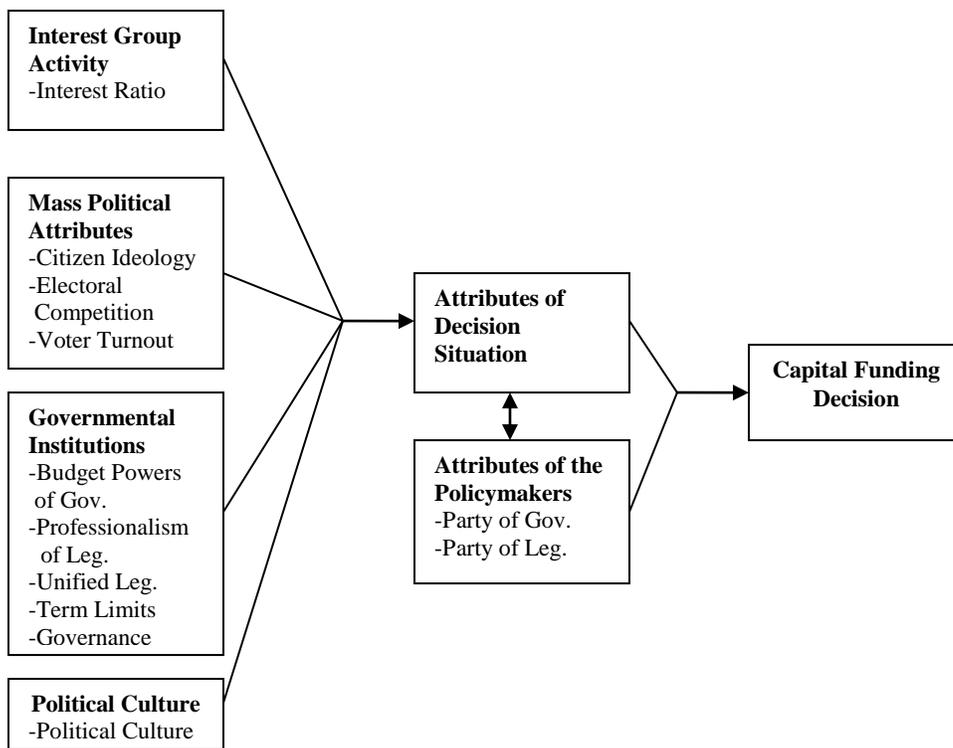
Figure 1: The Fiscal Policy Framework
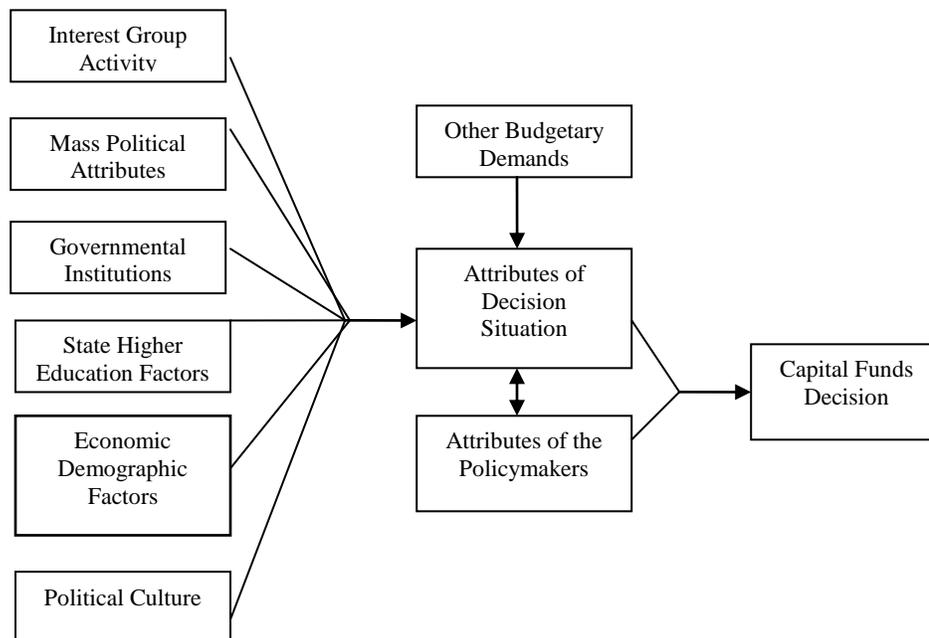
The model defines state capital funding for higher education as a product of the attributes of the policymakers and the attributes of the decision situation. The attributes of the decision situation

are impacted by and/or comprised of interest group activity, mass political attributes, governmental institutions, state higher education factors, economic and demographic factors of the state, political culture, and other budgetary demands.

Since the various political variables are a primary conceptual interest of this study they are discussed first. The remaining categories (higher education sector and socioeconomic and demographic factors) are considered the control variables for this study and are discussed following the political variables. The explanatory variables which make up the various political categories are displayed in Figure 2. Tandberg (in press-a) found that state higher education interest groups, the political ideology of the state's populace, legislative professionalism, having a unicameral legislature, the centrality of a state's higher education governance structure, the party of the governor, and the party of the legislature all had a statistically significant impact on state support of higher education.

Figure 2: Fiscal Policy Framework Political Variables

Theoretical Arguments and Hypotheses

Based on the central elements of the Fiscal Policy Framework, we specify a dozen hypotheses that account for state spending on capital projects. These explanations include: (1) interest group activity, (2) political ideology, (3) electoral competition, (4) voter turnout, (5) budgetary powers of the governor, (6) legislative professionalism, (7) uni-party legislature, (8) term limits, (9) higher education governance structures, (10) political culture, (11) party affiliation of governors and legislatures, and (12) higher education attributes. Because this study focuses on the political influences these characteristics represent 11 of our 12 hypotheses. We include directional hypotheses for all political, education, economic, and demographic variables in Table 1. For source documentation see Appendix A.

