State Postsecondary Policy Innovation:

Politics, Competition, and the

Interstate Migration of Policy Ideas

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Abstract

Lingering questions about the effects of postsecondary education governance structure on the policy innovativeness of the states have assumed new significance in light of a recent wave of state-level postsecondary finance and accountability innovations. In an effort to bring greater theoretical richness and methodological rigor to bear on the important question of when and under what conditions state governments adopt new postsecondary policies, this study analyzed the determinants of innovation in the postsecondary arena over nearly a twenty-year period. We employed longitudinal analytic techniques to test the effects of higher education governance arrangements, state demographic and political characteristics, and interstate diffusion dynamics on policy innovation patterns in the American states between 1981 and 1998. Governance centralization was found to have only a weak relationship to policy innovation. However, contrary to conventional thought, partisan control of legislatures and interstate diffusion processes were found to have a strong effect upon patterns of state postsecondary education policy innovation.
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Introduction and Background

Throughout five decades of debate about governance reform in American postsecondary education, the issue of state-level policy innovation has remained near the center of discussion. In the immediate post-war era of the 1950s-1960s, every state in the nation centralized decision-making in its postsecondary systems by establishing or strengthening the power of existing regulatory coordinating boards and consolidated governing boards in an attempt to bring greater order and rationality to rapid nationwide increases in postsecondary enrollment and funding. In most states, these new boards replaced considerably less powerful advisory coordinating boards or planning agencies through which public campuses in an earlier era had voluntarily organized themselves to interface with governmental institutions and to respond to state demands. Through the regulatory coordinating board, states superimposed upon campuses a new entity whose responsibility was to make centralized academic and fiscal decisions for an entire state. In consolidated governing boards, states achieved a highly centralized form of campus governance, whereby a single board was empowered to make all day-to-day management decisions for institutions within a particular system, sector, or state (Berdahl, 1971; McGuinness, 1998).

At the time, advocates of more centralized control claimed the new boards would improve state postsecondary policy making. The argument made in support of centralized governance arrangements was that “poorly informed, inadequately coordinated actions would be replaced by knowledgeable planning, adaptation, and policy development” (Hearn and Griswold, 1994, p. 161). Among the supposed benefits of such centralized policy planning and development would be greater state policy innovation (Callan, 1975; McConnell, 1962;
Mortimer and McConnell, 1982). The rationale articulated was that the non-partisan professionals that would staff the central boards would bring increased technical knowledge and analytical capacity to the management of postsecondary systems, thus providing legislatures, governors, and their respective staffs with new policy ideas for improving the quality, affordability, and productivity of state systems.

Whereas centralization of postsecondary governance was the clear and dominant trend of the 1950s-1970s, the last two decades witnessed a period of diverse “restructuring” of postsecondary governance patterns (Marcus, 1997; North Carolina Center, 2000). One important countertrend during this more recent era was a movement to “decentralize” or “deregulate” postsecondary governance from the state-level to more local levels of campus control (MacTaggart, 1998). Again, the capacity of state postsecondary education systems to develop and design new policy ideas emerged as a point of debate, but with critics of strong regulatory structures now asserting that centralized governance inhibits state policy innovation in the postsecondary arena because governmental bureaucracies are inherently resistant to new ideas and programs (Berdahl and MacTaggart, 2000; Hebel, 2000; MacTaggart, 1998).

State-level innovation in the postsecondary education sector is an important question both for state governments and for the postsecondary education domain. The question is an important one for the states because their investment in postsecondary education is vast: state governments appropriate in excess of $50 billion annually in direct support of their public postsecondary systems. Moreover, while innovation itself is inherently neither good nor bad, academics, the press, and the general public often equate innovation in the public domain as one sign of the general health of governmental institutions; innovation is interpreted to mean that policymakers are responsive to new ideas and to changing environmental conditions (Osborne and Gaebler,
1992). Thus, a state's innovativeness (or lack thereof) may influence public perceptions about the responsiveness of elected officials and the quality of services that a government provides.

The question of government innovation in postsecondary education also is an important one for the postsecondary educational sector. Escalating college costs, persistent criticism over the effectiveness, efficiency, and productivity of public postsecondary systems, and emerging challenges of student access may suggest a need for new thinking, as well as for nuanced approaches to existing policies (Heller, 2001). Of more direct relevance to this study, state policy innovation in the postsecondary education arena also holds the potential to influence the enduring debate about the best way to promote the public accountability of America's public campuses—whether through centralized (strong state-level direction) or decentralized (maximum campus or market control) state governance arrangements.

A Recent Wave of State Postsecondary Policy Innovation

Lingering questions about the effects of postsecondary governance structure have assumed new significance in light of a recent wave of state-level postsecondary policy innovation. Indeed, over the past 20 years, state governments have experimented with a variety of new postsecondary policies and programs. Six such policies and programs, in particular, attracted widespread attention during the 1980s and 1990s: college savings programs, prepaid tuition programs, broad-based merit scholarship programs, performance funding, performance budgeting, and undergraduate assessment policies. The first three policies are sufficiently similar in nature that they may be conceptualized as representing a particular kind of postsecondary innovation—postsecondary financing innovation. Likewise, the latter three policies may be characterized as constituting a different kind of policy innovation—postsecondary accountability innovation.
In the area of postsecondary financing policy, state governments established a variety of new programs aimed at helping families better afford the rising cost of a college education. College savings programs, which are operational in at least 20 states, are tax-exempt or tax-deferred investment vehicles of relatively conservative risk and return designed to help families save for college (Roth, 1999). Prepaid-tuition programs, which also exist in at least 20 states, allow investors to “lock-in” to current college tuition rates by purchasing, at today’s prices, tuition “credits” to be used when a child attends college in the future (Roth, 1999). A third innovative postsecondary financing policy is the broad-based merit scholarship program, which emerged as one of the more popular, and controversial, postsecondary policies of the 1990s (Heller, in press). Merit scholarship programs, typically fashioned after Georgia’s 1993 HOPE Scholarship, award state financial aid dollars to incoming college students on the basis of various academic-performance criteria (grade point average, test scores or class ranking, for example). By 1999, such merit-scholarship programs were operational in at least 15 states.

State-level innovation in the postsecondary arena has not been restricted to policies involving college affordability and access; states continue to experiment with a variety of accountability policies, as well. The rhetoric of the higher education accountability movement calls for a refocusing of attention on outcomes of campus activities, rather than the traditional focus on inputs (Zumeta, 1998). Through the adoption of performance funding and performance budgeting initiatives, state governments have attempted to make public colleges and universities more “accountable” to the public by tying funding to demonstrated outcomes at the campus level. Performance funding is a policy that directly links state dollars to campus performance on individual indicators. Performance budgeting is a policy designed to allow budget allocators to consider reports on performance indicators as a factor in the allocation process. By 1999, 30
states had implemented at least one of these two types of programs (Burke and Modarresi, 1999). A third accountability innovation recently adopted by numerous state governments is legislatively mandated assessments of undergraduate students. In some measure a response to criticism about the lack of rigor in American undergraduate education, at least 24 states have enacted legislation requiring the assessment of undergraduate students (Nettles and Cole, 1999; Nettles, Cole, and Sharp, 1997).

