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BY

_____
Dr. Scott Lamothe, Chair

_____
Dr. Alisa Hicklin Fryar

_____
Dr. Tyler Johnson

_____
Dr. Meeyoung Lamothe

_____
Dr. Doyle Yoon

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Abstract

This dissertation examines the diffusion of performance-based funding policy in higher education based on the conceptual framework of policy innovation and diffusion. After examining the two waves of state adoption of this policy, 1979-2002 and 2003-2014, I argue that during the first period, regional influence, state fiscal condition, educational attainment, tuition change, and higher education governance are the main factors that lead to state adoption of the policy. States with higher probability of adoption tend to have more adopting neighbors, better fiscal condition, higher educational attainment rates, tuition decreases, and an absence of a consolidated governing board. From 2003 through 2014, states with declined college enrollment and conservative governments appear to be more likely adopters. Further, evidence suggests that the non-adoption of performance funding is not simply attributed to the perceived image of the policy or the level of knowledge of the innovation. State higher education finance requires collective efforts from the higher education governing agency, the executive, and the legislature. Finally, higher education institutions also partially determine the budgetary decisions by providing their inputs.

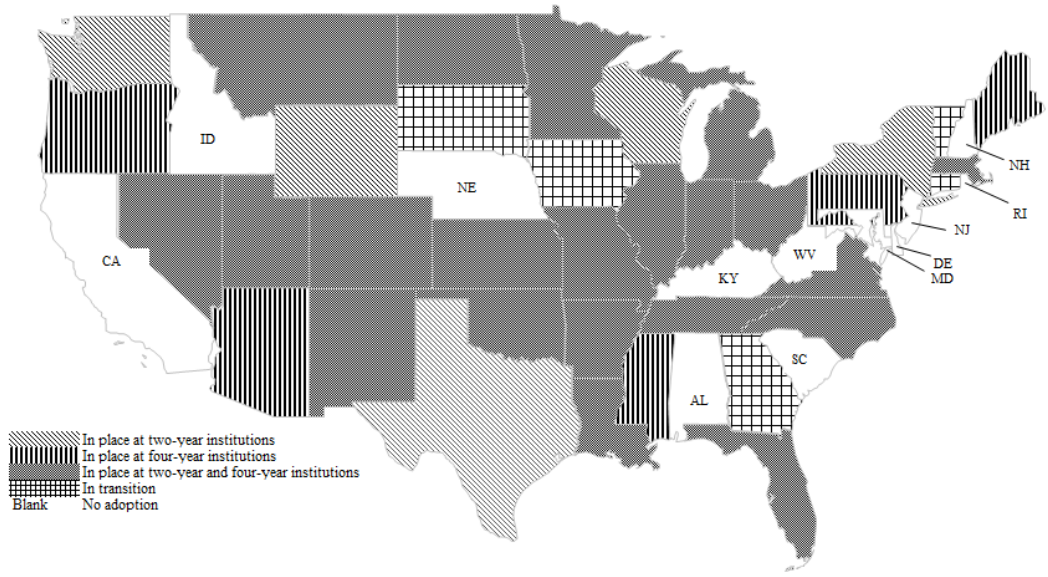
Chapter I. Introduction

1. Research Question and Motivation

This dissertation addresses the question: why does policy diffusion succeed in some states but fail in others. I became interested in this topic after learning about states' experimentations with performance-based funding in higher education. Performance-based funding is a strategy that connects state funding directly to institutional performance on public campuses through indicators such as student retention, graduation rates, and cost efficiency (Burke, Rosen, Minassians, and Lessard 2000). Traditionally, states finance public higher education institutions according to the number of student enrolled and the faculty, staff, and other resources needed for delivering an education. This financing model does little to address the outputs and outcomes higher education produces. Performance funding uses financial incentives to motivate institutions to improve student outcomes and college completion. Generally speaking, under performance-based funding, a university will be eligible to receive a designated amount of state funding only if it meets required institutional performance criteria. Performance-based funding policy was first introduced by the Tennessee Higher Education Commission in 1978 and adopted in 1979. Since this first enactment, many states have experimented with measures that attempt to finance higher education based on university performance. As of January 2017, 32 states have a performance

funding formula in place and five states are transitioning to performance funding (Figure 1). The remaining 13 states[61] do not have the policy.

Figure 1.1: Map of Performance-Based Funding Adoption and Non-Adoption (source: NCSL 2017) (Note: Alaska and Hawaii are excluded due to their non-contiguity to the mainland states)



States have constitutional authority over higher education. State lawmakers, along with campus governing bodies, have jurisdiction over foundational higher education policies. Higher education policy making is largely decentralized and states have autonomy to regulate higher education based on internal needs; therefore, states bear primary responsibility for the governance and finance of public higher education (McLendon 2003; Gittell and Kleiman 2000). Studies have noted that state political institutions and processes have notable influence on higher education (McLendon 2003;

[61] The 13 states are: Alabama, Alaska, California, Delaware, Idaho, Kentucky, Maryland, Nebraska, New Hampshire, New Jersey, Rhode Island, South Carolina, and West Virginia (NCSL 2017).

McLendon, Hearn, and Deaton 2006). McLendon and associates (McLendon, Hearn, and Deaton 2006) investigated factors influencing the adoption of performance accountability policies for public higher education from 1979-2002; they observe that legislative party strength and higher education governance arrangements are the driving forces of states' adoption of performance accountability programs in public higher education. States' reaction to performance funding poses a host of unanswered questions: why do some states refuse to enact performance funding? What are the causes of the non-adoption decisions? Are there any political reasons that lead to non-adoption? To explore these questions, I refer to policy innovation and diffusion theory as my theoretical guidance in this dissertation.

2. Conceptual Framework: Innovation and Diffusion Theory

In 1969, Jack Walker investigated how policy innovations spread across space and time. He argued that geographic proximity enables policymakers to obtain information from nearby states; thusly the efforts of policymakers in pioneering states could be emulated by their neighboring states (Walker 1969). *Policy innovation* occurs whenever a government—a national legislature, a state agency, a city—adopts a new policy (Mintrom 1997; Walker 1969). When a policy innovation comes from outside the polity, with the spread of innovations from one government to another, the process is defined as *policy diffusion*. The diffusion literature seeks to explain the reasons why states adopt a certain policy innovation and how policy ideas spread across states. Two general models have been developed to explain policy diffusion: internal determinants models and regional diffusion models (Berry and Berry 1990). Internal determinants

models focus on the pre-existing features a state has that favor policy adoption such as political environment (Walker 1969; Berry and Berry 1990; Haider-Markel 2001; Shipan and Volden 2008), legislative professionalism (King 2000; Tandberg 2010), citizen ideology (Lamothe 2005; Matisoff 2008), and fiscal health (Walker 1969; Karch 2007a; Shipan and Volden 2008). Regional diffusion models suggest that the number of adopting neighbors is positively associated with a state's likelihood of adopting the innovation.

Policy diffusion processes can be further portrayed by four underlying mechanisms: imitation, emulation, competition, and coercion. First of all, states that have similar policy-relevant characteristics such as political environment, demographic features, or economic development are likely to mimic each other in policy making. This mechanism reflects one of the essential assumptions of innovation and diffusion framework: state policy decisions can be swayed by horizontal influences (Lowry 1992). Horizontally, states learn from each other on policy issues and borrow policy ideas from other jurisdictions (Berry and Berry 1990). Traditionally, imitation occurs when states observe a neighboring state and copy a successful program, which explains why a state has higher likelihood of adopting a policy if its neighboring states have already enacted the same program (Berry and Berry 1990; Carley, Nicholson-Crotty, and Miller 2016). In addition to imitation, legislators also want to meet their political objectives by pursuing successful examples of policy. Further, keeping up with the colleagues in other states and competing for economic benefits also incentivize policy diffusion (Karch 2007b). Lastly, coercion is another reason that drives policy diffusion.

This vertical assumption posits that the national government has power over state legislation through monetary incentives (Welch and Thompson 1980; Balla 2001) or sending strong and clear signal about rewards or punishment on certain policy issues (Allen, Pettus, and Haider-Markel 2004).

3. Significance and Contribution

As much as the literature explains policy diffusion, it fails to address four important issues. First, research on policy diffusion overlooks the causes of policy non-diffusion. Most diffusion studies assume that policies diffuse automatically. Rogers (1983) terms this research preference "pro-adoption bias," which assumes that a certain policy should be picked up for adoption considerations. One of the key reasons for this bias is the lower visibility and accessibility of diffusion failure (Rogers 1983). Among the few studies that recognize policy non-diffusion, Ingle and associates conclude that less policy-adoption friendly environments and lack of interactions with policy entrepreneurs are two main reasons of policy adoption failure (Ingle, Cohen-Vogel, and Hughes 2007). Recently published diffusion studies continue the inquiry of causes of diffusion in domestic and international contexts (e.g., Bradford and Bradford 2016; Clayton 2016; Rury 2016; Sewordor and Sjoquist 2016), neglecting diffusion failure. It has remained unclear why policy non-diffusion occurs. While some studies acknowledge the lack of research on policy non-diffusion (Barth and Parry 2009; Heiden and Strebel 2012), to the best of my knowledge, policy non-diffusion is rather insufficiently studied in a systematic and conceptual manner.

Second, methodologically speaking, in diffusion studies, quantitative methods are the dominating approach (Starke 2013). Most studies apply Event History Analysis (EHA) introduced by Berry and Berry back in 1990. EHA has become a standard approach in studying policy diffusion in studies published in the past 28 years[62]. Although scholars have refined EHA[63] and identified additional critical independent variables that drive policy diffusion, the method largely remains the same. The dependent variable in diffusion studies is usually the state adoption decision. Because there are two types of decisions—adoption and non-adoption, the dependent variable is usually binary, which leads to logit regression being the main statistical technique in the field. Some scholars have incorporated qualitative research in data collection. For example, in 1997 Michael Mintrom conducted surveys to identify policy entrepreneurs and their level of activeness in state school choice policy approval. Little qualitative research has been done to investigate policy diffusion in the more general sense.

Third, while geographic proximity may have played a critical role in the past, the advent of new communications and transportation technology might have rendered mediums such as regional policy networks and media forums less influential. Further, the claim of geographic proximity driving policy diffusion overlooks the fact that governments are not equally-weighted units. Teodoro and Gonzalez (2015) use the metaphor "being like the cool kids" to demonstrate that governments tend to learn from

[62] I have collected and read all the publications I can obtain on policy innovation and diffusion. To the best of my knowledge, EHA is applied in most of these studies.
[63] Volden (2006) and Gilardi (2010) introduced directed-dyad event history analysis, in which the unit of analysis is the dyad-year—meaning a pair of jurisdictions—and the dependent variable measures whether one jurisdiction in the pair emulates the policy of the other.

more advanced counterparts rather than less competitive ones. For example, Nevada is more likely to learn from California (or other states with similar status as itself) than from Idaho because the former is in a better economic shape than the latter. The traditional regional influence assumption also fails to capture the diffusion pattern for performance funding. For example, Alabama has never adopted performance funding policy despite that all its neighbors (Tennessee, Georgia, Florida, Mississippi) having enacted the program.

Fourth, it is unclear how nonprofit organizations, especially philanthropic foundations, are involved in policymaking and policy diffusion (Vaughan and Arsneault 2015). In the past two decades, private foundations have expanded substantially both in size and financial capacity. In 1999, philanthropic foundations have assets of approximately $450 billion (Roelofs 2003). According to Foundation Center (2017) data, the over 86,720 private foundations now possess total assets of over $865 billion. While the growth in numbers has been widely noted, there been less public and political discussion of what this trend means in terms of these foundations' impact on politics and society as a whole (Anheier and Leat 2013). It has become increasingly difficult to understand nonprofits or public policy independently of one another because nonprofits make policy and influence policy (Vaughan and Arsneault 2014; Vaughan and Arsneault 2015). The inquiry of how foundations influence policymaking is important because empirical evidence suggests that wealthy private foundations have a major influence on higher education legislation (Parry, Field, and Supiano 2013; Mangan 2015). Further, scholars observe that private foundations at both the national (e.g., the

Lumina Foundation, the Bill and Melinda Gates Foundation) and the state level (e.g., the Texas Public Policy Foundation) have been aggressively promoting performance funding by encouraging governors and state legislators to commit to this type of measure (Dougherty and Natow 2015; Fryar 2011).

4. Research Design

To address these above understudied elements, this dissertation proposes a qualitative solution to answer policy diffusion questions and reports causes of policy diffusion failure by closely scrutinizing performance funding hold-out states through case studies. To approach my research question "why does policy diffusion occur in some states but not in others," mixed methods with both quantitative and qualitative analyses are employed. The design of this research is multi-method in nature. Multi-method research involves combining data-gathering and -analyzing techniques from two or more methodological traditions (Seawright 2016). Multi-method applications are appropriate here because they produce more grounded inferences and richer information than studies using a single method.

The quantitative section applies the standard method for studying policy diffusion, Event History Analysis, to investigate how the previously identified determinants perform in the case of performance funding diffusion. Based on the quantitative analysis, I then match adopters and non-adopters that share similar features and conduct an in-depth qualitative analysis of these identified states to reveal the factors beyond visible features that lead to non-adoption.

The qualitative case study section takes a close examination of Alabama and Mississippi—a close pair of states that share resemblance on the scales of statistically significant variables. I test my hypotheses by drawing and analyzing information from in-depth interviews, official websites, and news documents. The qualitative portion dives deep into the decision-making process of states to either adopt or reject performance funding.

5. Chapters

This dissertation proceeds in the following order:

Chapter I presents the introduction, key research question, purpose, significance, and summary of research design of this dissertation.

Chapter II describes the history of performance management reform and explains how it spurs the popularity of performance funding in higher education. The discussion begins with the definition of performance accountability and how performance management fulfills the objective of performance accountability. Then the chapter reviews performance funding in higher education, the mechanisms of such a strategy, the adoption of performance funding among states, and empirical evidence on the effectiveness of performance funding programs.

Chapter III reviews the literature on policy innovation and diffusion theory. The theory explains the causes of state policy adoption and the key components in policy diffusion. Being the fundamental factor in policy diffusion, information is usually fluid and unstable, which has direct influence on policy-oriented learning. In public

policymaking, legislators are confronted with time constraints and electoral considerations, therefore it is critical for policy agents to frame issues in order to attract legislative attention. In Chapter III, I focus particularly on policy information supply and demand, and how such two-way communication facilitates policy diffusion. I also discuss how the lack of communication can potentially hinder policy diffusion. At the end of the chapter, I propose four expectations about the contributing factors to policy non-adoption.

Chapter IV details the descriptive information regarding the enactment of performance funding policy from 1979 through and including 2014[64]. In this chapter, I conduct a quantitative analysis of diffusion variables in leading to states' adoption of performance funding. The Event History Analysis models are reviewed to analyze how the previously identified determinants perform in the case of performance funding diffusion.

Chapter V presents case study comparing two states: Alabama and Mississippi. Guided by my hypotheses, the chapter investigates comprehensive data collected from a variety of sources. Both information supply and information consumption are discussed in detail regarding policy making.

Chapter VI summarizes the dissertation, highlights the key findings, and proposes future research efforts.

[64] The final year of observation is 2014 due to the data availability for some of the variables. This is discussed in further detail in Chapter IV.

Chapter II. Performance Management in Higher Education

Introduction

The share of jobs requiring a college degree has doubled since the 1970s, spurring significant increase in the number of student enrollment at two- and four-year postsecondary institutions (Aldeman and Carey 2009). Consequently, states face the stress of building stronger higher education systems to meet such demand. Graduation rates, however, have persistently remained low. The stubbornly low higher education graduation rates fail to keep up with the societal need for a more educated citizenry. The average public college graduates less than 60 percent of its students within six years, and graduation rates for minority groups are even lower (Carey 2008). In 2008 only 26 percent of first-time beginning community college students attained a degree or certificate within five years (U.S. Department of Education 2011). This underperformance has led skeptics to question the accountability of higher education and prompted a series of attempts to improve institutional performance. In the meantime, state legislators have become preoccupied with squeezing more revenues out of an already tightened budget. Tightened budgets forces state officials to think more strategically about resource allocation and encourage performance-focused management.

This chapter reviews the history of performance management reform and explains how it spurs the popularity of performance funding in higher education. The discussion begins with the definition of performance accountability and how performance management fulfills the objective of performance accountability. Then it

reviews performance funding in higher education, the mechanisms of such a strategy, the adoption of performance funding among states, and empirical evidence on the effectiveness of performance funding programs.

1. Performance Accountability and Performance Management

Accountability constitutes a fundamental concept in democratic theory because its purpose is to achieve public policy that remains responsive to public preferences. This responsiveness is achieved by ensuring that public officials act in accordance with the preferences and expectations of citizens (Dunn 2003). *Performance accountability* is the byproduct of the nationwide movement that took place in the 1980s to increase accountability in the operation of public sector agencies (Willoughby and Melkers 2001). During the 1980s, declining tax revenues, coupled with state budget deficits and mandatory spending in many public sectors (i.e., healthcare, education, and welfare) led government officials to seek new strategies to make government more efficient and responsive. Under the performance movement, government agencies refer to the private sector for governance and management ideas. One such strategy—performance management—held that government agencies could increase their effectiveness by setting performance goals for service delivery (Klein 2005).

Performance management is defined as a system that (1) generates performance information through strategic planning and performance measurement routines, and (2) connects this information to decision venues, where the information influences a range of possible decisions (Moynihan 2008). Performance management doctrines claim a variety of benefits, including improved resources allocation, improved responsiveness

of bureaucrats to elected officials, enhanced accountability to the public, and improved efficiency. Performance management intends to change the nature of accountability as performance information provides a transparent explanation of how well the government is doing (Moynihan 2008). This effort to blend private-sector planning and management concepts into public sector governance entailed shifting local program oversight from traditional process-oriented, input-based compliance monitoring to more results-oriented, outcome-focused strategies (Blalock and Barnow 2001; Klein 2005).

Beginning in the late 1980s, state legislators started to exercise management controls by introducing *performance reporting* systems to track the operation of government agencies. Public managers are asked to justify their actions not just in terms of efficiency but also by the outcomes they produce (Moynihan 2008). Performance reporting requires public agencies to report on a set of priority indicators identified by state. The purpose of such a strategy is to closely monitor publicly financed agencies. However, this initial approach does not specify fiscal consequences attached to performance (Burke and Minassians 2003). Soon legislators came to the realization that the absence of fiscal incentives in performance management failed to motivate better outcomes.

Beginning in the 1990s, *performance-based funding* systems increasingly have been integrated into state and federal government programs as a means of holding public agencies accountable for improving the quality, efficiency, and effectiveness of program services (Ingraham and Moynihan 2001). Performance-based accountability has incorporated fiscal incentives into government program management, motivating

institutions to become more productive in attaining predetermined objectives in annual appropriations. Linking performance to funding has become one of the primary ways to manage accountability at both the federal and state levels. This idea is particularly attractive because it communicates to the public that government officials share their frustration with inefficient public agencies and bureaucracy.

The federal *Government Performance and Results Act* of 1993, which required federal agencies to clarify their missions and establish long-term strategic goals, was one manifestation of this evolving approach to accountability (Radin 2002). In the public domain, state-level accountability and performance management have become a widely-adopted measures to meet accountability demands in the 1990s. By the late 1990s, 31 states had legislative requirements creating performance information systems, and 16 states had similar administrative procedure fulfilling similar goals (Moynihan 2008). State legislators have directed government entities, including public higher education, to explicitly state their goals and report results as a form of accountability.

2. Performance Accountability in Higher Education

Soon public colleges and universities that receive government dollars came under such scrutiny as well, as performance reporting measures were extended across state agencies (Noland, Davis, and McClendon 2000). In response to the demand for a more educated citizenry, states find the need to create a more effective higher education funding system. Campaigns to improve student success have vocally expressed concerns about higher education performance. Consequently, much attention and energy have been directed to "*new accountability*" as an approach to hold higher

education accountable and evaluate university performance. Different from the traditional accountability that looks at the input end, new accountability focuses on the outputs higher education institutions produce (National Commission on Accountability in Higher Education 2005).

By 1994, roughly one-third of states had instituted some form of performance reporting system in higher education, although these systems had no fiscal consequences linked to outcomes or allocations (Ewell 1994). Higher education performance reporting generates performance reports for policymakers and the public indicators on institutional and statewide performance. Performance reporting relies "on information and publicity rather than funding or budgeting to encourage colleges and universities to improve their performance" (Burke and Minassians 2003, p. 5). The periodic performance reports that recount the performance of public higher education institutes are usually sent to governors, legislators, and campus leaders, and sometimes the media. Performance reporting without fiscal consequences failed to motivate public higher education institutions to improve academic outcomes.

Traditionally, state funds to public universities and colleges are mostly determined by the input end (i.e., enrollment, incremental funding increases). State funding to universities was not linked to explicitly specified results (Crellin, Aaron, Mabe, and Wilk 2011). Under accountability regimes, higher education institutions are called upon to make a compelling case to the general public and to political leaders that the overall value of a college education is real, and universities and colleges are deserving of state financial support (Albright 1998). Officials from system,

coordinating, and governing boards have decided that they must work with legislators and governors to substantially change the budgetary status quo. Many states started building performance-funding formulas as a means to improve the performance and efficiency of their higher education institutions.

Performance-based funding was initiated by the Tennessee Higher Education Commission in 1978 and officially adopted by the same state in 1979. Under performance-based funding, a university will be eligible to receive a designated amount of state funding only if it meets required institutional performance criteria. Performance funding relies on financial incentives to influence institutional behavior. Performance funding was enacted by an increasing number of states through the 1990s, following the trend of performance management reform at the national level.

In the 1990s, state performance reporting indicators were refined; states were able to use higher education data to link performance to fiscal eligibility (Klein 2005). Legislators' newfound capacity to link institutional financing to performance—using a common set of indicators across state campuses—contributed to the restructuring of state higher education funding formulas. In these new funding formulas, outcome-based criteria were more closely aligned with state educational priorities, which, in turn, helped drive institutional funding levels. These new higher education funding systems took two forms (Burke and Minassians 2003; Klein 2005):

- *Performance budgeting* that enables state governments or postsecondary coordinating boards to consider institutional performance as one factor when calculating resource eligibility. However, funding levels are not directly linked

to performance, meaning that institutional allocations can be unpredictable and discretionary.

- *Performance funding* that ties state funding directly and tightly to the performance of public campuses on individual indicators. Performance funding directly links state allocations to institutional results. For each outcome achieved, an institution receives a specific amount of money predetermined by the state.

As mentioned earlier, traditionally, higher education institutions are funded through a fee-for-service approach, a financing system that essentially focuses on input factors such as enrollment rate or student/faculty ratios. In allocating money to higher education, most funding systems do not consider state educational goals or program effectiveness. This emphasis on the input end fails to provide incentives for institutional performance and student outcomes. Performance funding, coming in as a new funding strategy, has required higher education institutions to pay more attention to academic performance outcomes. Performance funding programs aim to improve institutional performance, particularly with respect to student outcomes on important indicators including graduation rates, student retention, cost-efficiency, job placement after graduation, and passage of mandatory courses.

Performance requirements have mainly emanated from state governments. "Performance-based accountability is implemented by establishing institutional objectives and periodically assessing progression toward these goals (Alexander 2000, p. 419)". The goals of these measures include motivating internal improvement,

encouraging institutions to address state goals, and deregulating higher education by strengthening consumer information about institutional performance (Wellman 2001). The accountability measures intend to encourage higher education personnel to change their priorities to devote more effort into student learning and institutional performance. In 1997, the State Higher Education Executive Officers (SHEEO) conducted a survey to learn more about the use of performance measures in the budgetary process. The survey results indicate that more than half of the states are planning on using performance measures in their budget process. The SHEEO study shows that officials have become more aware of the importance of performance measures.

3. Performance Funding Policy Adoption among States

As indicated, this dissertation explores the research question: why does policy diffusion succeed in some states but fail in others. Before proceeding any further, it is important to identify which states have adopted performance funding and the exact year each adoption occurred. However, from an investigative perspective, it is very difficult to determine which states have established performance funding and the exact year of each state's initial enactment of the program, as Dougherty and Natow (2015) noted. Surveys of state officials indicate that those officials frequently disagree about what performance funding is and whether their state even has it. To determine which states have adopted performance funding and the years of initial adoption, I have drawn from a wide variety of sources (Burke & Minassians 2000, 2002, 2003; Dougherty and Reddy 2013; Dougherty and Natow 2015; Dougherty, Natow, Hare, Jones, & Vega, 2013; Friedel et al. 2013; Gorbunov, 2013; Rabovsky 2013; McLendon et al., 2006;

National Conference of State Legislatures 2016, 2017; personal interviews with state higher education officials). Various surveys yield conflicting results on which year exactly a state established performance funding and which states actually have adopted performance funding.

For example, Burke and Minassians (2002, 2003) conclude that state of Louisiana adopted performance funding in 1997. Friedel and associates (2013), however, consider that Louisiana adopted the program in 2010. In Dougherty and Reddy's (2013) report, Louisiana enacted the program in 2008. Another state that has been discussed inconsistently is Idaho. Scholars cannot reach agreement on whether Idaho actually adopted performance funding. According to McLendon et al. (2006), Idaho started funding public universities based on performance in 2000; but Friedel et al. (2013) do not recognize Idaho as an adopter. Dougherty and Reddy (2013) think that there is still some question about whether Idaho has indeed adopted performance funding.

Due to these inconsistencies and disagreements, it is important to define performance-based funding policy and government policy adoption before proceeding any further. Thomas Dye defines public policy as "anything the government chooses to do or not to do" (Dye 2002, p.1). Concerning government decision- and public policy-making, James E. Anderson (2014) considers the most prominent feature of policy decision to be legitimacy. Policy decisions are accepted as legitimate, as being made in proper way and hence binding on all, and this legitimacy is activated through officials who have legal authority to act and meet accepted procedural and substantive standards

in taking action. Quite similarly, Sabatier and Weible (2014) define public policy as decisions of a government or an equivalent authority; examples of public policies include, but are not limited to, statutes, laws, regulations, executive decisions, and government programs (p. 4). In higher education, a few states have enacted performance funding through state statute because higher education appropriation has to go through the legislative process in these states. In other states, higher education appropriation decisions are made by a governing board without the intervention of the state legislature; these states can implement performance funding without legislative approval. In this dissertation, I consider states as performance funding adopters as long as the adoption decision is made either by the state legislature or the higher education governing body.

3.1. Higher Education Governance at the State Level

Higher education governance and management can be categorized into three types of structures: consolidated governing boards, coordinating boards, and planning agencies (Colorado Department of Higher Education 2017; McGuinness, Epper, and Arredondo 1994). Currently, 24 states have *consolidated governing boards*—a single statewide governing board that legally manages and controls the responsibilities for all public institutions of higher education (Colorado Department of Higher Education 2017). Consolidated governing boards have all the rights and responsibilities of a single corporate entity as defined by state law, including strategic planning, budgeting, and allocation of resources between and among institutions within the board's jurisdiction (Connecticut General Assembly 2010). Twenty-three states have *coordinating*

boards—a single agency other than a governing board that has the responsibility for the statewide coordination of many policy functions (e.g. planning and policy leadership, program review and approval, and budget development and resource allocation) (Colorado Department of Higher Education 2017). Coordinating boards do not govern institutions, they do not usually have any role in the appointment of institutional chief executives or in developing faculty personnel policies (Connecticut General Assembly 2010). Two states have *planning agencies* and no organization with authority beyond making plans for higher education. Lastly, Michigan is the only state that does not have a state-level coordinating or governing agency for postsecondary education (Education Commission of the States 2007). This information is summarized in Table 2.1 below.

Table 2.1: Authority of State Boards and Agencies of Higher Education (Sources: Colorado Department of Higher Education 2017; Connecticut General Assembly 2010; Education Commission of the States 2007; McGuinness, Epper, and Arredondo 1994; The National Center for Higher Education Management Systems 2017)				
Type of Board	Consolidated Governing Boards	Coordinating Boards	Planning Agencies	No State Higher Education Board or Agency
States	Alaska Arizona Florida Georgia Hawaii Idaho Iowa Kansas Maine Massachusetts Minnesota Mississippi Montana Nevada New Hampshire North Carolina North Dakota Oregon Rhode Island South Dakota Utah Vermont Wisconsin Wyoming	Alabama Arkansas California Colorado Connecticut Illinois Indiana Kentucky Louisiana Maryland Missouri Nebraska New Jersey New Mexico New York Ohio Oklahoma South Carolina Tennessee Texas Virginia Washington West Virginia	Alaska[65] Delaware Minnesota[66] New Hampshire[67] Pennsylvania	Michigan
Total States	24	23	5	1

[65] Alaska has a Board of Regents, which is constitutionally founded, and consists of 11 members appointed by the governor and approved by the Legislature; and the Commission on Postsecondary Education, the coordinating agency for all postsecondary institutions and programs (Education Commission of the States 2007).

[66] Minnesota has two statewide, multi-campus governing boards: (1) the legislature-appointed, 12-member Board of Regents of the University of Minnesota with constitutional authority for the four public senior universities; and (2) the governor-appointed, 15-member Board of Trustees of the Minnesota State Colleges and Universities (Education Commission of the States 2007).

[67] New Hampshire has two institutional governing boards with complete authority for governing and planning, budget review and recommendation, and program approval: The Board of Trustees of the University of New Hampshire System and The Community Technical College System (Education Commission of the States 2007).

Beyond these distinctions, five states—Florida, Idaho, Michigan, New York and Pennsylvania—have state education boards with some responsibilities for all levels of education, early childhood through postsecondary. Due to the wide range of board responsibilities in these five states, the boards' higher education legislation authority varies substantially. For instance, the Idaho State Board has governing authority for the state higher education institutions, and New York's board lacks any budget authority. Among the 23 states that have coordinating boards, some boards exercise significant budget authority, while some have limited or no budget authority. Also, coordinating boards may oversee subsystems of institutions with homogeneous missions, as in California, or multi-campus subsystems with heterogeneous missions, as in New York. Some governing or coordinating boards coordinate primarily small subsystems or single campuses, as in Illinois or New Jersey, or mixed single-campus and multi-campus institutions, as in Texas (Richardson, Bracco, Callan, and Finney 1998).

In addition to the distinctions among state higher education governance, state policy environments and the interface between higher education and state government also weigh in as vital factors in higher education policy-making. The distribution of authority between states and higher education reflects the interests articulated by groups inside and outside of government (Clark 1979). Regardless of their policy-making discretion, some governing and coordinating boards make policies under direct influence from the state legislature and/or the governor. These boards align higher education goals with the fundamental political priorities of the state.

For example, in September 1992, the president of the Arkansas Higher Education Council and the director of Arkansas Higher Education Department jointly appointed the Institutional Productivity Committee to develop performance funding metrics as an attempt to improve Arkansas college graduation rates. After Governor Jim Guy Tucker took office, he strongly supported the idea. With the governor's endorsement, the Institutional Productivity Committee fully committed to the project. Arkansas officially adopted performance funding under the support of the governor and the state legislature in 1994. When Governor Tucker was replaced by Lieutenant Governor Michael Huckabee, the fate of performance funding took a different turn. The new governor observed that performance funding was politically unpopular on campuses. Once the external support of the governor and legislature for performance funding vanished, the internal support from the coordinating board disappeared, too.

For another example, the Arizona Board of Regents—a consolidated governing board—expressed interest in performance funding in April 2010. After a few months' study of this funding strategy, the Arizona Board of Regents proposed linking distribution of state funding to university performance on measures related to the growth and the diversification of the Arizona economy. The purpose of the proposal was to increase productivity and efficiency among the state's universities, demonstrate a commitment to enhanced performance, and establish fairness to students throughout the system (Office of the Washington State Auditor 2016). After this initial proposal, in the same year *Arizona Revised Statute* 15 Education §15-1626, through SB 1618, required the Arizona Board of Regents and universities under its jurisdiction to collaboratively

develop and adopt a performance funding model by July 1, 2012. This session law was continued in the FY 2014 *Higher Education Budget Reconciliation Bill*, as well as the *General Appropriation Act* (Laws 2013, 1st Special Session, Chapter 1). In the case of Arizona, although the board has a great deal of legislative authority, the state legislature played a critical role in the adoption of performance funding.

3.2. Criteria of Performance-Based Funding Policy Adoption

To decide whether a state has adopted performance funding, I use the three criteria developed by Dougherty and Natow (2015). **First**, adoption of performance funding can occur not just in the form of state statute but also in the form of other governmental authoritative decisions. As elaborated above, higher education governance and management varies in each state. Under the structure of consolidated governing boards, all public postsecondary institutions are organized under the statewide governing board. Consolidated governing boards have all the rights and responsibilities of a single corporate entity as defined by state law. Typically, a consolidated governing board has the responsibility of making budgetary plans and allocating resources between and among institutions within the board's jurisdiction. In this sense, a state is considered as an adopter if the performance funding decision is made by either the state legislature or its higher education governing entity.

The **second** criterion of deciding whether a state has adopted performance funding is that the program must specifically focus on institutional outcomes. For example, the state of Connecticut has had a funding formula that rewarded colleges for becoming representative of the state population in their enrollment but did not reward

student outcomes. Programs like this could possibly be mistakenly counted as performance funding since colleges were rewarded financially for how well they perform, but the focus was not institutional performance as defined in this dissertation.

Third, the initial adoption is determined by when the program was first authorized and not when the funding began to flow to the state higher education institutions. This is important to point out because *diffusion* is defined as "the process by which an innovation is communicated through certain channels over time", it is a kind of social change—"the process by which alteration occurs in the structure and function of a system" (Rogers 1995, p. 5). This criterion acknowledges states' acceptance of a policy idea and the success of policy diffusion.

Due to the variation in state higher education governance and management, performance funding was enacted through different paths. For instance, in 2000 the Idaho State Board of Education passed the initiative to allocate five percent of state funding to higher education based on campus results on a comprehensive list of 12 indicators. The Idaho State Board of Education serves as a single constitutional board for all public education, including elementary, secondary and postsecondary levels. According to the state Constitution and the statutes appearing in Title *33 et seq.* of the Idaho Code, the State Board of Education is the designated policy-making body for the institutions and agencies under its governance (Idaho State Board of Education 2008). Therefore, I consider the state as an adopter and year 2000 as the official year of adoption.

Among the coordinating boards, some have significant budgetary authority, and others have limited budget authority. For example, the South Carolina Commission on Higher Education (SCCHE) serves as the coordinating board for the state's 33 public institutions of higher learning. According to the South Carolina State Legislature, "the budget request for the public higher education system shall be submitted by the commission to the Governor and appropriate standing committees of the General Assembly in conjunction with the preparation of the annual general appropriations act for the applicable year." If SCCHE is to make changes to the state higher education funding formula, "the new funding formula also must be contained in regulations promulgated by the commission and submitted to the General Assembly for its review in accordance with the *Administrative Procedures Act*" (South Carolina State Legislature 2017). In 1996 the State Legislature of South Carolina passed Bill 1195, Act 359, mandating that all funding for public higher education institutions be based solely on performance. To evaluate public higher education performance, the South Carolina General Assembly prescribed 37 indicators including time to degree and graduates' first-time passing rates on professional licensure examinations. In the case of South Carolina, it is clearly an adopter and it first enacted the policy in 1996.

Differently, in Oklahoma, the coordinating board has the decision-making authority on higher education funding allocation. In the state of Oklahoma, the state system is comprised of 25 colleges and universities—including two research universities, 10 regional universities, one public liberal arts university and 12 community colleges—and 11 constituent agencies and two university centers. The

State System is coordinated by the Oklahoma State Regents for Higher Education, and each institution is governed by a board of regents. In Oklahoma, the State Regents prescribe academic standards of higher education, determine functions and courses of study at state colleges and universities, grant degrees, and approve each public college's and university's allocations, as well as tuition and fees within the limits set by the Oklahoma Legislature (Oklahoma State Regents for Higher Education 2017). Performance funding for higher education first came in 1997 in the form of a program named "Brain Gain"—an initiative to improve higher education performance and graduation rates. The initiative explicitly states that state financial help to higher education should be determined by institutional outcomes such as graduation and retention rates. Therefore, I consider Oklahoma as an adopter and year 1997 as the official year of adoption.

As of January 2017, 32 states have a performance funding formula in place; historically 41 states have experimented with performance funding. Because I am interested in policy adoption and non-adoption, I include all the states that have enacted performance funding regardless of their current higher education funding strategies. In other words, as long as the state has had performance funding at some point, I include it in my dataset. Table 2.2 below reports the initial years of enactment of performance funding and a brief description of the decision-making institutions involved in the initial adoption. Table 2.3 below reports the initial years of state adoption of performance funding.

Table 2.2: States Experimentation with Performance-Based Funding (1979-2015) (Sources: Burke & Minassians 2000, 2002, 2003; Dougherty and Reddy 2013; Dougherty and Natow 2015; Dougherty, Natow, Hare, Jones, & Vega, 2013; Friedel et al. 2013; Gorbunov, 2013; Rabovsky 2013; McLendon et al., 2006; National Conference of State Legislatures 2016, 2017; official state government websites; official state higher education board websites)

Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
1	Tennessee	1979	Coordinating Board	No	In 1979, the Tennessee Higher Education Commission instituted performance funding policy that incentivized better performance from all supported institutions of higher education in the state. This included seven regional universities, ten community colleges, four technical institutes, and two comprehensive universities including the state's major research institution, the University of Tennessee, Knoxville. This attempt became the nation's first experiment in assessment of quality in higher education by means of student outcomes.
2	Connecticut	1985	Coordinating Board	Yes	Connecticut had a fairly small and short-lived performance funding program. In 1983, the Board of Governors for Higher Education in Connecticut, housed within the Department of Higher Education, was created as a coordinating board tasked with making policy, overseeing public college and university missions and budgets, developing performance measures for each of the state's higher education institutions, and evaluating institutional effectiveness. Originating in 1985, Connecticut followed Tennessee as the second state to institute an incentive program for increased graduation (The Connecticut Policy Institute 2015).
3	Missouri	1991	Coordinating Board	Yes	Missouri has a history of allocating additional state resources on the basis of performance through the Funding for Results program from the 1990s (Missouri Department of Higher Education 2012). The Missouri State Legislature and the state Coordinating Board for Higher Education assumed active roles in expanding assessment and reshaping higher education governance and finance during the late 1980s and early 1990s (Burke and Serban 1998). The Legislature initiated, through the 1991 *Economic Survival Act*, comprehensive reforms including a review of higher education goals and objectives and institutional missions, accountability measures, and new funding mechanisms. The state Coordinating Board for Higher Education established a statewide task force proposal new goals for Missouri's higher education focusing on institutional outcomes. This proposal became the framework for performance reporting, mandated in 1993, and for performance funding, which was adopted in 1991 and first funded in 1993-94 for four-year institutions and since 1994-95 for both two-and four-year campuses (Burke and Serban 1998).

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
4	Colorado	1994	Coordinating Board	Yes	The Colorado State Legislature has formulated, legislated, and implemented a performance funding model for higher education to improve institutional outcomes in the 1990s. Colorado adopted performance funding in 1994 under HB 94-1110. This legislation was in effect during the period 1994-95 to 1997-98, although the Legislature funded only the first three years. In 2014, the Legislature passed HB 1319, instructing the Colorado Commission on Higher Education to adopt a new funding formula that will begin in FY2016. Under the formula, 56 percent of funding will be allocated to the College Opportunity Fund stipend. The remaining funding will be allocated as follows: 60 percent for role and mission, and 40 percent for performance (NCSL 2017). The new model seeks to provide greater transparency and accountability, and it connects base funding allocations to student outcomes aligned with the state's goals. To effectively enforce transparency, roughly half of public higher education funds are distributed through the College Opportunity Funds stipends—an amount that follows each resident student to campus—and the other half is divided between role and mission funding and performance funding (Colorado Department of Higher Education 2015).
5	Florida	1994	Consolidated Governing Board	Yes	The *Government Performance and Accountability Act* of 1994 accented both improved performance and increased accountability (Laws of Florida, Chapter 94-249, 1994), however, policymakers could hardly reach an agreement with tailoring this generic mandate to fit the special characteristics of higher education. In 1994, two competing systems of performance funding were introduced. Governor Lawton Chiles favored performance-based program budgeting, which used a broad range of outcome measures to influence the total allocations for public colleges and universities. The State Senate preferred incentive funding, which tied specific sums to campus results on a few output indicators. The Legislation required the Division of Community Colleges to submit a performance-based budget in the fall of 1995 for implementation in FY 1997. At the senate's insistence, the appropriations act for FY 1997 substituted performance incentive funding for performance-based budgeting (Burke and Serban 1998).