Hypothesis 1: States with a higher density of higher education interest groups will spend more on higher education capital projects. Political scientists have consistently shown interest groups to play a significant role in state policymaking both by establishing state spending priorities (Jacoby & Schneider, 2001) and as a result of the state-level interest group landscape or "ecology" (Gray & Lowery, 1999). Based on the core finding that interests groups compete with each other for limited resources (e.g., Heinz et al., 1993; Truman, 1951), we hold that the larger the higher education lobby is relative to the rest of the state lobby, the more successful they should be in procuring state capital dollars.

Hypothesis 2: States with more liberal political ideologies will spend more on higher education capital projects. This hypothesis has gained support from several studies that associated states with more liberal ideologies with increased state spending for higher education (e.g., Tandberg, in press-b; McLendon, Hearn, & Mokher, 2009 ; Archibald & Feldman, 2006).

Hypothesis 3: States with tightly contested elections will spend more on higher education capital projects. According to Barrilleaux and Berkman (2003), when elections for public office are highly competitive, elected officials offer services and support to the broadest range of citizens in their districts, thereby causing them to favor policy areas which encompass more constituents. Moreover, at the district level, incumbents seek to maximize returns to constituents to bolster their re-election chances (Mayhew, 1974).

Hypothesis 4: States with higher voter turnout rates will spend more on higher education capital projects. Recent studies have shown that elected officials become more responsive to their constituents as voter turnout (Bibby & Holbrook, 2004; Bowler & Donovan, 2004). Because citizens are generally supportive of higher education (Immerwahr, 2004) and because elected officials often use capital funds to direct projects to their districts (Diaz-Cayeros et al., 2003), we hypothesize that policymakers in states with greater voter turnout will appropriate more funds to higher education capital projects.

Hypothesis 5: States with governors who have high levels of budgetary power will spend less on higher education capital projects. This hypothesis is based on the budget powers index developed by Barrilleaux and Berkman (2003), which measures the relative power of the governor over the state budgetary process versus the legislature. An earlier study (Hendrick & Garand, 1991) found that governors with greater budgetary powers divert funds away from higher education and towards other redistributive policy areas.

Hypothesis 6: States with more professionalized legislatures will spend more on higher education capital projects. The professionalism of state legislatures is generally determined by how these bodies compare to three attributes of the U.S. Congress: size of professional legislative staff, member salaries, and duration of legislative session. Our hypothesis is

consistent with earlier studies that have found that legislative professionalism to be associated with increased state appropriations for higher education (McLendon, Hearn, & Mokher, 2009; Peterson, 1976; Tandberg, 2006b, in press-a, in press-b).

Hypothesis 7: States in which one party controls both branches of the legislature will spend less on higher education capital projects. Recent studies found that uniparty governments are associated with less state support for higher education (Rizzo, 2006; Tandberg, 2006b, in press-b). Since unified governments generally react more quickly to income shocks by adjusting state spending priorities, one study suggests that such unified governments adjust priorities by cutting higher education funding (Alt & Lowry, 1994).

Hypothesis 8: States with term limits for legislators will spend more on higher education capital projects. We base this hypothesis on McLendon, Hearn, and Mokher's (2009) recent surprise finding that term limits have a positive effect on state spending on higher education. McLendon et al. (2009) suggest that term-limited legislators may rely more heavily on higher education agencies based on agency expertise in higher education finance.

Hypothesis 9: States with consolidated governing boards will spend more on higher education capital projects. In a study of state-level policy influence across sectors, Thompson and Felts (1991) found more professional state agencies and agency heads to be associated with budgetary success. Theoretically, a more powerful centralized board would have more resources and have more influence within state government. Therefore, we hypothesize that states with centralized higher education governance structures will allocated more capital funds to higher education that states with less centralized governance structures.

Hypothesis 10: States with more racial and ethnic diversity (less moralistic political cultures) will spend less on higher education capital projects. We base this hypothesis on Hero

and Tolbert's (1996) extension of Elazar's (1984) classis political culture typology, which defined political culture as the "particular pattern of orientation to political action in which each political system is imbedded." Hero and Tolbert's (1996) and Elazar's (1984) typologies align as follows: individualistic (Elazar) subculture and racially heterogeneous states (Hero & Tolbert) emphasize the market place and a limited role of government; the moralistic subculture and racially homogeneous states promote the commonwealth and expects government to advance the interest of the public; and the traditionalistic subculture and racially bifurcated states expect the government to maintain the existing social and economic hierarchy and that governance remains an obligation of the elite rather than the ordinary citizen. Based on earlier studies that suggest higher education is a redistributive good (e.g., Bailey, Rom, & Taylor, 2002; Hansen & Weisbrod, 1969), we hypothesize that states with greater diversity (both heterogeneous and bifurcated) will spend less on higher education capital projects as a means to maintain the existing socio-economic hierarchy as with Elazar's individualistic and traditionalistic states.

Hypothesis 11: States with Democratic Party control of the executive and/or legislative branches will spend more on higher education capital projects. Studies have shown that a relationship exists between party control in state branches of government and the level of spending on higher education. For governor party control, McLendon, Hearn, and Mokher (2009) found that a Democratic governor was positively associated with appropriations per $1,000 personal income. Similarly, for legislative party control, a host of recent studies found that Democratic party control of state houses to be positively associated with increased higher education appropriations (Archibald & Feldman, 2006; Bailey, Rom, & Taylor, 2004; Kane, Orszag, & Gunter, 2003).