The ‘Centralization-Innovation Hypothesis’

Despite the recent flurry of activity, there is a dearth of scholarship on the determinants of state policy innovation in the postsecondary education arena. Indeed, only a single study, that of Hearn and Griswold (1994), has empirically assayed the relationship. Hearn and Griswold’s central hypothesis, derived from their synthesis of the organization theory literature, was that states with more highly centralized postsecondary governance systems would exhibit higher levels of postsecondary education policy innovation. To test their hypothesis, the authors employed regression analysis and a cross-sectional design to examine the influences of governance structure on eight different state policy innovations², while controlling for the potentially confounding influence of certain demographic and economic characteristics. Their analysis revealed some “surprises.” While those states with the most centralized postsecondary governance arrangements were more likely to innovate in all three of the “academic” policy areas, governance type had no effect on college “financing” innovation (the adoption of prepaid college tuition plans or college savings plans).

The Hearn-Griswold study is important for its initial conceptualization of the “centralization-innovation hypothesis” (our phrase, not theirs) and for its careful analytic detail. As one of the earliest empirical assessments of the state-level policy effects of different
postsecondary governance arrangements\textsuperscript{3}, a topic about which there is far more prescription and
description than there is conceptualization or analysis, Hearn and Griswold’s study makes a
signal contribution to the literature on state governance of higher education.

One limitation of the study, however, is that it does not account for the effects of state
political characteristics on government innovation, focusing instead on economic and
governance related explanations of the phenomenon. Yet, a robust literature on state policy
innovation, one that has accumulated in richness since Hearn and Griswold’s research was
conducted, offers evidence that certain political characteristics of the states may influence the
policy adoption behavior of state governments. A more comprehensive consideration of the
factors that determine when and under what conditions state governments adopt new
postsecondary education policies should account for these political, as well as the other rival
(demographic, economic, and governance) explanations of the innovation phenomenon. Such
rival explanations have proliferated over the past two decades, providing an array of provocative
hypotheses to guide research on government innovation in the postsecondary arena.

Theoretical Framework

Political scientists have long debated the determinants of state policy innovation. Early
conceptualization paid almost exclusive attention to the political characteristics of the states,
often operationalized as Democratic party control of government, voter turnout, and
malapportionment (Fenton, 1966; Key, 1956; Lockwood, 1963). However, two important
developments in the late 1960’s shifted the focus of analysis away from a ‘political’
interpretation of policy innovation. In 1966, Thomas Dye’s comprehensive analysis of policy
outcomes in the states shattered the “politics-paradigm” with the finding that economic
development patterns explained greater variation in state policy outcomes than did the array of
political characteristics traditionally studied by researchers. Over the next two decades, empirical research accumulated in favor of an “economic” interpretation of state policy adoption.

Simultaneous to the emergence of the economic interpretation of policy adoption was Jack Walker’s (1969) path-breaking work on the diffusion of policy innovation among the American states. Walker examined the geographical diffusion of eighty-eight economic and government policies over the course of United States history. The analysis uncovered what Walker characterized as a “national system of emulation” (p. 898), with regional variation in policy innovation based on imitation of bell-weather states. In other words, the pattern of innovation was one of regional leaders adopting a policy first, with other states in a given region following suit. Walker attributed this “follow-the-leader” diffusion process to two distinct phenomena. First, he asserted that states copy one another as a result of the “satisficing” decision behavior of government officials; i.e., because of the demands of time and incomplete information, state policymakers take cues from their neighbors in an attempt to simplify complex decisions. Walker also cited competition among the states as a reason why states might emulate one another. He reasoned that it is often rational for states to compete with one another to achieve a competitive advantage (or to avoid disadvantage). Walker pointed to the formal and informal channels of communication among policy specialists in the states as the chief mechanism of policy diffusion, citing organizations such as the Council of State Governments as key to the diffusion of ideas. Walker’s work exerted a strong influence on the study of government innovation, shifting the focus of analysis from the internal determinants of policy innovation (be they economic or political) to the interstate migration of policy ideas.

Research on state policy innovation has grown increasingly sophisticated over the past decade. Political scientists have remedied the methodological limitations that accompanied their
earlier reliance on cross-sectional designs through the use of sophisticated longitudinal analytic techniques. Additionally, scholars have refocused their attention on political explanations of government innovation, identifying dynamic relationships between certain state political features and policy outcomes. Indeed, it is now routine to find economic, political, and diffusion explanations of policy innovation incorporated into the same study. Finally, the number and range of different policy areas studied has expanded to include state taxation, criminal justice, health care, energy, and morality policy. The area of K-12 education recently has been the focus of interesting work, such as that conducted by Mintrom (1997) on school reform as a form of state policy innovation and by Wong and Shen (2002) on charter school legislation and school district take over as state policy innovation.

Yet, despite dynamic developments in government innovation theory and research, Hearn and Griswold's investigation remains the single empirical study of state-level innovation in the postsecondary education policy domain. The lack of systematic and sustained inquiry in this area leaves unclear critical questions about both the centralization-innovation relationship and the influence of state political characteristics and interstate diffusion processes on the postsecondary policy patterns of the states.

Purpose of the Study

In an effort to bring greater theoretical and analytical rigor to bear on the important question of postsecondary education policy innovation in the American states, and to build on Hearn and Griswold's earlier work, this study analyzed the determinants of state policy innovation in the postsecondary arena over nearly a twenty-year period. Specifically, we employed longitudinal analytic techniques to test the effects of higher education governance arrangements, state demographic, economic, and political characteristics, and interstate diffusion
dynamics on postsecondary innovation patterns in the American states between 1981 and 1998. One of the primary goals of the research therefore was to develop and test a framework of postsecondary policy making that is explicitly comparative in nature; i.e., one that examines how variation in the political-structural arrangements of the states influences a particular kind of policy outcome—postsecondary innovation. Our conceptual framework is grounded in a synthesis of the political science literature on state government innovation, which provided us with eight hypotheses to guide our investigation.

Specific Hypotheses

We discern four major sets of explanations in the government innovation literature that might account for postsecondary education policy innovation in the states. The first, deriving from Hearn and Griswold, involves the level of centralized governance authority in state postsecondary systems. The second is an internal-determinants approach that points to the role of socioeconomic development—principally, size, wealth, and educational attainment—in prompting state governments to adopt new postsecondary policies. The third explanation also is an internal-determinants approach, but one that is primarily political in nature; this explanation suggests that certain state political features, such as legislative professionalism, governors’ institutional powers, interparty competition, proximity of elections, and unified party control of the legislature, account for innovation patterns. The final explanation of postsecondary innovation is the policy diffusion approach, which suggests that states emulate the policy behavior of their neighbors. Mindful of space limitations, we have chosen to express these explanations in the form of eight specific hypotheses, as follows:
Hypothesis 1: *States with more highly centralized governance arrangements will be more likely to adopt postsecondary policy innovation.*

As Hearn and Griswold (1994) noted, consolidated governing boards and regulatory coordinating boards are the most centralized of the various kinds of postsecondary education governance arrangements, possessing powers of direct intervention over the academic and fiscal affairs of campuses. At the other end of the governance continuum are advisory coordinating boards and planning agencies, whose varying authority is limited to reviewing campus policies and making recommendations to the legislature or governor. In these latter types of governance, formal decision authority is less centralized, resting mainly with the campuses rather than with a state agency. The first study hypothesis, directly drawn from the postsecondary policy literature (Callan, 1975; Carnegie Foundation, 1976, 1982; Hearn and Griswold 1994; Mortimer and McConnell, 1982), suggests that states with more centralized governance arrangements will be more likely to adopt postsecondary policy innovations. Although empirical support for the hypothesis is tenuous, much of the classical literature from the 1950s and 1960s suggests that centralized governance positively influences state postsecondary policy innovation.