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
6	Kentucky[1]	1994	Coordinating Board	Yes	Governor Bremerton Jones negotiated with presidents of the eight universities and 14 community colleges in Kentucky to obtain their support for his proposal to enact performance funding. Governor Jones started the program with his Higher Educational Review Commission in 1993. To reassure these institutions, Governor Jones promised no cuts in the first year (1993) and better budgets in the following years. The Jones Commission recommended common indicators, with the campus choice of indicator weights. It adopted five performance areas that stressed student persistence, student and employer satisfaction, research and service productivity, and management efficiency (Burke and Serban 1998). The funding formula developed was ratified by the 1994 General Assembly, the Council on Postsecondary Education Finance Committee was to review the existing funding method and develop an approach that promoted quality and efficiency in higher education via performance-based funding. The funding review occurred during the 1994-1996 legislative interim. During the interim, the council developed the Kentucky higher education funding model to be used for the 1996-98 biennium. Governor Paul Patton discontinued the policy in 1997.
7	Minnesota	1994	Consolidated Governing Board; Planning Agency	Yes	Similar to the origin of performance funding in Florida[2], in Minnesota performance funding evolved from a broader interest of the Legislature in holding all state agencies accountable and in improving higher education efficiency, productivity, and quality (Burke and Serban 1998). In 1994, the Legislature instructed public higher education governing boards to "specify performance categories and indicators to be used for policy and appropriations decisions, as well as allocations for rewarding campuses that achieve performance levels and assisting campuses that are unable to achieve these levels" (Minnesota Statutes 1994, Chapter 135). In the same year, it adopted a new funding policy that included a one percent adjustment for performance of each system's instructional services base contingent on meeting the performance standards established by the system's governing board as part of the biennial budget document (Burke and Serban 1998). However, the program was never implemented and was suspended in 1998.

[1] Kentucky later discontinued performance funding.
[2] Comparing Minnesota with Florida is because both states adopted the policy in 1994.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
8	Arkansas	1994	Coordinating Board	Yes	The Arkansas State Board of Higher Education and the Higher Education Department initiated the idea of performance funding. Performance funding reflected largely the concerns of then Governor Jim Guy Tucker and the legislature at the expense of college and university interests (Burke and Serban 1998). From 1991 to 1993, state appropriations for public higher education increased by 11 percent in Arkansas. Frustrated with this funding increase and legislature's dissatisfaction with public higher education led to a flood of higher education reform ideas in the state. In September 1992, the president of the Arkansas Higher Education Council and the director of Arkansas Higher Education Department jointly appointed the Institutional Productivity Committee. This committee developed the performance funding program that was adopted in 1994.
9	Ohio	1995	Coordinating Board	Yes	Ohio adopted performance funding mainly because of the pressure from Governor George Voinovich and the State Legislature. The state executive and legislative institutions wanted better accountability from public colleges and universities. Soon the Ohio Board of Regents issued a report in 1992 entitled *Managing for the Future: Challenges and Opportunities for Higher Education in Ohio*, calling for shifting state appropriations from a model primarily driven by enrollment levels to one attuned to institutional performance. In response to a legislative mandate (HB 117, 1995), the Board of Regents appointed the Higher Education Funding Commission to propose changes in state funding for public colleges and universities. In late 1995, the Regents adopted the final plan that contained five key components: performance, access, success, job, and research.
10	South Carolina[3]	1996	Coordinating Board	Yes	In 1996, the State Legislature of South Carolina passed Bill 1195, Act 359, mandating that all funding for public higher education institutions be based solely on performance. To evaluate public higher education performance, the South Carolina General Assembly prescribed 37 indicators including time to degree and graduates' first-time passing rates on professional licensure examinations.

[3] South Carolina later discontinued performance funding.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
11	Louisiana	1997	Coordinating Board	Yes	The Louisiana Legislature passed Governor Mike Foster's reforms of governance and funding of public higher education at the 1997 session (HB 1, Regular Session, Louisiana 1997). The governance reform enhanced the role of the coordinating body—the Board of Regents—to improve the performance and accountability of public higher education in the state (Burke and Serban 1998). The appropriations act mandated performance funding, which would begin in 1998-99. It also prescribed the indicators, which applied to all types of public colleges and universities (HB 1, Schedule 19, p. 132): Student charges/costs, student advancement, program viability, faculty activity, administration, and university mission.
12	Oklahoma	1997	Coordinating Board	No	Performance funding for higher education first came in 1997 in the form of a program named "Brain Gain"—an initiative to improve higher education performance and graduation rates. The initiative explicitly states that state financial help to higher education should be determined by institutional outcomes such as graduation and retention rates. According to the Oklahoma State Regents, the Brain Gain initiative resulted in steady, measurable improvements. Since 2002, the State Regents have made significant annual financial investments to insure the goals of Brain Gain are reached. Performance funding averaging $2.2 million per year has been distributed by the State Regents to reward institutions based on funding criteria developed in collaboration with institution presidents. In April 2012, the State Regents adopted a performance-based funding formula that expanded on the Brain Gain plan. The performance-based funding formula applies to additional funding for higher education appropriated by the state Legislature (The Oklahoma State Regents for Higher Education 2013).
13	South Dakota	1997	Consolidated Governing Board	Yes	In the late 1990s and early 2000s, Governor William Janklow invested much time in selecting regents and engaging in higher education policy discussions. The Legislature has been at least as involved in higher education discussions as the executive branch (Martinez 2006). Since 1995, the Board of Regents and its executive director have deliberately engaged state policymakers in discussions of improvement in academic performance. In 1997-98, South Dakota redirected resources equivalent to five percent of the universities' tuition and General Funds to five incentive funds. If a university achieves its target in a particular incentive area, it receives resources from that incentive fund. The adoption of performance funding in South Dakota is attributed to the collective effort from the governor, the legislature, and the board.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
14	Washington	1997	Coordinating Board	Yes	The Washington State Legislature enacted the 1997-99 budget (ESHB 2259, Sections 601–610) and it mandated performance indicators for public higher education sectors. The Higher Education Coordinating Board bears the responsibility for measuring and ensuring achievement of performance by four-year institutions, and the State Board for Community and Technical Colleges performs this task for public two-year institutions (Burke and Serban 1998). For four-year institutions, the performance indicators include: graduation efficiency, retention, five-year graduation rates, and faculty productivity. For two-year institutions, the performance measures include: hourly wages for vocational graduates, transfer rate to Washington higher education institutions, core course completion rates, and graduation efficiency.
15	California [4]	1998	Coordinating Board	Yes	California experimented with performance funding back in 1998, when the Legislature established the Partnership for Excellence for California Community Colleges (SB 1564, 1998). The key idea of this program is to reward colleges that met performance goals with additional resources. The program was supposed to establish performance goals, develop measures, and determine baseline performance levels. In practice, community college finance officers reported that the program was treated as a supplement to their base budgets. Consequently, the accountability dimension was "elusive" because virtually all funding was allocated on a per-student basis, regardless of performance. In addition, the dollars involved were substantial: the Partnership for Excellence program initially had $100 million in its first year, by 2002-03 program funds had grown to $300 million, the 2003-04 state budget cut the program by 25 percent, and by 2007 it was simply being rolled into base funding for the colleges (Murphy, Cook, Johnson, and Weston 2014).

[4] California later discontinued performance funding.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
16	Kansas	1999	Consolidated Governing Board	Yes	In 1999, the Kansas State Legislature adopted K.S.A. 74-3202d which established improvement plans for public higher education institutions and tied the awarding of new state funds to these improvement plans. Kansas Statute 74-3202d mandated performance-based funding for technical colleges, community colleges, state universities and Washburn University. Each institution's receipt of new state funds is contingent upon meeting goals outlined in its Performance Agreement. Institutions submit a Performance Agreement for Board approval once every three years and performance is evaluated annually (The Kansas Board of Regents 2017).
17	New Jersey[5]	1999	Coordinating Board	Yes	Governor Christine Todd Whitman initiated performance funding measures that tie a portion of spending for public colleges and universities to institutional performance. In 1999, SB 1261 provides for the development of standards by which to assess the performance of New Jersey's public undergraduate institutions of higher education and offers incentives for the achievement of those standards. During FY 1999, all New Jersey public institutions received a performance-based increase equal to one percent of operating aid. Beginning in FY 2000, each institution's aid amount was calculated based on the achievement of performance standards. Governor Whitman specified four key areas of institutional performance that reflect state priorities identified in the long-term plan for higher education: graduation, transfer and articulation, institutional efficiency, and diversification of institutional revenues.
18	New York	1999	Coordinating Board	No	Performance funding was initially adopted by the State University of New York System (SUNY) in 1999 to enhance the quality of academic programs through effective planning. In 2013, Governor Andrew Cuomo outlined the Next Generation NY Job Linkage Program, specifying that the state will pay for performance by funding colleges based on student job placement. In 2015, Governor Cuomo signed Assembly Bill A3003, listing the measures for higher education success: the number of students who are employed following degree or certificate completion and their wage gains. For FY 16, the State University of New York System community colleges will receive $3 million and City University of New York community colleges will receive $2 million through the program (NCSL 2017).

[5] New Jersey later discontinued performance funding.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
19	North Carolina	1999	Consolidated Governing Board	Yes	In June 1999, the North Carolina General Assembly passed HB 168, a general appropriations bill that included statutory provisions mandating an institutional-accountability program for community colleges (HB 168, 1999 N.C. Sess. Laws 237). The new law, North Carolina General Statute §115D-31.3, codified a set of specific state-wide measures to systematically assess the institutional performance of the state's 58 community colleges and provided incentives for improved performance (North Carolina General Statutes §115D-31.3, 1999 amend) (Harbour and Nagy 2006). Based on three years of historical data, baselines were set two standard deviations below the system mean, and the goals were set one standard deviation above the system mean. Baselines and goals were set for the following measures: first year progression, licensure and certification passing rate, developmental student success rate in college-level English and Math courses, curriculum completion, college transfer performance, basic skills student progress, and GED diploma passing rate (NCSL 2017).
20	Oregon	1999	Consolidated Governing Board	No	In 1999, Oregon's Higher Education Coordinating Commission adopted the Student Success and Completion Model for the four-year sector. The plan allocates base funds on the basis of completed credit hours and a premium for underrepresented minorities and students from rural counties. The measures have changed slightly since the initial adoption, in FY 2015, half of the allocations were determined by the number of degrees each institution awarded, the remaining half was determined by the number of degrees each institution awarded to underrepresented and/or rural Oregonians (these measures are for both graduate and undergraduate).
21	Texas	1999	Coordinating Board	Yes	In 1999, the Texas State Legislature passed HB1 during the 76th Regular Session, mandating the Higher Education Coordinating Board to administer and coordinate the General Academic Developmental Education Accountability Pilot Program. The program demonstrates legislative concerns for the cost of developmental education, and the effectiveness of existing developmental education programs. In addition, the 1999 HB1 instructs the Coordinating Board, in conjunction with the community and technical colleges participating in the pilot program, to produce an interim report evaluating the effectiveness of the Pilot Program and making recommendations for further expansion of the program no later than December 31, 2000.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
22	Idaho	2000	Consolidated Governing Board	No	The Idaho State Board of Education approved the 2000-2005 *Statewide Strategic Plan*, a document directing Board staff to develop, in collaboration with the Presidents/Agency Heads, institution/agency unique performance measures. The document was created to improve public and college education in the state.
23	Pennsylvania	2000	Planning Agency	No	Performance funding was first adopted in 2000 by the Pennsylvania State System of Higher Education. The Pennsylvania State System of Higher Education developed eight performance measures that encompass a variety of key areas aiming at increasing degree productivity among the state's public colleges. State appropriations are delivered directly to the system office and allocated to individual institutions using its own internal processes.
24	Virginia	2005	Coordinating Board	Yes	The Virginia State Legislature passed HB 2866 *Restructured Higher Education Financial and Administrative Operations Act* in the 2005 Session, setting forth enabling legislation for the restructuring of public higher education institutions that will improve accountability and various other conditions (e.g., capital building projects, procurement and personnel).
25	Indiana	2007	Coordinating Board	Yes	Prior to 2007, Indiana's funding of public postsecondary institutions was primarily based on enrollment of students at the 17 campuses across the state. Institutions would receive funding from the state as enrollment changed year to year. Indiana first adopted performance funding in 2007 in the form of a bonus on top of the base state funding for higher education. This original program was quickly replaced in 2009 by a new program in which five percent of each institution's base allocation would be withheld and then all or some of it would be awarded based on performance on certain metrics. In 2013, the State General assembly increased performance funding to six percent for both FYs 2014 and 2015 (Lahr, Dougherty, Jones, Natow, and Reddy 2014).

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
26	New Mexico	2011	Coordinating Board	Yes	Following her election to office in 2011, Governor Susana Martinez initiated support for performance funding policy due to the state's chronically low numbers of college-educated population. In 2011, the State Legislature adopted language in the *General Appropriations Act* directing the Higher Education Department to develop a performance-based funding formula. The created formula provides incentives to increase the awarding of degrees and certificates overall, and incentives for degrees in specific fields in science, technology, engineering, math, and health care (STEM-H) and for low-income students (The New Mexico Higher Education Department 2015). The policy was instituted in 2012 and five percent of state funding was determined by institutional performance, the percentage increased to 10 percent in FY 2015.
27	Michigan	2011	No State Higher Education Board or Agency	Yes	The 96th Michigan State Legislature passed HB 4325 into *Public Act 62* of 2011. Section 266 adopted the language "It is the intent of the legislature that, in subsequent budget years, public university operations funding appropriated by the legislature shall be allocated to each university using a formula developed and enacted by the legislature. Such a formula shall incent universities to provide, in a cost-effective and timely manner, postsecondary opportunities for students that are both accessible and affordable and that result in a highly skilled workforce."
28	Mississippi	2011	Consolidated Governing Board	Yes	In the 2011 Mississippi Legislative Session, the Legislature passed HB 875, which directed the Education Achievement Council to "research and develop a new funding mechanism for public community colleges and state institutions of higher learning based upon productivity goals and accomplishments as well as enrollment" (Mississippi Board of Trustees of State Institutions of Higher Learning 2014). The Education Achievement Council took a two-track approach, asking the Mississippi Board of Trustees of State Institutions of Higher Learning and the Mississippi Community College Board to study funding models based on productivity measures. In the 2013 Legislative Session, the Legislature passed SB 2851, which provides the funding allocated through the model.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
29	Arizona	2012	Consolidated Governing Board	Yes	The Arizona Board of Regents started brainstorming a new higher education funding model beginning in April 2010. Major funding for this reform effort came from the Lumina Foundation, and through the "Getting AHEAD" initiative that had been launched by the Board of Regents in cooperation with the Governor's Office (Arizona Board of Regents 2015). After this initial proposal, in the same year Arizona Revised Statute 15 Education §15-1626, through Senate Bill 1618, required the Arizona Board of Regents and universities under its jurisdiction to collaboratively develop and adopt a performance funding model by July 1, 2012. This session law was continued in the FY 2014 *Higher Education Budget Reconciliation Bill*, as well as the *General Appropriation Act* (Laws 2013, 1st Special Session, Chapter 1). As required by statute, and with the support of the Governor and State Legislature, the Arizona Board of Regents and state universities adopted performance funding in 2012.
30	Illinois	2012	Coordinating Board	Yes	The Illinois State Legislature mandated that the Illinois Board of Higher Education incorporate a performance funding element into the higher education system during fiscal year 2012. The Legislature appointed a steering committee of key stakeholders to assist with linking state goals to the higher education budgeting process. The steering committee developed performance funding metrics adopted by the Illinois Board of Higher Education.
31	Georgia	2013	Consolidated Governing Board	Yes	The Technical College System of Georgia created its first Performance Funding Task Force in August 2005. The task force developed measures of student success that could affect institutional allocations, but not state funding[6]. Higher education funding in Georgia was based on student enrollment with little to no focus on successful outcomes. In August 2011, Governor Nathan Deal launched the Complete College Georgia program and formed the Georgia Higher Education Funding Commission to examine ways to encourage colleges and universities to turn their efforts to college completion through the state's funding formula. The commission submitted their final report to Governor Deal and was approved in 2013. Starting in fall 2015, funding for the University System of Georgia and the Technical College System of Georgia is based entirely on performance.

[6] Some reports consider that Georgia adopted performance funding in 2006 based on the work completed by the Performance Funding Task Force.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
32	Maine	2013	Consolidated Governing Board	No	The University of Maine System Board of Trustees adopted *The Goals and Actions*, a document that includes a directive regarding the alignment of funding with performance outcomes, on January 23, 2012. This document became the first resource allocation mechanism that reflects a value beyond maintenance of the current allocation. Beginning in FY 2014, five percent of base funding is determined by institutional performance. The percentage will increase by five percent each year until it reaches 30 percent.
33	Massachusetts	2013	Consolidated Governing Board	Yes	In his January 2012 State of the Commonwealth address, Governor Deval Patrick addressed the importance of linking the "middle skills gap" to the need for community college system to be more responsive to workforce needs. By FY 2014, a new community college funding model was unveiled. The new model introduced an accountability component primarily for enrollment and student success with academic program and workforce alignment as added incentives (Salomon-Fernandez 2014). The FY 2014 budget (General Appropriations Act, Chapter 38, 2013) passed by the Commonwealth of Massachusetts in 2013 indicates that the state's appropriation for higher education is determined by institutional performance. After an amount is set aside for operational support, half of the remaining funding is considered base funding and allocated according to the number of completed semester credit hours. The remaining half of the funds is awarded based on performance metrics (The Commonwealth of Massachusetts 2013).
34	Montana	2013	Consolidated Governing Board	No	The Montana University System (MUS) adopted performance funding in 2014 to augment the allocation methodology for distributing state appropriations to the MUS campuses. The program took two different forms. The first version of the MUS performance funding model allocated $7.5 million of state dollars in fiscal year 2015, approximately five percent of total state appropriations. The model utilized two basic metrics for all campuses: freshmen to sophomore retention of first-time, full-time students; and the annual number of undergraduate degrees and certificates awarded. Following this initial model, a Performance Funding Taskforce comprised of MUS administrators and faculty leaders, designed a more detailed model for allocation of funds in fiscal years 2016, 2017 and beyond. This current version of the performance funding model allocated $30 million of state appropriations ($15 million in both fiscal years 2016 and 2017), approximately eight percent of the total state appropriation to the MUS educational units (Montana University System 2016).

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
35	Nevada	2013	Consolidated Governing Board	Yes	In 2013, the Nevada State Legislature adopted performance funding for the institutions of the Nevada System of Higher Education. This adoption came about through a funding formula study that was created under a 2011 legislative measure. The Committee to Study the Funding of Higher Education (SB 374, Chapter 375, Statutes of Nevada 2011) was specifically charged with considering methods for rewarding institutions for graduating students, which ultimately led to the policy adoption. During FY 2015, five percent of based funding was determined by performance measures. The percentage increases annually by five percent until it reaches 20 percent.
36	North Dakota	2013	Consolidated Governing Board	Yes	In 2013, the North Dakota State Legislature passed SB 2200, tying state dollars to output-based measures such as credit hours earned, degree completion, and/or the graduation of low-income or minority students. Nearly all of North Dakota's base funding for higher education are linked to students finishing courses with passing grades under the statute.
37	Utah	2013	Consolidated Governing Board	Yes	The Utah State Legislature approved a one-time appropriation of $1 million, designated as performance-based funding, during the 2013 General Session. The Legislature intends that the Utah State Board of Regents develop standards to measure institutions' performances using, but not limited to the following: 1-2 year retention, graduation rates (including transfers), reduction in remedial/developmental math courses, successful completion of math courses following3remedial/development, acceleration in fulfilling general education math courses, increase in graduate education (as applicable by institutional mission). The Legislature further intends that the $1 million performance-based funding will be allocated by the Utah State Board of Regents to institutions that show improvements in one or more of these areas (The Utah State Legislature 2016).

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
38	Wisconsin	2013	Consolidated Governing Board	Yes	The 2013 Act 20 (the 2013-15 biennial budget) authorized the Wisconsin Technical College System (WTCS) Board to establish a new funding model for allocating a portion of general state aid to technical colleges. Both the WTCS Board and the Joint Committee on Finance of the Wisconsin Legislature subsequently approved an outcomes-based funding model for implementation beginning in 2014-15. The funding model is based on nine criteria as established in statute: 1) job placement rates; 2) degrees and certificates awarded in high demand fields; 3) programs or courses with industry-validated curriculum; 4) the transition of adult basic education students to skills training; 5) the success rate of adults in basic education courses; 6) participation in dual enrollment programs; 7) workforce training provided to businesses and individuals; 8) participation in collaboration or efficiency initiatives; and 9) training provided to special populations or demographic groups unique to the district. The funding model was used to distribute 10 percent of appropriated general state aid funding in 2014-15. It was increased to 20 percent in 2015-16, and 30 percent in 2016-17.
39	Iowa	2014	Consolidated Governing Board	No	Higher education funding in Iowa was largely determined by the base budget from the previous year, and may add or subtract funding, depending on the state budget. In 2013, the Iowa State Board of Regents appointed former Regent President David Miles to head a Task Force to recast the state's funding formula for higher education. In 2014, the board approved the new funding model that will allocate 40 percent of state funding based on outcomes metrics and the remaining 60 percent on in-state enrollment.
40	Wyoming	2014	Consolidated Governing Board	Yes	Wyoming funded higher education via a University of Wyoming general fund block grant. Appropriation adjustments were informally tied to student enrollment. In 2014, Wyoming took a legislative step through HB 1 to fund community colleges based on student outcomes rather than enrollment. Before this adoption, the state legislature did not formally consider student performance when determining funding for Wyoming's community colleges. The state is currently using one metric: the course completions for the prior school year at each college as a proportion of the total number of class completions among all colleges.

Table 2.2 (Continued): States Experimentation with Performance-Based Funding (1979-2015)					
Number	State	Year	Type of Higher Education Board	Was the State Legislature Involved in the Initial Adoption?	Initial Adoption of Performance Funding
41	Vermont	2015	Consolidated Governing Board	Yes	The Vermont 2015 HB 490 requires the Secretary of Administration to develop a proposal by which a portion of state funding for the Vermont State Colleges and the University of Vermont would be allocated based upon six performance measures: retention and four-year graduation rates; number of both graduate and undergraduate degrees awarded; actual cost of instruction; cost of attendance after all non-loan financial aid; average amount of financial aid awarded; and average debt upon graduation for Vermont students (HB 490 Section E.608).

(Note: the order of the states is determined by the chronological sequence of policy adoption)

Table 2.3: Concise Summary of States Experimentation with Performance-Based Funding (1979-2015)	
Year	States Adopting Performance-Based Funding
1979	Tennessee
1985	Connecticut
1991	Missouri
1994	Colorado, Florida, Kentucky, Minnesota, Arkansas
1995	Ohio
1996	South Carolina
1997	Louisiana, Oklahoma, South Dakota, Washington
1998	California
1999	Kansas, New Jersey, New York, North Carolina, Oregon, Texas
2000	Idaho, Pennsylvania
2005	Virginia
2007	Indiana
2011	New Mexico, Michigan, Mississippi
2012	Arizona, Illinois
2013	Georgia, Maine, Massachusetts, Montana, Nevada, North Dakota, Utah, Wisconsin
2014	Iowa, Wyoming
2015	Vermont

As elaborated in the Table 2.2, although states delegate varying levels of higher education legislative authority to either consolidated governing boards or coordinating boards, state legislatures are heavily involved in the adoption of performance funding in most states. In most cases, higher education governing boards either work closely with the state legislature and/or the governor in developing performance funding measures, or follow the lead from the superior officials in designing the performance funding formula; adopting performance funding largely reflects the agenda of the governor and/or the legislature.

4. Effectiveness and Impacts of Performance Funding

Performance funding has been around since 1979. Most states have experimented with this funding strategy, with the hope of enhancing higher education

accountability and improving academic performance. Scholars have exhibited much interest in investigating the effectiveness of performance funding both qualitatively and quantitatively. Practically, policymakers and higher education experts have deep concerns about performance funding and its intended and unintended consequences. Despite the contention that performance-based funding intends to enhance higher education institutions' performance accountability, many studies argue that states which adopted performance-based accountability did not see a noticeable increase in institutional performance (Burke and Serban 1998; Burke 2002; Shin 2010; Rabovsky 2013; Hillman, Tandberg, and Fryar 2015). Other studies have examined colleges and universities as units of analysis to find that numbers of graduates are not significantly related to performance funding policies (Sanford and Hunter, 2011; Shin and Milton, 2004).

For instance, in 2009, Shin analyzed graduation rates at 467 institutions that participated in performance-based budgeting and performance funding from years 1997 to 2007. The results suggest that states that adopted performance funding did not experience any significant improvement in student outcome (Shin 2009). In Tandberg and Hillman's (2014) quasi-experimental research, they observe that performance funding has little to no impact on associate or baccalaureate degree completions, on average. In Tandberg and colleagues' (Tandberg, Hillman, and Barakat 2014) study on community college completions over the period of 1990 to 2010, the authors conclude that six states that enacted performance funding (Colorado, Idaho, New Mexico, South Carolina, Texas, Virginia) reported a negative impact on student outcome. Similarly,

Hillman and colleagues (2015) suggest that performance funding has little immediate effect on retention rates or associate's degree productivity in Washington community colleges.

Worse still, in order to meet the performance requirements and earn state funding, some community colleges deliberately changed degree requirements to make it easier for students to graduate (Dougherty and Hong 2006). Hillman et al. (2014) observe that graduation rates "can easily be gamed and manipulated at the campus level" because "a campus could increase its graduation rate by admitting students who are most likely to graduate even if this means shrinking the size of the incoming freshman class" (p. 835). Colbeck (2002) found that a Tennessee university sought to maximize its performance funding award by limiting enrollment "to preserve better student/faculty ratios and to better ensure a quality education for its students" (p. 16).

To meet certain performance standards, higher education institutions may even restrict admissions. Dougherty et al. (2014) interviewed a senior administrator at a public Indiana university who stated that the institution was "less likely to offer admission to 'weaker' students 'because if they are weaker . . . there is a chance they will bring down your performance numbers'" (p. 27). If public higher education institutions are responding to performance funding by admitting fewer and more qualified students, many minority students are at a great disadvantage to be accepted by institutions. This would limit admission rates of groups of students who have shown to be less likely to graduate and increase admission rates of students who are more likely to graduate, regardless of institutional resources (Pascarella and Terenzini 2005).

Although this may make logical sense within the institution and help with the goal to obtain more state funding, this could potentially contribute to the problem of higher education inequality. Umbricht et al. (Umbricht, Fernandez, and Ortagus 2017) closely investigated performance funding in Indiana and found that performance funding decreased admissions, increased selectivity, and may have further marginalized underrepresented minority and low-income applicants.

Campus actions may include limiting the visibility of undesirable behaviors, and shielding themselves against the state's demands by asserting a lack of information to respond, thereby shifting responsibility away from the institution (Dougherty, Natow, and Vega, 2012). A common example is a college claiming that it does not have the information needed to know how to improve student completion rates, that more resources are needed to create the type of change that state policymakers want, and by criticizing the nebulous connection between incentive funding and institutional behaviors in ways that blame the state (Li 2014).

Ironically, extensive research has concluded that performance information is seldom used by elected officials for planning or decision-making purposes (Brudney et al 2001; Joyce 1999; Moynihan 2008; Newcomer 2007; van Thiel and Leeuw 2002; Thurmaier and Willoughby 2001; Willoughby and Melkers 2001). Performance data in the realm of higher education is no exception. The implementation of the policy has turned out to be incomplete because the collected performance information is rarely accessed or utilized (Aldeman and Carey 2009; Rabovsky 2013). According to Aldeman and Carey (2009), in performance funding implementation, "performance

information is gathered, published, and then it sits there, on a Web site for whoever might want to look. In many cases, few people do. Having looked, fewer take action (p. 6)."

Conclusion

Under the nationwide performance management trend, performance-based funding has become a popular strategy to hold higher education accountable and motivate better institutional outcomes. Performance funding uses a clear formula to tie the allocation of state appropriations to institutional-level student outcome metrics. Perceiving this funding strategy as a potentially helpful mechanism to stimulate better higher education outcomes, many states adopted the policy. Although performance funding claims to enhance student success, practitioners and scholars have raised concerns about its lack of effectiveness and unintended negative policy consequences. The following chapter details the theory of policy innovation and diffusion and explains the policy decision-making of enacting performance funding.

Chapter III. Philanthropic Foundations and Public Policy Diffusion

Introduction

The key purpose of this dissertation is to investigate policy diffusion success and failure. In the previous chapter, I provide an overview of performance funding policy, and discuss its background and origin. Performance funding in higher education was first introduced in 1979. The policy was initiated to enhance institutional performance and improve higher education accountability. Many states have experimented with this funding idea and as of January 2017, 32 states have a performance funding formula in place. The funding strategy has been popular among many states, but others have not yet jumped on the performance funding bandwagon.

As revealed in the second chapter, in higher education policy-making, states delegate varying levels of legislative authority to either consolidated governing boards or coordinating boards. Among all forms of higher education governance systems, consolidated boards have the highest level of legislative discretion, and planning agencies have no policy-making authority. Regardless of the governance type, state legislatures are heavily involved in the adoption of performance funding in most states. In most cases, higher education governing boards either work closely with the state legislature and/or the governor in developing performance funding measures, or follow the lead from the superior officials in designing the performance funding formula.

To further examine performance funding policy and explore the causes of policy diffusion failure, this chapter reviews the literature on policy innovation and diffusion theory. The theory explains the causes of state policy adoption and the key components

in policy diffusion. Being the fundamental factor in policy diffusion, information is usually fluid and unstable, which has direct influence on policy-oriented learning. In public policymaking, legislators are confronted with time constraints and electoral considerations, therefore it is critical for policy agents to frame issues in order to attract legislative attention. I focus particularly on policy information supply and demand, and how such two-way communication facilitates policy diffusion. I also discuss how a lack of communication can potentially hinder policy diffusion. At the end of the chapter, I propose four expectations about the contributing factors to policy non-adoption.

1. Policy Innovation and Diffusion

States rarely adopt new policies in isolation; state level policy making is a part of "a national system of emulation and competition" (Walker 1969, p. 893). Competition among states fosters innovation in policy design and implementation. States in America have become "laboratories of democracy", in Justice Louis Brandeis's words. The policy discretion available to states in the American federal system creates an opportunity for states to learn from one another by observing the consequences of a policy in another state before adopting the policy themselves (Baybeck, Berry, and Siegel 2011).

1.1. Information Framing in Policy Diffusion

Because diffusion is "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers 1962, p. 5), information is fundamental in policy diffusion; without information, policy

diffusion can hardly occur. Studies report that policy agents can actively energize the diffusion process by communicating policy innovations to state legislators. A policy innovation can be diffused through the activities of policy entrepreneurs (Mintrom 1997; Mintrom and Norman 2009), regional associations (Balla 2001), and advocacy coalitions (Haider-Markel 2001). With the knowledge of the innovation, state lawmakers process the information, evaluate the idea, and make final decisions to either adopt or reject the innovation.

Essentially, policymaking is affected by both time constraints and electoral considerations (Karch 2007a). Elected officials face far more problems than what they can possibly address due to limited resources, time, and attention. In the meantime, legislators also pursue reelection (Mayhew 1974). Therefore, the kind of information legislators receive ultimately determines the political agenda and legislative actions. A policy innovation that is presented as electorally friendly and beneficial in improving state higher education accountability is perhaps more likely to be adopted than if framed otherwise.

Baumgartner and Jones (1993) argue that policy change is rooted in policy image shift. Policy image refers to the interaction of beliefs and values concerning a particular policy (Baumgartner and Jones 1991). A policy idea can be described in a positive or negative light, which determines the image of the policy. How an issue is framed and defined will dictate its place on the agenda and the legislative response. For example, in 2004, the Kansas legislature passed House Bill 2008, a bill that grants undocumented students in-state college tuition status. Normally, such bills would not

likely achieve majority support in a conservative state like Kansas, yet, due to the framing of this problem as a public education concern instead of an immigration matter, the bill successfully survived (Reich and Mendoza 2008). Given that policy images to a large extent determine the outcome of legislative action, policymakers and political actors attempt to manipulate them (Baumgartner and Jones 1991).

Policy issues do not frame themselves. Policy entrepreneurs who take advantage of the initial policy framing and issue definition may have a better chance to achieve their goals later on. Policy entrepreneurs are individuals who seek to initiate dynamic policy change (Baumgartner and Jones 1993; Kingdon 1984). This goal is usually achieved through activities that help promote policy ideas such as identifying problems, networking in policy circles, shaping the terms of policy debates, and building coalitions. The presence of policy entrepreneurs and their actions can considerably raise the probability of legislative consideration and approval of policy innovations. Studies reveal that policy entrepreneurs spend a good amount of time networking in and around government to learn the "world views" of members of the policymaking community (Mintrom 1997). This type of networking not only helps policy entrepreneurs build their credibility, but also allows them to determine what arguments will persuade politicians to support their policy ideas (Mintrom 1997).

The importance of policy entrepreneurs in policy diffusion is reflected in two aspects: setting the agenda and framing the issue. Political scientists have concluded that policy entrepreneurs set the policy agenda by making lawmakers aware of certain policy ideas that are novel to them and bringing these policy innovations to

governments' attention (Mintrom 1997; Mintrom and Vergari 1998; Mintrom and Norman 2009). Within and surrounding public policy issues, information is always value laden and intertwined with the ideologies and interests of its producers and consumers (Hale 2011). Because of their strong intention to create policy change, policy entrepreneurs will not simply make a policy report to legislators; rather, they help translate the idea into legislation (Roberts and King 1991), which creates much leeway for them to frame the issue to their benefit.

This assumption is applicable to performance-based funding policy because the program can fit into multiple issue areas. First, the policy specifies a formula that dictates a state government's funding amount to higher education institutions. For example, in Oklahoma, the performance factors are: overall first-year retention, first-year retention for Pell recipients, 24 credits in first academic year, cohort graduation rates anywhere in the system, degrees granted, and program accreditation (see NCSL 2017). The amount of public funding Oklahoma universities will receive is dependent on the institutional performance in these required areas. Hence, the policy can be interpreted as a budgeting program. Second, performance funding policy also fits neatly in the realm of accountability. Connecting funding with performance is one typical approach of ensuring external accountability and regulating internal management. Third, the policy directly aims at increasing university academic performance, which is also a matter of postsecondary education. Due to the multi-dimensional feature of this policy, it is possible that policy entrepreneurs have manipulated the presentation of the issue.

As argued above, legislation is limited by two constraints: time and electoral consideration. Hence, how the information is delivered and framed can shift lawmakers' reactions. Elected officials are more prone to respond to issues that can boost their reelection chances. If a policy is framed in a way that favors the electoral effort once enacted, legislators will be more willing to adopt it. For example, although case studies have found that performance funding policy does not induce the desired results in many states (Burke and Serban 1998; Burke 2002; Sanford and Hunter 2011) or restructure financial incentives in higher education (Rabovsky 2013), if a state government's attention is directed to the symbolic meaning of the policy, then performance funding can be a good idea. After all, performance accountability speaks for governments' "rational, efficient, and results-oriented manner" (Moynihan 2008. p. 68), which is electorally friendly.

An outstanding piece of evidence of issue framing is the fact that the adopting states have very uneven features in various aspects. Among the 32 states that currently have performance funding policy in place, some states had high educational attainment rates prior to adopting the policy (e.g., Massachusetts, Virginia); while some were behind in higher education (e.g., Mississippi, Arkansas). These states also fall in both ends of the political ideology spectrums (conservative states like Mississippi and Oklahoma versus liberal states like Massachusetts and Washington) and have varying financial capacity (wealthy states like Virginia and Massachusetts versus less wealthy states like New Mexico and Utah). The wide range of distinguishable features among

adopting states implies that policy agents may have framed the policy information in particular ways that seems acceptable to officials from various states.

Information involved in policy diffusion can be categorized into two types: information about policy and information about political consequences (Mooney 2001; Gilardi 2010; Seljan and Weller 2011). The former mainly refers to the quality of a policy accrues over time after it is implemented, and the latter concerns the political value of a policy. As indicated in the previous chapter, performance funding has drawbacks in its implementation. Despite the contention that performance-based funding intends to enhance higher education institutions' performance accountability, many studies argue that states which adopted performance-based accountability did not see a noticeable increase in institutional performance (Burke and Serban 1998; Burke 2002; Shin 2010; Rabovsky 2013; Hillman, Tandberg, and Fryar 2015). Other studies have examined colleges and universities as units of analysis to find that numbers of graduates are not significantly related to performance funding policies (Sanford and Hunter, 2011; Shin and Milton, 2004).

If the policy fails to have a successful track record in its implementation, policy entrepreneurs are more likely to emphasize its political viability than its effectiveness. Information about a policy's popularity and positive political consequence is important for both elected officials and policy entrepreneurs proposing the policy. For politicians, a policy's popularity may affect reelection chances; for policy entrepreneurs, the policy's popularity is a requisite for getting the policy adopted (Seljan and Weller 2011). Uncertainty regarding popular support for a policy can lead state officials and

policy entrepreneurs to look to other states for information. One potential source of information about the prospects for an initiative is the result of similar initiatives in similar states (Boehmke 2005). "If the characteristics of voters in other states are similar, then whether those states already have the policy might provide some clues as to how voters in the group's state might respond to the initiative" (Boehmke 2005, p.39).

In his case studies on state enactment of performance management programs, Moynihan (2008) notices that to elected officials, the symbolic benefits of performance management overweigh the instrumental benefits. Graham et al. (2013) confirms that "policymakers may be concerned with learning about the policy's political viability and public attractiveness, about implications for reelection and reappointment, or about whether a glitzy modification of the policy could serve as a vehicle in the pursuit of higher office" (p. 691). In the case of performance funding, Rabovsky (2013) found that the enactment of performance funding is usually politically and ideologically driven. This adds extra evidence of information framing in the diffusion of performance funding.

Being the prerequisite of policy diffusion, information is usually unstable. Changes in information regarding a policy innovation influences policy-oriented learning (Mooney 2001), which shapes adoption decisions. For example, lawmakers may change their minds about a previously preferred program after hearing negative comments on it. Mooney (2001) further provides evidence that policy-oriented learning can either enhance or diminish the chances of diffusion when the information changes

(also see Rogers 1995; Dolowitz and Marsh 1996). Therefore, the adoption or non-adoption decision is the product of the constantly updated learning effect.

In addition, lack of information about a policy innovation is also a possible explanation for policy non-adoption (Dolowitz and Marsh 2000; Ingle, Cohen-Vogel, and Hughes 2007). In Ingle et al.'s (2007) research on the diffusion of postsecondary merit aid programs, they found that adopters did possess elements that favor diffusion such as positive economic climates, little lobbying against the policy, favorable political conditions, regional policy network affiliations, and so forth. In contrast, they conclude that the "hold-outs" (non-adopters) barely showed signs of a policy-adoption friendly environment, either internally or externally. Most hold-outs had few formal policy networks, poor fiscal health, and unfavorable socioeconomic and political conditions (Ingle, Cohen-Vogel, and Hughes 2007). Also, in their interviews with state policymakers, some legislators did not even speak of visits from policy entrepreneurs or involvement with regional associations.

1.2. Legislative Attention in Policy Diffusion

Generally speaking, policymakers are bombarded with information because information is usually readily available. Interest groups, conferences, various administration reports, academic studies, think tanks, policy analysts, and various non-governmental organizations supply abundant information to policymakers (Baumgartner and Jones 2015; Jones and Baumgartner 2005). Therefore, information oversupply rather than undersupply seems to be the reality, and the general oversupply

of information in politics leads to information prioritization, which requires decision makers to focus their attention on a small set of issues (Baumgartner and Jones 2015).