Hypothesis 12: States' higher education attributes will influence capital expenditures in different directions. States with characteristics, such as employing a funding formula and higher levels of private giving, will spend more on higher education capital projects. States with increasing tuition and enrollments (especially at two-year and private institutions) will spend less on higher education capital projects. This single hypothesis, in fact, includes six state-level higher education measures related to capital expenditures. Tandberg's (in press-a) study of state appropriations for higher education found that with the exception of private giving all these attributes were significant influences. However, based on the increasing prevalence of state matching funds (CASE, 2004; Knapp, 2002), we believe that states with higher rates of private giving will be associated with increased expenditures on higher education capital projects.

Variable Construction and Description

Dependent Variable

To measure state capital expenditures for higher education this study uses National Association of State Budget Officers (NASBO) data. NASBO distinguishes between federal capital dollars that flow through state houses and actual state capital expenditures and also allows states to correct previously reported data and this is important as capital projects frequently exceed projected costs and often take longer to complete than anticipated (NASBO, 2008).

Independent Variables

Several of the independent variables' construction will be discussed here while a description of other variables not discussed here can be found in Appendix A.

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Interest groups. As described in Tandberg (in press-a) the higher education interest ratio variable is constructed by dividing the total number of state public higher education institutions and registered non-college or -university public higher education interest groups by the total number of interest groups in the state, minus any registered colleges and universities or other registered higher education interests groups that may lobby for more money for public higher education. The interest group data has been retrieved from state websites and government archives, from the Council on Governmental Ethics Laws (CGEL) *Blue Book* (various years), and data provided by Lowery. Data on the number of public institutions were retrieved from the National Center for Education Statistics' *Digest of Education Statistics*. The higher education interest ratio is the first such variable constructed. This measure allows researchers to understand and analyze the impact of higher education lobbying on state politics and policy.

Citizen ideology. Citizen ideology is defined as the mean position on a liberal-conservative continuum of the electorate in a particular state (Berry et. al 1998). The measure we employ is an index developed by Berry et al., in which each state is assigned an ideology scores for all years between 1960 and 2005. We accessed these data at the Inter-university Consortium for Political and Social Research (http://www.icpsr.umich.edu).

Electoral competition. Electoral competition refers to district level competition in individual state. The most popular measure developed by Holbrook and Van Dunk's (1993) and use several district level indicators of competition. Because the measure has only been updated to 1992 a proxy was used for this analysis. A predictive model was developed that included Ranney's interparty competition score, the original cross-sectional measure of electoral competition, the party of the governor, the party of the legislature, whether a state has term limits, political culture, interest group density, the Gini coefficient, the percentage of the

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population that is elderly, the gross state product per capita, unemployment, legislative professionalism, and a dummy variable indicating years that included a recession. The *R* square of the predictive model is .63 and is correlated with the original measure at .77.

 Budget powers of the governor. This study employs an index of budget powers of the governor was developed that closely resembles one developed by Barrilleaux and Berkman.[2] It is a scale of 0 to 7 and includes data from 1976–2004 across all 50 states. The items included are whether state agencies make appropriations requests directly to the governor or to the legislature; whether the executive budget document is the working copy for legislation or if the legislature can introduce budget bills of its own, or whether the legislature or the executive introduces another document later in the process; whether the governor can reorganize departments without legislative approval; whether revenue estimates are made by the governor, the legislature, or another agency, or if the process is shared; whether revenue revisions are made by the governor, the legislature, or another agency, or if the process is shared; whether the governor has the line-item veto; and whether the legislature can override the line-item veto by a simple majority. Each of these has a value of 0 or 1. The 1990 data correlates with te Barrilleaux and Berkman data at .76. The sources for the data are Council of State Governments' *The Book of the States*, the National Association of State Budget Officers' *Budget Processes of the States*, and The National Conference of State Legislatures data (various years). The variable constructed for this study is the first true time-series measure of governors' budget powers available, which enable cross-sectional time-series analysis and a more precise measure of the budgetary powers of the governor (Tandberg, in press-a).

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[2] For a discussion of why a new measure is employed as opposed to other existing measures see Tandberg (In press-a).

Legislative professionalism. For this study legislative professionalism is measured using legislative salary (Barrilleaux & Berkman, 2003). Legislative salary has been found to indicate important characteristics of legislators and has been in previous research with adequate results. (Chubb, 1988; Carey, Niemi, & Powell, 2000; Fiorina, 1994; Carey, Niemi, & Powell, 2000).

Higher education governance structures. The most popular typology of state level higher education governance structures was developed by McGuinness (2003). He constructed a four-fold state governance typology (in descending order of strength of control): consolidated governing board, regulatory coordinating board, weak coordinating board, and planning agency. For this study a dummy variable is employed with consolidated governing boards coded as 1 and coordinating boards, weak coordinating boards (advising), and planning agencies all coded as 0. The use of a dummy variable in this fashion is consistent with previous research (e.g., Tandberg, in press-a; McLendon, Hearn, & Mokher, 2009).

Data were gathered from the Education Commission of the States' (ECS) website; ECS's *State Postsecondary Education Structures Handbook* and *State Postsecondary Education Profiles Handbook*: 1976–2003; and with input from McGuinness (Education Commission of the States, 1976; 1978; 1980; 1986; 2006; McGuinness, 1988; 1994; 1997; 2003).

Political culture. For this study political culture is operationalized using a time-series version of a measure developed by Hero and Tolbert (1996). Using data from the 1980 *The Statistical Abstracts of the United States*, Hero and Tolbert developed a cross-sectional ratio of each state's minority population compared to the dominant white population. This measure correlates very well with Elazar's original state political culture measure and Sharkansky's (1968) later operationalization (Elazar, 1984, p.7). Hero and Tolbert argue that their index is

more clear, precise, and dynamic measure than Elazar's conceptualization because the alternatives have ignored recent and some older minority groups.

The remainder of the variables should not require extensive description. Refer to Table 2 for summary statistics and to Appendix A for variable names, brief descriptions, and sources.