Hypothesis 2: *Larger and wealthier states will be more likely to adopt state-level postsecondary policy innovations.*

Evidence from the state policy innovation literature seems to support the contention that the level of socioeconomic development in a state should influence the state’s likelihood of adopting innovative postsecondary education policies. Indeed, a robust finding of the comparative state literature is that policy innovation is influenced by the general socioeconomic conditions of a state and its citizens (Berry and Berry, 1999; Bingham, 1977, Dye, 1976, Mooney
and Lee, 1995; Dawson and Robinson, 1963; Dye, 1966; Plotnick and Winters, 1985; Walker, 1969). Larger states tend to have greater size and complexity in their governmental infrastructures, which tends to lead to the adoption of new programs (Bingham, 1977). Because many government innovations cost money, the availability of large financial resources also can be a prerequisite for adoption (Dye, 1976). Walker (1969) extended this reasoning to suggest that states with high levels of economic development may have a greater propensity toward innovation even in areas of activity that do not require large fiscal commitments, attributing part of this propensity to the states’ greater tolerance of change. Taking a different tack, Berry and Berry (1992) have employed “Wagner’s Law” of public bureaucracy to assert that one consequence of state economic development is increased demand for government services, which in turn produces innovation. The notion that states with higher levels of socioeconomic development are more likely to adopt innovations benefiting citizens with higher incomes seems to provide theoretical justification for the assertion of some critics that recent postsecondary financing innovations, such as merit scholarship programs and prepaid tuition programs, represent a government subsidy of the middle class.

Hypothesis 3: States with more “professional” legislatures will be more likely to adopt postsecondary policy innovations.

Professionalism refers to the extent to which a state legislature reflects the attributes of the United States Congress; i.e., a well-staffed body, whose “full-time” membership meets in extended session and enjoys respectable pay (Squire, 1992). The argument often advanced is that more professional legislatures possess greater informational, technical, and decisional capacity, which in turn allows for higher and more innovative policy output (Grum, 1971; Hays, 1996;
Sigelman and Smith, 1980; Walker, 1969). A complementary rationale for hypothesizing the importance of ‘professionalism’ is that more professional legislative environments attract better educated legislators, ones who are more prone to consider and adopt new policies and programs (Rosenthal, 1997). Extant research provides some support for the legislative-professionalism explanation of policy innovation, although the findings suggest that the effect of professionalism depends on the nature of the policy adopted (Hays, 1996). Although just a few studies (Lowry, 2001; Nicholson-Crotty and Meier, forthcoming; Volkwein, 1987) have examined the effect of legislative professionalism on postsecondary policy outcomes, observers directly and indirectly assert that one possible consequence of increased legislative capacity is a corresponding change in the nature, number, and scope of postsecondary programs adopted by the states (Fisher, 1988; Glenny and Schmidtein, 1984; Sabloff, 1997). The nature of this relationship generally is alleged to be a positive one, leading us to hypothesize that states with more professional legislatures will be more likely to adopt postsecondary policy innovations.

Hypothesis 4: States whose governors possess stronger institutional powers will have a higher probability of adopting postsecondary policy innovation.

It is often asserted that governors’ influence over policy adoption depends, at least in part, upon the extent of their institutional (or constitutional) powers (Clarke, 1998; Klarner, 2000; Sigelman and Dometrius, 1988). The institutional powers of the governors vary widely. In some states, governors enjoy strong power in the form of the line-item budget and certain veto and appointment powers. In other states, governors possess fewer instruments of policy control, thus diminishing their ability to affect policy adoption. Although very little research has focused explicitly on the role of governors in postsecondary education policy adoption, some evidence
suggests that the postsecondary arena is one (like K-12 education) over which governors have begun to exert substantial sway. Governors are alleged to have become influential policy actors in the areas of governance reform (Marcus, 1997) and student financial aid policy (Hebel, 1999; Heller, in press; Selingo, 2001a, 2001b). At least with respect to these specific issues, governors may be performing the "policy entrepreneur" role that research in other domains has shown is often critical for large-scale policy change to occur (Baumgartner and Jones, 1993; Kingdon, 1984; Mintrom, 1997; Mintrom and Vergari, 1998; Polsby, 1984). We hypothesize that the varying powers of the governors will influence postsecondary innovation patterns such that states with stronger governors (institutionally speaking) will be more likely to adopt such innovation.

Hypothesis 5: States with higher levels of interparty competition will be more likely to adopt postsecondary education innovations.

It is nearly axiomatic to assert that the chief preoccupation of elected officials is reelection (Mayhew, 1974; Kiewiet and McCubbins, 1985). One implication of the axiom is that elected officials should be responsive to the preferences of the public. As Berry and Berry (1999) astutely note, this response would be expected to vary according to the level of electoral (in)security of state officials. Hence, some innovation scholars have examined the influence of interparty competition on policy innovation, reasoning that politicians in states with closely contested elections will adopt new programs in an effort to broaden or cement electoral support (Haider-Markel, 1998; Mintrom, 1997; Walker, 1969). Little research has focused on the influence of interparty competition on postsecondary policy outcomes (see Nicholson-Crotty and Meier, forthcoming), but findings in other policy arenas reasonably lead us to assert a positive relationship between party competitiveness and postsecondary policy innovation.
Hypothesis 6: *The proximity of a statewide election will influence the probability of state postsecondary policy innovation.*

Another explanation of state policy innovation holds, as an extension of the aforementioned logic of electoral (in)security, that politicians adopt new programs at times within their election cycle that are most politically advantageous (Berry and Berry, 1999; Mintrom, 1997; Moony and Lee, 1995). The reasoning here is that politicians, in order to maximize their electoral prospects, are more likely to approve popular initiatives in state election years, while reserving consideration and approval of controversial initiatives for off-years. This proposition has received support in the case of highly popular state lotteries (Berry and Berry, 1990), which are most often adopted in statewide elections years, and unpopular tax initiatives (Mikesell, 1978; Berry and Berry, 1992), which tend to be adopted in the year immediately following a state election. Again, no previous research has considered the effect of election cycles on the adoption of postsecondary education policies. However, it seems reasonable to assert that adoption of popular innovative postsecondary policies is most likely to occur in election years, when politicians stand the most to gain from enacting these broadly popular programs.