Centrally, policymaking is affected by both time constraints and electoral considerations (Karch 2007a). In this sense, policymakers are constantly under the pressure of making important policy decisions in a short time frame. In the meantime, they consider reelection in their legislative decision making. Legislators attempt to leave constituents with the positive impression that they actively represent the people's interest by enacting policies that solve societal problems. However, there are far more problems and concerns than legislators could possibly address given the limited resources (Etzioni 1967). Limited legislative resources and time constraints force decision makers to filter received information through their attentiveness in a biased manner because it is humanly impossible to distribute attention to every single piece of information on complex legislative issues. Therefore, attention is another significant variable in policymaking (Workman, Jones, and Jochim 2009; Baumgartner and Jones 2014).

Issues compete for precious legislative attention to be adopted on the government agenda, which will potentially lead to possible policy change. For example, in Nelson's (1986) research on child abuse, she concludes that achieving state level and congressional attention contributed to the adoption of reporting laws among all 50 states in a short period of time. In Breunig's 2011 study on budgeting matters, he confirms that attention shift and institutional arrangements led to the punctuations in

public budgets. The arrangement of attention affects policymakers' responses and reactions to policy demands (May, Workman, and Jones 2008).

Attention, however, is not randomly distributed to various issues. Instead, attentiveness and attention is changeable based on the information received (Jones 1994). Workman and associates (Workman, Jones, and Jochim 2009) summarize two fundamental elements of information processes at the system level: the prioritization of information and the supply of information. On the demand side, legislators face time constraints; therefore, their attention is directed to issues with significance and salience. Given its limited space, attention to new concerns can crowd out other issues and lead to legislative response to the new concerns, which explains policy change. On the supply side, numerous policy coalitions, interest groups, lobbyists, policy entrepreneurs, and other sources try to frame and manipulate information to their benefit for legislative consideration. Given the limited attention and oversupply of information, decision-makers sift through all the messages they receive and prioritize what they consider as important matters (Jones and Baumgartner 2005).

The multidimensional feature of political issues consequentially leads to competing interpretations and prioritizations. This multidimensionality allows policy entrepreneurs to put forward different dimensions of a given issue to manipulate legislative attention and influence policy change (Workman, Jones, and Jochim 2009). In order to increase decision-makers' attentiveness to a problem, policy entrepreneurs often inject values into their description of the issue. Therefore, information and attention are closely connected.

2. Private Foundations and the Diffusion of Performance Funding Policy

State government decisions to adopt policy innovations can be influenced by the information gained by state officials through interactions with other states, organizations of government officials, policy networks, and non-governmental organizations (Hale 2011; Mintrom and Vergari 1998). Information connections between governmental and non-governmental actors are a principal aspect of state level policy making, as non-governmental organizations have become an important source of policy information (Hale 2011). As argued earlier, the presence and the presentation of information are critical in facilitating policy diffusion. Information is rarely neutral; if policy advocates distort information, or highlight the aspects of a complex situation that benefit them, they are more likely to succeed in getting favorable policies from government (Jones and Baumgartner 2005). In order to deliver the crafted message to state elected officials, the information source has to have access to the key decision makers and the capability to provide the attention-catching information.

2.1. Private Foundations in Public Policymaking

In the diffusion process, policy agents play a critical role in communicating policy innovations among state governments. In addition to the previously identified policy agents—policy entrepreneurs (Mintrom 1997; Mintrom and Norman 2009), regional associations (Balla 2001), and advocacy coalitions (Haider-Markel 2001)—private foundations can also attract busy legislators' attention by taking advantage of their money power and privately funded research. *Private foundations—or philanthropic foundations*—are defined as nongovernmental and nonprofit

organizations with funds (usually from a single source, either an individual, a family, or a corporation) and programs managed by their own trustees or directors, established to maintain or aid social, educational, charitable, religious, or other activities serving the common welfare, primarily through the making of grants (Foundation Center 2006).

Scholars describe philanthropic foundations as "private institutions which dispose of private funds for a public purpose" (Douglas and Wildavsky 1978), "private powers for the public good" (Lagemann 1983), and "public bodies privately organized" (Ylvisaker 1987). Fundamentally, foundations are non-governmental and not-for-profit philanthropic bodies run by small groups of trustees and officials (Bulmer 1995). Most of the larger and well-known foundations in the U.S. have usually been set up by one individual or the members of a family; these foundations have the ability to disperse large or small sums of money to individuals and to organizations such as educational institutions, libraries, museums, and so on to carry out a wide variety of activities or programs enjoying the favor of the donors or their successors (Kiger 2000).

Private foundations are classified as tax-exempt, 501(c)(3) organizations by the IRS (Foundation Source 2017). There are two types of charitable nonprofit entities that are exempt under Section 501(c)(3): public charities and private foundations. Unlike private foundations, public charities are organizations that receive support from a relatively large number of donors (i.e., the public) or from government (IRS 2018). Public charities are granted some degree of lobbying. The definition of lobbying refers to the attempt to influence legislation including action by Congress, any state legislature, any local council, or similar governing body (IRS 2018).

Private foundations are limited by law in the ways they can and cannot seek to influence public policy. Private foundations are prohibited from participating or intervening in partisan political campaigns and from expressing views on specific legislation to legislators or issuing a "call to action" in communications about legislation with the general public (Independent Sector 2016). If foundations spend funds on lobbying, they may lose their tax exemption (IRS 2018). The Internal Revenue Code, however, excepts the following activities from the definition of prohibited private foundation lobbying: (1) nonpartisan analysis, study, and research; (2) technical advice or assistance; (3) decisions affecting the powers, duties, etc., of a private foundation; and (4) examinations and discussions of broad social, economic, and similar problems (IRS 2018).

Despite of the lobbying restriction, private foundations may participate in many forms of advocacy activities and may fund advocacy (Bolder Advocacy 2018). Lobbying is only one type of advocacy and there are many permissible advocacy avenues for private foundations. Bolder Advocacy (2018)—an initiative of the Alliance for Justice, which is a national association of more than 120 organizations that are united by a commitment to a fair, just, and free America, identifies a list of activities private foundations can legally engage in:

- Influence the adoption of agency regulations that interpret existing laws
- Build relationships with legislators or help grantees build and sustain these relationships

- Convene nonprofits and decision-makers to discuss a broad topic (e.g., how to balance the economy, development, and the preservation of endangered species)
- Educate legislators about a broad range of issues, without referencing a specific legislative proposal
- Meet with legislators to discuss the scope and impact of the foundation's work
- Conduct public education campaigns that do not include calls to action or mention specific legislation
- Offer technical assistance to legislators in response to a written request for oral or written testimony from a legislative body
- Produce a comprehensive, accurate study or analysis of an issue (often referred to as a "nonpartisan analysis study or research report") that is widely distributed and provides enough information about the issue to allow the reader to draw their own conclusions, even if the report contains specific legislative conclusions

Although private foundations' lobbying freedom is legally restricted, they are uniquely flexible in identifying and analyzing social problems in America and in formulating solutions through the utilization of research-based knowledge (Backer, David, and Saucy 1995). Foundation-funded research activities have led to greater interest today in strategies for the diffusion of innovations (Backer, David, and Saucy 1995). Private foundations have been consistently offering financial support for think tanks such as the Social Science Research Council and the Brookings Institution to conduct research that provides the intellectual underpinning for public policy decisions

(Magat 1995). In the health policy domain, for example, a few major philanthropic foundations have contributed to the public health policy development during the 1980s and 1990s. The Robert Wood Johnson Foundation was among the earliest institutions that made financial commitments for further medical research on AIDS and invested nearly five million dollars in 1986. The foundation sponsored research was quoted at the congressional hearings in the same year (Knott and Weissert 1995).

Among all policy issues, education has long been one of the central policy venues in which private foundations have taken root. In 2004, frustrated with partisan gridlock that prevented the state's public education reform, six independent non-partisan foundations in Oregon came together and founded the Chalkboard Project that conducted polling and telephone interviews, held more than 400 neighborhood meetings, and met with community leaders in an effort to expand the conversation about public education beyond the traditional players. These foundations then convened consultants, education experts, and representatives from teacher unions and school administrators to construct a set of policy proposals, which then were presented to the state legislature (Abramson, Soskis, and Toepler 2012). The project is still in existence and working to better Oregon's K-12 public schools.

At the national level, a few large foundations—the Bill and Melinda Gates Foundation, the William and Flora Hewlett Foundation, and Ford Foundation—traditionally have funded a wide array of educational enterprises and invested in a series of campaign of public education reform. These foundations possess massive endowments, are firmly committed to the use of strict metrics, and are willing to spend

huge sums to transform U.S. education policy, often embracing market-based approaches such as competition, choice, deregulation, and incentives (Abramson, Soskis, and Toepler 2012).

2.2. Private Foundations and Performance Funding

Private foundations in the U.S. vigorously participate in policy networking and information sharing (Gugerty and Prakash 2010). Private foundations can and do play a significant policy role at both the national and state levels. It has been documented that in the realm of education legislation, private foundations are invested actors. Foundations have been extensively involved in public education, including colleges and universities. In her book *Foundations and Public Policy*, Joan Roelofs (2003) argues that "it is hardly an exaggeration to say that foundations have been the source of almost all innovations in education, using their normal methods of influence: ideology, grants, litigation, policy networks and think tanks, and the revolving door (p.70)." Some of the largest foundations, such as Carnegie, Ford, Mellon, and Rockefeller, traditionally have funded a wide array of educational enterprises, both in elementary and secondary schools as well as in higher education (Dobbs 1989). According to *Inside Philanthropy* (2017)—a news website about large philanthropic foundations and wealthy donors—higher education grants comprise the most significant portion of education philanthropy in the United States. There exists a variety of supported issues, which include capital campaigns, bolstering educational programming, access and retention, college financial planning projects and financial aid.

Studies have shown that wealthy private foundations have a major influence on higher education legislation (Parry, Field, and Supiano 2013; Mangan 2015). In the case of performance funding, several private foundations have exhibited much interest in pushing for state adoption of performance funding measures. The traditional "enrollment-oriented" financing model has come under increased scrutiny in recent years from state governors and legislators as well as from certain philanthropic organizations (Tandberg and Hillment 2013). When the program was initially introduced, the Tennessee Higher Education Commission received funding from the federal Fund for the Improvement of Postsecondary Education, the Ford and Kellogg Foundations, and an anonymous foundation in Tennessee to finance the pilot of the performance funding program (Dougherty, Natow, Bork, Jones, and Vega 2011).

For another example, California has made two attempts to develop performance funding. The first one was through the Partnership for Excellence (1998-2004), a funding structure for community colleges that carried an option of creating performance funding that was not exercised. The second was SB 1134, a bill introduced in 2010 to establish performance funding for community colleges on the basis of course completions (Dougherty et al. 2011). SB 1143 was partially stimulated by the support of the Hewlett Foundation, and supported by a few state organizations including the Los Angeles Chamber of Commerce, The Campaign for College Opportunity, and Long Beach City College (Dougherty et al. 2011).

Scholars observe that private foundations at both the national (e.g., the Lumina Foundation, the Bill and Melinda Gates Foundation) and the state level (e.g., the Texas

Public Policy Foundation) have been aggressively promoting performance funding by encouraging governors and state legislators to commit to this type of measure (Dougherty and Natow 2015; Fryar 2011). For example, both the Lumina and Gates Foundations have vocally expressed their endorsement for performance funding and reached out to state officials to promote this policy idea.

In 2009, the Lumina Foundation's Making Opportunity Affordable (later renamed as College Productivity) initiative provided financial support for performance funding reform in Tennessee because the state had demonstrated its commitment to tie public funding to increasing the overall number of college graduates (Dougherty, Natow, Hare, Jones, and Vega 2011). The initiative sought to improve college completion rates in various states through grant funding and the encouragement of policies that promote higher education completion (Dougherty, Natow, Hare, Jones, and Vega 2011). In the same year, the Lumina Foundation funded the Indiana Chamber of Commerce and the Indiana Commission for Higher Education to widen support for performance funding programs (Indiana Chamber of Commerce 2009; Indiana Commission for Higher Education 2009). In addition to their provision of financial support, the Lumina Foundation also serves a major information source to their targeted officials. For example, in October 2013, Jamie Merisotis—the President and CEO of the Lumina Foundation—spoke at the Association of Community College Trustees Leadership Congress in Seattle, Washington about supporting performance funding strategies (Lumina Foundation 2014). In March 2014, the Lumina Foundation sponsored the SXSWedu Conference in Austin, Texas. The conference brought

together higher education professionals, business leaders, entrepreneurs, policymakers, and legislators to create change in education. According to the Foundation news, Lumina Strategy Associate Sean Tierney joined a panel on performance funding formulas at the conference (Lumina Foundation 2014).

In addition to the Lumina Foundation, the Bill and Melinda Gates Foundation has also actively reached out to state legislators with attempts to remake the higher education system (Parry, Field, and Supiano 2013). Founded in 2000, the Gates Foundation is the largest private foundation worldwide. One of the foundation's Postsecondary Success strategies is to provide "powerful incentives that move campuses and systems to adopt and integrate solutions for student success and/or remove barriers to those efforts. These include the use of data to highlight success gaps and measure the effectiveness of solutions, as well as financing mechanisms such as outcome-based funding and financial aid for students. They also include policy advocacy at the federal and state levels (Focus states for the Postsecondary Success strategy include: California, Florida, Georgia, Kentucky, New York, North Carolina, Ohio, Tennessee, Texas, and Washington.)" (Gates Foundation-Postsecondary Success 2017).

On higher education issues, the Gates Foundation is a strong supporter of performance funding. The Gates Foundation publicly urges states to finance higher education institutions based on student performance metrics such as access, graduation, and employment outcomes (Fain 2015; Gates Foundation 2015). The foundation has set an ambitious goal "to ensure that all low-income young adults have affordable

access to a quality postsecondary education that is tailored to their individual needs and educational goals and leads to timely completion of a degree or certificate with labor-market value" (Gates Foundation 2017). To further advance the argument and advertise performance funding, the Gates Foundation has kept its reform goals on the national agenda by supporting news organizations that cover higher education (Long 2013).

The Gates Foundation has encouraged state lawmakers to allocate spending more efficiency by rewarding institutions that graduate more students (Humphreys 2012). In 2009, the Gates Foundation helped start Complete College America (CCA), a nonprofit advocacy organization, with an $8 million grant and an introduction to other philanthropies to help the group raise more money. CCA began to lobby state governments to adopt a series of higher education reforms. CCA dedicated their effort to "increasing the nation's college completion rate through state policy" (Complete College America 2011). CCA has worked to recruit states into their alliance, by encouraging governors and state legislators to commit to change the way higher education is governed by moving higher education policy to a more performance-based culture (Fryar 2011). As of November 2010, 24 states have joined in the effort to incorporate core principles from the CCA agenda, which includes a strong push towards performance funding, into their public systems of higher education (CCA 2010). As of May of 2011, 29 states were on board with this idea; the number increased to 35 in 2017. CCA's agenda calls for streamlining or eliminating remedial classes, providing more academic support in credit-bearing courses, and providing colleges with financial incentives to graduate more students. The Gates Foundation has since awarded an

additional $1.2 million to the organization, and the foundation's support makes up about 60 percent of CCA's annual budget. CCA has also received $1.7 million from the Lumina Foundation for the cause of promoting performance funding in higher education. In 2010, the Gates Foundation invested $34.8 million over five years to help dramatically increase the graduation rates of community college students. The Gates Foundation's Completion by Design program will award competitive grants to groups of community colleges to devise and implement new approaches to make the college experience more responsive to today's student (Gates Foundation 2010).

2.3. The Lumina Foundation and Performance Funding

This section details the Lumina Foundation's role in performance funding because it solely focuses on education issues, particularly higher education success; whereas the Gates Foundation's primary concern is to globally enhance healthcare and reduce extreme poverty, with education being a means to such ends.

The Lumina Foundation is an independent, private foundation committed to sponsor an outcome-based approach that focuses on helping design and build an equitable, accessible, responsive, and accountable higher education system while fostering a national sense of urgency for action to achieve *Goal 2025* (Lumina Foundation 2017). The Lumina Foundation for Education was created in 1997 as the USA Group Foundation, the research and philanthropic division of the USA Group, which was the nation's largest student loan guarantor and administrator at the time. On July 31, 2000, the USA Group sold most of its operating assets to Sallie Mae, another education loan provider. The proceeds of the sale were transferred to the USA Group

Foundation. In early 2001, the Foundation adopted a new name—the Lumina Foundation for Education.

The Lumina Foundation's goal is to increase the proportion of Americans with high-quality postsecondary degrees and credentials to 60% by the year 2025, which the foundation terms "*Goal 2025*". The Lumina Foundation has publicly expressed its endorsement for performance funding by arguing that higher education institutions should be funded based on performance factors such as whether students finish courses and hit certain milestones leading to a degree or postsecondary credential; and whether degrees or certificates are ultimately earned (Lumina Foundation 2009). McLendon and Hearn (2013) observe that "the Lumina Foundation funded quality-improvement efforts in eleven states, each featuring substantial commitment to what is being termed 'Performance Funding 2.0,' a systematic effort to tie state funding explicitly and significantly to quality improvements on various dimensions of campus performance" (para. 13).

Table 3.1 below reports activities concerning performance funding the foundation has taken part in from 2002 through 2014[68].

3. General Expectations

Legislators possess finite time and resources; in the meantime they are confronted with infinite problems and frustrations, therefore legislators are motivated to spend their legislative effort as efficiently as possible. In this information rich

[68] The report ends in 2014 to match the time range of my quantitative data. This is explained further in Chapter 4.

environment, various political actors tend to deliver crafted information to grab legislative attention. Lobbyists, think tanks, policy advocates, and interest groups enthusiastically compete for legislative attention by delivering framed messages to key decision makers. Reelection-seeking legislators respond differently to a wide array of signals. Moynihan (2008) suggests that performance management programs are electorally friendly in their internal value—to improve service efficiency and enhance overall performance outcomes. Such benefits are also present in performance funding policy, given that states enact performance funding mainly for political and ideological reasons (Rabovsky 2013).

The two best known private foundations, the Gates and Lumina Foundations, have loudly spoken of their endorsement of performance funding on various occasions. They attend conferences, distribute information on performance funding approaches, and broadcast the policy ideas to state governments. The two Foundations spend great deals of time networking around government officials and maneuvering their way into the legislative process. This above discussion leads me to four general expectations. First, changing information that causes negative policy image shift contributes to non-adoption of performance funding policy. Second, lack of interactions with private foundations that support performance funding in higher education contributes to the non-adoption of the program. Three, lack of participation in policy networks contributes to the non-adoption of performance funding. Lastly, lack of interactions with other policy agents contributes to the non-adoption of performance funding in higher education. The next chapter presents quantitative results of how previously

identified diffusion variables contribute to states' adoption of performance funding. Based on the quantitative findings, I identify two states (Alabama and Mississippi) that share similar scores on the significant variables but made opposite decisions on performance funding for hypotheses testing.

Table 3.1: Timeline of Lumina activities on higher education from 2000 through 2014 (Source: The Lumina Foundation 2017)	
Year	Events
2000	The Lumina Foundation was established.
2002	In the final quarter, Lumina approved 44 grants totaling more than $6.2 million to expand college access and student success nationwide for 2003.
2003	In the final quarter, Lumina approved two sets of grants for 2004 to expand college access and student success nationwide: 22 grants totaling $2.49 million; and 75 grants totaling almost $24 million.
2004	-In January, Lumina expanded *College Goal Sunday*—a program that assists low-income students and families clear the paperwork hurdle when applying for college financial aid—to five exploratory states and five implementation states—Alaska, Illinois, Hawaii, Maine, Massachusetts, Michigan, Missouri, Montana, Nevada, and Texas. Prior to these newly joined states, the existing states in the program were Arizona, California, Indiana, Kansas, Kentucky, Ohio, Oklahoma, and Wyoming and a combined program serving Maryland, Delaware, and the District of Columbia. - In January, the foundation granted a total of $866,500 to programs designed to ensure student success during the critical first years of college in Indiana. -In May, Lumina teamed up with the National Association of Student Financial Aid Administrators (NASFAA) to expand a successful program that helps low-income families apply for college financial aid. -In June, 27 community colleges in five states (Florida, North Carolina, New Mexico, Virginia, and Texas) announced to participate in *Achieving the Dream: Community Colleges Count*, a new initiative designed to enhance the academic success of low-income and minority students. Each college received a $50,000 investment grant to develop plans for addressing this challenge and were eligible for additional funding to implement their plans. -In November, the American Indian College Fund announced to use a $373,000 grant from Lumina to create a fund that will help Native American students achieve academic success. -In December, Lumina and Scholarship America teamed up on a three-year pilot project to provide emergency aid for community college students who might otherwise drop out of school. The beneficiaries of the aid were students enrolled in 11 community colleges in five states (Florida, New Mexico, North Carolina, Texas, and Virginia).

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2005	-In May, Lumina funded an NCSL project to place legislators at the center of a national dialogue addressing the issue of low higher education graduation rates and the increasing costs of obtaining a college degree. -In June, the National Association of Student Financial Aid Administrators (NASFAA) announced $272,600 in additional funding from Lumina to support national management of *College Goal Sunday*. -In October, Lumina partnered with three other foundations (the Joyce Foundation, the Bank of America Charitable Foundation, and the JP Morgan Chase Foundation) and announced a $1,000,000 prize competition to recognize community colleges with outstanding academic and workforce outcomes. -In October, Lumina announced their approval of a grant totaling $28,874,137 to six organizations in support of their work with *Achieving the Dream*—a national initiative to help more disadvantaged community college students succeed. These organizations are the American Association of Community Colleges, the Community College Leadership Program at the University of Texas-Austin, the Community College Research Center at the Columbia University, Jobs for the Future, Manpower Development Corp, and Manpower Demonstration Research Corporation. - In December, Lumina released a sponsored research report exploring how community colleges can best use data to improve their service to students. The author of the paper is Alicia Dowd, an assistant professor at the University of Massachusetts Boston. - In December, Lumina announced two grants totaling $2.7 million to help guide strategic planning efforts to strengthen the future of higher education in Indiana. One grant for $750,000 was awarded to the Central Indiana Corporate Partnership Foundation to work in collaboration with the Governor's Office and the state's public colleges and universities. -In the final quarter, Lumina approved 203 grants, totaling $81.5 million to organizations across the country to expand college access and student success.
2006	-In the first half of the year, Lumina awarded $5.3 million in 45 grants to help students gain access to and achieve success in higher education. The grants were delivered to organizations in 20 states and the District of Columbia to support research, expand student services, hold public policy convenings, and replicate models that have successfully shaped educational access and success. These 20 states are Arkansas, California, Colorado, Florida, Georgia, Illinois, Indiana, Massachusetts, Michigan, Missouri, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, and Washington. - During the third quarter, Lumina awarded $19.9 million in grants to 54 organizations in 19 states and Washington D.C. to expand access and success for students. These 19 states are: Arkansas, California, Georgia, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, Montana, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South, Tennessee, and Texas. - During the last quarter, Lumina awarded $16.9 million in grants to 79 organizations in 24 states and Washington, D.C. The grants were dedicated to help traditionally underrepresented college students through strategic grants, convenings, and programs. The 24 states are: Arizona, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Louisiana, Maine, Massachusetts, Michigan, Missouri, New York, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Texas, Washington, and West Virginia.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2007	- In March, Lumina committed up to $18 million in additional funds over five years to *Achieving the Dream* program. This appropriation brought Lumina's total expected investment in *Achieving the Dream* to nearly $74 million and extended its commitment to the initiative through 2012 (previously Lumina made two financial contributed to the program in June 2004 and October 2005. This information is listed above in this same table). - In June, eight colleges from Arkansas and Massachusetts joined the *Achieving the Dream* program, bringing the total number of participating institutions to 82 colleges in 15 states. These eight colleges received $50,000 grants from the Lumina Foundation to plan and launch *Achieving the Dream* on their campuses in the same year, and then became eligible for implementation grants worth up to $400,000 over four years[7]. - In the third quarter, Lumina awarded more than $16.8 million to 47 organizations in 19 states and the District of Columbia to help increase college access and student success. These 19 states are: California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Missouri, Montana, North Dakota, New York, Ohio, Oregon, Pennsylvania, and Texas.

[7] As of July 2017, 38 states and District of Columbia have joined this program. The 38 states are: Alabama, Arkansas, Arizona, California, Connecticut, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Massachusetts, Maryland, Maine, Michigan, Minnesota, Missouri, Montana, North Carolina, North Dakota, Nebraska, New Jersey, New Mexico, Nevada, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Vermont, Washington, and Wisconsin (Achieving the Dream 2017).

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2008	-In February, Jamie P. Merisotis, President of the Lumina Foundation, spoke at the Higher Education Group, Washington, D.C. about the foundation's work in the higher education area. During the remark, Merisotis called for future collaboration among various organizations to advance the development of higher education and ensure student success. -In the first quarter, Lumina awarded more than $7.7 million to 29 organizations in 12 states and Washington D.C. to support research, expand student services, hold public policy convenings, and replicate models that have successfully shaped access and success in higher education. These 12 states are: Illinois, Indiana, Iowa, Minnesota, Mississippi, Missouri, New Mexico, New York, North Carolina, Pennsylvania, Virginia, and Washington. -In April, Lumina awarded the Central Indiana Community Foundation a $2.6 million grant to establish the College Readiness Fund. The fund was dedicated to expand and improve college access components for out-of-school-time programs in Central Indiana. - In July, Jamie P. Merisotis spoke at two events about the foundation's work in improving higher education. The two events are: the SHEEO Annual Meeting in Boston, MA; and the Grantmakers for Education Meeting in San Francisco, CA. -In September, Jamie P. Merisotis spoke at the Council for Opportunity in Education Annual Conference, Washington, D.C. about the foundation's work in improving higher education. -In October, Jamie P. Merisotis spoke at two events about the foundation's work in improving higher education. The two events are: the Minority Serving Institutions Convening in Indianapolis, IN; and the Association of American Colleges & Universities Network for Academic Renewal Conference in Long Beach, CA. - In the third quarter, Lumina awarded more than $12.5 million to 41 organizations in 15 states and the District of Columbia. These grants intended to sponsor events, expand student services, hold public policy meetings, and support research—all in an effort to enhance college access and success. These 15 states are: California, Colorado, Florida, Illinois, Indiana, Maryland, Massachusetts, Missouri, New York, Ohio, Pennsylvania, South Carolina, Texas, Virginia, and Washington. -In November, Lumina distributed an $800,000 grant to the American Council on Education. The grant was given to the *Serving Those Who Serve: Higher Education and America's Veterans* program—a broad-based initiative designed to promote access to and success in higher education for more than 2 million service members and their families who are eligible for newly expanded benefits under the Post-9/11 Veterans Educational Assistance Act of 2008.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2008	- In December, Lumina awarded grants to 11 states to help develop and implement policy changes that promote cost-saving methods of delivering high-quality education to greater numbers of students. Each state received an initial $150,000, one-year grant through the foundation's Making Opportunity Affordable initiative to develop innovative strategies in key policy areas to promote sustainable productivity improvements. The states were eligible to compete in 2009 for up to five, $2-million Opportunity Grants to implement their plans over four years. These 11 states are Arizona, California, Colorado, Indiana, Maryland, Mississippi, Montana, Ohio, Tennessee, Texas, and Wisconsin. - In the final quarter, Lumina awarded more than $26.5 million to 79 organizations in 25 states, and the District of Columbia. The grants were part of Lumina's Big Goal effort.
2009	-In January, Jamie P. Merisotis spoke at the Hartford Consortium for Higher Education Roundtable luncheon in Hartford, CT about Lumina's *Big Goal*, which aims at achieving 60 percent of the American population to hold high-quality, two- or four-year college degrees and credentials by the year 2025. In the same month, Merisotis made a testimony to the Higher Education and Employment Advancement Committee at the Connecticut Legislature in Hartford, CT. In the testimony, Merisotis proposed a list of legislative strategies to improve higher education. - In February, Jamie P. Merisotis made a remark at the American Council on Education Annual Meeting Closing Plenary Luncheon in Washington, DC. During the speech, Merisotis proposed a list of legislative strategies to improve higher education. -In March, Jamie P. Merisotis spoke at two events about the work Lumina has done to improve higher education and explained the approaches to achieve better higher education. These events are: the Governor's Conference on Higher Education in State College, PA; and the Social Innovation Forum Speaker Series in Boston, MA. -In April, Lumina made a grant of more than $5 million over three years to YMCA of the USA to fund *College Goal Sunday*—a national, volunteer-driven program that assists students and families in applying for college financial aid. - In June, Jamie P. Merisotis spoke at the National Council of Higher Education Loan Programs Spring Convention in Clearwater, FL. Merisotis shared Lumina's *Big Goal* and strategies to improve higher education success. -In the second quarter, Lumina awarded grants totaling more than $18.3 million to 25 organizations in 10 states, Washington D.C., and the District of Columbia. The grants were used to help prepare students for success in education beyond high school academically, financially and socially; improve higher education completion; and increase higher education productivity. These 10 states are: New York, Indiana, Ohio, Illinois, Rhode Island, North Carolina, Missouri, Connecticut, Virginia, and Oregon. -In July, Ivy Tech joined 19 other community colleges in seven states and became part of the *Achieving the Dream* initiative. Lumina made a matching grant to provide first-year funding for Ivy Tech's participation here in Indiana as well as for colleges in California, Illinois, New York and Vermont.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2009	-In October, Lumina Foundation, along with Gates Foundation, funded $1 million in grants to improve the accountability system in community colleges nationwide. A new accountability system for community colleges was launched by the American Association of Community Colleges, the College Board, and the Association of Community College Trustees. The foundation grants were used to fund eight initial pilot sites for the new system. These sites are: Cuyahoga Community College in Ohio, Dallas Community College District in Texas, Greenville Technical College in South Carolina, Ivy Tech Community College in Indiana, Laney College in California, Louisiana Community and Technical College System in Louisiana, Oklahoma City Community College in Oklahoma, and Pima Community College District in Arizona. -In October, Jamie P. Merisotis spoke at the Association of Community College Trustees Annual Leadership Congress in San Francisco, CA about Lumina's Big Goal and strategies to achieve the Big Goal. -In October, Lumina awarded grants to the KnowHow2GO initiative—a program that helps low-income and first-generation students in grades eight through 10 to take the steps necessary to prepare for college. Five planning grants, ranging from $58,400 to $163,500, were distribute to Illinois, Washington, Ohio, Kentucky, and California. Additionally, Lumina funded organizations in six states that would re-grant to youth-serving organizations that support the KH2GO target population. These six states—Nebraska, Connecticut, Minnesota, Montana, Tennessee, and Wisconsin—each received a $140,000 grant. -In November, Lumina announced an up to $9 million investment that would last over the next four years in seven states' efforts to deliver higher education in more cost-efficient ways. States receiving productivity grants for up to four years through Lumina's College Productivity initiative—Arizona, Indiana, Maryland, Montana, Ohio, Tennessee and Texas—would work on everything from crafting approaches to reward students and institutions financially for course and degree completion to developing cost-effective models for serving greater numbers of students. -In November, Jamie P. Merisotis spoke at the Louise McBee Lecture at the University of Georgia (Athens, GA) about Lumina's Big Goal, ways to achieve Big Goal, and higher education evaluation. -In the final quarter, Lumina awarded 42 grants totaling $16.2 million to organizations in 15 states, Washington D.C., and the District of Columbia. The grants were used to help prepare students for success in education beyond high school, improve higher education completion rates, and increase higher education productivity. These 15 states are: New York, Ohio, Indiana, Illinois, Pennsylvania, Minnesota, Tennessee, Florida, Rhode Island, Massachusetts, North Carolina, Texas, California, Michigan, and Utah.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2010	-In January, Jamie P. Merisotis spoke at two events about Lumina's Big Goal and how to achieve the Big Goal. These events are: the Envisioning the Future of Higher Education, Kickoff Summit for DGREE.org in Sausalito, CA; and the USC Center for Enrollment Research, Policy, and Practice in Los Angeles. - By March, 17 states have joined with Complete College America (CCA) to increase the number of young adults with a college degree or credential. Five national foundations (the Carnegie Corporation of New York, the Ford Foundation, the Bill and Melinda Gates Foundation, the W.K. Kellogg Foundation, and Lumina Foundation) collectively provided $12 million in initial funding to CCA to work with the allied states. These 17 states have committed to help students successfully complete college and close attainment gaps for traditionally underserved populations. These 15 states are: Connecticut, Hawaii, Idaho, Illinois, Indiana, Maryland, Massachusetts, Nevada, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, and West Virginia. - In April, Jamie P. Merisotis made a testimony to the Joint Committee on the Master Plan for Higher Education in Sacramento, CA. In the testimony, Merisotis spoked about Lumina's *Big Goal* and proposed a list of legislative strategies to improve higher education. In the same month, Merisotis made a Luncheon keynote at the "Challenges and Opportunities: Future Pathways Towards Immigration and Higher Education" in Washington, DC about improving higher education system. -In May, Jamie P. Merisotis spoke at Indiana's education roundtable on IUPUI (Indiana University – Purdue University Indianapolis) Campus in Indianapolis, IN about strategies to improve higher education graduation rates. -In June, Jamie P. Merisotis spoked at the Association for Institutional Research's Annual Forum in Chicago, IL about Lumina's *Big Goal* and proposed a list of legislative strategies to improve higher education. -In July, Jamie P. Merisotis spoked at the SHEEO Annual Meeting in Minneapolis, MN about Lumina's *Big Goal* and proposed a list of legislative strategies to improve higher education. -In August, Jamie P. Merisotis spoked at two events about Lumina's *Big Goal* and ways to achieve *Goal 2025*. The two events are: The ICHE (Indiana Commission for Higher Education) Trustees Academy in Indianapolis, IN; and the Virginia Community College System, Chancellor's Annual Planning Retreat in Richmond, VA. -In September, Jamie P. Merisotis spoke at the Embassy Education Breakfast Series: Australian Embassy in Washington, DC about drawing lessons from other countries to improve higher educational attainment in the U.S. -In October, Jamie P. Merisotis spoke about increasing higher educational attainment at two events. These events are the New England Board of Higher Education Conference in Boston, MA; and the "Cities for Success" Leadership Summit in Louisville, KY.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2010	-In November, Jamie P. Merisotis spoke at the Association for the Study of Higher Education Annual Conference in Indianapolis, IN about government higher education policy making and educational attainment. Later in the month, the foundation sponsored a research project and published a paper recommending legislative strategies to higher education officials to reach the goal of college access, quality and a better educated population.
2011	-In February, Jamie P. Merisotis made a testimony at the Arizona House of Representatives Higher Education, Innovation and Reform Committee in Phoenix, AZ. Merisotis recommended a few legislative strategies to improve higher education quality. -In March, Jamie P. Merisotis made a testimony at the Senate education committee in Nashville, TN. Merisotis recommended a few legislative strategies to improve higher education quality. -In April, the foundation launched a series of new digital assets to support the field in reaching *Goal2025*. The foundation also released a new iPhone and iPad application that was for browsing and navigating national and state data on higher education attainment rates. In addition to this digital effort, the Lumina Foundation awarded grants totaling more than $15.4 million to organizations in eight states and the District of Columbia. The grants were committed to three primary areas: helping students academically and financially prepare for college, improving higher education graduation rates, and expanding higher education capacity to serve more students. These eight states are: Colorado, North Carolina, Iowa, Indiana, Virginia, Illinois, California, and Michigan. In the same month, Jamie P. Merisotis spoke at two events about Lumina's *Big Goal* and strategies to achieve the goal. The two events are: the Connecticut Board of Governors for Higher Education in Hartford, CT; and the National Center for the Study of Collective Bargaining in Higher Education and the Professions in New York. -In May, Jamie P. Merisotis spoke at the Building a Culture of College Access and Success Meeting in Lincoln, NE about developing state policies that could help improve higher education in Nebraska. -In July, Jamie P. Merisotis spoke at the annual SENCER (Science Education for New Civic Engagements and Responsibilities) Summer Institute at Butler University in Indianapolis, IN broadcasting the agenda of improving higher education performance. Later in the month, Merisotis spoke at the National Governors Association Annual Meeting in Salt Lake City, UT recommending legislative strategies to improve higher education performance. -In September, Jamie P. Merisotis spoke at the Committee for Economic Development in Washington DC encouraging higher education reforms to improve academic performance. In the same month, Holly Zanville, Program Director at the Lumina Foundation, spoke at the International Economic Development Conference Annual Conference in Charlotte, NC about strategies to improve institutional performance in technical and community colleges. -In October, Jamie P. Merisotis spoke at three events about the importance of college success and higher educational attainment. These events are: the Certified Success Summit in Wheeling, WV; the Coalition of Urban and Metropolitan Universities Annual conference in Indianapolis, IN; and the Maine Symposium on Higher Education in Portland, ME.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2011	-In October, Jamie P. Merisotis spoke at three events about the importance of college success and higher educational attainment. These events are: the Certified Success Summit in Wheeling, WV; the Coalition of Urban and Metropolitan Universities Annual conference in Indianapolis, IN; and the Maine Symposium on Higher Education in Portland, ME. -In November, the Lumina Foundation launched a collaborative partnership designed to strengthen ventures in key metropolitan areas that show promise in improving the postsecondary attainment of Latino students. The foundation provided a total of $7.2 million over a four-year period to 12 partnerships in 10 states with significant and growing Latino populations. The partnerships were designed to leverage community leaders across key policy, education, business and nonprofit sectors to build, implement and sustain successful "place-based efforts" that capitalize on their local talents and ingenuity. These 10 states are: Arizona, California, Florida, Georgia, Kentucky, New Mexico, New York, North Carolina, Tennessee, and Texas. In the same month, Elizabeth Gutierrez, State Policy Director of the foundation, spoke at the Hispanic Association of Colleges and Universities Conference in San Antonio, TX about improving postsecondary graduation rates among Hispanic students. Later in the month, Jamie P. Merisotis spoke at the 7th Annual Policy Summit of Midwest Higher Education Compact in Iowa City, IA about college preparation and higher education performance. -In December, Jamie P. Merisotis spoke at the National Advisory Committee on Institutional Quality and Integrity in Alexandria, VA about taking legislative actions to improve higher education quality.
2012	-In the first quarter, the Lumina Foundation awarded grants totaling nearly $4 million to four higher education organizations: Excelencia in Education, United Negro College Fund, The Education Conservancy, and HCM Strategists. The grants were committed to three primary areas: helping students academically and financially prepare for college, improving higher education graduation rates, and expanding higher education capacity to serve more students. -In May, the Lumina Foundation provided a $990,000 grant to the National Research Council. The council released recommendations of an expert panel that developed a practical productivity measure which enhances the ability of administrators, policymakers and the public to track college and university performance. In the same month, Jamie P. Merisotis spoke at three events about improving higher education graduation rates and performance. These events are: the Clinton School Speaker Series in Little Rock, AR; the Rebuilding America's Middle Class Convening in Indianapolis, IN; and the El Paso Chamber of Commerce "State of Higher Education" event in El Paso, TX. Later in the month, Dewayne Matthews, Lumina's vice president of strategy development, spoke at the Tulsa Metro Chamber's State of Education Meeting presenting research on the growing demand for skilled workers with high-quality degrees and credentials. -In June, Jamie P. Merisotis spoke at the 2012 Chairman's Conference—Southern Growth Policies Board in Chattanooga, TN about improving higher education in southern states. -In July, Jamie P. Merisotis spoke at three events about the importance of higher education and improving higher education performance. These events are: the College Changes Everything Conference, Illinois Student Assistance Commission, in Tinley Park, IL; the National Council of State Directors of Community Colleges in New Orleans, LA; and the Rotary Club of Indianapolis, IN. -In August, Jamie P. Merisotis spoke at two event about legislative actions on improving higher educational attainment. These events are: the SHEEO Higher Education Policy Conference in Chicago, IL; and the NCSL's Annual Legislative Institute on Higher Education in Denver, CO.