Research Design and Methods

Based on Tandberg's (in press-a, in press-b) studies the fiscal policy framework is applied to fixed effects panel data analysis. Stepwise regression is used to compare the relative influence of the political, economic and demographic, and higher education variables The study includes all fifty states from 1988 to 2004 for an n of 800. This analysis involved original and secondary data collection from twenty-six sources. The analysis consists of modeling total state capital expenditures devoted to higher education (logged).

The model will be run using both raw scores and standardized scores (z-score). The z-score reveals by how many units of the standard deviation a case is above or below the mean. In regression analysis, when each of the dependent and independent variables' scores are standardized or transformed into z-scores, the relative contributions of each of the independent variables can be more easily compared. The raw scores allow for interpretation in the variables' original matrix. The b coefficients represent the results using the raw scores and the *Beta* coefficients represent the results using the z-scores (Tandberg, in press-a).

Methods

This study employs a panel data, fixed effects model. This type of approach allows for the examination of multiple states over multiple points in time. A general cross-sectional time-series model is as follows (Equation 2):

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Equation 2: OLS Fixed Effects Model

$$y_{it} = a + b_1 x_{it} + b_2 x_{it} + u_i + v_{it}$$

where *y* is the dependent variable, *x* represents the independent variables, *a* is the intercept

coefficient and b_1 represents the coefficients for the various political variables, b_2 represents the

control variables, and *i* and *t* are indices for individual states and time. The error terms, u_i and $v_{it,}$

are very important in this analysis. The u_i is the fixed effect, and the v_{it} is the pure residual

(Tandberg, in press-a).

Diagnostic Tests

The possibility of multicollinearity among the independent variables was evaluated using

a Variance Inflation Factor (VIF). None of the variables included in the model approached 10;

the average VIF was 1.94. Additionally, all of the tolerance levels were above 0.1 indicating that

multicollinearity is not a concern (UCLA Academic Technology Services, 2006; Williams,

2005). It was determined that a fixed effects model was most appropriate, as opposed to a

random effects model based on the results of a Hausman test. For descriptive statistics please see

Table 2.

Results

Results reported in Table 3 generally align with our hypotheses with a few exceptions.

Most notably, with seven out of the eleven significant variables, the political variables seem to

be a critical set of predictors. As a category the political variables also contribute the most to the

total explained variance (.26 as compared to .09 for the higher education sector variables, and .02

for the economic and demographic variables).[3] After briefly summarizing the results for the three

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[3] When the order is reversed (loading economic and demographic first, followed by higher education, and then
political) economic and demographic variables add .06 to the explained variance, higher education sectors variables

categories of variables, we discuss each significant variable in greater detail in the final section of our paper.

Political variables. Of the 12 political variables included in this study, 7 are significant at the .10 level. As hypothesized, states with competitive elections, more robust higher education interest group activity, and more professionalized legislatures are associated with increased capital expenditures. States with higher gubernatorial budget authority, also as hypothesized, were associated with decreased spending on capital projects. Three variables, however, were significant in the opposite direction as we hypothesized. States that trend towards traditionalistic political cultures tend to spend more on higher education capital projects. Likewise, states with higher voter turnout spent less rather than more on capital projects and states with more diverse populations spent more on capital expenditures. Perhaps more surprisingly, states with more centralized higher education governance structures are associated with less spending on higher education capital projects. The magnitude of political variables, as expressed by the Beta-coefficients, suggest that the structural characteristics of the legislature (professionalism, 0.373) and higher education interest group activity (0.239) are the strongest predictors capital spending for higher education projects.

Higher education variables. Three higher education sector variables—utilization of funding formulas for higher education, total giving to public higher education, and log average tuition—were significant in the direction we predicted. The other three higher education variables, all of which considered enrollment, proved not to be significant predictors of higher education capital expenditures. These results suggest that state structures and policy decisions,

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add .16, and the political variables add .14. Therefore the average over the two loading sequences is .2 for the political variables, .125 for the higher education variables, and .04 for the economic and demographic variables.

especially the magnitude of whether states use funding formulas (0.239), have a greater impact on capital spending than trends related to student enrollment.

Economic and demographic variables. This category of control variables explained the least amount of variance in state spending on higher education capital projects. In fact, the only significant economic and demographic variable is the percentage of the population that is college age (-0.139); however, the variable influences capital spending in the opposite direction than we predicted. This seemingly counterintuitive result suggests that states with greater proportions of college-aged residents spend less on higher education capital projects. The following section discusses this variable and the other 10 significant variables in greater detail.

Discussion

The finding that state capital expenditures for higher education are primarily impacted by political variables appears to support the notion expressed by that chair of an appropriations committee in one large state that "the real politics happens" when policymakers allocate capital dollars. Yet, despite the rich predictive power of political variables, *partisanship* does not appear to matter. Indeed, 4 of the 5 political variables that were not significant determinants of capital spending relate to political party or ideology. Neither the party of the governor nor the dominate party of the legislature, for instance, appear to impact capital expenditures for higher education. Previous studies predicting state general fund appropriations for higher education have routinely shown a relationship between partisanship and state support (Alt & Lowry, 1994; Tandberg, in press-a). Similarly, unified party control of the state legislature is not a significant predictor. These surprising results for party control may be related to the unique and comparatively less-standardized process of allocating capital expenditures as opposed to general appropriations. Our

study might suggest that capital spending has more to do with doling out political favors, supporting specific projects, and back room dealing as opposed to a general disposition towards education or higher education or an ideological view point (which might explain the lack of significance for citizen ideology). If capital spending is "where the real politics happens," then it would make sense that rather than party control and political ideology, other political variables, which we discuss more fully below, are the strongest determinants of higher education capital expenditures.