Hypothesis 7: *States with legislatures controlled by a single party will be more likely to adopt postsecondary policy innovation.*

The “institutional control” hypothesis suggests that states in which the same party controls both the legislative and executive branches of state government are more likely to adopt a policy than states in which control of governmental institutions is split. This is because there are likely fewer roadblocks to adopting a policy in a unified government than in a “divided”
one—one where different parties control the separate branches (Huber, Shипan, and Pfahler, 2001). The institutional control hypothesis has been systematically tested in studies of state tax adoption (Hansen, 1983) and K-12 education reform (Mintrom, 1997; Mintrom and Vergari, 1998). While retaining its essential logic, we modified the institutional-control hypothesis to hold that states in which the same party control both chambers of a legislature will be more likely to innovate. Our modification was motivated by a specific interest in legislative control because of the alleged recent role of legislatures in effecting large-scale education policy change. There is no evidence to suggest precisely which party’s legislative control, Democrat or Republican, should influence postsecondary policy innovation, simply that unified control by either party will positively influence the adoption of postsecondary innovation.

Hypothesis 8: States with innovative neighbors will be more likely to adopt postsecondary policy innovations.

Students of state policy innovation define diffusion as the process by which an innovation is spread among the states. The “regional diffusion model” of policy innovation posits that states tend to emulate geographically proximate states—their neighbors. Numerous studies have documented a distinctly regional flavor to policy innovation patterns across the American states (Berry and Berry, 1990; Light, 1978; Lutz, 1987; Walker, 1969). Researchers employ several regional diffusion approaches. One that is prevalent asserts that states are most likely to emulate their immediate neighbors, meaning those with which it shares a contiguous border. For example, Berry and Berry (1990) hypothesized that the probability that a state would adopt a lottery is positively related to the number of states bordering it that have already adopted one. Strong regional patterns in policy innovation have been observed across a wide range of policies.
(Foster, 1978; Berry and Berry, 1990, 1992, 1999), suggesting a pattern of behavior that likely transcends any specific policy area. We note that, while nothing is known about regional influences on postsecondary policy innovation, several studies have documented regional effects on the setting of postsecondary tuition and financial aid policies (Hearn, Griswold, and Marine, 1996). Moreover, there has long existed a well-developed network of regional higher education consortia (Southern Regional Educational Board, for example), whose purpose is that of disseminating ideas to neighboring states.

Research Design

Although the purpose of this study generally was to examine the effects of a wide range of theoretically relevant intrastate and interstate characteristics on postsecondary policy innovation by state governments, our central concern was in identifying the independent influence of governance structure on postsecondary innovation. Hence our focal research question: “Controlling for the influence of state demographic, political, and diffusion characteristics, what relationship remains between governance arrangement and postsecondary education policy innovation at the state level?” To assay their generality, we test the predictive power of the various explanations discussed in the previous section of this article for two types of postsecondary policy innovation over time: postsecondary financing policy and postsecondary accountability policy.

An investigation into the determinants of postsecondary education policy innovation in the American states requires a data set that can capture both spatial and temporal features of the innovation phenomenon. To this end, we developed a time-series data set that incorporated annual indicators of the factors we hypothesized would influence state government innovation in the postsecondary education arena for the period, 1981-1998. Our analysis was conducted
across state-year units using pooled, cross-sectional time-series analysis, a technique that is especially appropriate for examining patterns of state policy adoption because it is capable of analyzing multiple units (states) over multiple points in time (years) (Stimson, 1985). In contrast with cross-sectional designs, where the state is the unit of analysis, pooled, cross-sectional time series analysis has as its unit of analysis the state-year. Thus, we assigned a series of values to each state for each year the state is included in the dataset. Because the state-year serves as the unit of analysis for this study, our data set consists of 882 observations (49 states by 18 years).

Data Sources and Variable Operationalization

The data for the 49 states included in this study were assembled from a variety of secondary sources. The data for the dependent variables, postsecondary education policy innovations, were assembled for each state in each year during the period 1981-1998. It is important to note that the dependent-variable data reflects years of enactment (the year an innovation was enacted into law), not the year a particular program became operational, which in some cases occurred one or more years after (and, occasionally, even prior to) the innovation’s enactment. Wherever possible, the independent-variable data were collected to reflect conditions in each state for each respective year; in some cases, however, the best sources of data that are available reflect a discrete time period, typically a three-to-five year period of time.

The study’s dependent variables included six policy innovations: performance budgeting, performance funding, mandated assessment of undergraduates, merit based scholarships, prepaid tuition plans, and college savings plans. Data on the enactment of performance budgeting and performance funding policies derived from national surveys by Burke and Modarresi (1999) and Burke and Serban (1998 & 1997). Data for the merit scholarship variable derived from Heller (in press), Sanderson and Zwierzchowski (1999), and National Association of State
Treasurers (2001). Because of conflicting information about dates of enactment of merit scholarship programs, the authors conducted a *Lexus-Nexus*-aided analysis of state statutes to manually verify the data. Data for the undergraduate assessment variable were taken from Nettles and Cole (1999) and Nettles, Cole, and Sharp (1997). Data for both the pre-paid tuition and college savings plan variables were based upon Roth (1999), National Association of State Treasurers (2001), Hogan (2000), and Hurley (2000). Because of conflicting information about enactment dates for the two variables, the authors also manually verified this data through an analysis of each state's statutes.

The independent variables included in this study correspond to each of the nine hypotheses delineated in the previous section of the paper. Data from the United States Bureau of the Census (2001a,b,c,d) and Quantum Research Corporation (2000) were used to indicate the study's several demographic variables: population (log 10); state median income (thousands of 1999 dollars); state higher education enrollment rate (indexed to national rate of 100); and, percentage change in higher education enrollments in the state from previous year.

For the independent-variable indicator of postsecondary governance arrangement, we adopted and modified McGuinness's (1997, 1994, 1988, 1985) postsecondary governance typology. We delineated McGuinness' typology into four categories, depending on the relative "strength" of state-level control: consolidated governing board, regulatory coordinating board, weak coordinating board, and either a planning agency or no board.

The study's independent-political variables included the following: legislative professionalism, interparty competition, governor's institutional powers, statewide election year, and unified legislative control. The Legislative Professionalism index was created to represent, in a single variable, all three commonly accepted measures of professionalism: legislative staff,
legislator salary, and session length (Grumm, 1971; Squire, 1993, 1988). Data for each of the three separate measures of the legislative professionalism index were obtained from the National Conference of State Legislatures for the period, 1981-1998. Interparty Competition was measured using the Ranney Party Control Index (Bibby and Holbrook, 1999; 1996; 1983), which indicates level of competition between Democrat and Republican parties by analyzing the proportion, duration, and frequency of their respective candidates’ success at the state level. Governors’ Institutional Power represents the institutional influence of the states’ governors; data for the variable came from Beyle (1999, 1996, 1983). Due to variations in the reporting of the index by Beyle, we reduced and recalculated the index to include the following five measures: election arrangement of executive branch officials, governor’s tenure potential, governor’s appointment powers, governor’s budgetary power, governor’s veto power. The Statewide Election Year variable indicates, for each state, the year in which the governor and the majority of legislators stand for election. Data for this variable derived from the Council of State Governments (various years). Unified Legislative Control denotes whether both chambers of a state legislature were held by the same party in the same year; data for this variable came from the Council of State Governments (various years).