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2012	-In October, Lumina Foundation, along with four other foundations (Kresge Foundation, Helios Education Foundation, USA Funds, and Bill & Melinda Gates Foundation), provided $6.4 million in grants supporting a multi-state initiative to help more students who have transferred from community colleges to four-year colleges and universities complete their associate degrees. The states that received Lumina dollars are Colorado, Minnesota, Missouri, New York, Ohio, and Oregon. -In October, Jamie P. Merisotis spoke at Skilled Workforce State Summit, Minnesota Chamber of Commerce, in St. Paul, MN about taking legislative actions to improve higher education quality.
2013	- Throughout the entire year, Lumina Foundation awarded 96 grants, totaling nearly $63 million, to design and build an equitable, accessible, responsive and accountable 21st century higher education system while creating a national sense of urgency to achieve *Goal 2025*. The 20 states that received grants are: Arizona, California, Colorado, Georgia, Illinois, Indiana, Iowa, Massachusetts, Maryland, Michigan, Minnesota, New Hampshire, New York, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, and Wisconsin. - In January, Jamie P. Merisotis spoke at the Statewide Completion Forum, an event held by the Maryland Higher Education Commission, in Baltimore, MD about improving college attainment in Maryland. - In February, Jamie P. Merisotis spoke at the Economic Club of Florida in Tallahassee, FL about transforming higher education through legislative means in Florida. - In March, Jamie P. Merisotis spoke at the Austin Economic Club in Austin, TX about improving college graduation in Texas. - In April, Jamie P. Merisotis spoke at the Spring Conference—an event held by the Pennsylvania Association of Councils of Trustees in Harrisburg, PA about changing higher education agenda and improve college graduation. - In June, Jamie P. Merisotis spoke at the National Forum on Education Policy—an event held by the Education Commission of the States in St. Louis, Missouri about improving college completion through legislative means. - In July, Jamie P. Merisotis spoke at the SHEEO Annual Meeting in Washington, DC about setting policy goals for college completion nationwide. Merisotis spoke at the National Association of College and University Business Officers Annual Meeting in Indianapolis about redesigning higher education system to improve college completion. - In August, Jamie P. Merisotis spoke at the Council of Independent Colleges/Degree Qualifications Profile Consortium meeting in Indianapolis about Degree Qualifications Profile, a learning-centered framework for what college graduates should know and be able to do to earn the associate, bachelor's or master's degree. Later in the month, Merisotis made closing remarks at the 2013 August National Energy Education Network Meeting in Indianapolis, IN. During the speech, Merisotis explained the student-centered and outcome-based higher education funding strategy the foundation has been promoting. The foundation also sponsored the event (Center for Energy Workforce Development 2013).

Table 3.1(Continued): Timeline of Lumina activities on higher education from 2000 through 2014	
Year	Events
2013	-In September, Foundation Jamie Merisotis made spoke at the Council for Opportunity in Education Annual Conference in Chicago Illinois. Merisotis referred to his experience as a co-founder of the Institute for Higher Education Policy back in 1993 and argued that "learning outcomes simply must be the true measure of educational quality." -In October, Jamie Merisotis spoke at the Association of Community College Trustees Leadership Congress in Seattle, WA about community college reform to produce better completion. Merisotis also spoke at the Scaling Up Conference at the Illinois State University about improving college completion through legislative means. -In November, Jamie Merisotis spoke at the Council for Adult and Experiential Learning International Conference in San Diego, CA about improving college completion through legislative means. -In December, Lumina's Chief of Staff and General Counsel Holiday McKiernan presented at the Middle States Commission on Higher Education Annual Conference in Philadelphia, PA. McKiernan analyzed the current trend of performance-based funding in various states and highlighted the importance of educational outcomes and quality.
2014	- In January, Jamie Merisotis spoke at the Oregon Higher Education Symposium in Portland, Oregon. Merisotis stated that Lumina's outcomes-oriented approach is effective for the nation to improve college performance and increase college attainment. - In February, Jamie Merisotis spoke at the National Assessment Conference at the Texas A&M University about the importance of higher education performance assessment. - In November, Jamie Merisotis spoke at two national events encouraging state and federal policymakers push for a more accountable higher education system based on institutional outcomes. The two events are: the American Marketing Association meeting in Austin, Texas; and the Association of Governing Boards Luncheon in Chicago, Illinois.

(Note: The grants and events listed in the table are non-repetitive.)

Chapter IV. Quantitative Findings

Introduction

This dissertation investigates the diffusion and non-diffusion of performance funding in higher education. In the previous chapter, I propose four general expectations that explain performance funding non-adoption: changing information that causes negative policy image shift, lack of interactions with private foundations that support performance funding, lack of participation in policy networks, and lack of interactions with other policy agents. This chapter details the descriptive information regarding the enactment of performance funding policy from 1979 through and including 2014[69]. In this chapter, I conduct a quantitative analysis of diffusion variables in leading to states' adoption of performance funding. The Event History Analysis (EHA) models are reviewed to analyze how the previously identified determinants perform in the case of performance funding diffusion.

1. Event History Analysis (EHA)

Performance funding was first officially adopted by Tennessee in 1979; to this day (May 2018) 41 states have experimented with this program. As of January 2017, 32 states have performance funding formulas in place and five states are transitioning to performance funding. Because state policy adoption occurs over both space and time, EHA is the appropriate method to study such occurrences. EHA allows the user to trace the dynamics of policy adoption and incorporate both internal and external factors that

[69] The final year of observation is 2014 due to the data availability for some of the variables. This is discussed in further detail later in this chapter.

may have led to the adoption decision. EHA estimates the hazard rate of a state's adoption of a policy innovation in a certain year. The hazard rate is defined as the probability that an individual will experience an event during a particular time period, given that the individual is 'at risk' of experiencing the event at that time (Allison 1984; Berry 1994). Applied to the diffusion and innovation of performance-based funding policy, the hazard rate reveals the probability that a state will adopt such a policy.

In an EHA dataset, each state in each year is a case. After the event occurs—meaning a state adopts performance funding—no more years are observed for that state, therefore the adopter drops out of the dataset. States included in the dataset for a particular year make up the risk set for that year, that is, those states that could adopt the policy that year. The size of the risk set varies by year depending on the number of states that have previously adopted the policy. This discrete-time analysis assumes that the policy events of interest are non-repeatable. The risk set, therefore, potentially shrinks in size with each passing year, while the hazard rate fluctuates annually with the number of states (out of the total remaining in the at-risk set) actually experiencing events.

2. Research Design and Data Collection

2.1. Comparison with McLendon et al.'s 2006 Study

As briefly discussed in the introduction chapter, McLendon et al. (2006) conducted a similar study on determinants of state adoption of performance accountability policies from 1979 through 2002. In their research, they hypothesized 10 independent variables that may have potentially led to states' enactment of three

performance accountability programs including performance funding, performance budgeting, and performance reporting. Their independent variables are—states' educational attainment, change in gross state product, legislative professionalism, percentage of Republicans in the legislature, gubernatorial power, Republican gubernatorial control, change in tuition at state flagship universities, change in public higher education enrollment, the presence of consolidated governing boards, and the percent of bordering states with similar policies. After evaluating their EHA findings, the authors conclude that Republican legislative strength (measured by an annual time-dependent variable that indicates the proportion of major party legislators across both chambers of a state's legislature that are Republican) and whether the state has a consolidated governing board are significant predictors of states' likelihood to adopt performance funding policy. More specifically, higher percentages of Republican legislators in a state and the absence of a consolidated governing board increased the probability of a state adopting such a policy in a given year.

My study loosely replicates McLendon et al.'s model but is more robust in three ways. First, McLendon et al.'s study was conducted over 10 years ago and the authors studied performance funding adoption from 1979 to 2002. In my research, I have included additional 12 years' worth of data (1979-2014). Second, McLendon et al. didn't define the criteria for performance funding policy adoption. As I elaborate in the second chapter, I look into the adoption of performance funding for every state and define the adoption of performance funding using three criteria. Third, McLendon et al. include three variables for measuring government ideology (percent Republican

legislature, gubernatorial power, and Republican governor). I consolidate government ideology into one variable using Berry et al.'s (2012) measure. These differences are discussed in detail below.

2.2. Dependent Variable

In this dissertation, I employ a particular type of EHA, a discrete-time logit model because policy *initial* adoption is a discrete, non-repeatable event. The dependent variable is the **adoption decision of performance funding policy**, coded as 0 representing non-adoption or 1 representing adoption. The year of the decision is recorded as the initial year of adoption. This study uses Walker's (1969) original definition of policy innovation: "a program or policy which is new to the states adopting it, no matter how old the program may be or how many other states may have adopted it" (p. 881). Using the definition and criteria I explain in Chapter 2, any type of higher education performance funding policy enactment is regarded as an innovation. My dataset begins with the first year a state adopted performance funding in higher education, which is 1979. My dataset ends in 2014 due to the availability of data. The investigation in this dissertation excludes Alaska and Hawaii due to their non-contiguity to the mainland states and the potential bias on the horizontal diffusion hypothesis.

As defined in detail in the second chapter, state adoption of performance funding in higher education has to meet three criteria (Dougherty and Natow 2015). **First**, adoption of performance funding can occur not just in the form of state statute but also in the form of other governmental authoritative decisions. **Second**, the program must specify a focus on institutional outcomes. Programs that do not specify

connecting funding directly to institutional performance are excluded in this research. **Third**, the initial adoption is determined by when the program was first authorized and not when the funding began to flow to the state higher education institutions. As of January 2017, 32 states have a performance funding formula in place; historically 41 states have experimented with performance funding. Because this study focuses on policy adoption and non-adoption, I include all of the lower 48 states regardless of their current higher education funding strategies. Table 4.1 below reports the initial years of enactment of performance funding and the current status of the policy in each state.

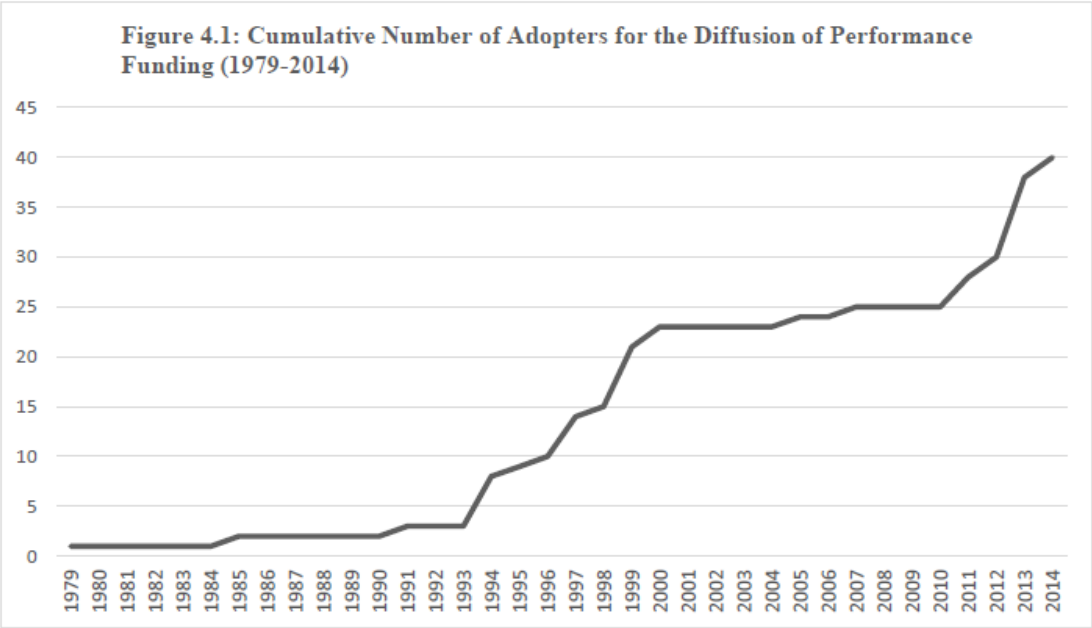
Table 4.1: State Adoption of Performance-Based Funding in Higher Education (1979-2014) (Sources: Burke & Minassians 2000, 2002, 2003; Dougherty and Reddy 2013; Dougherty and Natow 2015; Dougherty, Natow, Hare, Jones, & Vega, 2013; Friedel et al. 2013; Gorbunov, 2013; Rabovsky 2013; McLendon et al., 2006; National Conference of State Legislatures 2016, 2017; official state government websites; official state higher education board websites)					
State	Year of Initial Adoption	Current Status			
		Still Effective (January 2017)	In Place at Two-Year Institutions	In Place at Four-Year Institutions	In Place at Both Two-Year and Four-Year Institutions
Alabama	**Non-adoption**	**No**			
Arizona	2012	Yes		X	
Arkansas	1994	Yes			X
California	1998	No	X		
Colorado	1994	Yes			X
Connecticut	1985	Yes			X
Delaware	**Non-adoption**	**No**			
Florida	1994	Yes			X
Georgia	2013	Yes			X
Idaho	2000	No		X	
Illinois	2012	Yes			X
Indiana	2007	Yes			X
Iowa	2014	Yes		X	
Kansas	1999	Yes			X
Kentucky	1994	No			X
Louisiana	1997	Yes			X
Maine	2013	Yes		X	
Maryland	**Non-adoption**	**No**			
Massachusetts	2013	Yes			X
Michigan	2011	Yes			X
Minnesota	1994	Yes			X
Mississippi	2011	Yes		X	
Missouri	1991	Yes			X
Montana	2013	Yes			X
Nebraska	**Non-adoption**	**No**			
Nevada	2013	Yes			X
New Hampshire	**Non-adoption**	**No**			
New Jersey	1999	No			X
New Mexico	2011	Yes			X

Table 4.1 (Continued): State Adoption of Performance-Based Funding in Higher Education (1979-2014)					
State	Year of Initial Adoption	Current Status			
		Still Effective (January 2017)	In Place at Two-Year Institutions	In Place at Four-Year Institutions	In Place at Both Two-Year and Four-Year Institutions
New York	1999	Yes	X		
North Carolina	1999	Yes			X
North Dakota	2013	Yes			X
Ohio	1995	Yes			X
Oklahoma	1997	Yes			X
Oregon	1999	Yes		X	
Pennsylvania	2000	Yes		X	
Rhode Island	**Non-adoption**	**No**			
South Carolina	1996	No			
South Dakota	1997	Yes			X
Tennessee	1979	Yes			X
Texas	1999	Yes	X		
Utah	2013	Yes			X
Vermont	2015	Yes			X
Virginia	2005	Yes			X
Washington	1997	Yes	X		
West Virginia	**Non-adoption**	**No**			
Wisconsin	2013	Yes	X		
Wyoming	2014	Yes	X		

Note1: Alaska and Hawaii are excluded.
Note2: Seven states (Alabama, Delaware, Maryland, Nebraska, New Hampshire, Rhode Island, and West Virginia) have never adopted performance-based funding.
Note3: The detailed information for each state is available in Chapter 2.

Figure 4.1 bellow illustrates what the diffusion literature often refers to as the "S-shaped curve of innovation diffusion" (Rogers 1983), which depicts the innovation adopters graphed over time by the number of the total population adopting. In policy diffusion, an "S-shaped curve" summarizes the relative speed with which an innovation is adopted by states. At first, only a few states adopt the innovation in each year; these are the innovators. But soon the diffusion curve begins to climb, as more and more states adopt. Then the trajectory of the rate of adoption begins to level off, as fewer and fewer states remain that have not yet adopted. Finally, the S-shaped curve reaches its asymptote, and the diffusion process is finished (Rogers 1983). Many innovations have an S-shaped rate of adoption. But there is variation in the slope of the "S" from innovation to innovation; some policy programs diffuse relatively rapidly, and the S-curve is quite steep. Another innovation may have a slower rate of adoption, and its S-curve will be more gradual, with a slope that is relatively flat (Rogers 1983).

Figure 4.1 below resembles a pair of S-shaped curves with two periods of innovation: 1979 to early 2000s, and early 2000s to 2014. The trajectory from 1979 through 1993 is rather flat, indicating few adopting states. The line picks up in 1993 and falls flat again in the early 2000s. The second takeoff appears in the early 2010s.



To better demonstrate the pair of S-shaped curves, Figures 4.2 and 4.3 below present the curves for 1979-2002 and 2003-2014. The reason for such cutoff is due to the different justifications for state adoption of performance funding in the two periods. As shown in Figure 4.2, the first adoption of performance funding occurred in Tennessee in 1979 and enactments did not occur again until Connecticut's adoption in 1985. In the early 1990s, a period of steady adoption began. The peak adoption years were 1994 (5 states adopted) and 1999 (6 states adopted). The line becomes flat in 2000, marking the completion of this initial wave of policy innovation.

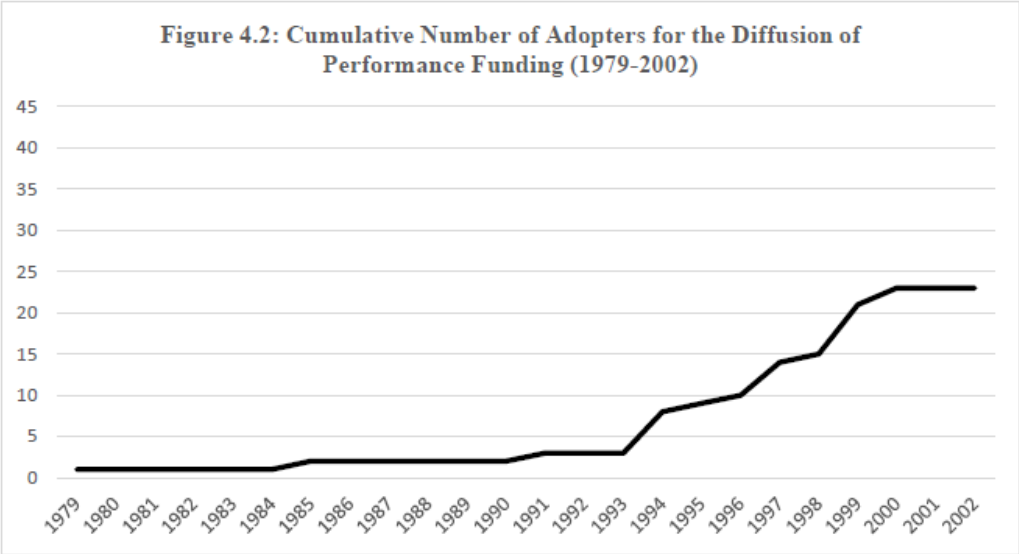
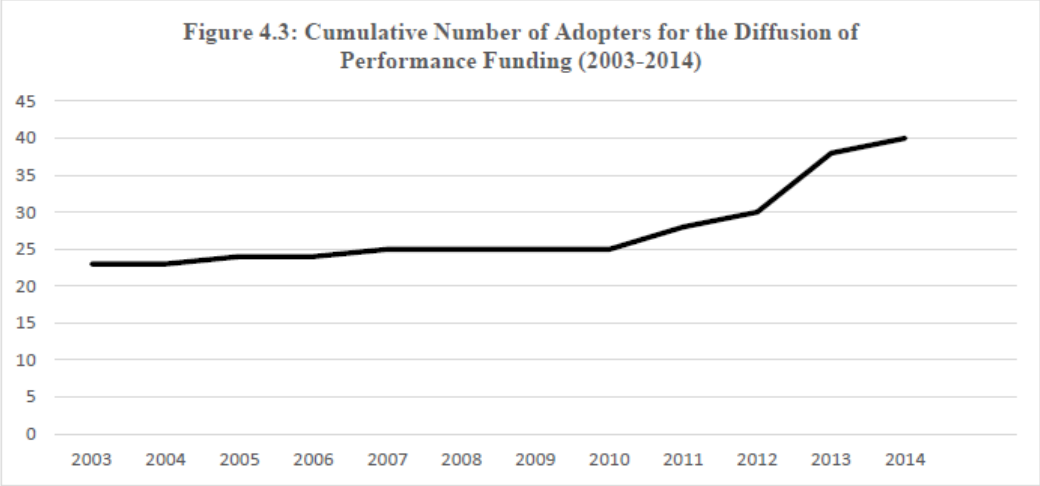


Figure 4.3 below indicates that the second S-shaped curve begins with 23 adopting states. The trajectory line is rather flat from 2003 through 2010 and picks up slightly in the beginning of the 2010s. The peak adoption year was 2013 when 8 states enacted the policy, by the end of 2014, the total number of adopters reaches 40.



It is necessary to examine the two curves separately because the contributing factors that lead to the two periods of innovations are different. The first curve (1979-

2002) could be explained by the nationwide performance management movement in the public sector. As elaborated in Chapter Two, beginning in the 1990s, performance-based funding systems were heavily integrated into state and federal government programs as a means of holding public agencies accountable for improving the quality, efficiency, and effectiveness of program services. Under this performance funding movement, states were motivated to include public colleges and universities that receive government dollars under such scrutiny as well (Noland, Davis, and McClendon 2000). In response to the demand for a higher quality postsecondary education, states find the need to create a more effective higher education funding system. Consequently, performance funding became a popular approach to hold higher education accountable and improve university performance.

Differently, the second adoption curve (2003-2014) could be explained by the participation of philanthropic foundations in state level higher education finance. As indicated in the third chapter, some philanthropic foundations have dedicated financial resources to advertise performance funding. One of the most active nationwide philanthropic foundations on education issues—the Lumina Foundation, has publicly expressed its endorsement for performance funding by arguing that higher education institutions should be funded based on performance factors such as whether students finish courses and hit certain milestones leading to a degree or postsecondary credential; and whether degrees or certificates are ultimately earned (Lumina Foundation 2009). The Lumina Foundation's goal is to increase the proportion of Americans with high-quality postsecondary degrees and credentials to 60% by the year 2025, which the

foundation terms "*Goal 2025*". Founded in 2002, the Lumina Foundation has been publicly expressing their support for tying state funding to higher education outcomes since 2003. The Lumina Foundation indicates on their website that "outcomes-based funding, although not perfect, is a significant step toward ensuring that taxpayers' significant investments in higher education result in more graduates" (Lumina Foundation 2018). In addition to their articulated support for performance funding, they've been distributing grants that help with the cause. Therefore, I contend that the second period of innovation might be attributed to the effort from private foundations like Lumina[70].

As defined earlier, the risk set is the set of states that are at risk of event occurrence at each point in time. For legislative consideration of performance funding in 1979, all 48 contiguous states appear in the risk set; since only Tennessee adopted the program in 1979, the hazard rate for this year is 1/48 (0.0208). The risk set for 1980 is 47 since only 47 states at the time were at risk of adopting performance funding; but 0 state adopted the program, hence the hazard rate is 0. The risk set for 1994 is 45 because 3 states—Tennessee, Connecticut, and Missouri—had adopted the program in the years before, the remaining 45 states had the potential probability of becoming an adopter. Five states—Colorado, Florida, Kentucky, Minnesota, and Arkansas—ended up enacting performance funding in 1994, therefore the hazard rate is 5/45 (0.1111). This information is reported in Table 4.2 below.

[70] Given the nonexistence of Lumina prior to 2002, this explanation does not apply to diffusion that occurred around 2000, which explains why the cut-off year for the second period of adoption is 2003.

Table 4.2: Risk Set and Hazard Rate for States to Adopt Performance Funding Policy					
Year	States Adopting Performance-Based Funding	Number of Adopting States	Cumulative Adoptions	Risk Set	Hazard Rate
1979	TN	1	1	48	0.0208
1980		0	1	47	0.0000
1981		0	1	47	0.0000
1982		0	1	47	0.0000
1983		0	1	47	0.0000
1984		0	1	47	0.0000
1985	CT	1	2	47	0.0213
1986		0	2	46	0.0000
1987		0	2	46	0.0000
1988		0	2	46	0.0000
1989		0	2	46	0.0000
1990		0	2	46	0.0000
1991	MO	1	3	46	0.0217
1992		0	3	45	0.0000
1993		0	3	45	0.0000
1994	CO, FL, KY, MN, AR	5	8	45	0.1111
1995	OH	1	9	40	0.0250
1996	SC	1	10	39	0.0256
1997	LA, OK, SD, WA	4	14	38	0.1053
1998	CA	1	15	34	0.0294
1999	KS, NJ, NY, NC, OR, TX	6	21	33	0.1818
2000	ID, PA	2	23	28	0.0714
2001		0	23	26	0.0000
2002		0	23	26	0.0000
2003		0	23	26	0.0000
2004		0	23	26	0.0000
2005	VA	1	24	26	0.0385
2006		0	24	25	0.0000
2007	IN	1	25	25	0.0400
2008		0	25	24	0.0000
2009		0	25	24	0.0000
2010		0	25	24	0.0000
2011	NM, MI, MS	3	28	24	0.1250
2012	AZ, IL	2	30	21	0.0952

Table 4.2 (Continued): Risk Set and Hazard Rate for States to Adopt Performance Funding Policy					
Year	States Adopting Performance-Based Funding	Number of Adopting States	Cumulative Adoptions	Risk Set	Hazard Rate
2013	GA, ME, MA, MT, NV, ND, UT, WI	8	38	19	0.4211
2014	IA, WY	2	40	11	0.1818

Note1: Alaska and Hawaii are excluded.
Note2: The dataset ends in 2014 due to my data availability.
Note3: AR = Arkansas, AZ = Arizona, CA = California, CO = Colorado, CT = Connecticut, FL = Florida, GA = Georgia, IA = Iowa, ID = Idaho, IL = Illinois, IN = Indiana, KS = Kansas, KY = Kentucky, LA = Louisiana, MA = Massachusetts, ME = Maine, MI = Michigan, MN = Minnesota, MO = Missouri, MS = Mississippi, MT = Montana, NC = North Carolina, ND = North Dakota, NJ = New Jersey, NM = New Mexico, NV = Nevada, NY = New York, OH = Ohio, OR = Oregon, OK = Oklahoma, PA = Pennsylvania, SC = South Carolina, SD = South Dakota, TN = Tennessee, TX = Texas, UT = Utah, VA = Virginia, WA = Washington, WI = Wisconsin, WY = Wyoming
Note 4: Appendix A reports the 48 continental U.S. states and their bordering states.

2.3. Independent Variables

2.3.1. Primary Independent Variables

2.3.1.1. Diffusion Variable

The diffusion variable—**regional influence**—is measured as the number of adjacent states that adopted performance funding. As the diffusion literature suggests, the probability of adoption increases as the number of nearby states that have previously adopted the same program increases (Berry and Berry 1992; Berry 1994). Walker (1969, p. 890) argues that state officials "constantly look to each other for guides to action in many areas of policy". Past diffusion studies confirm that neighboring states are apt to influence each other because of their proximity; therefore, regional influence is considered as a crucial factor that determines state policy adoption (Berry and Berry

1990, 1992; Mintrom 1997a, 1997b; Mintrom and Vergari 1998; Mooney and Lee 1995). Hence, I anticipate that the growing number of adopting neighbors will result in a state's increasing likelihood of adopting performance funding. This research borrows Berry and Berry's (1990) conception of regional diffusion in which a state is more likely to adopt an innovation as the number of neighboring states which have previously adopted increases. Data indicating the number of adopting neighbors are drawn from various sources, including Burke & Minassians 2000, 2002, 2003; Dougherty and Reddy 2013; Dougherty and Natow 2015; Dougherty, Natow, Hare, Jones, & Vega, 2013; Friedel et al. 2013; Gorbunov, 2013; Rabovsky 2013; McLendon et al., 2006; National Conference of State Legislatures 2016, 2017; official state government websites; and official state higher education board websites. The information is reported in Table 4.1 above. The data is coded using the number of adopting neighbors the state has in a particular year. For example, the 2014 data for the state of Alabama is coded as 4 because in 2014, Alabama has 4 adjacent neighbors that have enacted performance funding: Tennessee (adopted in 1979), Georgia (adopted in 2013), Florida (adopted in 1994), and Mississippi (adopted in 2011).

Counting the number of neighboring adopters is a common measure of regional influence and the majority of regional diffusion models posit that governments are influenced primarily by other governments that are geographically proximate. According to Berry and Berry's (2014) review of the diffusion literature, most of these models hypothesize that the probability that a government will adopt a policy is positively related to the number of jurisdictions bordering it that have already adopted

it. In 2001, Mooney developed a different method to explore and assess regional effect (p. 108) which calculates a state's average proportion of adjacent adopters. I chose to use the counting measure simply because of its popularity in the diffusion literature.

2.3.1.2. Lumina Variables

Because I am interested in the second wave of adoption and I speculate that private foundations, especially Lumina, contribute to the diffusion of performance funding, I include two **Lumina Foundation Grants** dummy variables: (1) whether the state higher education governing board received grants from Lumina Foundation, and (2) whether the state received higher education related grants from Lumina Foundation in general. Both variables are coded with "0" being not having received grants, and "1" being having received grants. As discussed in the third chapter, Lumina Foundation has been extensively engaging in state higher education policy making by offering grants, it is reasonable to expect that states that have received financial help from the foundation are more likely to adopt performance funding. The data for these two variables are gathered from Lumina Foundation 990 Forms—Internal Revenue Service forms that provide the public with financial information about nonprofit organizations, which are available on the Lumina website and CitizenAudit[71] (2018)—a database that provides 15 years of disclosures of IRS filings for every charity in the U.S. The forms report the foundation's financial activities for the previous year. For example, the 990 Form from 2014 contains the foundation's financial transactions from 2013. Since Lumina Foundation started rigorous advocating for performance funding in 2002, the data for

[71] Link to the website: https://www.citizenaudit.org/

these two dummy variables begin in 2002 and end in 2014. To maximize the reliability and accuracy of information gathering for this variable, I went through the complete set of 990 Forms[72] (2003-2015) on three different occasions approximately a couple of weeks apart to make sure I categorize all the grants correctly, and all three examinations yielded consistent results.

The third Lumina variable is the **Amount of Lumina Higher Education Grants** distributed to the state. This variable is measured by the dollar amount that the Foundation provided to each state for higher education related purposes for the year. The data for this variable is collected from Lumina's 990 Forms, I went through all the grant money allocated in the "Grants Section" and recorded the total amount for each state. I expect this variable to have positive impact on the dependent variable because it is reasonable to assume that states with higher levels of financial support from Lumina are more aware of the policy, which may indirectly increase their likelihood of adoption.

2.3.2. Other Independent Variables of Interest

In an environment of decreased taxpayer revenue and heightened demand for postsecondary education efficiency, tying funding to successful outcomes has come an appealing approach for state officials. In budgetary decision making, state officials seek to find more effective budget allocation methods, and in some cases, trim budgets. Performance funding connects a portion of state appropriations to metrics that gauge institutional performance on various indicators. Given that performance funding is

[72] Appendix B reports the Grants Distribution from the Lumina Foundation from 2002-2014.

generally awarded as a bonus, which was often the first to be cut in tough budget environments, states are increasingly adopting performance funding both to better leverage existing resources and to spur improvements in student outcomes and institutional efficiency (Snyder 2015). Legislative efforts to manage budget squeezes appears to be one of the common conditions that foster performance funding adoption (Dougherty and Natow 2015). According to Quinterno's (2012) study, budgetary influences have played a major role in sparking interest in performance funding as a way of prompting public institutions to become more efficient with scarce tax dollars. Therefore, it is intuitive to include **state fiscal condition** as a primary determinant of performance funding adoption.

In some studies, state fiscal condition is measured as the difference between total state expenditures and total state revenues divided by total state expenditures (Berry and Berry 1990; Bradford and Bradford 2016; Karch and Cravens 2014). In this dissertation, I measure state fiscal condition by calculating the difference between total state revenue and total state spending divided by total state revenue. Positive ratios indicate better fiscal condition than negative ratios because positive numbers imply a budgetary surplus. The purpose of calculating a surplus, or lack thereof, as a percentage of revenue is two-fold. First, it shows whether the state government spending exceeded the revenues for the year. Second, it demonstrates the size of the surplus or deficit in comparison to the amount of state income. This measure provides me with a reasonable scale for evaluating fiscal condition and protects against inflation and differing costs of living across the states. The data for total state revenue and total state spending is

available online via the U.S. Census Bureau website[73] (2018). Given the objective of performance funding—to enhance higher education cost efficiency, this reasoning leads to the prediction that states with poor fiscal conditions should have more incentive to adopt the program. In other words, fiscal condition and the probability of adopting performance funding are negatively correlated.

The next independent variable is **state educational attainment**, the percentage of state's population age 25 and older that completed 4 or more years of college. I consider this variable because state officials tend to adopt programs that solve societal problems (Karch 2007a). Fryar (2011) suggests that one of the drivers of the performance funding movement in public higher education is concern over degree attainment. State higher education officials may be motivated by perceptions of poor performance by their public higher education institutions, which can be captured by institutions' historical ability to graduate students. For example, the Illinois State Legislature mandated that the Illinois Board of Higher Education incorporate a performance funding element into the higher education system during fiscal year 2012. The effort attempted to link the performance funding development to the *Illinois Public Agenda for College and Career Success* (Illinois Board of Higher Education 2010)—a document that established statewide policy goals with raising levels of educational attainment being the top priority on the agenda. Since the core purpose of performance-based funding is to improve institutional performance and college completion, I expect

[73] Link to the website: https://www.census.gov/

states with inferior higher educational attainment to have higher likelihood of adoption. The data for this variable is obtained from the U.S. Census Bureau website (2018).

The next variable, **higher education tuition change**, refers to the percentage change for average state public 4-year higher education institution tuition and fees. Rapid growth in postsecondary tuition levels may persuade state leaders to develop a new performance model to ensure institutional accountability. Historically, tuition and fees have represented a very small percentage of higher education budgets. Many states are reviewing their policies as student-derived revenues move toward becoming the majority of public institutions' revenue streams. Additionally, some states are now requiring performance-based measures to be met for institutions to gain increased autonomy over student-derived revenues (SRI International 2012). Hence, I expect states with escalating tuition levels to be more likely adopters of performance funding.

This variable is measured by the proportion of average state 4-year institution in-state tuition and fees change compared with the previous year to the previous year's average state 4-year institution in-state tuition and fees. For example, the percentage of tuition change for 2014 is calculated by the proportion of difference between 2013 and 2014 state average 4-year institution in-state tuition and fees to 2013 state average 4-year institution in-state tuition and fees. Negative results imply tuition decrease; positive results imply tuition increase. I only include tuition change for public 4-year institutions because it is the only data I can acquire. The data for 1987-2014 are obtained from the Integrated Postsecondary Education Data System (IPEDS)[74] (2018).

[74] Link to the website: https://nces.ed.gov/ipeds/

The data for 1977-1986 is gathered from state higher education department archives and phone calls with state higher education departments.

In addition to tuition change, **enrollment change** is another important motivator for performance funding adoption, because enrollment increases place addition financial demands on the state's budget, which can pressure officials to enact performance funding. Also, it is reasonable to expect that states with enrollment increases may have heightened pressure to ensure the graduation rates keep up with the growing enrollment rates. Under the stress of graduating more students, state officials may consider enacting performance funding.

The variable is measured by the proportion of state 4-year institution total enrollment compared with the previous year to the previous year's state 4-year institution total enrollment. For example, the percentage of enrollment change for 2014 is calculated by the proportion of difference between 2013 and 2014 state 4-year institution total enrollment to the 2013 state 4-year institution total enrollment. Negative results imply enrollment decrease; positive results imply enrollment increases. The data are obtained from IPEDS (2018).

All the independent variables above are lagged one year because the diffusion literature and the definitions of the variables suggest that these are the determinants of policy adoption.

The next independent variable is **state government ideology**. I consider this variable to be critical because from a conservative-liberal ideological standpoint,

performance funding appears more aligned with the conservative ideology of limited public spending, strong accountability, and greater efficiency in government by using market incentives borrowed from the private sector (Li 2017; Li and Zumeta 2015; McLendon, Tandberg, and Hillman 2014). On the contrary, Democrats have historically been more supportive of direct funding of public services without strong conditions (Alt and Lowry 2000). Since performance funding ties a portion of appropriations to institutions based on outcomes as a tool to promote more efficient spending, the policy could be more appealing to Republicans. Recent research has found a preference among Republican elected officials for performance funding policies (Dougherty, Natow, and Vega 2012; McLendon, Hearn, and Deaton 2006). Since Democrats are less inclined to a government-accountability agenda than Republicans, I expect that conservative governments have higher probability of adopting performance funding.

Government ideology[75,76] is measured using Berry et al.'s (2012) measure which weighs the ideology scores for five institutional factors: the governor's ideology; and Democrats' and Republicans' shares of power and ideology scores within a state's lower and upper chambers, respectively (Berry et al. 2012). State government ideology scores range from 0 to 100, with high scores indicating liberalism. The data for this variable is collected from University of Alabama Political Science Professor Richard C.

[75] In addition to government ideology, citizen ideology also shapes state legislative decisions (Lamothe 2005; Matisoff 2008). However, government and citizen ideologies usually correlate well because with the fear of losing electoral advantage, legislators respond to electorates' needs, which reflects citizen ideology (Erkison, Wright, and McIver 1993). To avoid multicollinearity, this study only accounts for state government ideology.
[76] Berry et al.'s (2012) measure includes Nebraska, despite of its unique unicameral legislature.

Fording's (2018) website[77]. The data Professor Fording shares includes ideology scores for all 48 contiguous states (including Nebraska) from 1979 to 2014. I prefer Berry et al.'s measure over McLendon et al.'s because the former option is more comprehensive and dynamic. Berry et al.'s measure reflects variation in the meaning of party labels across states and goes beyond calculating the percentage of decisionmakers from either political party. Also, as the authors contend, their measure embodies a realistic assumption about the relationship between party control and political power in state policy-making institutions (Berry et al. 2012).

2.3.3. Control Variables

The first control variable, state government **legislative professionalism**, refers to "the capacity of both individual members and the organization as a whole to generate and digest information in the policymaking process" (Squire 2007, p. 211). The level of professionalism is a critical determinant of legislative capacity because lawmaking requires comprehensive knowledge and capability. Studies have found that legislative professionalism is usually positively associated with greater policy innovation (Hayes 1996; King 2000; Tandberg 2010). Not only does legislative professionalism determine government's ability to make laws, it may also affect the relationship between lawmakers and professional associations (Karch 2007a). On the one hand, highly professional bodies may be more open to questions, and have broader and stronger connections with local and interstate political associations (Karch 2007a). On the other hand, however, high professionalism also increases the amount of mixed information

[77] Link to the website: https://rcfording.wordpress.com

that flows to the decision-making process, which can potentially discourage policy adoption. Therefore, this variable could either encourage or hinder state adoption of performance funding.

Legislative professionalism is a metric combining salary levels, legislative session length, and staff size. The index does not have a range, but higher values indicate a higher level of professionalism. Squire (2012) has published the state legislative professionalism indices for years: 1979, 1986, 1996, 2003, and 2009. The data for the remaining years is available from Harvard Dataverse created by Bowen and Greene (2014[78]). The Harvard Dataverse (2018) legislative professionalism data is constructed mainly following Squire's coding rules with some deviation[79], however Bowen and Greene (2014) conclude that their results are consistent with Squire's. Therefore, I believe that it is appropriate to use Bowen and Greene's (2014) data for the remaining years.

Next, I include **state higher education governance** as my second control variable, coded with "0" representing not having a consolidated higher education

[78] Link to the website: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/27595

[79] The Squire method (2007) measures legislative professionalism based on three components: legislator salary and benefits (i.e., salary from legislative service and retirement or health care benefits), the number of days state legislatures meet (both calendar days and legislative days), and legislative staff resources (i.e., the number of permanent staff, session-only staff, and total staff during the session). Bowen and Greene (2014) measure each of the primary components of Squire's index separately and follow Squire's coding rules for the legislator salary and session length. Unlike the Squire measure of legislative time demands which only account for regular sessions, Bowen and Greene add the days from special sessions because some states use special sessions to circumvent statutory and constitutional limits constitutional limits on the number of days the legislature can meet during a regular session.
The authors further evaluate the internal consistency of professionalism components over time, and the relationship between components and the Squire Index. They conclude that there is simultaneously enough commonality and enough variation between professionalism components to support the Squire Index (Bowen and Greene 2014).

governing board, and "1" representing having one. It is important to include this variable because higher education governing structure determines the degree to which there is autonomy or centralization in governance (Nicholson-Crotty and Meier 2003). Consolidated governing boards play an active role in developing and implementing policy and they have all the rights and responsibilities of a single corporate entity as defined by state law, including strategic planning, budgeting, and allocation of resources between and among institutions within the board's jurisdiction (Connecticut General Assembly 2010). Consolidated boards sometimes are theorized to increase the likelihood of a state "innovating" because such boards provide policymakers an abundance of analytic resources (i.e., more professional staff holding expertise in higher education policy and finance) with which to search for new ideas and solutions (McLendon et al. 2006).