Political culture is significantly associated with capital expenditures for higher education, though the effect is in the opposite direction than we hypothesized. As consensus decreases in states, as measured by increased racial and ethnic diversity (Hero & Tolbert, 1996), states increase capital expenditures for higher education. We expected that moralistic (and racially homogenous) states would promote the public well-being by increasing higher education capital spending. Likewise, we expected that racially bifurcated and traditionalistic states would promote the status quo and the preservation of the elite class by spending less on higher education capital since these expenditures are often seen as redistributive. Our results suggest that the opposite is true.

Higher education researchers disagree about whether higher education has redistributive effects (Bailey, Rom, and Taylor, 2002; Bowen, 1977; Hansen & Weisbrod, 1969; Heller, 2002; Nicholson-Crotty & Meirer, 2003). Our political culture finding suggests that higher education (or at least capital spending on higher education) does not represent a redistributive policy area. Indeed, this result aligns with Tandberg's (in press-a) earlier study using the same political culture measure to examine higher education's share of state funds. Both studies' findings run counter to Bailey, Rom, and Taylor's (2002) findings that elected officials treat higher education

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as a redistributive policy area. Although further investigation is clearly needed to better understand the effect of political culture, our results challenge the classification of higher education as redistributive and suggest that more racial and ethnic diverse states are associated with increased higher education capital expenditures.

Electoral competition follows our predicted influence: as elections become more competitive elected officials increase their capital support for higher education. This could be seen as an effort on the part of policymakers to garner increased public support in the face of stiff competition. Legislators in competitive seats and with college campuses in their districts may also view higher education capital expenditures as a pork barrel project. As Mayhew (1974) suggests, re-election interests lead to "credit claiming" activity of legislators, which might include ceremonial events such as ribbon cutting at a new building on a popular college campus.

Gubernatorial budgetary powers are associated with less capital support for higher education. This significant negative effect of the gubernatorial budgetary powers is additional evidence of institutions' impact on political decision making. It may also provide further evidence of the importance of governors in broader areas of state higher education policy formation and budgeting in addition to the allocation of capital projects. One explanation for this result, similar to the electoral competition variable, may be that legislators are more likely to maximize the amount of funds to their local constituency as a means of shoring up local support. Legislators must be responsive to a single geographic base and members of the lower chamber of the legislature usually face reelection every two years. By contrast, governors face statewide elections and therefore might be less likely to feel compelled to deliver a single geographic base and instead must take the entire state into consideration (Barrilleaux & Berkman, 2003)

Higher education governance structure is a significant predictor of capital expenditures for higher education, but in the opposite direction than we expected. Similar to Tandberg's (in press-b) study of general fund appropriations for higher education, states with more centralized statewide consolidated governing boards have a negative effect on state capital support. This finding might be explained similar to other studies examining the influence of centralized governing boards (McLendon, Hearn, & Deaton, 2006; Zumeta, 1996), consolidated governing boards may act as "academic cartels" with senior system-level administrators with statewide priorities as opposed to campus-level interests. In such an arrangement, governing board officials may exert more influence on the appropriations decisions in order to maximize resources for the systems as opposed to advocating on behalf of individual campuses for capital projects. Furthermore, since governing boards buffer the institutions from state policymakers, campuses rarely have direct access to elected officials and the policymakers most often turn to the governing board for information as opposed to the institutions themselves (Tandberg, in press-a).

Higher education interest groups appear to matter greatly in capital project spending for higher education projects (Beta coefficient, 0.239). States with higher ratios of higher education interest groups relative to the total state lobby is related to greater capital support for higher education. This finding provides further confirmation to recent studies (McLendon, Hearn, & Mokher, 2009; Tandberg, in press-a, in press-b) that lobbying is associated with increased state support of higher education (in this case state capital support). If the process of expending capital dollars is as political (and therefore by extension competitive) as the appropriations chair said it is, then it is easy to see why as the higher education lobby increases in size relative to the total state lobby state capital expenditures for higher education would increase. Interest group studies suggest that states with robust higher education lobbies fare better when they compete with fewer

interest groups (Gray & Lowery, 1999) and when state interest group community is less diverse (Jacoby & Schneider, 2001).

Professionalized legislatures represent the strongest predictor of support for higher education capital projects (Beta coefficient, 0.373). This finding is consistent with recent studies examining state general fund appropriations for higher education (McLendon, Hearn, & Mokher, 2009; Tandberg, in press-a, in press-b), which taken together suggests that professionalized legislatures appear to be more generous towards higher education and perhaps associated with increased spending overall. More professional legislatures have been shown to have more resources (Squire, 2000) and attract more talented members (Barrilleaux & Berkman, 2003; Squire, 1992) and, therefore, may be better able to drive capital dollars back to their constituents. Likewise, more professional legislatures appear to be better able to overcome gubernatorial objections (Barrilleaux & Berkman, 2003) and may value higher education more than less professional legislatures (Pascarella & Terenzini, 2005).

Voter turnout is a significant predictor of higher education capital spending, but in the opposite direction. We hypothesized that as turnout increases state capital support for higher education would increase as well. Instead, higher voter turnout is associated with less funding for higher education capital projects. One explanation could be a close relationship between electoral competition and voter turnout. However, these two variables are only loosely correlated (.17) and removing electoral competition from the regression equation does not change the results for voter turnout. Another explanation could be related to the factors that lead to increased voter turnout. It seems that elected officials perceive voters in high-turnout states or districts to prefer state spending on areas other than higher education capital projects. Thus, the negative direction of the voter turnout variable might be explained by voters' preference for health care,

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K-12 education, or other state priorities that resonate more broadly with citizens in states with high voter turnout. Elected officials, therefore, are likely to believe that their capital dollars are better spent elsewhere or not spent at all.