Finally, the diffusion variable indicated the number of contiguous states that had already adopted a particular innovation in the year in which a focal state adopted the innovation, with a one-year lag. This variable was hand calculated by the researchers using data on the enactment dates of each of the six innovation dependent variables.

Analytic Methodology

Because data on the demographic, political, higher education governance, and policy innovation and diffusion characteristics of the forty-nine states were collected for the period
from 1981 to 1998, our dataset included both cross-sectional (among the states) and time-series (across the years) observations. Datasets that combine both cross-sectional and time-series observations can be described as using “panel data.” Panel data generally are analyzed using either fixed-effects or random-effects models. Kennedy (1992) recommends that:

If the data exhaust the population (say observations on all firms producing automobiles), then the fixed effects approach, which produces results conditional on the units in the data set, is reasonable. If the data are a drawing of observations from a large population (say a thousand individuals in a city many times that size), and we wish to draw inferences regarding other members of that population, the fixed effects model is no longer reasonable; in this context, use of the random effects model has the advantage that it saves a lot of degrees of freedom (p. 222).

The data used in this study are in fact a census of all states in the country during the time period in question, so the fixed-effects approach is appropriate.

The outcome examined here is whether a state legislatively enacted a higher education policy innovation in a given year. Three different outcomes were modeled in the logistic regression analysis: 1) the probability the state enacted one or more of the six policy innovations; 2) the probability the state enacted one or more of the postsecondary “accountability” innovations (performance funding, performance budgeting, or assessment); and 3) the probability the state enacted one or more of the postsecondary “financing” innovations (merit scholarships, prepaid tuition program, or college savings plan).

Outcomes that are dichotomous in nature are generally analyzed using logistic regression. The logistic regression model fitted in this study can be specified as follows:
\[
\text{Prob}(Y_{it}) = \frac{\exp(\beta_0 + \beta_1 D_{it} + \beta_2 G_{it} + \beta_3 P_{it} + \beta_4 N_{it} + \varepsilon_{it})}{1 + \exp(\beta_0 + \beta_1 D_{it} + \beta_2 G_{it} + \beta_3 P_{it} + \beta_4 N_{it} + \varepsilon_{it})}
\]

(1)

where

\begin{align*}
\text{Prob}(Y_{it}) &= \text{Probability of state } i \text{ in year } t \text{ enacting a policy innovation} \\
D_{it} &= \text{Vector of demographic characteristics of state } i \text{ in year } t \\
G_{it} &= \text{Higher education governance structure of state } i \text{ in year } t \\
P_{it} &= \text{Vector of political characteristics of state } i \text{ in year } t \\
N_{it} &= \text{Measures of the enactment of policy innovations in states contiguous to state } i \text{ in year } t - x, \text{ where } x \geq 1 \\
\varepsilon_{it} &= \text{error term}
\end{align*}

Two different measures of policy innovation diffusion were used in creating the variable \( N_{it} \): 1) the number of prior policy innovations in contiguous states; and 2) the mean elapsed time since the policy innovation(s) had been enacted. Table 1 presents the means and distributions of the variables used in the models.

\begin{center}
INSERT TABLE 1. HERE
\end{center}

The logistic regression models used in this study were fit by sequentially entering the groups of predictors in blocks relating to the four categories noted in Equation 1. The effect of each predictor on the outcome is expressed as a Delta-\( p \) statistic, recommended by Cabrera (1994) and Petersen (1985) as a method for expressing the relationship between a unit change in
a predictor and the estimated percentage change in the outcome. The Delta-$p$ statistic is calculated as:

$$
\text{Delta}-p = \frac{\exp(L_1)}{1 + \exp(L_1)} - \frac{\exp(L_0)}{1 + \exp(L_0)}
$$

(2)

where

$$
L_0 = \ln\left(\frac{\bar{Y}}{1 - \bar{Y}}\right)
$$

(2.1)

$$
L_1 = L_0 \beta_s
$$

(2.2)

For example, a Delta-$p$ value of 0.025 indicates that a one-unit change in the predictor is related to a 2.5 percentage point increase in the likelihood that a state enacted a higher education policy innovation. The Delta-$p$ statistic is shown in each table only for those variables that were statistically significant at a level of $p \leq 10$.

Data Results

Table 2 presents the first set of models predicting the likelihood that a state will adopt any one of the six innovations in any given year. Model 4, which includes demographic, governance, political, and diffusion variables, indicates several effects that are significantly different from zero. Income (Delta-$p = .011$) is a weak ($p \leq 10$) predictor of innovation. Republican legislative control (Delta-$p = .250$) had a strong positive relationship ($p \leq 01$) to postsecondary innovation, meaning that states in which Republicans controlled both chambers of the legislature were 25% more likely to adopt an innovation. As hypothesized, this set of models also indicates a strong diffusion effect; states whose neighbors had already adopted 2 or 3 innovations were almost 36% more likely to adopt an innovation, while states whose neighbors
had adopted 4 or more innovations were 44% more likely to adopt an innovation. Finally, *Model 5* also indicates the existence of a dynamic relationship between innovation and time; namely, states whose neighbors enacted an innovation within the previous three years were 11% more likely to adopt an innovation, but states whose neighbors enacted an innovation between 3-5 years earlier were 22% more likely to innovate. Curiously, when the mean number of years since a contiguous state’s innovation reached 5 or more, the probability that a state would adopt any innovation slightly diminished (Δp = .214).

**INSERT TABLE 2. HERE**

Table 3 presents a set of models predicting the likelihood that a state will adopt a postsecondary accountability innovation. The most notable feature of the table is the absence of virtually all hypothesized effects upon state accountability innovation. While Income (Δp = .013) was a marginally significant predictor of accountability innovation, the political context of the states does not appear to be at work with respect to postsecondary accountability innovation. Moreover, interstate diffusion processes bear a statistically weak relationship to policy innovation outcomes.

**INSERT TABLE 3. HERE**

In Table 4 are presented a set of models predicting the likelihood that a state will adopt a postsecondary financing innovation. Of particular note in this table is the first evidence of a postsecondary governance effect. The effect is a negative one, meaning that states with planning agencies or weak coordinating boards were 6.8% less likely to innovate in the area of postsecondary financing than were states with more centralized boards; the direction of this
effect is in the hypothesized direction. Republican legislative control (Delta-p = .167 Model 4 and Delta-p = .182 Model 5) also is a significant predictor of postsecondary financing innovation; states with Republican dominated legislatures were 17% to 18% more likely to adopt such an innovative policy. Diffusion also appears as a strong predictor of state-level adoption of postsecondary financing innovations. Specifically, Model 4 shows a strong positive relationship between the number of neighboring states that had previously adopted an innovation and the probability that a state will innovate in any given year; the effect, however, is strongest in the second category of 2-3 innovations (Delta-p = .364), but then begins to dissipate. Finally, Model 5 also indicates that financing innovations appear to have both a “threshold level” and a “shelf life”. That is, innovations have their greatest effect on neighboring states between 3-5 years after they are adopted (Delta-p = .454); both before and after this period of time, the effect lessens. The total variance in financing innovations explained by this model is 32.3%.