Some studies have reached different conclusions on the influence of higher education governance structures on state higher education policy adoption. Hearn and Griswold (1994) conclude that higher education governance structure is largely unrelated to higher education policy innovation, broadly defined. McLendon, Heller, and Young (2005) find weak empirical support for the influence of governance on propensity to adopt financial innovations. The authors further indicate that states with strong and centralized control of higher education are slightly more likely to adopt innovative postsecondary finance policies than those with weaker control; however, they find no connection between governance and propensity to adopt new accountability policies (McLendon, Heller, and Young 2005). In 2006, McLendon and

colleagues conducted another study on state adoption of performance accountability programs and reached a differing conclusion, finding that governance structure did have a statistically significant influence on state adoption of performance funding (McLendon et al. 2006).

Therefore, it is unclear whether having a more centralized governance is associated with states' likelihood of adopting performance funding. It is also unknown how strong the association may be. The data for this variable is obtained from the National Center for Higher Education Management Systems[80] (2018). Table 4.3 below summarizes the variables and the predicted relationships with the dependent variable. Table 4.4 below shows the comparison between my measures and McLendon et al.'s (2006) measures for all the variables.

[80] Link to the website: http://nchems.org/

Table 4.3: Expected Relationship between Independent Variables and Adoption of Performance Funding			
Variable	Description and Measure	Predicted Effect	Data Source
Regional Influence	-The number of adjacent states that adopted performance funding -Lagged one year	Positive	Burke & Minassians 2000, 2002, 2003; Dougherty and Reddy 2013; Dougherty and Natow 2015; Dougherty, Natow, Hare, Jones, & Vega, 2013; Friedel et al. 2013; Gorbunov, 2013; Rabovsky 2013; McLendon et al., 2006; National Conference of State Legislatures 2016, 2017; official state government websites; official state higher education board websites
Lumina Higher Education Grants	-Whether the state higher education governing board received grants from Lumina Foundation -Dichotomous variable coded with "0" being not having received grants, and "1" being having received grants	Positive	Lumina Foundation website; CitizenAudit
Lumina Grants in General	-Whether the state has received grants from Lumina Foundation -Dichotomous variable coded with "0" being not having received grants, and "1" being having received grants	Positive	Lumina Foundation website; CitizenAudit
Amount of Lumina Grants	-The amount of Lumina higher education grants states receive	Positive	Lumina Foundation website; CitizenAudit
Fiscal Condition	-The fiscal condition of the state -Measured by calculating the difference between total state revenue and total state spending divided by total state revenue -Lagged one year	Negative	U.S. Census Bureau
Educational attainment	-The percentage of state's population age 25 and older that completed 4 or more years of college -Lagged one year	Negative	U.S. Census Bureau

Table 4.3 (Continued): Expected Relationship between Independent Variables and Adoption of Performance Funding			
Variable	Description and Measure	Predicted Effect	Data Source
Tuition Change	-The rate of tuition change compared to the previous year -Measured by the proportion of average state 4-year institution in-state tuition and fees change compared with the previous year to the previous year's average state 4-year institution in-state tuition and fees - Lagged one year	Positive	IPEDS; State Higher Education Departments
Enrollment Change	-The rate of higher education enrollment change compared to the previous year -Measured by the proportion of state 4-year institution total enrollment compared with the previous year to the previous year's state 4-year institution total enrollment - Lagged one year	Positive	IPEDS
Government Ideology	-The ideology of the state government - State government ideology scores range from 0 to 100, high scores indicate liberalism	Negative	https://rcfording.wordpress.com/state-ideology-data/
Legislative Professionalism	-The overall capacity of the state legislature to generate and digest information in the policymaking process	Positive or Negative	Squire (2012); Harvard Dataverse
Consolidated Governing Board	-Whether the state has a consolidated higher education governing board - Dichotomous variable coded with "0" being not having a consolidated governing board, and "1" being having a consolidated governing board	Positive or Negative	National Center for Higher Education Management Systems

Table 4.4: Comparison between My Variable Measures and McLendon et al.'s (2006) (Source: McLendon et al. 2006, p. 10)		
Variable	My Measure	McLendon et al.'s (2006) Measure
Regional Influence	The number of adjacent states that adopted performance funding	Proportion of neighbors with performance funding policy
Fiscal Condition	The difference between total state revenue and total state spending divided by total state revenue	Gross state product change (Annual measure of 3-year average change in amount of gross state product)
Educational attainment	The percentage of state's population age 25 and older that completed 4 or more years of college	Same
Tuition Change	The proportion of average state 4-year institution in-state tuition and fees change compared with the previous year to the previous year's average state 4-year institution in-state tuition and fees	Annual measure of 3-year average change in tuition at state's flagship university
Enrollment Change	The proportion of state 4-year institution total enrollment compared with the previous year to the previous year's state 4-year institution total enrollment	Annual measure of 3-year average change in public higher education enrollment
Government Ideology	Berry et al.'s measure (2012)	(1) Percent Republican legislature (Annual measure of percentage of seats across both chambers of state's legislature that is Republican) (2) Gubernatorial power (Index measure indicating degree of governor's institutional powers) (3) Republican governor (Annual dummy variable indicating whether Republican help governor's office)
Legislative Professionalism	The overall capacity of the state legislature to generate and digest information in the policymaking process	Same
Consolidated Governing Board	Whether the state has a consolidated higher education governing board (yes=1; no=0)	Same

3. Quantitative Results

Tables 4.5, 4.6, 4.7, and 4.8 below report the descriptive statistics of the cases. The dataset contains 1265 cases in total, 1002 of which are from 1979-2002 and 263 from 2003-2014. The data is complete for all variables[81].

Table 4.5: Consolidated Governing Board		
Whether the State Has a Consolidated Governing Board	Yes	No
States	Arizona Florida Georgia Idaho Iowa Kansas Maine Massachusetts Minnesota Mississippi Montana Nevada New Hampshire North Carolina North Dakota Oregon Rhode Island South Dakota Utah Vermont Wisconsin Wyoming	Alabama Arkansas California Colorado Connecticut Delaware Illinois Indiana Kentucky Louisiana Maryland Michigan Missouri Nebraska New Jersey New Mexico New York Ohio Oklahoma Pennsylvania South Carolina Tennessee Texas Virginia Washington West Virginia
Total States	22	26

[81] Results for multicollinearity check are reported in Appendix C. Overall, given the relatively low levels of correlation between my independent variables, it appears that multicollinearity is not a notable problem in my models.

Table 4.6: Descriptive statistics (1979-2014)					
Variable	N	Min.	Max.	Mean	Std. Dev.
Year	1265	1979	2014		
Adopt	1265	0	1	0.032	0.175
Regional Influence	1265	0	5	0.894	1.152
Fiscal Condition	1265	-0.773	0.872	0.072	0.107
Educational Attainment	1265	0.079	0.394	0.205	0.054
Tuition Change	1265	-0.476	1.161	0.079	0.066
Enrollment Change	1265	-0.183	0.224	0.019	0.033
Government Ideology	1265	0.000	99.170	50.410	25.189
Legislative Professionalism	1265	0.027	0.659	0.194	0.127

Table 4.7: Descriptive statistics (1979-2002)					
Variable	N	Min.	Max.	Mean	Std. Dev.
Year	1002	1979	2002		
Adopt	1002	0	1	0.023	0.150
Regional Influence	1002	0	4	0.531	0.836
Fiscal Condition	1002	-0.320	0.872	0.088	0.072
Educational Attainment	1002	0.079	0.347	0.192	0.047
Tuition Change	1002	-0.260	0.500	0.081	0.058
Enrollment Change	1002	-0.183	0.204	0.0169	0.031
Government Ideology	1002	0.00	97.92	49.04	23.273
Legislative Professionalism	1002	0.034	0.659	0.205	0.132

Table 4.8: Descriptive statistics (2003-2014)					
Variable	N	Min.	Max.	Mean	Std. Dev.
Year	263	2003	2014		
Adopt	263	0	1	0.065	0.246
Regional Influence	263	0	5	2.278	1.144
Fiscal Condition	263	-0.773	0.378	0.011	0.175
Educational Attainment	263	0.148	0.394	0.255	0.049
Tuition Change	263	-0.476	1.161	0.074	0.090
Enrollment Change	263	-0.065	0.224	0.026	0.036
Government Ideology	263	3.896	99.167	55.636	30.936
Legislative Professionalism	263	0.027	0.461	0.153	0.096
Lumina Higher Education Grants	263	0	1	0.247	0.432
Lumina Grants in General	263	0	1	0.574	0.495
Total Amount of Lumina Higher Education Grants Distributed (millions of dollars)	263	25	97	45.67	12.678

An event history analysis was conducted using logistic regression in R and the results are reported in Tables 4.9 and 4.10 below[82]. The tables present both coefficients and average marginal effects. Marginal effects reveal how much the likelihood of adoption in each year changes given a one-unit change in the variable in question. With binary independent variables[83], marginal effects measure discrete change, meaning how predicted probabilities change as the binary independent variable changes from 0 to 1 (Williams 2018). With continuous independent variables[84], marginal effects reveal how

[82] Per a request from one of my committee members, I reran the model for both time frames of performance funding diffusion. Appendix D presents the coefficients between the dependent and independent variables from 1979-2014. Throughout the entirety of performance funding diffusion, regional influence ($p<0.001$), educational attainment ($p<0.01$), and government ideology ($p<0.05$) are statistically significant. In other words, states that have more adopting neighbors, higher educational attainment rates, and conservative governments are more likely to adopt performance funding. Tuition and enrollment changes are both marginally significant ($p<0.1$) and negatively correlated with the dependent variable, which indicates that more likely adopters tend to have less tuition and enrollment increases.

[83] Binary variables occur in one of two possible states, often labelled 1 and 0. For example, whether the state has a consolidated board—1 representing yes and 0 representing no.

[84] Continuous variables are variables that are not restricted to particular values (Baron and Kenny 1986). For example, tuition change, enrollment change, and fiscal condition.

one unit increase or decrease in the value of the independent variable will increase or decrease the probability of the dependent variable—the state's probability of adopting performance funding, in this study. Marginal effects are an informative means for summarizing how change in a response is related to change in a covariate (Williams 2018). Positive marginal effects imply the variable increases the likelihood of adoption in a given year; contrarily, negative marginal effects imply the variable decreases the likelihood of adoption.

In the first set of models tested (reported in Table 4.9), an analysis was conducted to determine how the previously identified diffusion variables perform in predicting states' adoption of performance funding policy from 1979-2002 and 2003-2014. The results are revealed in the first and second models respectively.

The second set of models (reported in Table 4.10) concerns Lumina Foundation's financial influence in the diffusion of performance funding from 2003-2014. Model 3 incorporates the dummy variable of whether states' higher education governing agency received grants from Lumina Foundation in a given year. Model 4 incorporates the dummy variable of whether states received higher education grants in general from Lumina Foundation in a given year. Model 5 reflects whether the total amount of annual Lumina higher education grants contributes to the diffusion of performance funding in a significant way.

Table 4.9: State Adoption of Performance Funding (Models 1-2)				
	Model 1: 1979-2002	Average Marginal Effect	Model 2: 2003-2014	Average Marginal Effect
Regional Influence	0.404# (0.223)	0.009	0.429 (0.307)	0.022
Fiscal Condition	4.532* (2.079)	0.096	-1.238 (1.853)	-0.062
Educational Attainment	9.456* (4.812)	0.200	8.518 (6.672)	0.427
Tuition Change	-7.300# (4.188)	-0.154	-4.923 (4.048)	-0.248
Enrollment Change	-0.288 (7.878)	-0.006	-29.822** (10.894)	-1.494
Government Ideology	-0.013 (0.010)	-0.0003	-0.021# (0.011)	-0.001
Legislative Professionalism	0.372 (1.679)	0.008	4.498 (3.042)	0.225
Consolidated Governing Board	-1.024* (0.505)	-0.022	0.502 (0.638)	0.025
Intercept	-5.095*** (1.244)	-0.108	-5.276* (2.115)	-0.264
Pseudo R^2	0.134		0.225	
N	1002		288	

Note 1: Model 1 replicates McLendon et al.'s (2006) analysis of state adoption of performance accountability policies from 1979-2002. The key difference is how the government ideology variable is measured. McLendon et al. accounted for three factors "% Republican legislature", "gubernatorial power", and "Republican governor". In this dissertation, I measure government ideology using Berry et al. (2012) comprehensive government ideology scores.
Note 2: Coefficients are from an event history analysis using logistic regression, two-tailed
Note 3: Robust standard errors for cluster sampling data in parentheses
Note 4: *** p<0.001; ** p<0.01; * p<0.05; # p<0.1

Table 4.10: State Adoption of Performance Funding (Models 3-5)						
	Model 3: 2003-2014	Average Marginal Effect	Model 4: 2003-2014	Average Marginal Effect	Model 5: 2003-2014	Average Marginal Effect
Regional Influence	0.417 (0.309)	0.021	0.403 (0.310)	0.020	0.380 (0.324)	0.019
Fiscal Condition	-0.777 (1.927)	-0.038	-1.236 (1.889)	-0.061	-1.347 (1.840)	-0.067
Educational Attainment	9.901 (6.611)	0.398	8.084 (6.755)	0.401	8.024 (6.743)	0.400
Tuition Change	-4.725 (4.076)	-0.232	-5.335 (4.138)	-0.265	-4.610 (4.243)	-0.230
Enrollment Change	-26.235* (10.912)	-1.291	-33.490** (11.726)	-1.663	-28.213* (11.312)	-1.407
Government Ideology	-0.021# (0.011)	-0.001	-0.023* (0.011)	-0.001	-0.022# (0.011)	-0.001
Legislative Professionalism	6.401# (3.290)	0.315	3.481 (3.196)	0.173	4.631 (3.024)	0.231
Consolidated Governing Board	0.673 (0.668)	0.033	0.407 (0.646)	0.020	0.528 (0.644)	0.026
Lumina Higher Education Grants	-1.577 (1.156)	-0.078				
Lumina Grants in General			0.681 (0.662)	0.034		
Total Amount of Lumina Higher Education Grants Distributed					0.010 (0.020)	0.0004
Intercept	-5.429* (2.121)	-0.267	-5.135* (2.126)	-0.255	-5.512* (2.178)	-0.275
Pseudo R^2	0.245		0.233		0.227	
N	263		263		263	

Note 1: Coefficients are from an event history analysis using logistic regression, two-tailed
Note 2: Robust standard errors in parentheses
Note 3: ** p<0.01; * p<0.05; # p<0.1

3.1. State Adoption of Performance Funding: 1979-2002

As shown in Model 1, from 1979 through 2002, regional influence, fiscal condition, educational attainment, tuition change, and whether a state has a consolidated governing board are significant factors that lead to a state's probability of adopting performance funding. The elements that are associated with higher probability of adoption are: more adopting neighbors, better fiscal condition, higher educational attainment rates, tuition decreases, and absence of a consolidated governing board. Regional influence and tuition change are marginally significant variables both at the level of $p < 0.1$ (with marginal effects equal to 0.009 and -0.154, respectively). Fiscal condition, educational attainment, and higher education governance are significant variables all at the level of $p < 0.05$ (with marginal effects equal to 0.096, 0.200, and -0.022, respectively). Surprisingly, the results are contrary to the predicted effects for fiscal condition, educational attainment, and tuition change.

In McLendon et al.'s (2006) research (their results are presented in Table 4.11 below), government ideology and consolidated governing board are both statistically significant independent variables. My results agree with these authors that (1) Republican governments tend to enact performance accountability programs, and (2) states without consolidated governing boards were more likely to adopt performance-funding. However, government ideology does not appear to be statistically significant in my replication.

In McLendon et al.'s (2006) research, both tuition and enrollment changes are positively associated with state adoption of performance funding, implying that states

with more tuition and enrollment changes are more likely adopters (however, neither of the variables are statistically significant). My findings indicate the opposite. This is discussed further in the Discussion section below.

Table 4.11: McLendon et al.'s (2006) Findings on State Adoption of Performance Funding (Source: McLendon et al. 2006, p. 17)			
Variable	Exp(B)	Coefficient	Standard Error
Educational Attainment	0.936	-0.066	0.057
% Change in Gross State Product	1.106	0.101	0.076
Legislative Professionalism	1.004	0.004	0.016
% Republic Legislature	1.033*	0.032	0.014
Gubernatorial Power	1.318	0.276	0.574
Republican Governor	1.575	0.454	0.742
% Change in Tuition	1.043	0.042	0.026
% Change in Public Enrollment	1.171	0.158	0.122
Consolidated Governing Board	0.111**	-2.198	0.078
Diffusion	0.984	-0.016	0.024

Note: In the McLendon et al. (2006) paper, the authors only report the odds ratios and standard errors for the predictors. The coefficients in this table are converted from the odds ratios.

3.2. State Adoption of Performance Funding: 2003-2014

As Model 2 demonstrates, from 2003 to 2014, enrollment change ($p < 0.01$, marginal effect = -1.494) and government ideology ($p < 0.1$, marginal effect = -0.001) stand out as the most statistically significant factors that motivated state governments to adopt performance funding. Government ideology is a marginally significant variable. States with declined college enrollment and conservative governments appear to be more likely adopters. My prediction on the correlation between the dependent variable and enrollment change turns out to be incorrect.

3.3. Lumina Foundation and Performance Funding Adoption: 2003-2014[85]

The results from Models 3 and 4 suggest that the financial help Lumina Foundation offered to states did not have strong influence on states' decision to fund higher education based on institutional performance; nor does the amount of Lumina higher education grants, as Model 5 indicates. The statistical significance of enrollment change and government ideology remains with the Lumina variables added.

4. Discussion

A few quantitative findings are worthy of further discussion. First, the effects of a couple of predictors (fiscal condition and consolidated governing board) on the dependent variable are inconsistent for the two time frames. Fiscal condition is positively associated with state adoption of performance funding from 1979-2002, but the direction of the association flips to the negative side from 2003-2014. The associations imply that states with good fiscal condition are more likely to be adopters from 1979-2002; but states with poor fiscal condition are more likely to be adopters from 2003-2014. Fiscal condition is statistically significant from 1979-2002 but insignificant from 2003-2014. Also, the correlation between state fiscal condition and the dependent variable turns out to be contrary to my prediction. I anticipate states with poor fiscal condition to be more likely adopters.

[85] Per a request from one of my committee members, I reran the model with an additional independent variable, the cumulative Lumina grants to the state. Appendix D reports the influence of regional diffusion, other independent variables of interest, and control variables on states' likelihood of adopting performance funding when the cumulative Lumina funding to the state is considered. Interestingly, the cumulative Lumina money a state has received has a statistically positive influence on its probability of adopting performance funding ($p<0.05$). Adding this variable, however, flips the correlation between educational attainment rate and the dependent variable. I intend to look into how cumulative grants affect states' adoption decisions in my future research.

This could be explained by the two versions of performance funding. Performance funding has evolved since it was first introduced, the details of particular funding programs have changed over time. Two kinds of performance funding programs can be usefully distinguished. Unlike the early funding formula (often referred to as "performance funding 1.0") that takes the form of a bonus on top of the base state funding for higher education, the new form (often referred to as "performance funding 2.0") is embedded into the base funding itself. Performance funding 1.0 programs usually tie between one percent and five percent of state appropriations to performance metrics; performance funding 2.0 programs typically tie a larger portion of state appropriations to institutional performance (Dougherty et al. 2014). Between 1979 and 2000, most of the programs took the form of 1.0, in which performance funding was established as bonus money over the above regular state funding for higher education (Burke 2002; Dougherty and Reddy 2013; McLendon et al. 2006). In the second wave of adoption that began in 2007, most of the performance funding programs have taken the form of 2.0, under which performance funding is no longer a bonus to the based state funding (Dougherty and Reddy 2013; Jacobs 2012). It makes sense that wealthier states are more likely to adopt 1.0 since they have more dollars to spare on higher education. On the other hand, states with poor fiscal conditions are more prone to enact 2.0 to reduce expenses on higher education.

The other inconsistent effect on performance funding adoption is higher education governance structure. From 1979-2002, the association is negative and statistically significant, implying that states without a consolidated board are more

likely to be performance funding adopters. The statistical significance disappears and the correlation changes to negative from 2003-2014. This is not a surprising finding since studies have yield different conclusions on the influence of higher education governance structures on state higher education policy adoption (Hearn and Griswold 1994; McLendon et al. 2005). Previous studies reveal that politics may be a critical explanation of higher education policy decisions (Forest, Hearn, and Marine 1997; Zusman 1986). Forest and associates (1997) suggest that how states deal with higher education may be governed more by concerns and issues that are only about higher education per se.

In the case of performance funding, most states have enacted performance funding through the governor's direction or the legislative decision, regardless of whether the state has a consolidated board, as explained in Chapter 2. Dunn (2003) argues that higher education performance accountability programs have generally emanated from state governments, with both governors and legislatures taking the initiative in establishing new policy for higher education. In Gittell and Kleiman's (2000) study of higher education politics in three states (California, North Carolina, and Texas), the authors confirm that politics matter in higher education policymaking and state politics has a considerable impact on major policy decisions. They further observe that political leaders, particularly the governor and top elected legislative representatives, play a significant role, often dominating design and implementation (Gittell and Kleiman 2000). With politics serving as a vital element in state adoption of

performance funding, state higher education governance arrangement may not matter much.

The next unanticipated finding is states' higher likelihood of enacting performance funding when they experience decreases in enrollments and tuitions, which contradicts my expectations that states with growing enrollments and tuitions may be pressured to adopt performance funding. It is worth pointing out here briefly despite tuition change being statistically insignificant. This could partially be explained by the above discussion of higher education politics. As indicated in Chapter 3, policy decision making is largely determined by electoral considerations. Elected officials tend to enact policies that not only address legislative concerns, but also enhance the chance of re-election. Performance funding fits the bill because generally speaking, performance accountability programs are electorally friendly in their internal value—to improve service efficiency and enhance overall performance outcomes (Moynihan 2008). Such benefits are also present in performance funding policy, given that states enact performance funding mainly for political and ideological reasons (Rabovsky 2013).

In addition to political reasons, it is also possible that public officials aim to improve higher education enrollment and justify tuition increase by showing their commitment to improving the quality of postsecondary education. The goal of perform funding is to improve college and university performance, especially with regard to student outcomes such as persistence, accrual of course credits, degree completion, transfer, and job placement (Dougherty et al. 2016). The main policy instrument of

performance funding is providing financial incentives that mimic the profits for businesses (Dougherty et al. 2014). Applied to higher education institutions, this idea holds that the institutions are revenue maximizers and will make a strong effort to improve their performance if the amount of funding involved is significant enough (Burke 2002; Dougherty et al. 2014). Performance funding symbolically pushes institutions to pay greater attention to outcomes, including quality control and "customer" (i.e., students and parents) satisfaction. From the consumers' standpoint, students and parents object to tuition increases and want assured access to quality educational services. Regardless of the actual effectiveness, developing an accountability regime at least helps establish consumer confidence in investing in a college education. Once such confidence is created, students and parents may be more willing to accept the increased prices for such investment. Therefore, performance funding has its appeal as a symbolic function.

Lastly, the lack of significance of the Lumina variables doesn't imply that private foundations are uninfluential in the policy diffusion process. As pointed out in Chapter 3, the Lumina Foundation has funded a few nonprofit organizations that are classified as 501(c)(3) public charities such as Complete College America, a supporter of performance funding in higher education. My findings do not definitively suggest private foundations' ineffectiveness in the diffusion of performance funding.

5. Qualitative Case Selection and Criteria

This dissertation intends to answer the question: why does policy diffusion succeed in some states but fail in others. According to the quantitative analyses,

regional influence, educational attainment, tuition and enrollment change, and government ideology[86] turn out to be main contributing factors to states' decision on funding higher education either based on enrollment or performance. The effects of these variables vary depending on the time period, and they appear to be significant during either 1979-2002 or 2003-2014.

The next step is to identify states that share similar scores on these measures but made opposite decisions, and closely scrutinize and compare the pairs. In the Literature Review chapter, I hypothesize that four factors may potentially lead to states' non-adoption of performance funding: (1) changing information that causes negative policy image shift, (2) lack of interactions with private foundations that support performance funding, (3) lack of participation in policy networks, and (4) lack of interactions with other policy agents. The next chapter accounts for these additional variables to find out whether these elements lead to policy non-diffusion. In other words, the chosen non-adopters theoretically should have adopted performance funding since they have the favorable environment for such adoption, but the hypothesized factors may be the causes of non-adoption.

As the statistical results confirm, states with higher numbers of adopting neighbors are more likely to enact performance funding in the earlier time period (1979-2002). This leads to the first matching criterion: the pairs should have similar numbers

[86] I decide not to include higher education governance as part of my case selection criteria because (1) accounting for this variable will drastically confine my case selection given that only 22 out of the 48 states have a consolidated governing board; and (2) as indicated in Chapter 2, in most states consolidated boards only play a minor role in the enactment of performance funding.

of adopting neighbors throughout the diffusion of performance funding. The pairs should also share similar educational attainment, tuition and enrollment change, and government ideology. Next, the paired cases should have similar number of public higher education institutions. As explained in the previous chapters, the purpose of performance funding policy is to enhance higher education performance and improve institutional outcomes. Therefore, it makes sense to compare states that have similar sizes of higher education systems. The third matching criterion is that the selected adopters are states that enacted performance funding after 2002 because the data for private foundations is nonexistent prior to that, and private foundations are one of my testing variables.

I choose to pair states that appear similar on the significant quantitative variables from both time frames because three of the hypothesized non-adoption variables (changing information, lack of participation in policy networks, and lack of interactions with policy agents) may occur throughout the entirety of the diffusion of performance funding. Further, as indicated in Chapter 3, some private foundations have provided financial assistance to states' development of performance formula since the very beginning. When the program was initially introduced, the Tennessee Higher Education Commission received funding from the federal Fund for the Improvement of Postsecondary Education, the Ford and Kellogg Foundations, and an anonymous foundation in Tennessee to finance the pilot of the performance funding program (Dougherty, Natow, Bork, Jones, and Vega 2011). Therefore, it is reasonable to select

states that share resemblance from significant quantitative variables from both time periods.

Using these three selection requirements. The following section details the pairs of adopters and non-adopters for the qualitative chapter. The seven states that have never adopted performance funding are: Alabama, Delaware, Maryland, Nebraska, New Hampshire, Rhode Island, and West Virginia. To ensure proper matching, I did cross comparison for all seven non-adopters and adopters on the scales of educational attainment, tuition and enrollment change, and government ideology. Among all the potentially matches, the closest pairs identified are Alabama and Mississippi. The second closest pair of states is Maryland and Massachusetts. The rest of the five non-adopters do not have close matches on all the criteria.

This project focuses only on Alabama and Mississippi given their high level of resemblance on the significant variables. I had originally planned to include Maryland and Massachusetts also, but I was unable to because of the scheduling problem with the Maryland Higher Education Commission. I reached out to the Commission in the spring of 2018 by sending interview request emails and making phone calls, however, I could not get an official to participate in this research. Without information from the Commission, it would be difficult to accurately test the proposed hypotheses and make proper conclusions about this pair of comparison. This is further addressed in the last chapter as a part of future research efforts[87].

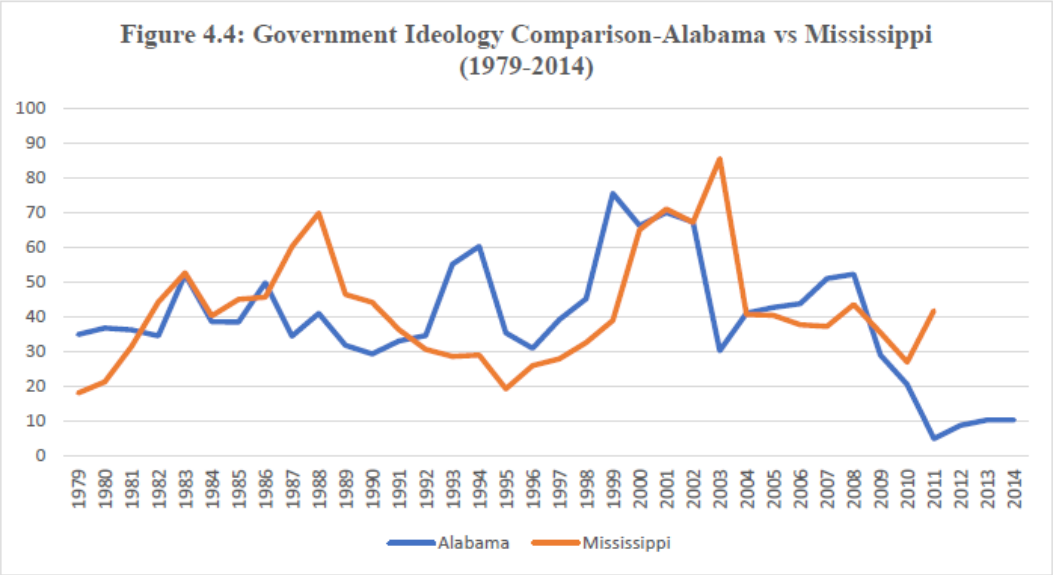
[87] The comparison graphs between Maryland and Massachusetts on the significant variables are presented in Appendix G.

The non-adopter in my identified pair, Alabama, is certainly a unique case because it is surrounded by adopters, including the very first state that introduced performance funding—Tennessee. The best match for Alabama is its neighbor Mississippi, who adopted performance funding in 2011. As shown in Figures 4.4, 4.5, 4.6, 4.7, and 4.8 below, the pair generally resemble each other on all the scales. Both governments are on the relatively conservative end, with sporadic liberal peaks. The two states also have similar educational attainment rates throughout the time frame. Higher education tuition changes are stable for the pair, although Alabama experienced a sudden drastic tuition increase in 1983. During the bulk of the time window, the states' enrollment changes are within plus and minus five percentage points. Both state also exhibit resemblance in the predicted probability of performance funding adoption, as shown in Figure 4.8. The predicted probability for Alabama to adopt performance funding increases tremendously from 2012-2014 and peaks in 2014, which makes this pair comparison particularly interesting.

Regarding the size of higher education systems, Alabama has 30 public institutions in total[88], including four large institutions (University of Alabama, Auburn University, Columbia Southern University, and Troy University), 24 medium institutions, and 12 small institutions. Mississippi has 23 public institutions in total, including two large institutions (University of Mississippi and Mississippi State

[88] There are three institutional sizes: Large institutions (>15,000 Undergraduate students), medium institutions (2,000-15,000 Undergraduate students), and small institutions (< 2,000 Undergraduate students) (U.S. Department of Education—College Scorecard 2017).

University), 3 medium institutions, and 18 small institutions (U.S. Department of Education—College Scorecard 2017).



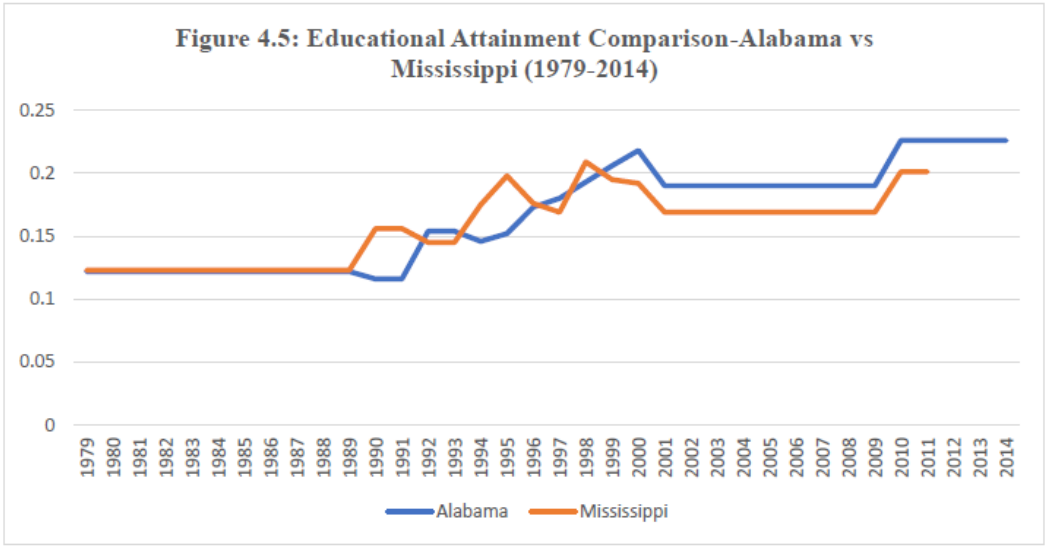


Figure 4.6: Public Higher Education Tuition Change Comparison- Alabama vs Mississippi (1979-2014)

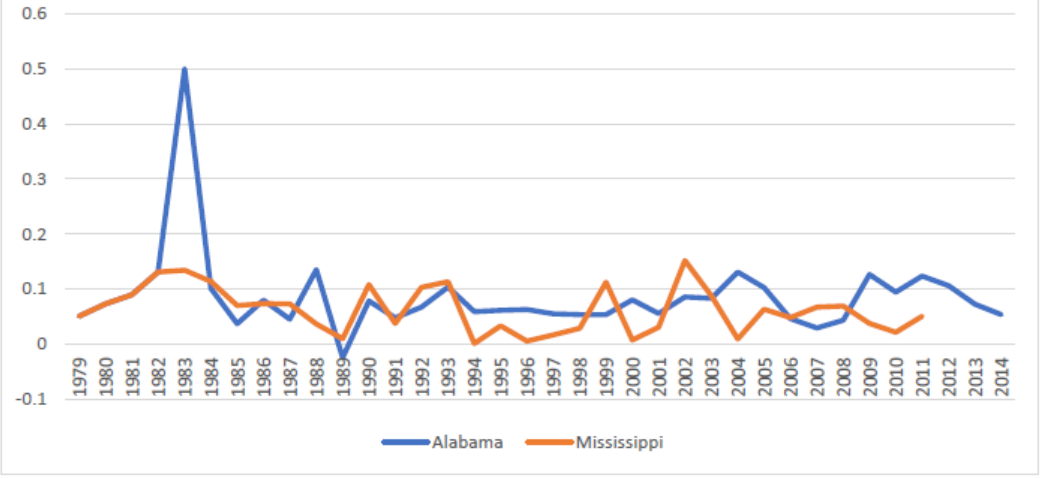
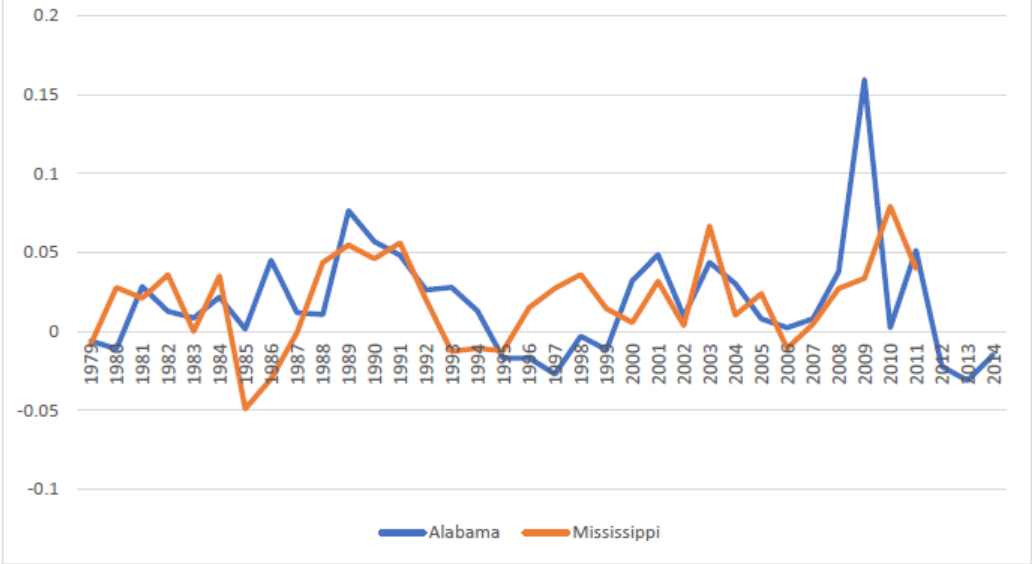
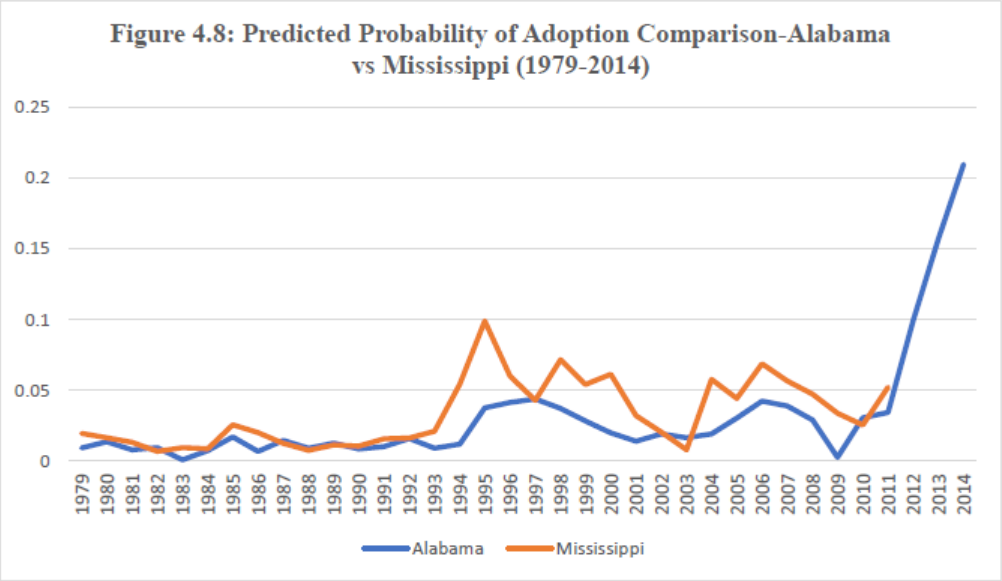


Figure 4.7: Public Higher Education Enrollment Change Comparison- Alabama vs Mississippi (1979-2014)





Note: Mississippi adopted performance funding in 2011, therefore the data for the state is missing from 2012-2014 in the comparison figures

Conclusion

In this chapter, I conceptualize the adoption of performance funding to be a function of various demographic and economic characteristics of the states. Further, I hypothesize that government ideology, legislative professionalism, higher education status (i.e., enrollment and tuition changes) and governance, and educational attainment rate to be potential determinants of states' decision to enact performance funding policy. My results reveal that during the first time period (1979-2002) of performance funding diffusion, state fiscal condition, educational attainment, and higher education governance exhibited high correlation with the dependent variable. Regional influence appears to be a marginally significant predictor of state adoption of performance funding. From 2003 through 2014, enrollment change stands out as the most significant determinant of states response to performance funding policy, government ideology

turns out to be marginally significant, both in negative terms. Statistically speaking, conservative governments and states with enrollment decrease are more likely to adopt performance funding. In the next chapter, I take a close examination of the identified pair of selected cases, Alabama and Mississippi, to test the four proposed hypotheses.

Chapter V. Qualitative Findings

Introduction

This dissertation focuses on the inquiry of policy diffusion success and failure. I employ a mixed-methods approach with both statistical and qualitative analyses. The quantitative section applies Event History Analysis to investigate how the previously identified determinants perform in the case of performance funding diffusion. The quantitative results indicate that regional influence, educational attainment, tuition and enrollment change, and government ideology contribute to states' decision on funding higher education either based on enrollment or performance. After conducting cross comparison for all seven non-adopters and adopters on the scales of these variables, I identify a close pair of states: Alabama and Mississippi. The two states share resemblance on the statistically significant variables, Alabama has never adopted performance funding whereas Mississippi enacted the policy in 2011.

Previously, I propose four general expectations that explain performance funding non-adoption: changing information that causes negative policy image shift, lack of interactions with nonprofits that support performance funding, lack of participation in policy networks, and lack of interactions with other policy agents. This chapter tests these hypotheses through qualitative case studies.