Funding formulas by which states allocate higher education appropriations are associated with greater spending on higher education capital projects. The number of states using funding formulas remained stable during the time frame of our study (36 states in 1988, 38 states in 2004), so this influence reflects a steady trend. Similar to Poterba's (1995) finding that states with clearly defined capital budgets appropriate more state funds to capital projects, this finding may suggest that states with clear policies on how to allocate the bulk of higher education funds would also be likely to have clear policies on capital expenditures. Indeed, as with the professionalization of legislatures, the magnitude of the funding formula variable (Beta coefficient, 0.218) suggests a structural influence on the equitable procedures by which higher education funds are allocated. In fact, this manifest policy for equitable funding to institutions may lead to more capital spending for higher education in an effort to maintain equity among campuses (McKeown-Moak, 1999).

Giving to higher education is associated with increased higher education capital expenditures. As stated earlier, this positive influence of increased giving levels to higher education could be reasonably explained by the increasing role of state-sponsored matching funds. Although recent reports (CASE, 2004; Knapp, 2002) suggest that much of state matching funds are directed to general endowments or faculty hires, at least 10 states offer matching funds for capital projects (Knapp, 2002). Moreover, increased giving to higher education for non-capital projects may lead policymakers to reward private initiative with increased public funding for capital projects.

Tuition rates are negatively associated with increased higher education capital expenditures. Similar to earlier studies examining higher education general fund appropriations (Tandberg, in press-a, in press-b), higher tuition rates are likely to be associated with less capital funding. This finding seems to reflect the "privatization" of public higher education whereby public colleges seek to increase their autonomy from the state in return for reduced state funding (Ehrenberg, 2006; Morphew & Eckel, 2009). Similar to the private giving variable, state policymakers may be responding to campus actions (raising tuition) by punishing bad behavior (less funds for capital projects) as opposed to rewarding good behavior (private giving) as discussed above.

Percentage of the state population that is of college age, surprisingly, is negatively associated with capital expenditures for higher education. We hypothesized that states with higher proportions of college-aged citizens would have higher capital fund expenditures by reasoning that these states may need to increase physical plant capacity on campuses. This variable has not been shown to be a significant predictor of higher education general fund appropriations (Tandberg, in press-a, in press-b), which suggests that this relationship is unique to capital spending. One demographic explanation for this could be that states with higher proportions of college-aged citizens also have higher proportions of primary and secondary education-aged citizens, which would lead states to spend scares resources, for capital projects or otherwise, on more pressing statewide needs such as K-12 school construction.

Conclusion

This "first cut" at explaining state capital support for higher education indicates that politics matters. Similar to recent studies of general funds appropriations for higher education

(McLendon, Hearn, & Mokher, 2009; Tandberg, in press-a, in-press-b) and other state higher education policy areas (e.g., McLendon, Deaton, & Hearn, 2007; McLendon, Hearn, & Deaton, 2006), state capital spending for higher education is a particularly political activity with the 7 of 11 significant variables related to state political characteristics. While these previous studies have shown the importance of political variables in explaining state support for higher education, they have also shown that economic and demographic variables are as important or, in some cases, more important. Moreover, other studies have argued that politics matters very little in explaining state support for higher education (i.e., Layzell & Lyddon, 1990; Rizzo, 2006). As the results here show this is not the case for state capital support for higher education. The political variables as a group account for the majority of the explained variance in this model. Given that few economic, demographic, or higher education factors are shown to significantly influence capital expenditures, it seems that capital spending happens with very little public oversight and therefore is not as heavily influenced by non-political factors as general fund appropriations.

This study provides initial evidence to suggest that the political influences on capital spending on higher education is more pronounced than other forms of higher education funding. However, further research is needed to examine the determinants of state higher education capital spending and to investigate how the higher education capital funding process might differ from the general appropriations process and from the capital funding process in other sectors. Based on the initial evidence in our study, future studies seem particularly promising to better understanding how and why "capital support is where the real politics happens."

Table 1: Study Hypotheses

Conceptual Category	Variable	Effect on Dependent
Political Variables		
Interest Groups	Hi Ed Interest Group Ratio	+
Mass Political Attributes	Political Ideology	+
	Electoral Competition	+
	Voter Turnout	+
Govt. Institutions	Budget Power of Governor	-
	Legislative Professionalism	+
	Uni-Party Legislature	-
	Term Limits	+
	Hi Ed Governance Structure	+
Political Culture	Political Culture	-
Attributes of Policymakers	Party of Governor	+
	Party of Legislature	+
Control Variables		
Higher Education Factors	% Enroll Private HI ED	**-**
	% Enroll 2 Year HI ED	**-**
	Funding Formula	+
	Giving to Public Universities per FTE	+
	Log Tuition	**-**
Economic and Demographic Factors	% Pop. College Age	+
	% Pop. Elderly	**-**
	Gini Coefficient	+
	Log GSP Per Capita	+
	% of the Pop. Below Pell Level	**-**
	Recessionary Year Lagged	**-**
	State Unemployment	**-**
	Share of State Spending on Medicaid	**-**

Table 2: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
Logged State Capital Expenditures for Hi Ed	3.932577	1.434788	0	7.226936
Political Culture	0.0114767	0.1811334	-1.157077	0.7015501
Electoral competition	30.30521	18.22585	-16.82724	75.3688
Budget Power of Gov	3.991765	1.313804	0	7
Hi Ed Gov Structure	0.4658824	0.4991283	0	1
Hi Ed Interest Groups	0.0535187	0.038703	0.0061837	0.3298969
Political Ideology	48.63336	14.40774	8.449861	95.83107
Leg Professionalism	20,767.88	18,654.27	0	97,315.34
Party of the Governor	0.4745882	0.4931702	0	1
Party of Legislature	54.61949	15.74154	11.43	90.08
Leg Term Limits	0.0858824	0.2803552	0	1
Voter Turnout	43.99039	11.17424	3.5	71.8
Uni-party Legislature	0.4635294	0.4989617	0	1
% Enroll Private Hi Ed	0.2104169	0.1209202	0.0038295	0.5864168
% Enroll 2 Year Hi Ed	0.3067585	0.1403734	0	0.6292192
Total enrollment	294,440.6	343,188	26,540	2,474,024
Funding Formula	0.6317647	0.4826097	0	1
Giving to Hi Ed	1889.687	1617.857	0	21897.87
Log average Tuition	1.049946	0.369921	0.0765042	2.311198
Percent elderly	13.36468	2.115104	4.140787	19.92335
Percent college age	10.82492	1.112921	8.06752	15.69309
Income inequality	0.4343496	0.0287342	0.36246	0.51821
Log GSP per capita	10.26496	0.2078086	9.768699	10.90839
% Pell eligible	44.07909	17.68703	0.4237214	74.21
Lag recessionary year	0.1766784	0.3816212	0	1
Unemployment rate	5.340471	1.528592	2.2	12
Share Medicaid	0.1451142	0.2611064	0	3.265343