INSERT TABLE 4. HERE.

In summary, the explanatory power of the various models of postsecondary innovation range from a low of explaining 11.5% of accountability innovation outcomes, to explaining 18.9% of any postsecondary innovation outcome, to a high of explaining 32.1% of financing innovation outcomes. Republican dominance of the legislature and regional diffusion influences were strong predictors both of any innovation and of financing innovations; diffusion had only a marginally significant relationship to accountability innovation. The mean number of years since a prior state’s innovation occurred also was a strong predictor of any innovation and financing innovation, with the strongest effect in the category of 3-5 years.
Discussion and Implications

This study began as an effort to better understand when and under what conditions state governments adopt various kinds of new postsecondary education policies. To this end, we developed a multifaceted conceptual framework incorporating the dominant theoretical explanations (economic, political, and diffusion) of state policy innovation scholars and employed longitudinal analysis to examine patterns in postsecondary policy adoption over a period of two decades. The several study findings hold intriguing implications regarding the relationship of state postsecondary governance structure, political context, and interstate diffusion dynamics to the postsecondary policy adoption patterns of American state governments.

The central question addressed in the study was whether postsecondary governance arrangements, independent of other “intrastate” (social, economic, and political) and “interstate” (diffusion) features, influence patterns of state policy innovation in the postsecondary education arena. This investigation found centralized governance arrangements to be positively associated with higher rates of postsecondary policy adoption, but only weakly so and only for the category of financing innovation (prepaid college tuition programs, college savings plans, and merit scholarship programs). This finding has important, albeit somewhat vexing, implications.

Critics of centralized postsecondary governance contend that strong regulatory boards over time have become increasingly controlling of college campuses. The assertion often made is that, in addition to their prescribed role in regulating institutional academic programs and budgets, centralized boards tend to generate novel ideas aimed at maximizing the “accountability” of campuses to the state. Examples of such ideas include performance funding and budgeting regimes and the mandated assessment of undergraduates. The present study found
no evidence in support of this claim; states with more highly centralized governance structures were not more likely to have adopted one of the ‘accountability’ policies studied. Rather, the existence of a consolidated governing board or regulatory coordinating board was found to be a positive predictor of a state’s adoption of now widely popular postsecondary finance innovations. This finding provides some limited evidence in support of the “centralization-innovation hypothesis”—i.e., that higher levels of structural centralization lead to higher policy outputs of a form we have termed, classically, as “innovative”. However, because the relationship is a statistically weak one and because the association involves a kind of policy (financing) different from the one Hearn and Griswold identified (academic/regulatory) in their earlier study, additional research is needed to further examine the relationship.

A provocative implication of this study is that state-level political features and interstate diffusion processes are better predictors of postsecondary policy innovation than is the type of governance arrangement. Indeed, a surprise finding was that Republican control of state legislatures positively influences the adoption of new postsecondary financing policies. This particular finding is thought provoking for it suggests a more direct link that is commonly presumed between party control of state political institutions and the postsecondary policies of the states (McLendon, 2002). We submit, however, that the relationship is likely more subtle and complex than one involving mere party identification alone. Specifically, we interpret the finding within the context of potentially differing ideological commitments regarding the role of state government in the postsecondary education sector.

The postsecondary financing innovations analyzed in this study may represent an effort to privatize college finance in the states. All three innovative policies, merit-based scholarships, prepaid college tuition plans, and college savings programs, emphasize and reward individual or
family investment in preparation for college. Collectively, these three policies may represent an alternative postsecondary financing philosophy and approach: instead of the traditional subsidization of public campuses through direct appropriation of state tax receipts, the new policies may reflect an effort on the part of Republican controlled legislatures to shift state priorities toward private sector markets and to reward the behavior of citizens who plan, both financially and academically, for college. Themes of "limited government", "individual responsibility", and "private markets" traditionally are associated more with Republicans than with Democrats (Berry and Berry, 1992; Chubb and Moe, 1990; Mintrom, 1997). This explanation could help account for the curious effect of Republican-controlled legislatures adopting new postsecondary education finance policies. Of course, this interpretation should not be taken to mean that Democrats are less interested in the postsecondary policy arena, rather that their interest is manifested differently from their Republican counterparts—namely, in the form of subsidizing institutions, rather than students.

Clearly, we are speculating in an effort to generate some initial propositions regarding a potentially interesting relationship about which little evidence exists. Indeed, our finding concerning Republican-controlled legislatures demonstrates the need for more scholarship on the comparative political context of higher education policymaking in the American states. Scholars for the most part have ignored systematic conceptualization and empirical analysis of the influences of higher education policy outcomes in the states, preferring instead to focus on more applied questions of policy evaluation, assessment, or implementation. As a result, the formal study of higher education lacks a well-developed literature reflecting many of the core theoretical concerns of political science, concerns such as those involving interest formation and
maintenance, partisanship, institutional design, elections and voting behavior, and public opinion.

Our investigation also revealed a curious pattern of postsecondary policy diffusion, whereby states tended to adopt the ideas of their innovative neighbors. The interstate diffusion effects documented in the study raise numerous provocative questions including the following: ‘Why and how does the interstate migration of policy ideas occur?’ One conceivable explanation of the diffusion phenomenon, one derived both from the extant political science literature and from anecdotal evidence in the states, is that governments may be engaged in a process of interstate competition involving their postsecondary education systems. In other words, state governments adopt innovative postsecondary policies and programs in an effort to “keep up” with their neighbors. Why would states compete with one another in the postsecondary education arena? The answer is unclear, and the question itself begs further systematic appraisal, but one possible factor may be an effort to stanch “Brain-Drain”, or the loss of human capital (and economic development and tax proceeds) to neighboring states. Indeed, a rationale often cited by governors and other policymakers for adoption of broad-based merit scholarship programs is a concern that “the best and brightest” high school graduates are migrating (or being lured) across state lines to attend college in neighboring states. Thus, the adoption of such programs is viewed by policymakers, and perhaps by the public, as a means for states to achieve a competitive advantage over their neighbors (Heller, in press). Alternatively, elected officials might compete in an effort to enhance voter confidence in the responsiveness of state government. When a given state adopts a policy that is broadly popular within the state and highly visible outside of the state (as in the case of merit scholarship programs), this could “raise the stakes” for politicians in neighboring locales, whose citizens may view failure to adopt like
policies as an indication of the lack of responsiveness of their own governments. Clearly, both of these explanations have electoral implications, thus situating the policy diffusion phenomenon in the context of higher education’s intersection with state electoral behavior and outcomes, a convergence about which little is known.