1. Qualitative Case Studies

A qualitative method is defined as "research involves the usage and collection of a variety of empirical materials—case study; personal experience; introspection; life story; interview; artifacts; cultural texts and productions; observational, historical,

interactional, and visual texts—that describe routine and problematic moments and meanings in individuals' lives (Denzin and Lincoln 2005, p. 3)." Case studies are common approaches of qualitative research, they are usually not a methodological choice but a choice of what is to be studied (Stake 2005). Qualitative case study is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources. Analyzing information from various sources ensures that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood (Baxter and Jack 2008).

According to Yin (2017), a case study approach is useful when (a) the focus of the study is to answer "how" and "why" questions; (b) you cannot manipulate the behavior of those involved in the study; (c) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or (d) the boundaries are not clear between the phenomenon and context. Because I am interested in the difference of decision-making and the changing environment for such decision-making between my paired states, conducting cases studies is an appropriate method.

2. Research Design and Data Collection

As noted, a hallmark of case study research is the use of multiple data sources, including (but are not limited to) documentation, archival records, interviews, physical artifacts, direct observations, and participant-observation (Yin 2017). In this research, I draw data from three sources: in-depth in-person interviews, online information from official government websites, and LexisNexis news articles.

2.1. In-Depth Interviews

2.1.1. In-Person Interviews with State Officials from Alabama and Mississippi

The first source of information includes two in-depth face-to-face interviews[89] with officials from the Alabama Commission on Higher Education and the Mississippi State Institutions of Higher Learning. I contacted potential interviewees via email requesting an interview in the third quarter of 2016. All contacts responded to my message in a timely manner and agreed to participate. Then I followed up with them over the phone and scheduled an appointment[90]. The first interview involved two officials[91] from Alabama's Office of Operations & Fiscal Services, and the second interview involved one official[92] from Mississippi's Department of Finance. The purpose of the interviews was to understand how higher education policymakers from these two states make decisions on performance funding, whether adopting or rejecting the policy idea. The interviews were open-ended and semi-structured; and sought to 'see' how officials react to performance funding and the relevant factors that contributed to such decision.

Preliminary questions were based on an interview guide that focused on asking participants about their experiences with performance funding programs. I used my

[89] The IRB documents are available in Appendix E.
[90] To ensure productivity, prior to the interviews, I spoke with Mr. John Schmeltzer, a Pulitzer Prize-winning journalist and senior professor from the Gaylord College of Journalism and Mass Communication at the University of Oklahoma who held a 35-year career at the *Chicago Tribune* from political writer during the mid-1970s to assistant business editor in 2008. Mr. Schmeltzer provided me with advice on interview techniques and strategies for gathering well-rounded information.
[91] Both individuals from Alabama are senior staff members who are knowledgeable about state higher education finance. One individual spoke about higher education affairs back in the 1960s during the scheduling process, which further helps with the credibility of the information obtained.
[92] The interviewee from Mississippi works exclusively on state higher education finance.

own discretion to probe and ask follow-up questions where I saw fit. For example, one of the participants commented on performance funding that "the formula worked to an extent…", I thought it was appropriate to ask the interviewee to define "to an extent" and give a clearer explanation on what they mean by using this qualifier.

The interviews were audio recorded with iPhone 7 Voice Memos application with the respondent's permission, both interviews lasted approximately an hour. Both interviews were conducted at interviewees' professional office in the last quarter of 2016. After the completion of data collection, I transcribed both interview audio files.

The structure of my interview is designed as follows: first, I began the interview with a quick presentation of the IRB documents and an overview of this dissertation. After each interviewee's consent, I resumed to turn on the Voice Memos app on my phone and started recording. Then I asked each interviewee to give an overall explanation and evaluation of performance funding in their state. I then moved on to inquire about the information sources the institution referred to in making such decision to fund higher education based on performance. After learning about the information sources, I continued to follow up on how the information was utilized in decision making.

2.1.2. In-Person Interviews with Higher Education Organizations

In the last quarter of 2016, I also interviewed four senior employees from Departments of Strategic Communications and Strategy at the Lumina Foundation, and the Senior Vice President of the Alliance for Complete College America (CCA).

The interviews were scheduled the same way as the interviews with higher education officials. The purpose of the interviews was to investigate the activities higher education nonprofits have partaken in to promote performance funding, the information they provide to policymakers, and the states they have interacted with. I chose to interview these two nonprofits because their missions focus exclusively on higher education and they are two of the most extensively involved organizations in pushing for performance funding, as elaborated in Chapter Three.

The interviews were recorded the same way described above. I opened the interview with an introduction of my IRB documents, after the participants' consent I turned on the recorder and proceeded to ask them questions. The conversations heavily focused on the information they provide to state officials, the states they have reached out to, the activities they taken part in, and the intention of their effort[93, 94].

2.2. Official Government and Higher Education Governing Agency Websites

Since this dissertation studies policy diffusion and state policymaking, it is necessary to draw information from official government websites. I visited a list of websites for data gathering, the list is presented in Appendix F.

[93] To ensure productivity, before the interview I read all the news articles and publications these organizations put out on their websites as of October 2016. I also closely examined all Lumina's 990 Forms, as discussed in Chapter 4.

[94] The reason for leaving out the Gates Foundation is twofold. First, they dedicate rather small portion of resources to higher education performance, compared with the other two nonprofits. The Gates Foundation tackles five program areas: global health division, global development division, global growth and opportunity division, U.S. division, and global policy and advocacy division (Gates Foundation 2018). Their domestic division works to improve U.S. high school and postsecondary education and support vulnerable children and families mainly in Washington State. Second, there was some scheduling issue with the potential participants.

2.3. Nonprofits Website Information

According to numerous studies, the Lumina and Gates Foundations, and CCA are among the most vigorous advocates of performance funding, therefore, I downloaded all the text information (including news, referred external sources, and published reports) from their official websites as a part of my data.

2.4. LexisNexis

Next, I used the LexisNexis online searchable newspaper database, which contains a large volume of historical and current news information from a wide range of news sources. I contend that LexisNexis is a comprehensive and reliable database to collect data from because it employs the latest algorithmic tools, along with computing power, to synthesize information from numerous sources (Kleinig et al. 2011).

In the January and February of 2018, I did a trial study to test the feasibility and value of information by using different search terms. I initially performed a search for media coverage on "Alabama Legislature" (from January 1st, 1979-December 31st, 2014) and went over all 619 mentions, the results are mainly news reports that contain little information on legislative activities with policy agents or higher education. Not being able to find much on the State Legislature, I then created a database for all the news articles that mention past Alabama governors and analyzed 1,144 news articles[95]

[95] The breakdown of the 1,144 news articles: 234 results for Governor Fob James (in office from 1979-1983; 1995-1999), 12 results for Governor George Wallace (in office from 1983-1987), 21 results for Governor H. Guy Hunt (in office from 1987-1993), 83 results for Governor Jim Folsom Jr. (in office from 1993-1995), 158 results for Governor Don Siegelman (in office from 1999-2003), 358 results for Governor Bob Riley (in office from 2003-2011), and 278 results for Governor Robert Bentley (2011-2014). Governor Bentley was in office from January 17, 2011 to April 10, 2017 but my search ended on December 31st, 2014. I read all the mentions to eliminate duplicates.

using NVivo 12 Plus, a qualitative analysis computer program. The search turned out to be unhelpful for this research because most of these articles are mainly about political elections, partisanship, local news, and policy issues that have little to do with higher education. I also looked for news stories that discuss the governors' and the legislature's relationship with policy networks or education organizations, the usable materials are very few and far between. This failed attempt leads me to believe that I should change my search terms from state legislative institutions—information receivers, to policy agents—information suppliers.

Guided by my research questions and hypotheses, the next step is to identify the potential policy agents of performance funding diffusion. I proceeded to list all organizations in the U.S. that primarily work in higher education and investigate which ones are involved in performance funding issues, including nonprofit and consulting organizations. To compile a reliable list of these organizations, I explored multiple credible sources[96]. Table 5.1 below is the list of organizations I have generated[97].

[96] These sources are: The Chronicle of Higher Education (2018), Hall and Thomas (2012), McQuade Library at the Merrimack College (2018), National Association of Independent Colleges and Universities (2018), Sterns Center for Teaching and Learning at the George Mason University (2018), Student Affairs (2018), the U.S. Higher Education System (2018), and the U.S. Department of Education (2018).
[97] I visited all the organizations' websites and verified that the organizations are higher education related.

Table 5.1: Policy Organizations Working in Higher Education (Sources: McQuade Library at the Merrimack College 2018; National Association of Independent Colleges and Universities 2018; Sterns Center for Teaching and Learning at the George Mason University 2018; Student Affairs 2018)	
Intermediary Type[8]	Organization Name
Initiative-Based Nonprofits	-Achieving the Dream[9] -Complete College America (CCA)
Membership Associations	-American Association of Community Colleges (AACC) -American Association of University Professors (AAUP) -American College Personnel Association (ACPA) -American Council on Education (ACE) -Association of American Colleges and Universities (AAC&U) -Association for General and Liberal Studies (AGLS) -Council of Independent Colleges (CIC) -Council on Undergraduate Research (CUR) -Education Commission of the States -League for Innovation in the Community College -Midwestern Higher Education Compact -National Conference of State Legislatures (NCSL) -National Governors Association (NGA) -State Higher Education Executive Officers (SHEEO) -Western Interstate Commission for Higher Education (WICHE)
Project Consultants and Contractors	-EDUCAUSE -HCM Strategists -Jobs for the Future (JFF) -MDC -MDRC -National Center for Higher Education Management Systems (NCHEMS) -Rockefeller Philanthropy Advisors

[8] I borrow the typology from Hall and Thomas's (2012) study and I added private foundations as an additional type.
[9] Achieving the Dream in this table is a nonprofit organization, it is not the Lumina initiative also named Achieving the Dream.

Table 5.1 (Continued): Policy Organizations Working in Higher Education	
Intermediary Type[10]	Organization Name
Research and Policy Institutes	-American Association of State Colleges and Universities (AASCU) -American Association of University Women (AAUW) -The Aspen Institute -Community College Research Center -Delta Projects on Postsecondary Costs, Productivity, and Accountability -Education Trust -Excelencia in Education -Gateway to College National Network -The Institute for College Access and Success -Institute for Higher Education Policy -Institute for the Study of Knowledge Management in Education -National Association of Student Personnel Administrators (NASPA) -National Center for Academic Transformation (NCAT) -National Center for Public Policy and Higher Education -The Pell Institute for the Study of Opportunity in Higher Education -Project Kaleidoscope (PKAL)
Private Foundations	-Bill and Melinda Gates Foundation -Carnegie Foundation for the Advancement of Teaching -Lumina Foundation for Higher Education

[10] I borrow the typology from Hall and Thomas's (2012) study and I added private foundations as an additional type.

With this list in hand, I then re-visited the literature on performance funding to determine which ones are policy agents for diffusing performance funding. Current studies have identified that performance funding has received strong support from the Lumina Foundation (Alstadt 2012; Blankenberger and Phillips 2014; Dougherty et al. 2011; Dougherty and Natow 2015; Fryar 2011; Hillman, Tandberg, and Gross 2014; Li 2017; Li and Kennedy 2018; McLendon, Cohen-Vogel, and Wachen 2014; Ness, Deupree, and Gándara 2015; Quinterno 2012; Tandberg and Hillman 2014), the Bill and Melinda Gates Foundation (Blankenberger and Phillips 2014; Fryar 2011; Hillman, Tandberg, and Gross 2014; Ness, Deupree, and Gándara 2015; Umbricht, Fernandez, and Ortagus 2017), and Complete College America (CCA) (Alstadt 2012; Dougherty et al. 2011; Fryar 2011; Li 2017; Li and Kennedy 2018; McLendon, Cohen-Vogel, and Wachen 2014; Tandberg and Hillman 2014). All these three happen to be 501(c)(3) nonprofits. As documented by numerous studies, these three organizations are the most prominent advocates for performance funding policy[98]. Therefore, I performed a search of all the LexisNexis mentions of these three[99].

As stated in previous chapters, the first period of adoption of performance funding that occurred in the 1990s is mainly attributed to the nationwide performance management movement in the public sector. Performance-based funding systems were heavily integrated into state and federal government programs as a means of holding

[98] I explored all the listed organizations in Table 5.1 by reading organizational missions and published information (i.e., news stories, blog posts, programs, events, and history) and confirmed this conclusion.
[99] As stated, Gates's primary work area is not higher education related, therefore I only collected news information that is relevant to my study. Also, LexisNexis sometimes has duplicated stories, I paid close attention to avoid such occurrence in my database.

public agencies accountable for improving the quality, efficiency, and effectiveness of program services. Under this performance funding movement, states extended such mechanism to the higher education sector. Starting in the early 2000s, philanthropic foundations and nonprofits began to distribute money to establish performance funding in various states. All these three organizations were established in the 21st century[100], which explains that the policy agents portion of the data ranges from 2000-2014.

2.5. Data Coding and Analysis

In total, I gathered four in-depth interviews and 704 articles. Among the 704 articles, 314 are from the three organizations' websites and 390 are from LexisNexis. I analyzed and coded the collected data in the first two quarters of 2018 using NVivo 12 Plus, qualitative data analysis software. In qualitative research, data coding reliability is crucial. Many strategies are available within qualitative research to protect against bias and enhance the reliability. Krippendorff (2004) suggests three methods to improve such reliability. First is stability where the concern is whether a coder's use of codes changes over time. Second is accuracy where a gold standard coding scheme is already established with high reliability and other coding schemes are developed and compared to it. Third is reproducibility across coders—often called intercoder reliability—where the concern is whether different coders would code the same data the same way.

Research conducted by a single researcher is limited to the perceptions and introspection of the author. Taking advice from Krippendorff (2004), I prioritize

[100] The Gate Foundation was formed in 2000, Lumina Foundation in 2002, CCA in 2009.

consistency in data coding and pay close attention to accuracy. Unfortunately, I was unable to involve an additional researcher to test intercoder reliability. Being fully aware of such limit and potential bias, I did my best to objectively investigate the data and constantly remind myself the importance of holding an unbiased attitude in date coding.

I conducted a manual line-by-line open coding of the collected data. An open code is supported by at least one unit of data, defined as "any meaningful (or potentially meaningful) segment" of text (Merriam 2009, p. 176). Each unit must "reveal information relevant to the study and stimulate the reader to think beyond that particular bit of information" (Lincoln and Guba 1985, p. 345). Manual coding not only helps me identify important themes, it also allows me to generate evidence-based conclusions rather than making assumptions.

Data analysis began with a close breakdown of my hypotheses. First, I focus on three key themes: *Policy Image* (whether performance funding is reported positively, neutrally, or negatively), *Activities with State Government* (the states that the organizations have reached out to), and *Policy Agents* (other policy agents associated with performance funding diffusion). Table 5.2 presents examples of my coding strategy.

Table 5.2: Examples of Main Coding Themes		
Theme	Description of Theme	Example
Policy Image (Positive)	Praise of performance funding and its outcome	Example 1: "…there is a growing body of information out there, from several states, about how outcome-based funding programs are actually working to help support student success" (from Lumina website[11]). Example 2: "These and other example show that performance-based funding can work, and work well" (from Lumina website[12]).
Policy Image (Neutral)	Factual non-opinion-based discussion of performance funding	Example 1: "Tennessee is among the leading states in this field, as it is distributing 70 percent of its higher-education appropriations based on results and quality rather than enrollment" (from Lumina website[13]). Example 2: "In fact, more than 30 states now either use some type of performance-based funding for higher education or, as is the case here in Maryland, are in the process of developing and refining such models" (from Lumina website[14]).
Policy Image (Negative)	Criticism of performance funding	Example 1: "that's the theory, you're assuming that it's the best way to do it. This is just A way to do it. We just don't think that it's the best way to do it[15]" (from the interview with officials from Alabama). Example 2: "there are a lot of problems with PF that I don't think you take into account. Earlier you mentioned minority students prior to the interview, performance funding can be detrimental for minority students[16]" (from the interview with officials from Alabama).

[11] Link to the article: https://www.luminafoundation.org/news-and-views/rising-to-the-college-attainment-challenge-in-maryland
[12] Link to the article: https://www.luminafoundation.org/news-and-views/rising-to-the-college-attainment-challenge-in-maryland
[13] Link to the article: https://www.luminafoundation.org/news-and-views/college-degrees-fuel-prosperity
[14] Link to the article: https://www.luminafoundation.org/news-and-views/rising-to-the-college-attainment-challenge-in-maryland
[15] The interviewees were asked whether they think performance funding is an effective program since it was designed to improve higher education quality.
[16] The interviewees were asked to provide their opinion on performance funding.

Table 5.2 (Continued): Examples of Main Coding Themes		
Theme	Description of Theme	Example
Activities with State Government	Interactions between the three organizations (CCA, Gates, and Lumina) and state government, including financial support and information supply	Example 1: "State Higher Education Executive Officers (Boulder) received $977,700 (from Lumina) to increase states' capacity to make data-driven, results-oriented higher education policy affecting student access and success" (from Lumina website[17]). Example 2: "All of these recommendations—in addition to a wealth of other information about outcomes-based funding—are available through the college productivity work that Lumina has helped support in recent years. I urge you to visit the website—collegeproductivity.org—and use what you find there to help inform the college-attainment dialogue here in Maryland."[18]
Policy Agents in Performance Funding Diffusion	Additional organizations that are involved in facilitating the diffusion of performance funding	Example 1: "Thirty-seven states have set their own college-completion goals, many with the help of Lumina or groups that have received support from Lumina, such as Complete College America" (from the Chronicles of Higher Education[19]). Example 2: "That's when we contracted with the NCHEMS (National Center for Higher Education Management Systems). We put out a performance funding draft and stipulated what we were looking for, and NCHEMS is in Colorado. They came back and said yeah we can do this. They are a national organization that is familiar with the trends in all the states. They've worked with other states prior to Mississippi to develop funding formulas[20]" (from the interview with official from Mississippi).

[17] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-announces-fourth-quarter-grants-2

[18] This is a remark made by Jamie P. Merisotis, Lumina's President & CEO, to the Maryland Higher Education Commission at the Statewide Completion Forum on January 8th, 2013.

[19] Link to the article: https://www.chronicle.com/article/Lumina-Foundation-Adopts-New/136551

[20] The interviewee was asked to describe the development of performance funding formula in Mississippi.

Second, *Activities with State Government* was further broken down into subcategories of each state. Table 5.3 below presents examples of my such breakdown of subcategories.

Table 5.3: Examples of Subcategories for Activities with State Government	
Activities with State Government	Example
State of Alabama	Example: "Lumina announced a significant new commitment to advancing adult degree attainment through a series of interconnected projects that aim to engage, motivate and help students who previously have gone to college actually earn their degrees. Lumina awarded its partner Manufacturing Institute $800,000 to support 12 states (Alabama, Arkansas, Connecticut, Florida, Illinois, Iowa, Kansas, Mississippi, Nevada, New York, Tennessee, Wisconsin)[21] in efforts to align educational and career pathways with the National Association of Manufacturers-Endorsed Manufacturing Skills Certification System, with the aim of increasing the number of students who earn a postsecondary credential with value in the workplace" (from Lumina website[22]).
State of Indiana	Example: "Lumina announced two grants totaling $2.7 million to help guide strategic planning efforts to strengthen the future of higher education in Indiana. One grant for $750,000 was awarded to the Central Indiana Corporate Partnership Foundation to work in collaboration with the Governor's Office and the state's public colleges and universities" (from Lumina website[23]).
State of Mississippi	Example: The Institutions of Higher Learning from the State of Mississippi issued the following news release in December 2014: "In their latest report, The Four-Year Myth, Complete College America and its Alliance of States provides evidence to support the need for the Finish in Four campaign, launched recently by the Student Body Presidents of Mississippi's eight public universities to encourage their fellow students to know their plans and graduate on time (from the University of Southern Mississippi website[24]).

[21] This article is coded into multiple themes under this main theme because the grant dealt with 12 states.
[22] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-s-adult-degree-completion-commitment-gives-millions-of-recession-battered-americans-a-second-chance-at-earning-a-degree
[23] Link to the article: https://www.luminafoundation.org/news-and-views/indiana-s-higher-education-future-gets-2-7-million-boost-from-lumina-foundation
[24] Link to the article: http://news.usm.edu/article/new-report-supports-need-finish-4-campaign-mississippi-universities

Third, *Policy Agents in Performance Funding Diffusion* was further broken down into subcategories of each policy agent. Table 5.4 below presents examples of my such breakdown of subcategories.

Table 5.4: Examples of Subcategories for Policy Agents in Performance Funding Diffusion	
Policy Agents in Performance Funding Diffusion	Example
American Legislative Exchange Council (ALEC)	Example: "What influenced legislature, it may have been something called ALEC. There were lots of bills get dropped because a member or two has gone to the ALEC meeting[25]" (from the interview with official from Mississippi).
Southern Regional Education Board (SREB)	Example: "We've been to SREB meetings … like I said, it (performance funding) is not a new concept and it's been discussed widely. We've attended webinars also[26]" (from the interview with officials from Alabama).
National Conference of State Legislatures (NCSL)	Example: "A new project of the National Conference of State Legislatures places legislators at the center of a national dialogue about solutions... (one of the project's goal is) To identify, debate and disseminate new models of state budgets and state higher education funding that link appropriations, tuition and financial aid in the four-year and two-year sectors and can favorably impact college access and affordability, especially for low income students" (from Lumina website[27]).

[25] The interviewee was asked the motivation of state's adoption of performance funding.
[26] The interviewees were asked where they obtained information about performance funding from.
[27] Link to the article: https://www.luminafoundation.org/news-and-views/new-ncsl-project-seeks-to-alleviate-higher-education-funding-problems

Information that addresses more than one theme was coded into multiple themes. For example, during the interview with Alabama, one interviewee indicated that "(we've been to meetings at) SREB (Southern Regional Education Board), SHEEO (State Higher Education Executive Officers), NACUBO (National Association of College and University Business Officers), NCSL, AIR (Association of Institutional Researchers), most higher education entities, and some others, like I said, it's not a new concept and it's been discussed widely. We've attended webinars also." This statement is coded into multiple subcategories under *Policy Agents in Performance Funding Diffusion* since multiple agents are mentioned in this statement.

For another example, Jamie P. Merisotis, Lumina's President & CEO, addressed remarks to the Maryland Higher Education Commission on January 8, 2013[101]. During the speech, he pointed out "In fact, more than 30 states now either use some type of performance-based funding for higher education or, as is the case here in Maryland, are in the process of developing and refining such models. So this is not a new policy approach; it is a continuous process of aligning and matching the state's needed student outcomes with financial incentives for institutions." This comment is coded under two main themes—*Policy Image* and *Activities with State Government*, because the remark directly discusses performance funding and it involves the higher education governing agency in Maryland. It is further categorized into the subthemes of *Policy Image (Neutral)* and *State of Maryland*.

[101] Link to the article: https://www.luminafoundation.org/news-and-views/rising-to-the-college-attainment-challenge-in-maryland

I also looked for unexpected themes and data found in the database. Using NVivo 12 Plus, I labeled the data focusing on key terms and concepts and put them into groupings. Once the concepts were identified through analysis of the data and put into groupings, I coded for patterns in the responses and materials. From the 710 documents (704 articles and four interview transcripts), *Policy Image* is mentioned 308 times in total, *Activities with State Government* 4605 times, and *Policy Agents in Performance Funding Diffusion* 191 times.

Table 5.5, 5.6, and 5.7 below summarize the descriptive statistics for sub-themes for each main theme. Table 5.6 demonstrates that both foundations are selective communicators. They have devoted most of their attention to the states of Indiana, New York, Ohio, Texas, and Washington[102]. The states that are leased connected with Lumina are: Alabama, Idaho, Nebraska, North Dakota, and South Dakota.

[102] It is unsurprising since Lumina is based in Indiana and Gates is based in Washington.

Table 5.5: Descriptive Statistics—Coding Sub-Themes for *Policy Image*			
Main Theme	Sub-Themes	Frequency of Occurrence	Number of Documents that Mention the Sub-Theme[28]
Policy Image	Positive	219	107
	Neutral	80	65
	Negative	9	5

Table 5.6: Descriptive Statistics—Coding Sub-Themes for *Activities with State Government*			
Main Theme	Sub-Themes	Frequency of Occurrence	Number of Documents that Mention the Sub-Theme[29, 30]
Activities with State Government	State of South Dakota	12	5
	State of Nebraska	37	5
	State of Idaho	6	6
	State of North Dakota	6	6
	State of Vermont	7	6
	State of Alabama	9	9
	State of Delaware	9	9
	State of Nevada	14	13
	State of Rhode Island	32	13
	State of Wyoming	33	13
	State of South Carolina	18	16
	State of New Jersey	22	17
	State of Mississippi	68	17
	State of Kansas	32	19
	State of New Hampshire	32	19
	State of Iowa	31	20
	State of Oregon	46	21

[28] Some articles cover multiple themes and sub-themes.
[29] This sub-theme is ranked from the lowest number to the highest.
[30] Some articles cover multiple themes and sub-themes.

Table 5.6: Descriptive Statistics (Continued)—Coding Sub-Themes for *Activities with State Government*			
Main Theme	Sub-Themes	Frequency of Occurrence	Number of Documents that Mention the Sub-Theme[31, 32]
Activities with State Government	State of West Virginia	64	21
	State of Arkansas	49	22
	State of Missouri	44	24
	State of Maine	71	28
	State of Montana	76	28
	State of Utah	88	29
	State of Louisiana	55	30
	State of Kentucky	60	31
	State of Colorado	60	32
	State of Connecticut	89	32
	State of New Mexico	49	33
	State of Wisconsin	59	36
	State of Maryland	72	37
	State of Minnesota	94	38
	State of Arizona	82	39
	State of Virginia	99	39
	State of Michigan	68	40
	State of North Carolina	78	42
	State of Massachusetts	84	45
	State of Illinois	104	45
	State of Georgia	152	47
	State of Tennessee	124	50
	State of Pennsylvania	111	51
	State of Oklahoma	335	57
	State of Florida	117	62
	State of California	133	96
	State of Ohio	223	99

[31] This sub-theme is ranked from the lowest number to the highest.
[32] Some articles cover multiple themes and sub-themes.

Table 5.6: Descriptive Statistics (Continued)—Coding Sub-Themes for *Activities with State Government*			
Main Theme	Sub-Themes	Frequency of Occurrence	Number of Documents that Mention the Sub-Theme[33, 34]
Activities with State Government	State of Indiana	563	103
	State of Texas	298	114
	State of Washington	407	140
	State of New York	283	150

[33] This sub-theme is ranked from the lowest number to the highest.
[34] Some articles cover multiple themes and sub-themes.

Table 5.7: Descriptive Statistics—Coding Sub-Themes for *Policy Agents in Performance Funding Diffusion*			
Main Themes	Sub-Themes	Frequency of Occurrence	Number of Documents that Mention the Sub-Theme[35]
Policy Agents in Performance Funding Diffusion[36]	American Association of Community Colleges (AACC)	13	6
	Association of American Colleges and Universities (AAC&U)	13	5
	American Council on Education (ACE)	44	12
	Association of Institutional Researchers (AIR)	4	3
	American Legislative Exchange Council (ALEC)	2	2
	Council of Independent Colleges (CIC)	36	4
	National Association of College and University Business Officers (NACUBO)	4	2
	National Center for Higher Education Management Systems (NCHEMS)	10	9
	National Conference of State Legislatures (NCSL)	8	4
	National Governors Association (NGA)	17	8
	State Higher Education Executive Officers (SHEEO)	30	10
	Southern Regional Education Board (SREB)	10	6

Note: This is the analysis of 710 documents (704 articles and four interview transcripts). *Policy Image* is addressed 313 times in total, *Activities with State Government* 4608 times, *Policy Agents in Performance Funding Diffusion* 191 times.

[35] Some articles cover multiple themes and sub-themes.

[36] Most of the organizations are mentioned in the news materials few times and far between, as the numbers indicate, which further confirms that the Gates and Lumina Foundations and CCA are the top policy agents for performance funding.

3. Findings

In policy diffusion, information is a fundamental element. With the knowledge of the innovation, state lawmakers process the information, evaluate the idea, and make final decisions to either adopt or reject the innovation. Political communication and information exchange are two-way bargains, with information supply and consumption, therefore the findings of my qualitative analysis are presented in both directions. On the receiving end, policymakers gather the information provided and make proper decisions in accordance; on the supply end, policy agents deliver the information strategically in their favor. The following section reviews the higher education budgetary processes for each selected state and discusses the information state higher education officials receive on performance funding.

3.1. Overview of Higher Education Finance in the Two States

Both Alabama and Mississippi have a coordinating board that lacks constitutional authority to determine higher education budget. The key difference lies in the authority to distribute higher education funding. The Alabama Commission on Higher Education (ACHE) has a more limited role than the Mississippi Institution of Higher Learning (IHL) in the sense that the latter bears the responsibility to distribute funds to the institution it oversees. Therefore, it is possible that the IHL plays a more substantial role than the ACHE in partaking in higher education finance, given that it implements the approved higher education budget.

3.1.1. Higher Education Finance in Alabama

Alabama has 30 public institutions in total, including four large institutions (University of Alabama, Auburn University, Columbia Southern University, and Troy University), 24 medium institutions, and 12 small institutions (U.S. Department of Education—College Scorecard 2017). The ACHE is the coordinating board for higher education in the State of Alabama. The ACHE was created by Alabama law, Act No. 14, Special Session, 1969, and reenacted by Act 461, Regular Session, 1979, to ensure that the state's system of higher education would provide the citizens of Alabama with the highest possible quality of collegiate and university education (ACHE 2018). The ACHE is composed of 12 members appointed by the governor, lieutenant governor and the speaker of the Alabama House of Representatives and confirmed by the Alabama State Senate. The Alabama Code §16-5-9(b) indicates:

> "…. The Commission shall receive, evaluate and coordinate budget requests for the public institutions of higher education of this state, shall hold open hearings on the budget requests of the separate institutions and shall present to each institution and to the Governor and the Legislature, a single unified budget report containing budget recommendations for separate appropriations to each of the institutions. The consolidated budget and analysis of the Commission shall be accompanied by the original requests and their justifications as submitted by each institution. The recommendations of the commission shall be derived directly from its assessment of the actual funding needs of each of the universities, as presented to it by the presidents, which assessment may include, but shall not be limited to, derived conclusions that may be based upon standard techniques of objective measurement, need and unit cost figures arrived at through the use of comparative and verified data secured from the various institutions, applied in an impartial and objective manner, and comparison shall be made not only between similar functions of institutions in Alabama but also between Alabama institutions and similar functions of institutions located in other states, provided that nothing herein shall be construed to prohibit any institutions of higher education in this state from submitting any matter

> pertaining to the financial operation and needs of said institution to the Legislature or to the Governor at any time."

As prescribed by Section 16-5-9(b) of the Code of Alabama, the ACHE has no legal authority to determine the appropriation or allocation of higher education funds. The ACHE is responsible for submitting the Consolidated Budget Recommendation to the Legislature each year for the public two- and four-year institutions. Although the ACHE can make annual budget recommendations, the Governor and the Legislature are under no legal requirement to use them when they make the appropriations to the colleges and universities.

As prescribed in Section 123 of the Alabama Constitution of 1901, "… he[103] shall account to the legislature, as may be prescribed by law, for all moneys received and paid out by him or by his order; and at the commencement of each regular session he shall present to the legislature estimates of the amount of money required to be raised by taxation for all purposes (Constitution of Alabama 1901)." The actual allocation of funds to the colleges and universities is mainly based on a base plus/minus model. Institutions start with what they received the previous year and the percent increase of decrease made is generally the same to all institutions with small variances (ACHE 2018). The Executive Budget Office (EBO), in coordination with the Finance Director and Governor, prepares the Governor's Recommended budgets for presentation to the Alabama Legislature.

[103] "He" refers to the governor.

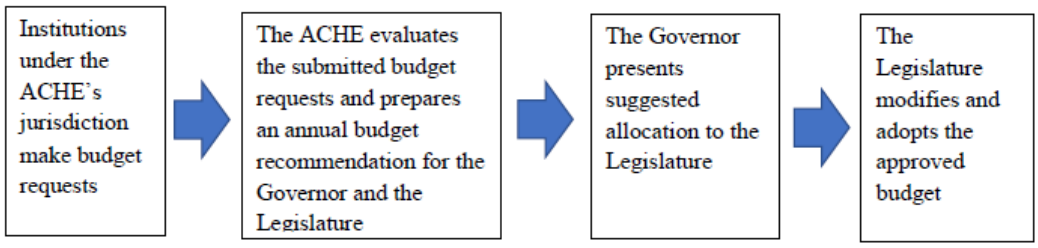
Once the budget is presented, the Legislature shall "modify or withhold the planned expenditures at any time during the appropriation period if the Department of Finance finds that such expenditures are greater than those necessary to execute the programs at the level authorized by the Governor and the Legislature or that the revenues and resources will be insufficient to meet the authorized expenditure levels (Alabama Code §41-19-10)."

The Alabama Legislature consists of a 35-member Senate and a 105-member House of Representatives, whose districts are based upon population. All legislative bodies operate mainly through committees in doing their work of considering bills. The Governor submits the annual budgets shortly after the Legislature begins its regular session (Stewart 2016; The Alabama Legislature 2018). According to the Alabama Constitution (Amendment 448), passage of the education and General Fund budgets take priority over all other legislation (The Alabama Legislature 2018). The budgetary process is depicted in Figure 6.1 below.

The EBO is also responsible for the execution of the budgets as passed by the Legislature, along with analyzing and approving all operating budgets and revisions. In addition, the EBO estimates revenues, revising as necessary throughout the fiscal year, and supervises the expenditures and other fiscal operations of state agencies (Alabama Department of Finance 2018). Fund allocated to two- and four-year colleges and universities come out of the Education Trust Fund (ETF). Ten tax sources are credited to the ETF, the largest of which are the individual and corporate income tax, sales tax, utility tax, and use tax. Other programs and agencies supported by the ETF include K-

12 education, public library services, performing and fine arts, various scholarship programs, and the state's education regulatory departments (Alabama Department of Finance 2018).

Figure 5.1: Higher Education Budgeting in Alabama



3.1.2. Higher Education Finance in Mississippi

Mississippi has 23 public institutions in total, including two large institutions (University of Mississippi and Mississippi State University), 3 medium institutions, and 18 small institutions (U.S. Department of Education—College Scorecard 2017). The state institutions of higher learning are under the management and control of a board of trustees known as the Board of Trustees of State Institutions of Higher Learning (IHL). The Institutions of Higher Learning consist of the eight public universities: Alcorn State University, Delta State University, Jackson State University, Mississippi State University, Mississippi University for University, Mississippi Valley State University, the University of Mississippi, and the University of Southern Mississippi. The Board of Trustees is the constitutional governing body responsible for policy and financial oversight of these eight public institutions. The Board first assumed its duties in 1944. There are 12 board members, representing the three Supreme Court Districts, appointed

by the Governor and confirmed by the Mississippi Senate, the members serve nine-year terms (Mississippi Institutions of Higher Learning 2018).

According to the Mississippi Code of 1972, Title 37, Chapter 101, Section 15:

> "The board shall annually prepare, or cause to be prepared, a budget for each institution of higher learning for the succeeding year which must be prepared and in readiness for at least thirty (30) days before the convening of the regular session of the Legislature. All relationships and negotiations between the State Legislature and its various committees and the institutions named herein shall be carried on through the board of trustees."

The Board appoints a Commissioner of Higher Education to administer the Board's policies at the eight universities. In addition to the administrative role, the Commissioner prepares and submits annual statements of system planning and budget priorities for consideration and approval by the Board. After the budget is reviewed, the Board prepares an annual report to the Legislature setting forth the disbursements of all moneys appropriated to the respective institutions (Mississippi Institutions of Higher Learning 2018). The Governor may veto parts of any appropriation bill and approve parts of the same. The major sources of revenue for the system are state appropriations, tuition, patient fees (UMMC), and funding from donors and governmental entities such as contracts, grants, and endowments.

As indicated in the IHL Policies and Bylaws (2018):

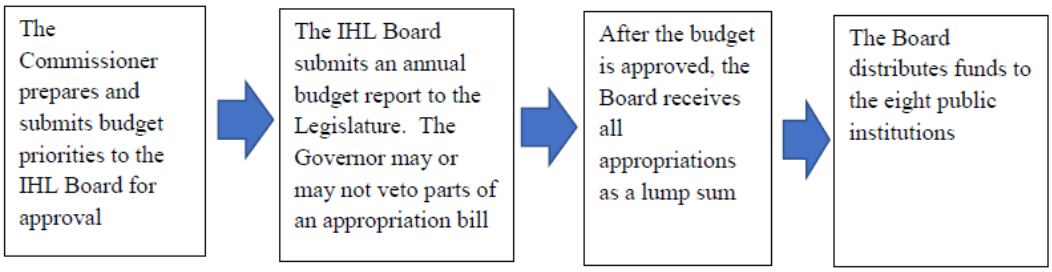
> "… The Commissioner, after consultation with the Institutional Executive Officers, shall prepare and submit an annual statement of system planning and budget priorities for consideration and approval by the Board. These priorities will then be incorporated into the Adequate

Funding Model to help generate the annual budget request for the several institutions and separately budgeted units (p. 113)"

"… All appropriations made for the use of any or all institutions including the central office of the Board shall be received by the Board as a lump sum, with the power and authority in said Board to allocate and distribute the same among the institutions under its control in such way and manner and in such amounts as will further an efficient and economical administration of the institutions (pp. 113-114)"

The budgetary process is depicted in Figure 6.2 below.

Figure 5.2: Higher Education Budgeting in Mississippi



In the 2011 Mississippi Legislative Session, the Legislature passed HB 875, which directed the Education Achievement Council to "research and develop a new funding mechanism for public community colleges and state institutions of higher learning based upon productivity goals and accomplishments as well as enrollment" (Mississippi Board of Trustees of State Institutions of Higher Learning 2014). The Education Achievement Council took a two-track approach, asking the Mississippi Board of Trustees of State Institutions of Higher Learning and the Mississippi Community College Board to study funding models based on productivity measures. In the 2013 Legislative Session, the Legislature passed SB 2851, which provides the funding allocated through the model.

3.1.2.1. Performance Funding in Mississippi

Mississippi's adoption of performance funding is mainly attributed to two notable national trends in higher education. The first trend has to do with declining state appropriations. As the economy declined, state appropriations for higher education throughout the nation declined as well. However, higher education enrollment is counter-cyclical with increasing enrollments during times of economic uncertainty. The decreasing state appropriations and increasing enrollment put significant pressure on university budgets. Second, in response to concerns over maintaining quality in the face of declining resources, states began to implement funding mechanisms, either implicitly or explicitly, based on institutional or agency performance. These mechanisms tend to shift the focus from equity and adequacy in funding to outcomes achieved with the funding received (interview with Mississippi Institutions of Higher Learning 2016).

The observation of the two trends led state legislators to reconsider the budgetary decisions for higher education. In the 2011 Mississippi Legislative Session, the Legislature passed HB 875, which directed the Education Achievement Council to "research and develop a new funding mechanism for public community colleges and state institutions of higher learning based upon productivity goals and accomplishments as well as enrollment" (Mississippi Board of Trustees of State Institutions of Higher Learning 2014). The Education Achievement Council took a two-track approach, asking the Mississippi Board of Trustees of State Institutions of Higher Learning and the Mississippi Community College Board to study funding models based on

productivity measures. In the 2013 Legislative Session, the Legislature passed SB 2851, which provides the funding allocated through the model.

Under the formula, the state allocates operational support to each university based on the factors of enrollment, number of on-campus students, number of buildings, acreage, number of off-site facilities and infrastructure. The amount allocated to each university for operational support was determined by three-year averages in three categories of spending: institutional support, operations and maintenance, and student services. This amount of operational support is equivalent to the based fund that is not influenced by institutional performance (Mississippi Board of Trustees of State Institutions of Higher Learning 2014). Alcorn State University (ASU), Delta State University (DSU), Mississippi University for Women (MUW), and Mississippi Valley State University (MVSU) receive 15% of their spending in these three categories; Jackson State University (JSU) receives 10% of its spending in these three categories; Mississippi State University (MSU), the University of Mississippi (UM), and the University of Southern Mississippi (USM) receive 6% of their spending in these three categories. Using current methodology, individual allocations for operational support range from a low of $2.4 million at DSU to a high of $4.6 at JSU.