Table 3: Study Results

Logged State Capital Expenditures Devoted to Higher Education	(1) Political		(2) Plus HI ED		(3) Econ & Dem	
	b-coefficient	Beta-Coef.	b-coefficient	Beta-Coef.	b-coefficient	Beta-Coef.
Political Culture	1.270**	0.148**	0.763*	0.089*	0.602+	0.070+
	(0.324)	(0.038)	(0.323)	(0.038)	(0.345)	(0.040)
Electoral competition	.001*	0.126*	0.007+	0.086+	0.007+	0.088+
	(0.004)	(0.050)	(0.004)	(0.049)	(0.004)	(0.050)
Budget Power of Gov	-0.010	-0.009	-0.134*	-0.119*	-0.139*	-0.123*
	(0.039)	(0.035)	(0.041)	(0.036)	(0.042)	(0.037)
Hi Ed Gov Structure	-0.261*	-0.091*	-0.295*	-0.103*	-0.266*	-0.093*
	(0.106)	(0.037)	(0.105)	(0.036)	(0.106)	(0.037)
Hi Ed Interest Groups	7.794**	0.226**	6.944**	0.201**	8.246**	0.239**
	(1.569)	(0.045)	(1.543)	(0.045)	(1.636)	(0.047)
Political Ideology	-0.010*	-0.110*	0.002*	0.023*	-0.001	-0.009
	(0.004)	(0.047)	(0.005)	(0.051)	(0.005)	(0.052)
Leg Professionalism * $1,000	.022**	0.333**	0.028**	0.432**	0.024**	0.373**
	(0.004)	(0.058)	(0.004)	(0.060)	(0.004)	(0.064)
Party of the Governor	0.155	0.053	0.138	0.048	0.146	0.050
	(0.095)	(0.033)	(0.091)	(0.031)	(0.093)	(0.032)
Party of Legislature	-0.001	-0.018	-0.002	-0.030	-0.001	-0.015
	(0.004)	(0.048)	(0.004)	(0.048)	(0.004)	(0.050)
Leg Term Limits	0.215	0.028	-0.067	-0.009	0.001	0.000
	(0.187)	(0.024)	(0.183)	(0.023)	(0.185)	(0.024)
Voter Turnout	-0.021**	-0.171**	-0.020*	-0.159*	-0.019	-0.151*
	(0.006)	(0.047)	(0.006)	(0.046)	(0.006)	(0.048)
Uni-party Legislature	0.123	0.043	0.031	0.011	0.014	0.005
	(0.095)	(0.033)	(0.090)	(0.032)	(0.093)	(0.032)
% Enroll Private Hi Ed			-0.305	-0.026	-0.139	-0.012
			(0.422)	(0.036)	(0.436)	(0.038)
% Enroll 2 Year Hi Ed			-0.694+	-0.070+	-0.336	-0.034
			(0.409)	(0.041)	(0.430)	(0.044)
Total enrollment			0.001	-0.024	0.001	-0.052
			(0.000)	(0.046)	(0.000)	(0.047)
Funding Formula			0.627**	0.206**	0.663**	0.218**
			(0.102)	(0.033)	(0.108)	(0.035)
Giving to Hi Ed			0.0001**	0.136**	0.0001**	0.151**
			(0.000)	(0.030)	(0.000)	(0.032)
Log average Tuition			-0.630**	-0.169**	-0.711**	-0.191**
			-0.170	-0.046	(0.173)	(0.047)
Percent elderly					0.017	0.028
					(0.027)	(0.043)
Percent college age					-0.103+	-0.139+
					(0.054)	(0.072)
Income inequality					3.718	0.080
					(2.259)	(0.049)
Log GSP per capita					0.377	0.058
					(0.447)	(0.069)
% Pell eligible					-0.011	-0.184
					(0.012)	(0.195)
Lag recessionary year					(dropped)	(dropped)
Unemployment rate					-0.023	-0.033
					(0.038)	(0.054)
Share Medicaid					0.245	0.045
					(0.160)	(0.030)
Constant	4.276**	0.029	4.565**	0.028	0.513	-0.099
	(0.374)	(0.037)	(0.462)	(0.038)	(5.211)	(0.082)
R-squared	0.259	0.259	0.345	0.345	0.360	0.360

Standard errors in parentheses   + significant at 10%; * significant at 5%; ** significant at 1%

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Appendix A: Variable Descriptions and Sources