Yet a third conceivable alternative explanation exists for the diffusion effects documented in this study: states emulate their neighbors because of normative pressures, rather than competitive pressures narrowly defined in either economic or electoral terms. Over the past three decades, professional associations of state government officials have proliferated, as have specialized associations of state higher education officials. Examples of the former include the National Governors Association (NGA) and the National Conference of State Legislatures (NCSL); examples of the latter include the Education Commission of the States (ECS) and the State Higher Education Executive Officers Association (SHEEO), an association comprised of the fifty states’ chief higher education officials. Such associations of professional peers serve not merely as channels of interstate communication through which ideas may be dissemination, but also as powerful networks for institutionalizing group norms. Once certain states, particularly those viewed as national or regional leaders, adopt a new policy or program, officials in neighboring states rush to adopt like policies or programs so that they, too, may be perceived as innovators or as being on the “cutting edge” of policy debate and design. Although not new, this conception of policy diffusion as a consequence of the increasing professionalization of state government has yet to be systematically explored by scholars of higher education policymaking.

A final word should be mentioned about the very interesting diffusion phenomena of innovation “threshold” and “shelf life”. We have already noted that, the more prior innovations in contiguous states, the more likely it is a given state will enact an innovation of its own. With
the financing innovations, however, the mean-years effect was strongest between 3-5, suggesting both that it takes some number of years for an innovation to influence its neighbors and that an innovation’s influence begins to dissipate once it becomes "stale." Although we would caution against inflating the statistical significance of this finding, we nevertheless submit it as a conceptually provocative and potentially important consideration in the design of future studies of policy innovation in both the postsecondary and K-12 education domains. Is it, indeed, the case that policy entrepreneurs have but a narrow “window” of time in which to promote new ideas? Do these “policy windows” exist across different categories or types of policies? Such questions would inject an altogether new dynamic into future modeling of innovation outcomes.

In addition to the various statistically significant relationships that have been the focus of this discussion, it is also valuable to consider what the analysis failed to show. Specifically, the analysis did not uncover a direct “electoral connection” to postsecondary education policy innovation; proximity of elections and level of interparty competition in the states were found not to be significant predictors of innovation. This finding provides the first empirical assessment of the effects of electoral outcomes on postsecondary policy adoption patterns. The finding, however, should also be treated as tentative one. Our analysis operationalized the proximity-of-elections variable as the year in which a statewide election was held. By operationalizing the variable differently, such as the year before an election, as well as the year of an election, a different relationship might emerge. Future research in this area should pay attention to improving both the conceptualization and measurement of possible electoral influences upon postsecondary policy outcomes.

A final implication of this study is methodological, in nature. The present study represents one of the first uses of longitudinal analysis in the study of postsecondary
policymaking. The use of longitudinal techniques is an important improvement in the conduct of comparative-state research, where cross-sectional designs face the severe limitations of a small and fixed number of cases (50). One contribution of this particular investigation is the demonstration of the value of longitudinal analysis in uncovering complex, dynamic relationships among the states over time. Greater use of such longitudinal techniques may afford researchers opportunities to investigate theoretically important relationships previously considered "out-of-bounds" because of the limitations of traditional research designs.
References


Press.


McLendon, M.K. (2002). Direct democracy and higher education: The state ballot as an
instrument of higher education policymaking. In D. Opfer and K. Wong (Guest Editors).


Endnotes

1 In this study, we follow the dominant practice of the political science literature in defining an innovation as a policy or program that is new to the political jurisdiction (state government) adopting it. We, therefore, differentiate the term from that of policy invention, or “the process through which original policy ideas are conceived” (Berry and Berry, 1999, p. 169).

2 The authors assigned the eight innovations to three analytic categories: academic, which included mandated assessments of undergraduate students, required testing of teaching assistants, and the criminalization of vandalism of animal-research facilities; financing, which included offering a prepaid college tuition plan, offering a tax-exempt college savings plan, and restricting the taxation of college businesses; and, teacher education, which included nontraditional K-12 teacher certification programs and requiring that high school teachers not be education majors.

3 Volkwein’s (1987, 1997) program of research took a different tack. Volkwein and colleagues analyzed the effects of state regulation on various dimensions of campus-level functioning, rather than on state-level policy outcomes. In these studies, the authors failed to find a statistically significant relationship between the regulatory climate of the states and many different measures of institutional effectiveness, such as faculty quality, the quality of undergraduate student bodies, and institutional resource acquisition. Zumeta’s (1997) work additionally is instructive.

4 Mooney and Lee (1995) summarized Walker’s reasoning as follows: “…policymakers look for shortcuts to rational decision making, and an important shortcut is to copy the policies of peer states” (p. 604).

5 Wagner’s Law maintains that the demand for government services should increase with personal income. Wagner argues that many government services are perceived as “luxury goods”
that cannot be afforded when personal income is low, but are demanded more as incomes rise
(Berry and Berry, 1992).

6 The nature of the policy also may determine the extent of gubernatorial influence. See, for
example, Mintrom (1997) on gubernatorial influence in education reform and Stream (1999) on
the influence of governors in insurance reform.

7 The postsecondary financing policy category included merit scholarship programs, prepaid
tuition plans, and college savings programs; the postsecondary regulatory policy category
included performance funding, performance budgeting, and mandated undergraduate assessment.

8 Nebraska was excluded from our analysis due to the unique nature of Nebraska’s nonpartisan
and unicameral legislature and the inherent problems this poses for analyzing the study’s
independent-political variables. The practice of eliminating Nebraska from statistical analysis in
which legislative party control is an important theoretical consideration is commonplace in the
comparative state politics literature (see, for example, Huber, Shiplan, and Pfahler, 2001).

9 Because we defined state government innovation as the enactment of a new program or policy
into law, some states’ programs were excluded from the analysis because they were never
enacted into state statute. Our definition of innovation-as-enactment provides conceptual and
analytical clarity and consistency for the question of when, precisely, an innovation may be said
to have occurred in a state.

10 For more information about the application of logistic regression, see Cabrera (1994) and
Kleinbaum, Kupper, and Muller (1988).
Table 1: Means, Standard Deviations and Distributions of Variables Used in Logistic Regression Models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Any Innovation</th>
<th>Regulatory Innovation</th>
<th>Financing Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean or Distrib.</td>
<td>Standard Dev.</td>
<td>Mean or Distrib.</td>
</tr>
<tr>
<td>Outcome – % of state/year combinations with at least one policy innovation</td>
<td>11.6%</td>
<td>8.5%</td>
<td>7.1%</td>
</tr>
<tr>
<td>1. Demographic environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State population (log 10)</td>
<td>6.5</td>
<td>0.4</td>
<td>6.6</td>
</tr>
<tr>
<td>State median income (thousands of 1999 dollars)</td>
<td>$37.0</td>
<td>$6.3</td>
<td>$36.2</td>
</tr>
<tr>
<td>State higher education enrollment rate as indexed to national rate = 100</td>
<td>98.1</td>
<td>16.7</td>
<td>95.3</td>
</tr>
<tr>
<td>% change in higher education enrollments in state from previous year</td>
<td>1.4%</td>
<td>2.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>2. Higher education governance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning agency or weak-coordinating board</td>
<td>19.4%</td>
<td>14.0%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Regulatory coordinating or consolidated board*</td>
<td>80.6%</td>
<td>86.0%</td>
<td>83.4%</td>
</tr>
<tr>
<td>3. Political environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both houses of legislature under control of one party?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No*</td>
<td>24.6%</td>
<td>13.6%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Yes – Democrat</td>
<td>57.3%</td>
<td>67.8%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Yes – Republican</td>
<td>18.1%</td>
<td>18.7%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Legislative professionalism index (1-100 scale)</td>
<td>32.9</td>
<td>21.3</td>
<td>29.3</td>
</tr>
<tr>
<td>Governor’s power index (1-5 scale)</td>
<td>3.6</td>
<td>0.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Ranney interparty competition index (0-1 scale)</td>
<td>0.6</td>
<td>0.2</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Table 1: Variable Means, Standard Deviations and Distributions (continued)