After the operational support dollars are separated from the rest of the allocable dollars, 90% of the allocation is based on completed credit hour production. The formula measures the number of credit hours completed at each university and attainment outcomes, which include degrees awarded, the number of students graduating in STEM (Science, Technology, Engineering and Math) fields and how

many at-risk students are served by the university (Mississippi Board of Trustees of State Institutions of Higher Learning 2014).

3.2. Hypotheses Testing

3.2.1. Information Suppliers

At a time when college budgets are strained from cuts, Lumina and Gates have urged lawmakers to allocate spending more efficiently, emphasizing the need for more students to graduate and remedies to facilitate such success. As shown in Table 5.5, the Foundations have connections with all 50 states to varying degrees. In particular, the Lumina Foundation spoke about their mission very passionately during the interview:

> "We're opportunistic, we talk to states that have leadership that come forward and say hey we've heard about Lumina and we're interested in this and that. We roll up our sleeves and Lumina has helped create a lot of the organizations you hear about today that do higher education policy research. We have a great network of people that we can throw a lot of experts and the right kind of experts at states if they have questions so that out brand in the marketplace of ideas and public policy and higher education is pretty high."

Although I did not have a chance to interview the Gates Foundation, they are generous donors to such cause as well. In 2009, Gates contributed $8 million grant to help start CCA and encouraged other philanthropies to help the group raise more money. CCA's agenda calls for streamlining or eliminating remedial classes, providing more academic support in credit-bearing courses, and providing colleges with financial incentives to graduate more students. Gates has since awarded an additional $1.2 million to CCA, and the foundation's support makes up about 60 percent of CCA's

annual budget. In addition, the nonprofit has also received $1.7 million from the Lumina Foundation.

My findings overall indicate that the Foundations actively reach out to policymakers and urge them to move toward an outcome and performance-based funding approach. Lumina consistently suggests government agencies take action to transform and reform the current education system by applying business models to higher education to produce more graduates. According to my analysis, the three nonprofits generally present performance funding positively. Both Lumina and CCA also commented on performance funding laudatorily during the interviews. This positivity is reasonable given their advocacy for the policy.

As indicated, since the early 2000s, lawmakers in over a dozen of states have passed laws tying appropriations to performance, particularly graduation rates. At the center of the effort, the Lumina and Gates Foundations have sponsored policy events and financed various programs that argue for broad-scale changes aimed at pushing more students, more quickly, toward graduation. Instead of having performance funding as a stand-alone idea, both Foundations set forth a sequence of activities that help establish and justify performance funding.

Among the three organizations, the Lumina Foundation is the most active policy agent. The three primary areas the Foundation works in are preparation, success, and productivity. Specifically, the foundation strives to help high school students prepare for college academically, financially, and socially; brainstorm and share ideas for improving higher education graduation rates; and help expand higher education

capacity and serve more students, especially low-income, first-generation, and minority students. These three areas are designed to achieve the "Big Goal" or "Goal 2025" which refers to having 60% of Americans hold degrees, certificates or other high-quality postsecondary credentials by 2025 (Interview with the Lumina Foundation 2016; Lumina Foundation 2018). This ambition is built on the belief that our economy is in desperate need of intellectual resources and the higher education system should step up to fulfil such need by producing more college graduates.

For the first topic, college preparation, the Lumina Foundation has committed to two prominent initiatives: College Goal Sunday and KnowHow2Go. College Goal Sunday, originally a joint project of the Indiana Student Financial Aid Association (ISFAA) and the State Student Assistance Commission of Indiana (SSACI), is a nationwide program that helps college-bound students and their families complete the *Free Application for Federal Student Aid*, the form necessary to qualify for many student aid programs to pay college expenses (National College Access Network 2018). Lumina's support for College Goal Sunday has expanded the program's reach to more states. For example, on January 24th, 2004, the foundation announced nearly one million dollars to expand the program to five exploratory states and five implementation states—Alaska, Illinois, Hawaii, Maine, Massachusetts, Michigan, Missouri, Montana, Nevada, and Texas[104]. Additionally, in January 2007 the Lumina Foundation partnered with the American Council on Education and the Ad Council, and launched KnowHow2Go, a campaign that encourages under-privileged high school students to

[104] Link to the article: https://www.luminafoundation.org/news-and-views/college-goal-sunday-expands-to-help-more-low-income-families-apply-for-college-financial-aid

prepare for college by providing free information and financial assistance. Through the effort, Lumina brings awareness to high school students to cultivate the college-going culture.

Not only is it critical to encourage college enrollment, it is also essential to ensure that the graduation and retention rates keep up with such growth. Completion and attainment is the ultimate goal of this continuous effort. The initiatives devoted to the second area include performance-based (or sometimes referred to as outcome-based) funding and Achieving the Dream. The Lumina Foundation firmly and repetitively iterates the importance of transforming the higher education funding system through applying business models to higher education to produce more graduates. Particularly, the Foundation recommends performance funding frequently during meetings with state higher education agencies and legislators.

For example, on February 23rd, 2011, Lumina's CEO, Jamie Merisotis, made a testimony in front of the Arizona House of Representatives Higher Education, Innovation and Reform Committee. During the speech, he commented that "There are also places where Arizona needs to continue to push despite—or perhaps because—of the new normal in state appropriations. These are the tightly integrated areas of funding student success at universities and creating a need-based aid program that incentivizes completion.[105]" For another example, on December 11th, 2013, the Lumina Foundation launched Strategy Labs, a new digital platform that helps states significantly increase

[105] Link to the article: https://www.luminafoundation.org/news-and-views/arizona-s-economic-recovery-the-vital-role-of-colleges-and-universities

graduation, as a critical mechanism to promote Lumina's state policy agenda, which is focused on the reforms needed to build student-centered, outcomes-based postsecondary education systems with the capacity to successfully serve more students[106].

The second initiative, Achieving the Dream, is a national level data-driven effort to improve student success at the college level. It works on multiple fronts, including improvement of community college student success and through research, public engagement and public policy that can bolster student success. Achieving the Dream aims to improve student success at community colleges by helping the colleges use data to analyze how their students were doing and find ways to increase student retention and graduation rates.

The last area, productivity, refers to making higher education more productive through maximizing the outcome and performance. The key initiative to improve productivity is Making Opportunity Affordable, a program designed to promote and support a productivity agenda for American higher education, particularly at public institutions. The initiative's agenda embraces several strategies. The most important is direct work with states to overhaul finance systems to stimulate productivity, increase the efficiency and effectiveness of academic programs and administrative operations, and realign system capacity.

Similar to Lumina's set of strategies, Gates also stresses college preparation and student success. Both Foundations infiltrate the education system and penetrate the

[106] Link to the article: https://www.luminafoundation.org/news-and-views/strategy-labs-website-launched-to-help-states-increase-attainment

legislative process by providing financial support and technical information. Both Foundations also attempt to fundamentally reform the American education system by enforcing a series of initiatives to increase enrollments and improve college graduation rates. Performance funding is considered as the key to reach that final goal. During the interview with Lumina, one participant stated that:

> "We had an intermediary organization called HCM Strategist that's based in Washington DC, they specialize in state policy work. Our goal is to increase higher education productivity, we organized it into 4 areas which were called "Four Steps to Finishing First". The first step is to implement some kind of performance funding, the second step is help students to think about they can pass through their education, so they can get their degree and do it on time. The third one is around business efficiency. The fourth one around new models, basically a more efficient way to deliver education… Through Strategy Lab, we work with states. What we try to get them to do was to take a portion of their public funding for higher education and allocate it toward a set of metrics like driving increases in all attainment level in state population. It's not about graduation rates but year-after-year increase in the number of graduates. So that was one metric that we encouraged states to look at."

The interviewees at Lumina also spoke about their effort to fund research that closely investigate performance funding and conclude policy recommendations that go along with the development of performance funding formula and implantation. When asked what information Lumina provides to states, one respondent said that:

> "We inform them (state officials) of what the best practices are and the criteria we look for in good performance funding models. We meet the state where it is. If they are interested in performance funding, we have consultants from HCM Strategists, our intermediary organization that specialized in state policy work, who can meet with them and do a convening, so they can gather people who're interested in the state, we can bring experts across the country, and other states that have done

> performance funding and they can talk to their peers and learn about what they've done in their example."

As discussed in the second chapter, many empirical studies conclude that performance funding is ineffective due to its failure in boosting institutional performance and the potential negative consequences. Both foundations appear to be aware of the criticisms, but they generally are defensive of the flaws. For example, in an article published on Jan 8th, 2013 on Lumina's website, it states: "These and other example show that performance-based funding can work, and work well. But not all performance-based funding is the same. Nonpartisan researchers have looked closely at these funding models in several states, and they've compiled a list of recommendations for states and systems that may be considering such policies (Merisotis[107] 2013)." During the interview, when I brought up the negative study results, one respondent made the following counterargument:

> "I'd like them to defend why the existing system of FTE-based funding or base-plus funding works better than performance-based funding for low income students or students of color. If resources come forward and say that FTE-based or base-plus funding in this country is the better alternative (than performance-based funding0, then I will start paying attention. But all I've seen is that a very new type of model of funding formula which has been embraced by K-12 education and K-12 funding formulas and budgets for the last hundred years in this country. How does that philosophy not work in postsecondary education? It sure changed behavior in K-12."

In summary, both the Gates and Lumina Foundations have been dedicating tremendous amounts of financial and intellectual resources to reform the education

[107] Jamie P. Merisotis is the President & CEO of the Lumina Foundation.

system. Under the shared mission of helping expand the population with a postsecondary credential in the U.S., both Foundations have set forth a multi-stage plan to help more students enroll in college and eventually complete their degree, call attention to higher education productivity and performance, and encourage legislative effort to fulfill the cause. In order to diffuse the policy idea and raise legislative awareness, both Foundations sponsor public convenings, speak at national and regional conferences, and reach out to state officials. The Foundations work selectively with states that have expressed interest in performance funding or are in the process of developing a performance funding formula. Beyond their direct involvement, both Foundation have dispersed dollars to mobilize other higher education organizations to join the effort, among which CCA is the most influential one.

3.2.2. Information Receivers

Section 3.2.1. discusses how policy image is presented by information providers, it is equally important to scrutinize the other side of the communication and see if the information translate to good policy image in policymakers' eyes. My interviews with higher education officials lead me to the conclusion that decision makers are fully aware of the idea of performance funding. On numerous occasions, each interviewee spoke of their knowledge of the policy. Their information sources, however, are very different.

Neither state is fully on the foundations' radar given their comparatively low-level of communication among all the states Lumina has worked with, as seen in Table 5.6. During the interview with Alabama, both officials spoke about their full awareness

of performance funding and understanding of other states' experiment with such funding strategy. Both interviewees talked about the extensive research the ACHE has conducted in the past on performance funding by drawing information from other states. The ACHE's knowledge mainly came from observation of other states and NCSL meetings. Both respondents indicated that they had never attended a CCA meeting, nor had they been contacted directly by either of the Foundations. Further, the ACHE officials didn't appear to be impressed with performance funding, when asked if they believe that performance funding will help improve college performance, they both remained skeptical. As discussed above, Table 5.6 shows that Alabama is among the least interactive states with the organizations. The Lumina Foundation confirmed this by pointing out that:

> "We haven't done much work with Alabama. The condition has to be right for this. There is no amount of money or resources we can provide to the states that do not want to adopt performance funding, no matter how good the policy might be for them. Some states that want to do it, and sometimes little money can transcend and change things. That money is for meetings and bringing in technical support. They need to embrace the idea."

Given the limited authority of making higher education appropriation, the ACHE cannot make budgetary decisions. Instead, the ACHE collects financial information from institutions and make budgetary recommendations to the Governor and state Legislature. The interview further confirms such discretion delegation. When asked whether the ACHE has any voice in higher education appropriation, the first interviewee responded that:

> "Absolutely not. The state legislature and governor decide the appropriation amount. The governor will put forward his budget, which includes higher education, and the Legislature ultimately makes the decision because they pass the actual appropriation budget."

The second person added that:

> "We make recommendations, but these recommendations are not used. They never use our recommendations. The legislature makes the decision, and it's basically a cost plus or minus based on what you've got the year before, all the school will get the same amount as the previous year with some increase or decrease based on revenues. We're the coordinating board, not the board of regents. Everything is based on how much revenue is available. We've been making recommendations since 1969, they have never used our budget recommendations."

According to the ACHE website, the agency has a wide range of partnerships including Alabama State Department of Education, Alabama Community College System, Alabama Independent Colleges, A+ College Ready, Public Affairs Research Council of Alabama (PARCA), State Higher Education Executive Officers (SHEEO), and Southern Regional Education Board (SREB), When asked whether members at ACHE have contact with other policy agents or policy networks, the first interviewee stated that:

> "We've been to meetings at SREB, SHEEO, NACUBO (National Association of College University Business Officers), NCSL, AIR (Association of Institutional Researchers), most higher education entities, and some others, like I said, it's not a new concept and it's been discussed widely. We've attended webinars also."

All these groups the speaker mentioned have interactions with the Lumina Foundation. For example, Lumina's CEO and president, Jamie P. Merisotis, spoke at the 2010 SHEEO Annual Meeting addressing higher education policy agenda for states,

during which he called for governors and legislators to "come together in a comprehensive policy agenda for each state to increase attainment and reach the Big Goal[108]." In 2013, Merisotis again spoke at the 2013 SHEEO Annual Meeting, during which he emphasized that higher education funding and policies should focus on institutional outcomes and results [109]. The Lumina Foundation has also sponsored AIR[110], NACUBO[111], NCSL[112], and SREB[113] programs in the past.

These connections help inform the ACHE of performance funding. In their past budget proposals, the ACHE has referred to performance funding as a widely adopted funding strategy. The information was circulated among legislators and sparked some formal considerations. The respondents explained that the key reason for non-adoption is simply lack of legislative interest to further the initial consideration. When asked to define "lack of interest", one speaker pointed out that:

> "Alabama has less than five million people, we have 14 universities and 26 two-year colleges[114]. Some campuses in rural areas with smaller populations and you start pulling money away from them, you are going to potentially close the school. You can't just look at a school as a school, it's an economic engine in these communities. If you look at a school in a rural area, their major employer and people in the

[108] Link to the article: https://www.luminafoundation.org/news-and-views/reaching-the-big-goal-an-agenda-for-states
[109] Link to the article: https://www.luminafoundation.org/news-and-views/national-goals-and-policy-for-higher-education
[110] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-announces-grants-1q-2004
[111] Link to the article: https://www.luminafoundation.org/news-and-views/redesigning-higher-education-from-the-inside-out
[112] Link to the article: https://www.luminafoundation.org/news-and-views/2005-grants-announced-totaling-81-5-million
[113] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-s-adult-degree-completion-commitment-gives-millions-of-recession-battered-americans-a-second-chance-at-earning-a-degree
[114] This speaker may have referred to both public and private institutions. According to the U.S. Department of Education—College Scorecard (2017), Alabama has 30 public institutions.

> town basically provide service to the school. You shut down the school, you destroy the local economy. We have several rural schools with small student populations. This fact plays a role in whether Alabama adopts certain policies or not. People in these rural areas are not academically prepared as people in other areas, if schools raise admission standards, these people won't have the opportunity to go to college, and you're perpetuating a cycle of people not being able to advance. To me, it's complicated based on different circumstances of the state. Alabama is very poor and we're predominantly rural."

The above information implies that one of the main reasons for Alabama to not adopt performance funding is the geographic configuration and size diversity of their institutions. The state has 30 public higher education institutions, ranging from small schools (defined as less than 2000 students) to large ones (15,000 or more students) and everything in between, in urban and rural environments (U.S. Department of Education—College Scorecard 2017). For instance, the University of Alabama at Tuscaloosa (UA) houses a record high of 38,563 for fall 2017. More than 40 percent of UA's 7,407-member freshman class scored 30 or higher on the ACT, and 38 percent were in the top 10 percent of their high school graduating class. The entering class in 2017 carries an average high school grade-point average of 3.72, with 34 percent having a high school GPA of 4.0 or higher (University of Alabama 2018). Being a prestigious institution, it has been attracting high-performing students from all over the nation and has a growing population of international students.

On the other hand, Alabama has several rural schools where admission standards are much lower and student populations are less diverse. For instance, Athens State University, a two-year upper level public university, whose student body consists, in large part, of a non-traditional aged population seeking a flexible curriculum. It is

difficult to hold UA and Athens State University to similar performance standards, given UA's much higher opportunity of recruiting likely-to-excel freshmen. If the state government was to cut funding to Athens State University, it would hurt the local economy since the institution has a major impact on it. The majority of the population in Athens is associated with the school in one way or another, either they work at the institution or attend school there. Due to the technical difficulty of determining performance measurements, Alabama currently does not have performance funding, regardless of their knowledge or perception of the policy. The technical difficulty has also deterred the state government from seeking out solutions and further information.

Different than Alabama, Mississippi enacted performance funding in 2011. Mississippi obtained information from a relatively wide range of sources before finalizing their funding formula. Although Mississippi is not one of the main targets of Lumina's work, the state has some financial connections with the Foundation. For example, in 2009, the IHL received $150,000 from Lumina to support College Goal Sunday in Mississippi through 2011, preparing students for college, as a part of Lumina's *Goal 2025* to increase national educational attainment[115]. In 2010, the Lumina Foundation awarded $800,000 to Manufacturing Institute, a Washington D.C. based nonprofit whose priority is to advocate for education and job training policies that strengthen the U.S. manufacturing workforce. The grant was intended to support 12 states (Alabama, Arkansas, Connecticut, Florida, Illinois, Iowa, Kansas, Mississippi, Nevada, New York, Tennessee, Wisconsin) in efforts to align educational and career

[115] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-announces-fourth-quarter-grants-2

pathways with the National Association of Manufacturers-Endorsed Manufacturing Skills Certification System, with the aim of increasing the number of students who earn a postsecondary credential with value in the workplace[116].

In addition to Lumina, the interviewee spoke about how a few bills were proposed after state legislators' visit with the American Legislative Exchange Councils (ALEC), a nonprofit organization that gathers conservative state legislators and private sector representatives to draft and share model state-level legislation among state governments. In addition, the Academic Affairs Department worked heavily on the CCA initiative and attended their meetings. The Lumina Foundation sponsored a trip for the Mississippi higher education officials to travel to Nashville in 2011, before the state undertook the funding formula. However, the interviewee attributed their adoption to the state's exchange with ALEC, their diligence and commitment, and the legislative support.

The Mississippi State Institutions of Higher Learning (IHL) oversees eight universities and colleges with uneven levels of performance, among which three are historically black universities. Some institutions are located in rural areas where they only attract students within certain distance, whereas other institutions may appeal to a bigger pool of students and even out-of-state students. Over the years, enrollments in some institutions significantly increased whereas others decreased, yet the constant percentage allocation was still in place. The State Legislature was caught with the

[116] Link to the article: https://www.luminafoundation.org/news-and-views/lumina-foundation-s-adult-degree-completion-commitment-gives-millions-of-recession-battered-americans-a-second-chance-at-earning-a-degree

concern with the diverging appropriations per FTE. It was also worrisome regarding the rural institutions' lack of ability to recruit out-of-region or out-of-state students, while some other schools' enrollments continued to grow. This continued to widen the gap between the levels of financial needs for these states. The Legislature came to the realization that the appropriations to bigger institutions were ever growing while the rural institutions suffered from the disadvantage to expand, which is similar to the problem with Alabama, as stated above.

The initial attempt was made to tackle this problem in 2005, the IHL proposed a funding formula that was very similar to the one that was in Texas at the time[117]. However, there was legislative resistance to that formula, and in subsequent years the appropriation bills stipulated that the funds could not be appropriated based on that formula. Some of the smaller universities had strong legislative contacts, they felt they were being treated unfairly since they did not have the resources to improve student outcomes. These institutions had enough political pull to get certain language inserted into the appropriation bill that prohibited the IHL from using the formula, leading to a pause in the performance funding implementation.

Soon after, the leadership in the Legislature changed from Democratic control to Republican control. The new leadership was vocal about higher education accountability and granted much support to the IHL to resume the effort. After learning

[117] The interviewee did not clarify the decision, but I speculate that Texas is comparable in the sense that its institutions have uneven performance due to the diverse population. Some universities in Texas mainly serve minority students and immigrant students.

about the details of performance funding at ALEC meetings, the Legislature directed the IHL to brainstorm funding formulas to tackle the challenge.

3.2.2.1. Conclusion on the Proposed Hypotheses

The above discussion leads to a few conclusions. The first hypothesis, changing information that causes negative policy image shift contributes to non-adoption, is not supported. The interviews with higher education officials reveal that the decision making goes much beyond the perceived policy image. Although states receive lopsidedly positive information from the three organizations, they also exchange with other sources. As indicated, despite the officials' negative comments on performance funding, this fact is not the key contributor to Alabama's non-adoption. This is not to say that policy image is insignificant. As elaborated, higher education finance is not the decision of one institution. In Alabama, the coordinating board has very little authority beyond making budgetary recommendations, and the higher education finance is up to the Governor and State Legislature. It is unclear how the other two institutions perceive performance funding and process information in their decision making. However, I speculate that a positive perception of the policy alone would not necessarily lead to adoption due to the challenge of identifying a reasonable set of performance standards that can work for their diverse public institutions.

Second, lack of communications with the three nonprofits in question can possibly lead to policy non-adoption. As a non-adopter, Alabama has not been lobbied heavily by CCA. Nor does it exchange with the Gates and Lumina Foundations frequently. Given Alabama's lack of interest, the Foundations may consider it a waste

of time and resources to continue keeping the state in the loop, which eventually could be the explanation of such non-adoption. In addition, the main decision makers, the Governor and Legislature, have not received much financial support from the Foundations. Both the Gates and Lumina Foundations work with states to help build performance funding formulas through higher education grants and technical support. Being in a relatively poor fiscal condition and having a wide performances gap from various institutions, Alabama could use some help from the Foundations and CCA in establishing and customizing their funding formula. The Mississippi case demonstrates that with determination and commitment, the legislative leadership is willing to conquer technical difficult to develop performance funding with external help.

One considerable distinction between the two is that the IHL oversees eight public institutions, whereas the ACHE is responsible for all 30 public universities and colleges. It is technically much less challenging for Mississippi to come up with an acceptable list of performance evaluation criteria. Historically, Alabama ranks lower than average on the educational attainment rate. Rationally, it should have the incentive to enforce some policy to improve their education system, yet Alabama has not experimented with other funding mechanisms beyond the traditional enrollment-based approach. In conjunction with the challenge of enacting performance funding, lack of external technical and financial support can further discourage the state from adopting performance funding.

Lastly, lack of interactions with policy agents and policy networks does not appear to be a reason for non-adoption. As indicated, the ACHE has partnership with

other policy agents, and is an active members of various policy networks. These connections are helpful for the state to be informed of performance funding. As discussed, the awareness and knowledge of a policy innovation, however, does not necessarily lead to adoption. The technical difficulty seems to defeat the attempt of implementing performance funding in the Alabama case.

Conclusion

This chapter presents the qualitative study design, data analysis, and findings. Although it seems that performance funding is a straightforward concept, the policy decision making is far from simplistic. States have their own varying conditions and realities that dictate higher education budgeting. The discussion unveils both the legislative and institutional explanations to policy decision making. One noteworthy point to emphasize here is that higher education finance is not simply determined by one institution, rather, it requires the coordination and agreement among institutions—the governing agency, the executive, the legislature, and sometimes even the higher education system. The power configuration in higher education finance plays a considerable role in the adoption of performance funding. The next chapter furthers this discussion and proposes a few future research topics.

Chapter VI. Concluding Comments and Thoughts on Future Research

This dissertation examines policy diffusion failure based on the conceptual framework of policy innovation and diffusion. Since 1979 when performance funding was first enacted, the policy has had two waves of adoption: from 1979 through 2002, and from 2003 through 2014. Such division is discussed in detail in Chapter Four. Evidence suggests that the first period of adoption is mainly the byproduct of nationwide performance management reform, during which performance-based funding systems were heavily integrated into state and federal government programs as a means of holding public agencies accountable for improving the quality, efficiency, and effectiveness of program services. Under this movement, states extended such mechanism to the higher education sector. Performance-based funding policy merged as a popular funding strategy to improve higher education performance. I contend that the second wave of adoption was mainly attributed to higher education nonprofits' advocacy for performance funding and their effort to provide an abundance of policy information to state officials.

During the second wave, many nonprofit organizations become aware of the importance of higher education performance and accountability, leading to their public endorsement for performance funding and financial efforts to help diffuse the policy. Among these organizations, the Lumina and Gates Foundation are the most notable ones. After reviewing the literature of public policy making and how policy agents facilitate policy diffusion through information provision, I hypothesize that states' non-

adoption of performance funding is mainly due to the negatively perceived policy image and lack of interactions with policy agents and higher education nonprofits.

My findings suggest that from 1979 through 2002, regional influence, state fiscal condition, educational attainment, tuition change, and higher education governance are the main factors that lead to state adoption of the policy. States with higher probability of adoption tend to have more adopting neighbors, better fiscal condition, higher educational attainment rates, tuition decreases, and an absence of a consolidated governing board. From 2003 through 2014, states with declined college enrollment and conservative governments appear to be more likely adopters.

Further, the non-adoption of performance funding is not simply attributed to the perceived image of the policy or the level of knowledge of the innovation. State higher education finance requires collective efforts from the higher education governing agency, the executive, and the legislature. Additionally, higher education institutions also partially determine the budgetary decisions by providing their inputs. With a combination of quantitative and qualitative methods, the results of the analysis uncover some intriguing findings and raise questions for future research.

1. Additional Quantitative Variables

1.1. Gates Foundation Variables

The quantitative portion omits some potentially relevant contributing factors to policy diffusion. Statistically, Lumina's financial contribution to state higher education does not appear to be a significant factor. It has been documented that the Gates Foundation is another organization that distributes large amounts of dollars to the cause

of performance funding programs. It is uncertain whether Gates money is more effective than Lumina money in the diffusion of performance funding.

However, I foresee that the data collection for this variable could be challenging. The Gates Foundation funds a wide range of projects, programs, and organizations. Their mission tackles five program areas: global health division, global development division, global growth and opportunity division, U.S. division, and global policy and advocacy division (Gates Foundation 2018). Their domestic division works to improve U.S. high school and postsecondary education and support vulnerable children and families mainly in the state of Washington. Going through the massive amount of information from their past 990 Forms to find higher education grants that were dedicated to performance accountability related effort could be daunting[118].

Another challenge is that the Gates Foundation funds many nationwide higher education organizations that work with various states, which makes it difficult to trace "how much money goes to which states." For example, the Gates Foundation has funded groups like Complete College America (CCA) and Completion by Design, as well as higher education association-created systems such as the Student Achievement Measure, the Voluntary Framework of Accountability and the Voluntary System of Accountability (Fain 2015). In 2009, the Gates Foundation helped start CCA with an $8 million grant. Ever since its birth, CCA has worked to recruit states into their alliance, by encouraging governors and state legislators to commit to change the way

[118] The Foundation's past 990 Forms are available at: https://www.gatesfoundation.org/Who-We-Are/General-Information/Financials

higher education is governed by moving higher education policy to a more performance-based culture (Fryar 2011). In 2015, Gates invested $34.8 million over five years to help increase the graduation rates of community college students through Completion by Design—a five-year Gates Foundation signature initiative that works with community colleges to significantly increase completion and graduation rates for low-income students under 26. Completion by Design was charged with the task of awarding competitive grants to groups of community colleges.

These examples show that it is no easy task to untangle these relationships and sort through the various states these organizations and programs work with, which overlap in many ways and differ in others. However, this is an important inquiry for future research because the current literature does not tell us much about philanthropic foundations' effort in public policy making. Private foundations are legally limited by law in the ways they can and cannot seek to influence public policy. The IRS further prohibits foundations from directly lobby government agencies. Despite the restriction, private foundations may still participate in many forms of advocacy activities and fund advocacy. In the case of performance funding, philanthropic foundations exhibit their influence through financial support and policy information supply. In addition, this dissertation demonstrates that the Lumina and Gates Foundations' advocacy generally calls upon government action to move towards a performance-focused approach in higher education finance rather than specific bills, which technically is not considered as lobbying. Future research on this topic will not only enrich our theoretical

understanding of the public policy field, but also provide useful information to practitioners on the influence of nonprofits in policymaking.

1.2. State Higher Education Governing Structure

Additional critical variables that might help improve the quantitative models include the state higher education governing agency's jurisdiction size and its level of budget authority. In the quantitative section, I only account for whether a state has a consolidated governing board as a dichotomous measure. This measure is inadequate because it does not capture the complicated environment in which higher education agencies operate. For example, as discussed in the previous chapter, one of the factors that prevents Alabama from adopting performance funding is the uneven performance from the 30 institutions the Alabama Commission on Higher Education (ACHE) oversees. Designing a set of performance criteria that fairly evaluates the enormous-sized higher education system is extremely challenging for the ACHE. Although the Mississippi State Institutions of Higher Learning (IHL) has to deal with the same issue, it is much more manageable for it to create a performance funding formula given its much smaller jurisdiction. Therefore, the number of institutions the higher education governing agency oversees heavily determines how technically difficult it is to adopt and implement performance funding policy.

The data for this potential variable are relatively easy to obtain: the 45[119] states that have either a consolidated or coordinating board have official websites that describe

[119] Table 2.1 presents the three types of higher education governing structures. Alaska and Hawaii are excluded from the discussion here given their non-contiguity to the mainland. Among all 48 states,

their higher education agency's authority, responsibilities, and organizational bylaws. The two states that only have a planning agency—Delaware[120] and Pennsylvania[121], also have official websites that explain these agencies' activities and discretions.

As elaborated, higher education finance requires collective actions from the governing agency, the governor, the legislature, and sometimes even the higher education system. Having a consolidated governing board does not necessarily mean that the state can effortlessly enact performance funding without the participation of other government institutions; and vice versa. States delegate varying degrees of budget authority to their higher education agencies. For instance, Oklahoma has a coordinating board—the State Regents for Higher Education. The Board is granted much discretion on higher education funding allocation, and performance funding adoption was initiated by the State Regents without much intervention from the Legislature or the Governor. Differently, Arizona has a consolidated governing board, but the state adopted performance funding through legislative means with the State Legislature and the Governor. Therefore, looking into the state higher education agency's level of decision making authority could help provide clarity on the diffusion of performance funding.

For this variable, a possible measure could be an ordinal variable that ranks the higher education agency's involvement in annual appropriations into three categories:

Michigan does not have a state-level coordinating or governing agency for postsecondary education (Education Commission of the States 2007).

[120] The Delaware Higher Education Office (housed under the Delaware Department of Education) website: https://www.doe.k12.de.us/Page/316

[121] The Pennsylvania Higher Education Assistance Agency website: https://www.pheaa.org/

low, medium, and high. States with agencies that bear complete higher education budget authority will be coded as high level of involvement (e.g., Oklahoma), agencies that somewhat determines higher education budget will be coded as medium level of involvement (e.g., Arizona), and states with little voice in such decision will be coded as low level of involvement (e.g., Alabama).

2. Other Cases and Cross Comparisons

As mentioned in the Quantitative Findings Chapter, another identified close pair of states is Maryland and Massachusetts. Appendix G presents comparisons of the two states on the statistically significant variables. Maryland has never adopted performance funding, and Massachusetts adopted in 2013. This pair of cases might be potentially helpful to further the discussion of policy diffusion failure due to their different higher education finance processes. Unlike Alabama and Mississippi where higher education finance requires collective coordination from the three institutions and the coordinating board plays a minor part, in Maryland and Massachusetts, the executive branch appears to assume a heavier role than the other two institutions.

This is especially true in Maryland because the development of the budget is primarily an executive task. The Maryland Higher Education Commission (MHEC) coordinates the growth and development of post-secondary education in Maryland. The Commission is required to present to the Governor and the General Assembly a consolidated operating and capital budget requests of the governing boards and institutions. After receiving the Commission's budget requests, the Governor formulates the budget and supplemental budgets. Supplemental budgets permit the

Governor to correct errors or omissions in the original budget and are used to appropriate new spending. After introduction of the budget but before final action on the budget, the Governor may reduce or increase the budget through introduction of a supplemental budget.

In Massachusetts, the Department of Higher Education (DHE) coordinates public institutions. The DHE is the staff to the 13-member Board of Higher Education (BHE), responsible for executing the Board's policies and day-to-day operations. The BHE is the statutorily created agency in Massachusetts responsible for defining the mission of and coordinating the Commonwealth's system of public higher education and its institutions (Massachusetts Department of Higher Education 2018). The BHE is responsible for reviewing institutional budget requests from these said institutions and preparing a comprehensive budget request for the public higher education system. The BHE then proceeds to submit comments and recommendations concerning those requests to the Massachusetts Secretary of Education. The Secretary then submits budget requests for these institutions to the Governor, who proceeds to present the budget to the Secretary of Administration and Finance, the House and Senate Committees on Ways and Means, and the Joint Committee on Higher Education (Massachusetts General Laws, Part I, Title II, Ch. 15A, §15 and §15B). According to the DHE (2018), the Governor and the state legislature appropriate state funds to support public higher education.

Massachusetts's adoption of performance funding was mainly attributed to Governor Deval Patrick's remark on the importance of linking the "middle skills gap"

to the need for community college system to be more responsive to workforce needs. In his FY 2013 state budget proposal, Governor Deval Patrick proposed the establishment of a higher education finance commission, and the state Legislature established a special commission on higher education quality, efficiencies, and finance in FY 2014. The Secretary of Education was charged with serving as the chair of this Commission. By FY 2014, a new community college funding model was unveiled.

The comparison between Maryland and Massachusetts can offer additional information on performance funding diffusion given their different higher education budget processes. This difference can possibly change the motivation and path of performance funding adoption. As seen in the Massachusetts case, the Governor's remark was a catalyst for the DHE and the Legislature to push forward a funding formula. In the Mississippi case, the change of leadership in the Legislature critically contributed to the development of the new funding model.

Further, Maryland and Massachusetts have comparable numbers of institutions with Alabama[122]. Maryland has 29 public institutions in total, including five large institutions (University of Maryland-University College, University of Maryland-College Park, The Community College of Baltimore County, Montgomery College, and Towson University), 21 medium institutions, and 3 small institutions. Massachusetts also has 29 public institutions in total, including one large institution (University of Massachusetts-Amherst), 23 medium institutions, and 5 small institutions (U.S.

[122] Alabama has 30 public institutions, including four large institutions (University of Alabama, Auburn University, Columbia Southern University, and Troy University), 24 medium institutions, and 12 small institutions (U.S. Department of Education—College Scorecard 2017).

Department of Education—College Scorecard 2017). The higher education governing agency in these three states oversee roughly the same number of institutions. It is fair to conduct cross comparisons due to the similar size of their higher education systems. As discussed in the previous chapter, although both Alabama and Mississippi have to deal with wide performance gaps among their higher education institutions, the comparison is not necessarily fair. Mississippi has far less institutions to work with while designing their funding formula. Comparing states with similar sized higher education sections can at least eliminate this problem.

3. Concluding Remarks

In conclusion, the adoption of performance funding requires the decision of many government institutions, including the higher education agency, the Governor, and the legislature. These institutions also take into account the inputs from higher education institutions and the state conditions. Nonprofits' advocacy for performance funding is important but appears less influential than I previously expected.

Moving forward, I plan to expand this research by adding the above quantitative variables to my models. With these added factors, I believe that I can produce more robust results and better-rounded answers to my research questions. In addition, I plan to identify all the higher education grants the Gates Foundation has made in the past and investigate how these financial contributions overlap, and eventually locate the states that benefit from the Gates dollars. The finding on whether Gates money influences performance funding diffusion will offer further information on nonprofits' advocacy for performance funding. Lastly, I aim to continue reaching out to the Maryland Higher

Education Commission to schedule an in-depth interview and complete the qualitative comparison of my second pair of nonadopters.