VARIABLES	DESCRIPTION	SOURCE
Primary Dependent Variables		
State capital expenditures for higher education	State capital expenditures for higher education, logged	National Association of State Budget Officers, *State Expenditure Reports*, 1986-2005
Economic and Demographic Variables		
Gini Coefficient	Ratio of inequality within a state (measure of the inequality of the distribution)	U.S. Bureau of the Census, Current Population Survey, *Selected Measures of Household Income Dispersion: 1977 to 2005*
GSP Per Capita	Gross State Product Per Capita	U.S. Bureau of Economic Analysis, http://www.bea.gov/rss/rss.xml
Recession Year	Dummy variable, 1 if a recession happened during the year	National Bureau of Economic Research, http://www.nber.org/cycles.html
Unemployment	Unemployment rate – entire population	U.S. Department of Labor, Bureau of Labor Statistics. Local Area Unemployment Statistics (published and unpublished data)
% of Pop. Below Pell	Proportion of households below maximum Pell Grant eligibility level	U.S. Bureau of the Census, Current Population Survey (unpublished data), *Estimates of Income of Households by State 1979-2005*; King (2003) American Council on Education, Status of the Pell Grant Report
% Pop. Elderly	Share of population > 65 years old	U.S. Bureau of the Census, Population Estimates Program, http://eire.census.gov/popest/archives/state/st_sasrh.php U.S. Bureau of the Census, Decennial Census Microdata Files: via IPUMS http://www.ipums.org
% Pop. College Age	Share state population age 18-24	U.S. Bureau of the Census, Population Estimates Program, http://eire.census.gov/popest/archives/state/st_sasrh.php U.S. Bureau of the Census, Decennial Census Microdata Files: via IPUMS http://www.ipums.org
Share Medicaid	Share of state general fund expenditures devoted to Medicaid	National Association of State Budget Officers, *State Expenditure Reports*, 1986-2005
Higher Education Variables		
Funding Formula	Higher education funding formulas; dummy variable, 1 if state uses a funding formula	MGT of America, *Funding Formulas*, Paper present at the Annual SHEEO Professional Development Conference, August, 2007, Chicago
Giving to Public Research Universities per FTE	Giving per student ($1,000), total giving per FTE student from all sources at public research universities	U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) Surveys via WebCASPAR. http://caspar.nsf.gov; U.S. Department of Education's Higher Education General Information Surveys (HEGIS) via WebCASPAR; IPEDS Peer Analysis System www.nces.ed.gov/ipedspas/; Council for Aid to Education, *Voluntary Support of Education*, Various years
Tuition	Average four year tuition, logged	U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) Surveys via WebCASPAR. http://caspar.nsf.gov; U.S. Department of Education's Higher Education General Information Surveys (HEGIS) via WebCASPAR; IPEDS Peer Analysis System www.nces.ed.gov/ipedspas/
% Enroll Private Hi Ed	Share of higher education enrolled in private institutions	Southern Regional Education Board, *Fact Book on Higher Education*, http://www.sreb.org/main/EdData/FactBook/indexoftables05.asp#Enrollment
% Enroll 2-year Hi Ed	Share of higher education enrolled in two-year institutions	Southern Regional Education Board, *Fact Book on Higher Education*, http://www.sreb.org/main/EdData/FactBook/indexoftables05.asp#Enrollment

Total Enrollment	Total enrollment in public higher education	Southern Regional Education Board, *Fact Book on Higher Education*, http://www.sreb.org/main/EdData/FactBook/indexoftables05.asp#Enrollment
Political Variables		
Budgetary powers of the governor	Index 0-7	Closely based on Barrilleaux & Berkman (2003); Council of State Governments: Book of the States: 1977-2005; National Association of State Budget Officers: Budget Processes of the States 1977-2002; National Conference of State Legislatures
Citizen Ideology	Annual, state-level measures of citizen ideology	Berry, Ringquist, Fording, and Hanson via the Interuniversity Consortium for Political and Social Research (ICPSR #1208), ideo6004.
Electoral Competition	Predicted district level competition	Original competition data provided by Barrilleaux; predictive model described in text. Holbrook and Van Dunk measure
Higher Education Governance Structure	1 governing board (strongest); 0 for coordinating board, coordinating advising board, planning agency (weakest)	Education Commission of the States http://www.ecs.org/ecsmain.asp?page=/html/issuesPS.asp, State postsecondary education structures handbook; State postsecondary education profiles handbook: 1969-2003; Some data provided by Gabrial Kaplan
Hi Ed Interest Group Ratio	Total number of public institutions plus other reg. hi ed interests, divided by the number of interest groups minus reg. hi ed interests	Gray and Lowery (1999), data provided by Lowery; state government websites; State archives; and COGEL *Blue Book*; National Center for Education Statistics: *Digest of Education Statistics*: 1977-2005
Legislative Professionalism	legislative salary	Council of State Governments, Book of the States: 1977-2005
Party of the governor	Coded 1 if Democratic governor	U.S. Bureau of the Census, Statistical Abstract of the United States: 1977-2005
Party of the Legislature	Percentage of democratic legislators in both houses combined (Nebraska average of surrounding states4)	U.S. Bureau of the Census, Statistical Abstract of the United States: 1977-2005
Political Culture	Racial/ethnic diversity ratio	Originally developed by Hero & Tolbert (1996). Data from U.S. Bureau of the Census, Statistical Abstract of the United States: 1977-2005
Term Limits	1 if a state has term limits	National Conference of State Legislatures: http://www.ncsl.org/programs/legismgt/about/states.htm
Unified Institutional Control	One party controls both houses of the legislature; 1 if unified (Nebraska coded 1)	U.S. Bureau of the Census, Statistical Abstract of the United States: 1977-2005
Voter Turnout	Percent of eligible voters casting ballots	U.S. Bureau of the Census, Statistical Abstract of the United States: 1977-2005

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[4] The standard deviation of the averages of the percent of each state's legislature that is Democratic of the adjoining states to Nebraska is.1 for the years included in this study. The average correlation between the same states for the years included in this study is .3. Two other approaches were used (dropping Nebraska and coding Nebraska as 1) neither changed the direction of the coefficient for party of the legislature or whether the coefficient was significant or not. In order to keep Nebraska in the data set and in order to retain as much variance within the data for party of the legislature the average of the adjoining states was used.