<table>
<thead>
<tr>
<th>Statewide (gubernatorial) election year</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No*</td>
<td>70.6%</td>
<td>72.4%</td>
<td>70.7%</td>
</tr>
<tr>
<td>Yes</td>
<td>29.4%</td>
<td>27.6%</td>
<td>29.3%</td>
</tr>
</tbody>
</table>

4. Policy innovation diffusion

<table>
<thead>
<tr>
<th>Number of prior policy innovations in contiguous states</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None*</td>
<td>43.1%</td>
<td>46.9%</td>
<td>68.4%</td>
</tr>
<tr>
<td>1</td>
<td>17.8%</td>
<td>18.1%</td>
<td>15.6%</td>
</tr>
<tr>
<td>2 or 3</td>
<td>17.1%</td>
<td>16.8%</td>
<td>11.9%</td>
</tr>
<tr>
<td>4 or more</td>
<td>22.0%</td>
<td>18.3%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Mean years since prior policy innovation(s) in contiguous states

<table>
<thead>
<tr>
<th>Mean years since prior policy innovation(s) in contiguous states</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No innovations*</td>
<td>43.1%</td>
<td>46.9%</td>
<td>68.4%</td>
</tr>
<tr>
<td>1 to less than 3 years</td>
<td>16.6%</td>
<td>14.0%</td>
<td>13.7%</td>
</tr>
<tr>
<td>3 to less than 5 years</td>
<td>23.8%</td>
<td>21.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>5 or more years</td>
<td>16.6%</td>
<td>18.1%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

* Referent category

Note: Category distributions may not sum to 100% due to rounding.
Table 2: Models of Policy Innovation – Any Innovation (Delta-\(p\))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (log 10)</td>
<td>0.884***</td>
<td>0.884***</td>
<td>0.884*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (1999 $000s)</td>
<td>0.010~</td>
<td>0.010~</td>
<td></td>
<td>0.011~</td>
<td></td>
</tr>
<tr>
<td>Legislature under Republican control</td>
<td></td>
<td></td>
<td></td>
<td>0.197*</td>
<td>0.250**</td>
</tr>
<tr>
<td># of prior innovations in contiguous states:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td>0.358***</td>
<td></td>
</tr>
<tr>
<td>4 or more</td>
<td></td>
<td></td>
<td></td>
<td>0.435***</td>
<td></td>
</tr>
<tr>
<td>Mean years since prior innovation(s):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to less than 3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.112~</td>
</tr>
<tr>
<td>3 to less than 5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.220**</td>
</tr>
<tr>
<td>5 or more years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.214*</td>
</tr>
<tr>
<td>Number of observations</td>
<td>731</td>
<td>731</td>
<td>731</td>
<td>731</td>
<td>731</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>10.0%</td>
<td>10.0%</td>
<td>13.0%</td>
<td>18.9%</td>
<td>14.8%</td>
</tr>
<tr>
<td>(\chi^2)</td>
<td>40.27***</td>
<td>40.28***</td>
<td>52.10***</td>
<td>75.85***</td>
<td>59.32***</td>
</tr>
<tr>
<td>% of cases properly classified</td>
<td>88.4%</td>
<td>88.4%</td>
<td>88.4%</td>
<td>88.4%</td>
<td>88.4%</td>
</tr>
</tbody>
</table>

\(\sim p \leq .10, \ast p \leq .05, \ast\ast p \leq .01, \ast\ast\ast p \leq .001\)

Note: Only those variables that were significantly different from zero at a level of \(p \leq .10\) are shown.
Table 3: Models of Policy Innovation – Accountability Innovation (Delta-p)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income (1999 $000s)</td>
<td>0.011~</td>
<td>0.011~</td>
<td>0.011~</td>
<td>0.013*</td>
<td>0.012~</td>
</tr>
<tr>
<td># of prior innovations in contiguous states:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td>0.164~</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>493</td>
<td>493</td>
<td>493</td>
<td>493</td>
<td>493</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>4.6%</td>
<td>4.8%</td>
<td>6.8%</td>
<td>11.5%</td>
<td>10.4%</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>10.08~</td>
<td>10.46~</td>
<td>14.88*</td>
<td>24.94*</td>
<td>22.60*</td>
</tr>
<tr>
<td>% of cases properly classified</td>
<td>91.5%</td>
<td>91.5%</td>
<td>91.5%</td>
<td>91.5%</td>
<td>91.5%</td>
</tr>
</tbody>
</table>

~ p≤.10, *p≤.05, **p≤.01, ***p≤.001

Note: Only those variables that were significantly different from zero at a level of p≤.10 are shown.
Table 4: Models of Policy Innovation – Financing Innovation (Delta-\(pd\))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>State population (log 10)</td>
<td>0.929***</td>
<td>0.929***</td>
<td>0.929**</td>
<td>0.929~</td>
<td>0.929~</td>
</tr>
<tr>
<td>Higher education governance structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning agency or weak coordinating board</td>
<td>-0.068~</td>
<td>-0.068~</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislature under Republican control</td>
<td>0.133~</td>
<td>0.167*</td>
<td>0.182*</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of prior innovations in contiguous states:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>0.255**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td></td>
<td></td>
<td>0.364***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 or more</td>
<td></td>
<td></td>
<td>0.258*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean years since prior innovation(s):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to less than 3 years</td>
<td></td>
<td></td>
<td></td>
<td>0.275***</td>
<td></td>
</tr>
<tr>
<td>3 to less than 5 years</td>
<td></td>
<td></td>
<td></td>
<td>0.454***</td>
<td></td>
</tr>
<tr>
<td>5 or more years</td>
<td></td>
<td></td>
<td></td>
<td>0.388*</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>680</td>
<td>680</td>
<td>680</td>
<td>680</td>
<td>680</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>21.1%</td>
<td>21.8%</td>
<td>26.1%</td>
<td>32.1%</td>
<td>32.3%</td>
</tr>
<tr>
<td>(\chi^2)</td>
<td>54.94***</td>
<td>56.67***</td>
<td>67.72***</td>
<td>83.46***</td>
<td>83.89***</td>
</tr>
<tr>
<td>% of cases properly classified</td>
<td>92.7%</td>
<td>92.5%</td>
<td>92.7%</td>
<td>92.8%</td>
<td>92.7%</td>
</tr>
</tbody>
</table>

~ p≤.10, *p≤.05, **p≤.01, ***p≤.001

Note: Only those variables that were significantly different from zero at a level of p≤.10 are shown.