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Appendix A: The 48 Continental U.S. States and Their Bordering States

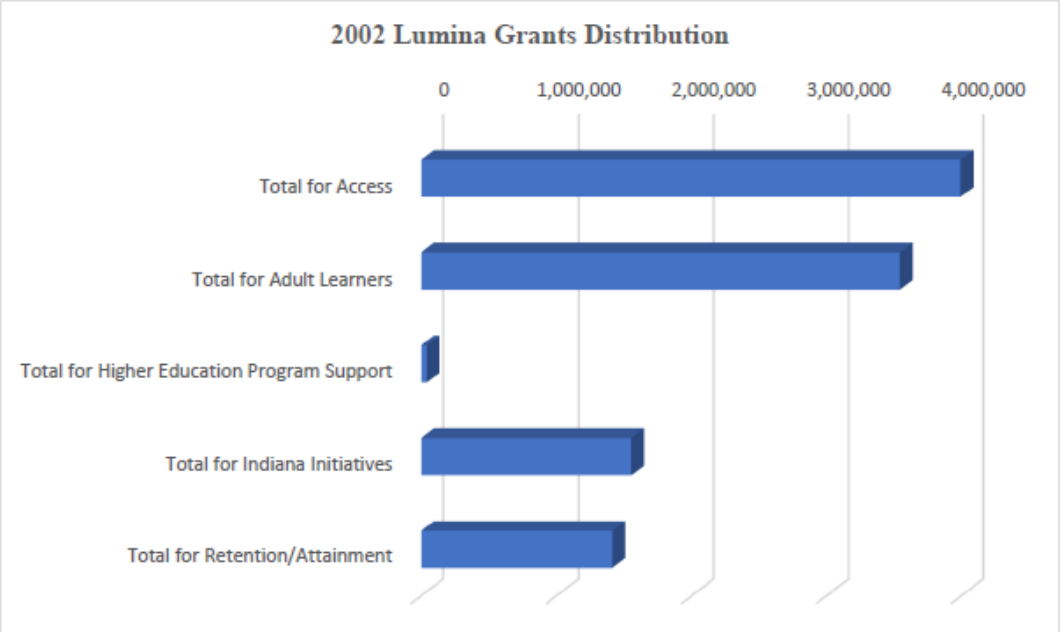
State	The State's Bordering States
Alabama	MS, TN, GA, FL
Arizona	CA, NV, UT, CO, NM
Arkansas	LA, TX, OK, MO, KY, TN, MS
California	OR, NV, AZ
Colorado	NM, AZ, UT, WY, NE, KS, OK
Connecticut	NY, MA, RI
Delaware	MD, PA, NJ
Florida	AL, GA
Georgia	FL, AL, TN, NC, SC
Idaho	WA, OR, NV, UT, WY, MT
Illinois	WI, IA, MO, KY, IN, MI
Indiana	KY, IL, MI, OH
Iowa	MO, NE, SD, MN, WI, IL
Kansas	OK, CO, NE, MO
Kentucky	TN, AR, MO, IL, IN, OH, WV, VA
Louisiana	TX, AR, MS
Maine	NH, MA
Maryland	VA, WV, PA, DE, NJ
Massachusetts	RI, CT, NY, VT, NH, ME
Michigan	WI, IL, IN, OH
Minnesota	ND, SD, IA, WI, MI
Mississippi	LA, AR, TN, AL
Missouri	AR, OK, KS, NE, IA, IL, KY, TN
Montana	ID, WY, SD, ND
Nebraska	KS, CO, WY, SD, IA, MO
Nevada	CA, OR, ID, UT, AZ
New Hampshire	MA, VT, ME
New Jersey	DE, PA, NY, MD
New Mexico	AZ, UT, CO, OK, TX
New York	PA, NJ, CT, MA, VT
North Carolina	SC, GA, TN, VA
North Dakota	SD, MT, MN
Ohio	KY, IN, MI, PA, WV
Oklahoma	TX, NM, CO, KS, MO, AR
Oregon	CA, NV, ID, WA
Pennsylvania	DE, MD, WV, OH, NY, NJ
Rhode Island	CT, MA
South Carolina	GA, NC
South Dakota	ND, NE, WY, MT, MN, IA
Tennessee	NC, GA, AL, MS, AR, MO, KY, VA
Texas	NM, OK, AR, LA
Utah	AZ, NV, ID, WY, CO, NM
Vermont	NH, MA, NY
Virginia	NC, TN, KY, WV, MD

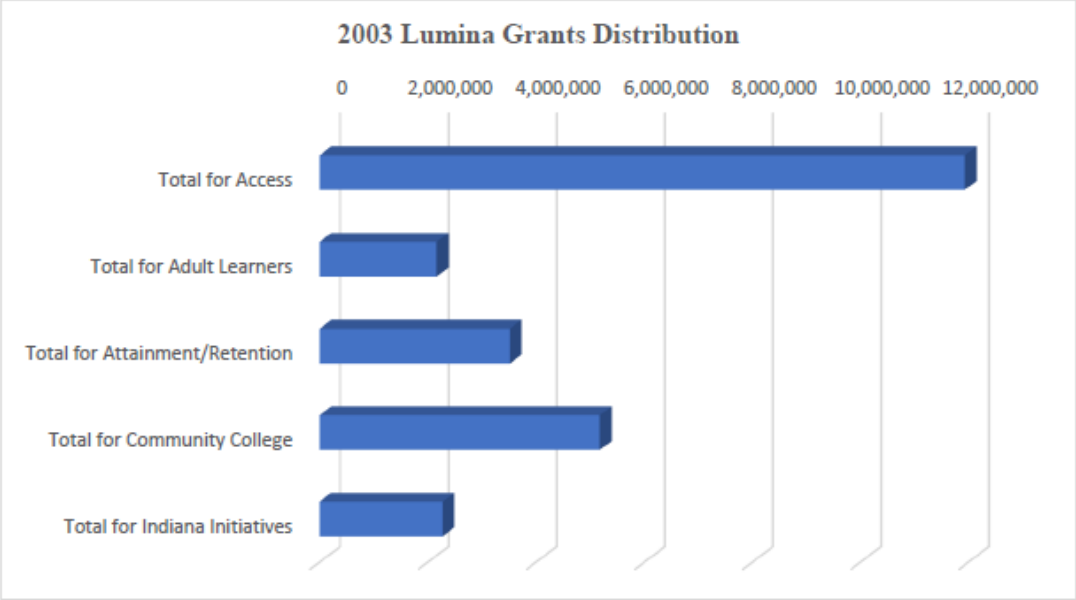
State	The State's Bordering States
Washington	OR, ID
West Virginia	VA, KY, OH, PA, MD
Wisconsin	MN, IA, IL, MI
Wyoming	CO, UT, ID, MT, SD, NE

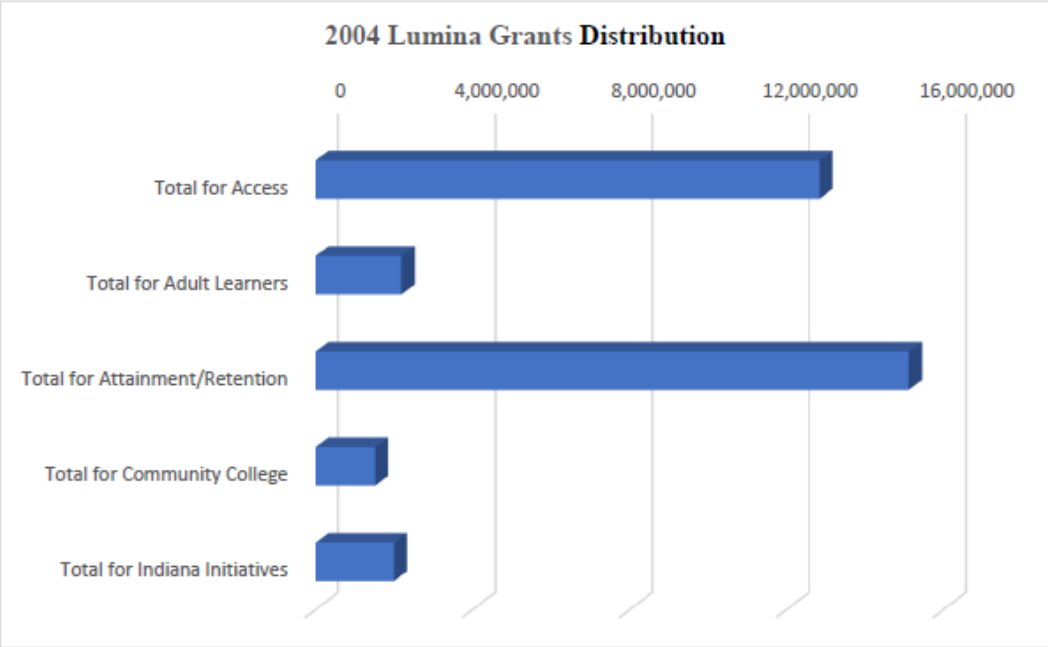
Note1: Alaska and Hawaii are excluded.

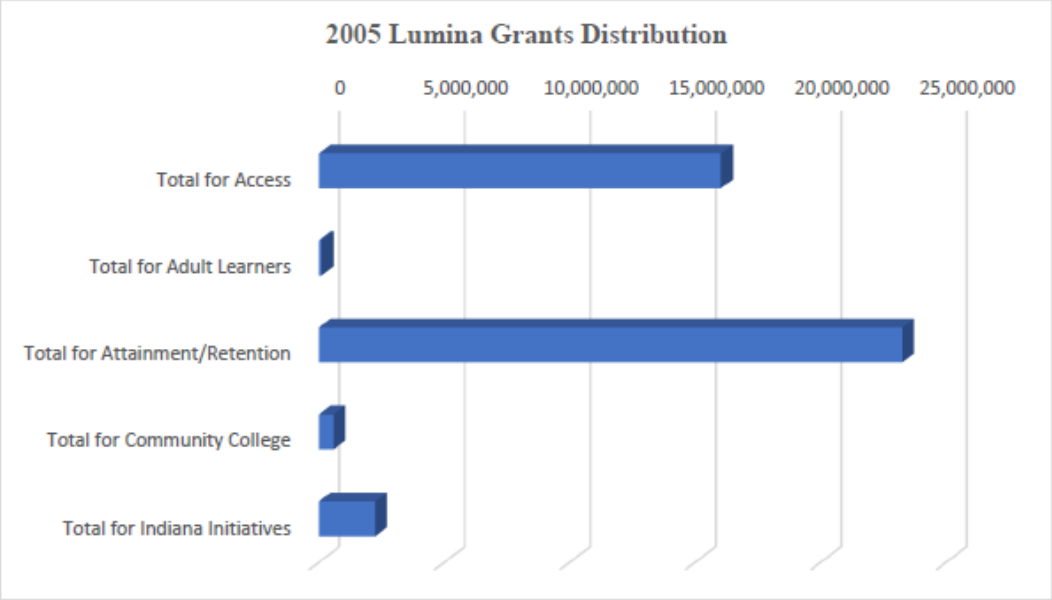
Note2: AR = Arkansas, AZ = Arizona, CA = California, CO = Colorado, CT = Connecticut, FL = Florida, GA = Georgia, IA = Iowa, ID = Idaho, IL = Illinois, IN = Indiana, KS = Kansas, KY = Kentucky, LA = Louisiana, MA = Massachusetts, ME = Maine, MI = Michigan, MN = Minnesota, MO = Missouri, MS = Mississippi, MT = Montana, NC = North Carolina, OK = Oklahoma, ND = North Dakota, NJ = New Jersey, NM = New Mexico, NV = Nevada, NY = New York, OH = Ohio, OR = Oregon, PA = Pennsylvania, SC = South Carolina, SD = South Dakota, TN = Tennessee, TX = Texas, UT = Utah, VA = Virginia, VT = Vermont, WA = Washington, WI = Wisconsin, WY = Wyoming

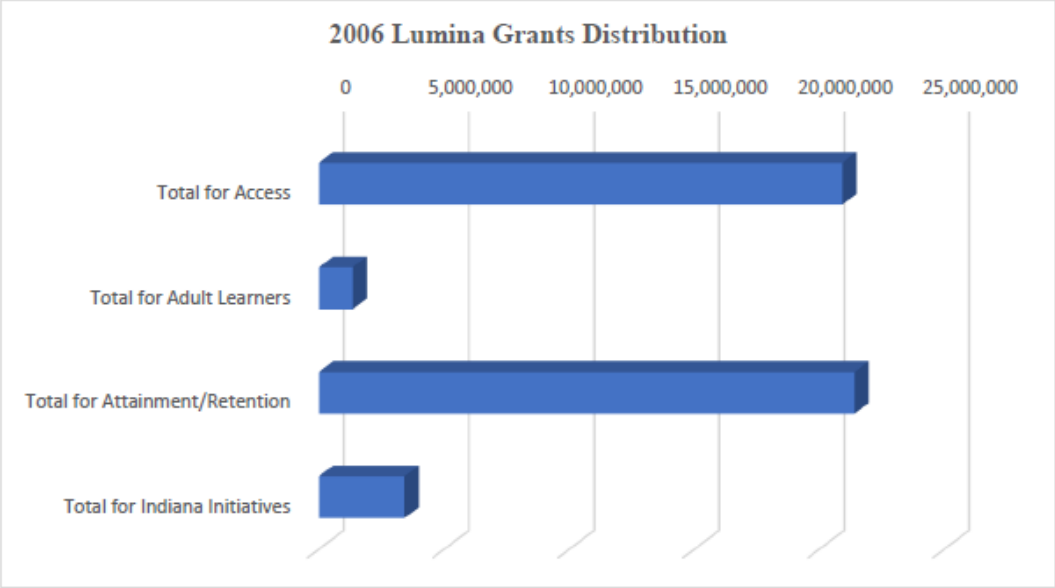
Appendix B: Lumina Foundation Grants Distribution (2002-2014)

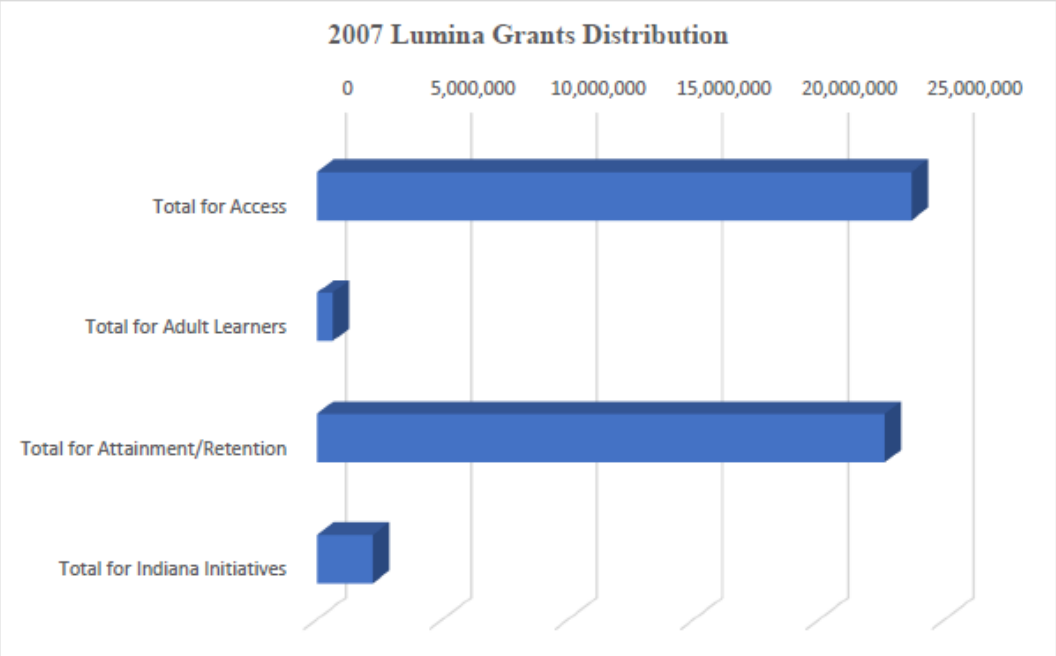


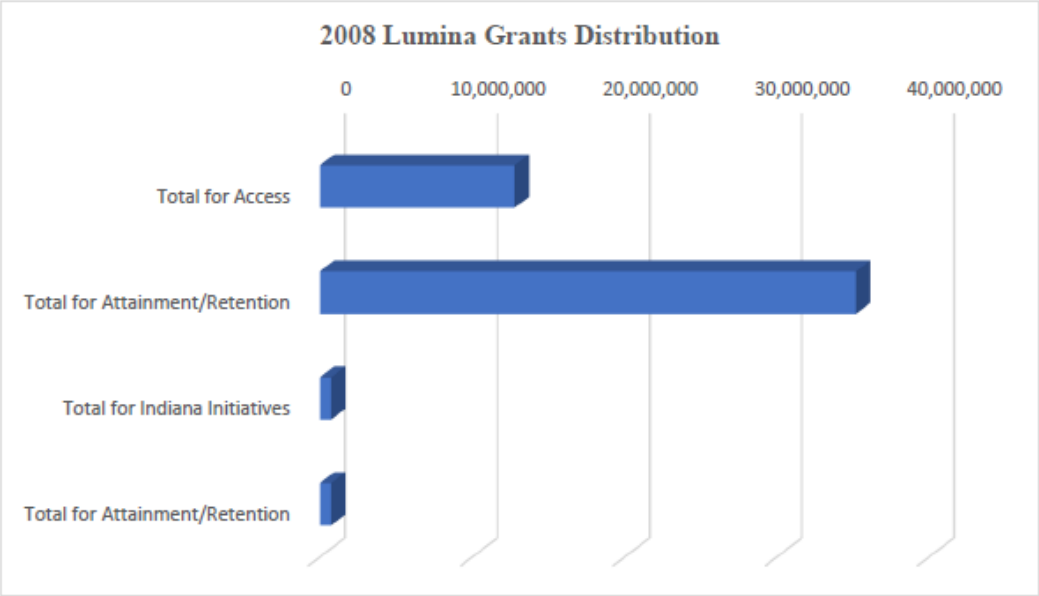


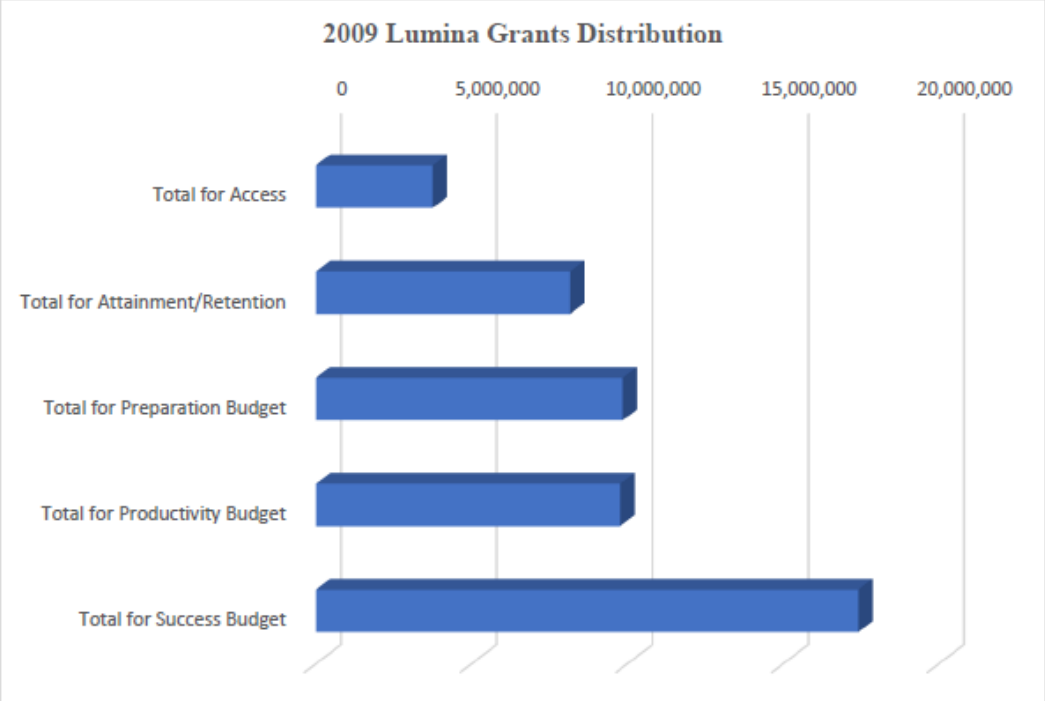

2004 Lumina Grants Distribution
0
4,000,000
8,000,000
12,000,000
16,000,000
Total for Access
Total for Adult Learners
Total for Attainment/Retention
Total for Community College
Total for Indiana Initiatives

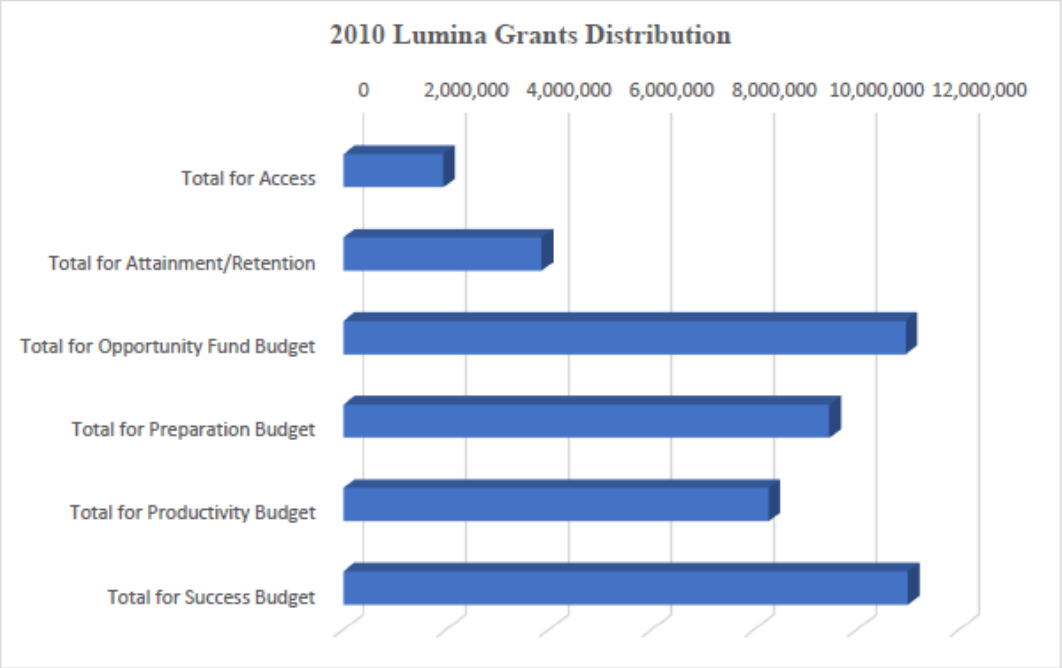

2005 Lumina Grants Distribution
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
Total for Access
Total for Adult Learners
Total for Attainment/Retention
Total for Community College
Total for Indiana Initiatives

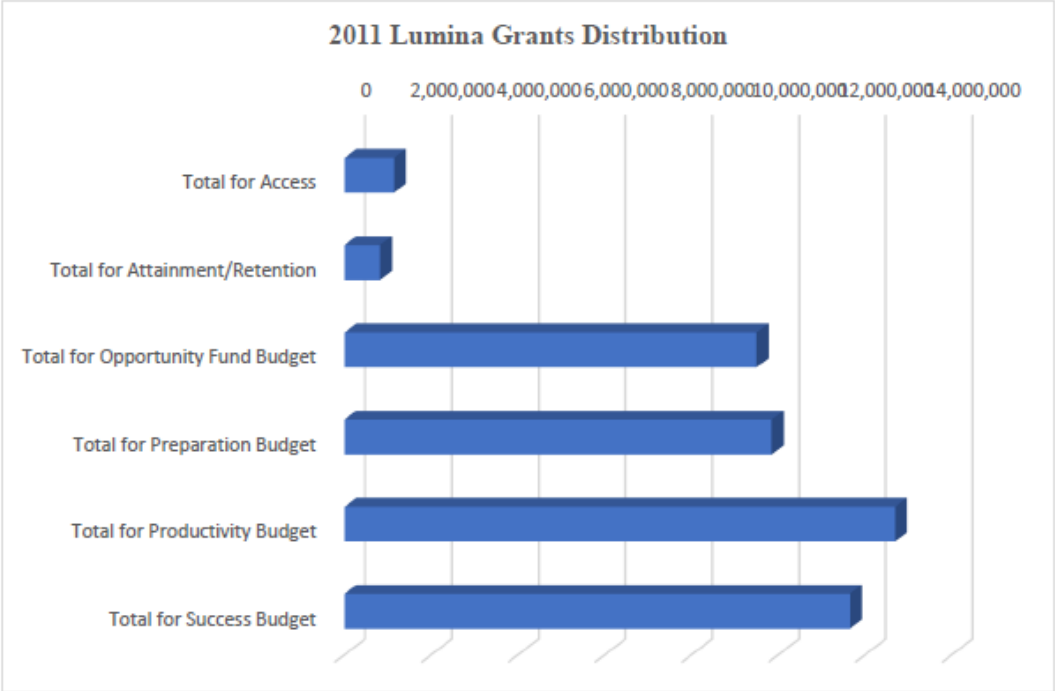

2006 Lumina Grants Distribution
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
Total for Access
Total for Adult Learners
Total for Attainment/Retention
Total for Indiana Initiatives

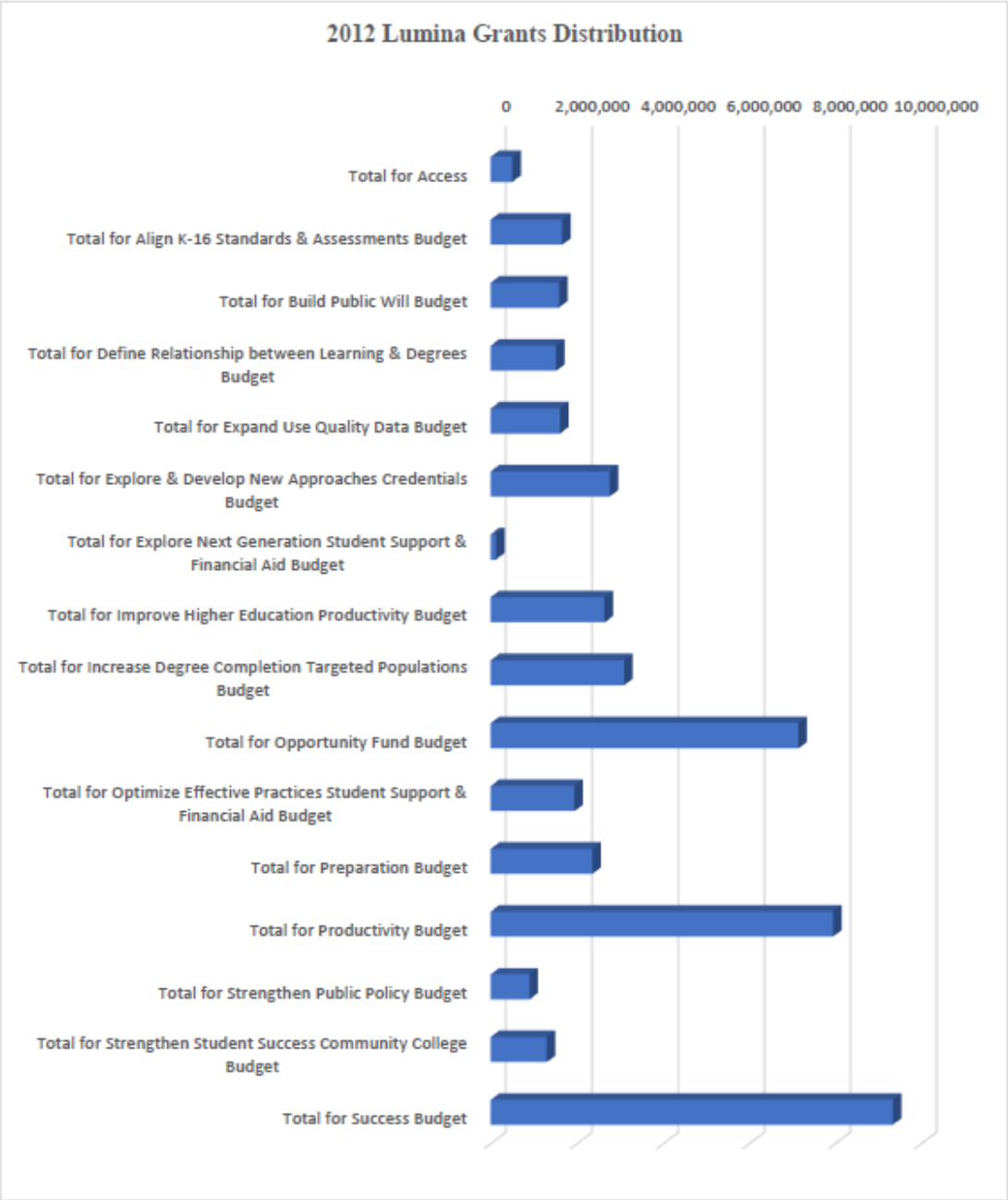

2007 Lumina Grants Distribution
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
Total for Access
Total for Adult Learners
Total for Attainment/Retention
Total for Indiana Initiatives

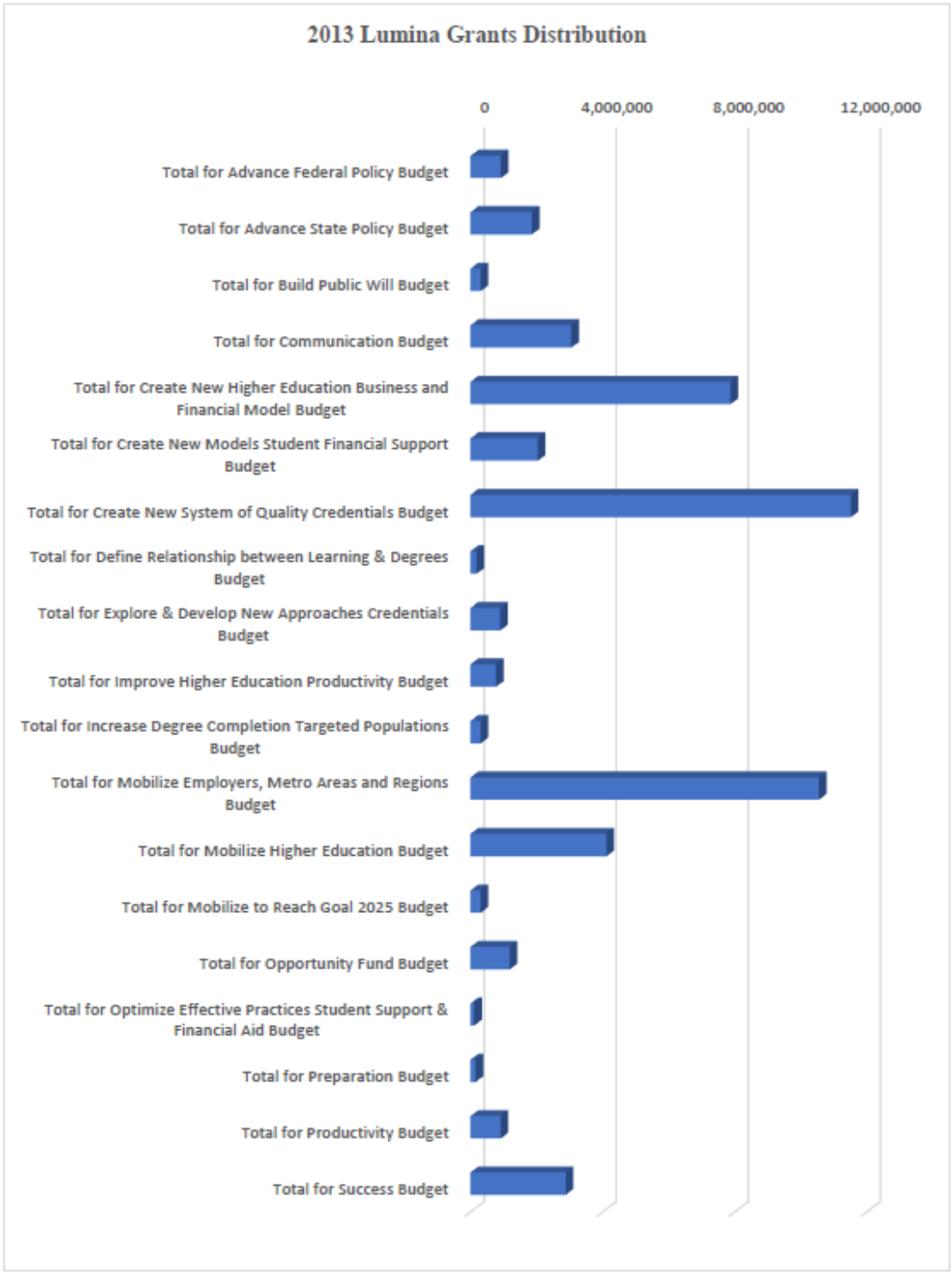

2008 Lumina Grants Distribution
0
10,000,000
20,000,000
30,000,000
40,000,000
Total for Access
Total for Attainment/Retention
Total for Indiana Initiatives
Total for Attainment/Retention

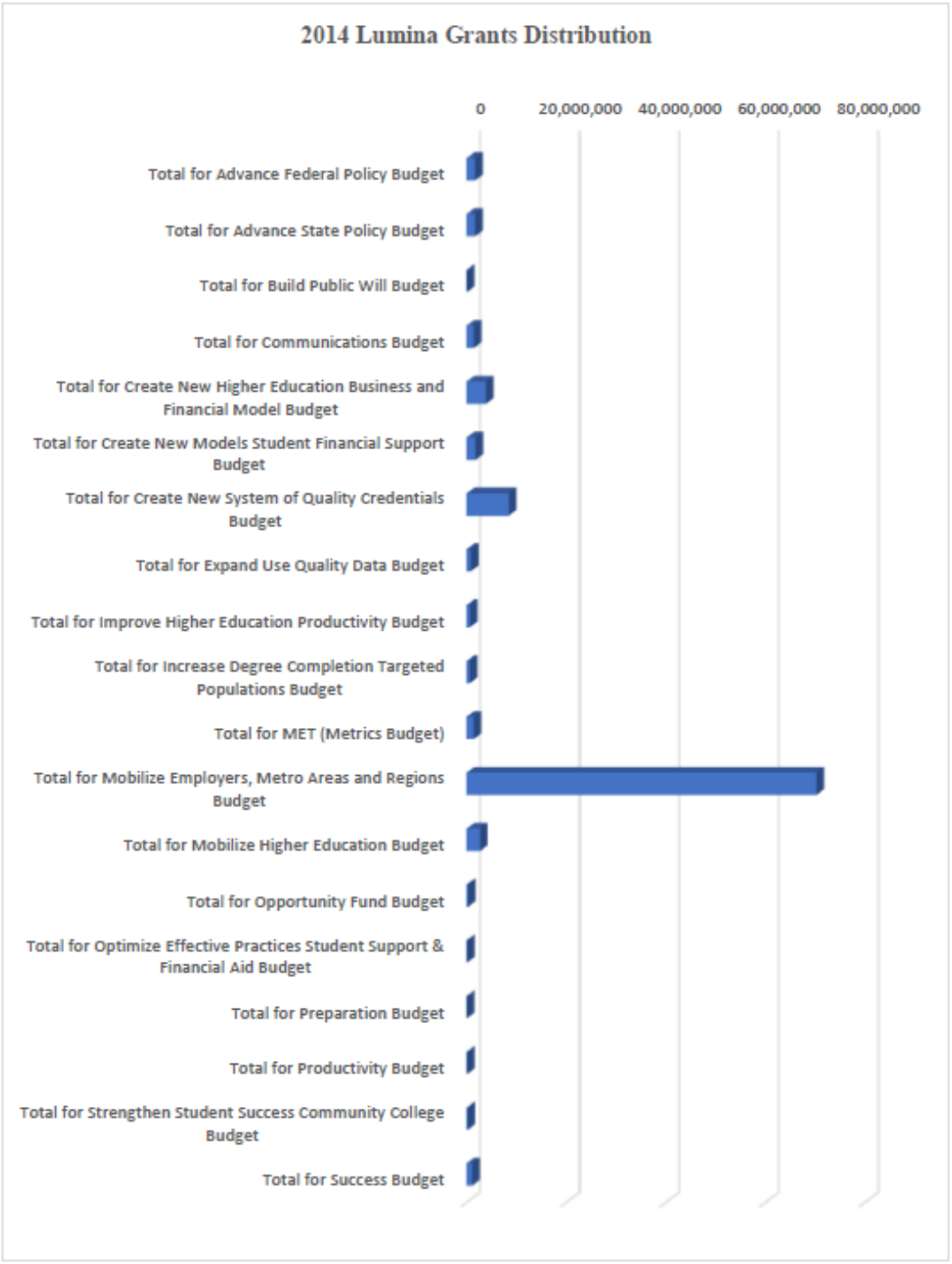

2009 Lumina Grants Distribution
0
5,000,000
10,000,000
15,000,000
20,000,000
Total for Access
Total for Attainment/Retention
Total for Preparation Budget
Total for Productivity Budget
Total for Success Budget

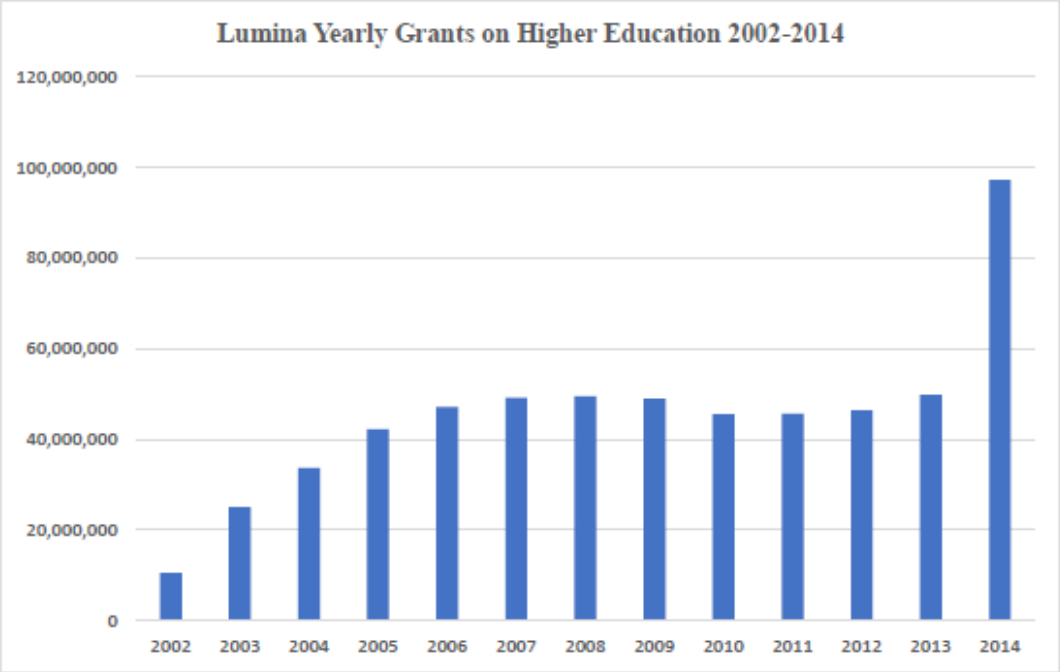

2010 Lumina Grants Distribution
0
2,000,000
4,000,000
6,000,000
8,000,000
10,000,000
12,000,000
Total for Access
Total for Attainment/Retention
Total for Opportunity Fund Budget
Total for Preparation Budget
Total for Productivity Budget
Total for Success Budget


2011 Lumina Grants Distribution
0
2,000,000
4,000,000
6,000,000
8,000,000
10,000,000
12,000,000
14,000,000
Total for Access
Total for Attainment/Retention
Total for Opportunity Fund Budget
Total for Preparation Budget
Total for Productivity Budget
Total for Success Budget


2012 Lumina Grants Distribution
0
2,000,000
4,000,000
6,000,000
8,000,000
10,000,000
Total for Access
Total for Align K-16 Standards & Assessments Budget
Total for Build Public Will Budget
Total for Define Relationship between Learning & Degrees Budget
Total for Expand Use Quality Data Budget
Total for Explore & Develop New Approaches Credentials Budget
Total for Explore Next Generation Student Support & Financial Aid Budget
Total for Improve Higher Education Productivity Budget
Total for Increase Degree Completion Targeted Populations Budget
Total for Opportunity Fund Budget
Total for Optimize Effective Practices Student Support & Financial Aid Budget
Total for Preparation Budget
Total for Productivity Budget
Total for Strengthen Public Policy Budget
Total for Strengthen Student Success Community College Budget
Total for Success Budget


2013 Lumina Grants Distribution
0
4,000,000
8,000,000
12,000,000
Total for Advance Federal Policy Budget
Total for Advance State Policy Budget
Total for Build Public Will Budget
Total for Communication Budget
Total for Create New Higher Education Business and Financial Model Budget
Total for Create New Models Student Financial Support Budget
Total for Create New System of Quality Credentials Budget
Total for Define Relationship between Learning & Degrees Budget
Total for Explore & Develop New Approaches Credentials Budget
Total for Improve Higher Education Productivity Budget
Total for Increase Degree Completion Targeted Populations Budget
Total for Mobilize Employers, Metro Areas and Regions Budget
Total for Mobilize Higher Education Budget
Total for Mobilize to Reach Goal 2025 Budget
Total for Opportunity Fund Budget
Total for Optimize Effective Practices Student Support & Financial Aid Budget
Total for Preparation Budget
Total for Productivity Budget
Total for Success Budget


2014 Lumina Grants Distribution
0
20,000,000
40,000,000
60,000,000
80,000,000
Total for Advance Federal Policy Budget
Total for Advance State Policy Budget
Total for Build Public Will Budget
Total for Communications Budget
Total for Create New Higher Education Business and Financial Model Budget
Total for Create New Models Student Financial Support Budget
Total for Create New System of Quality Credentials Budget
Total for Expand Use Quality Data Budget
Total for Improve Higher Education Productivity Budget
Total for Increase Degree Completion Targeted Populations Budget
Total for MET (Metrics Budget)
Total for Mobilize Employers, Metro Areas and Regions Budget
Total for Mobilize Higher Education Budget
Total for Opportunity Fund Budget
Total for Optimize Effective Practices Student Support & Financial Aid Budget
Total for Preparation Budget
Total for Productivity Budget
Total for Strengthen Student Success Community College Budget
Total for Success Budget


Lumina Yearly Grants on Higher Education 2002-2014
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

Appendix C: Multicollinearity Check

Correlation Matrix of the Data (1979-2002)

	Fiscal Condition	Educational Attainment	Tuition Change	Enrollment Change	Government Ideology	Legislative Professionalism	Consolidated Governing Board
Regional Influence	-0.023	0.243***	-0.198***	-0.045	-0.126***	-0.133***	-0.003
Fiscal Condition		0.017***	-0.128***	0.031	-0.109***	-0.054#	0.041
Educational Attainment			-0.150***	-0.060#	0.034	0.173***	0.073*
Tuition Change				0.003	0.094**	0.085**	-0.035
Enrollment Change					-0.025	-0.112***	0.080*
Government Ideology						0.179***	-0.110***
Legislative Professionalism							-0.306***
Consolidated Governing Board							

Note: *** p<0.001; ** p<0.01; * p<0.05; # p<0.1

Correlation Matrix of the Data (2003-2014)									
	Fiscal Condition	Educational Attainment	Tuition Change	Enrollment Change	Government Ideology	Legislative Professionalism	Consolidated Governing Board	Lumina Higher Education Grants	Lumina Grants in General
Regional Influence		-0.267***	-0.094	0.059	-0.330***	-0.024	-0.307***	-0.101	0.0005
Fiscal Condition		-0.170**	-0.062	-0.335***	-0.117#	-0.116#	0.090	0.038	-0.061
Educational Attainment			-0.025	-0.123*	0.185**	0.118#	0.170**	-0.040	0.057
Tuition Change				0.011	-0.052	0.081	-0.006	0.050	0.003
Enrollment Change					0.010	-0.008	0.024	0.127*	0.177**
Government Ideology						0.262***	-0.200**	0.112#	0.136*
Legislative Professionalism							-0.184**	0.313***	0.334***
Consolidated Governing Board								-0.023	0.002

Note: *** p<0.001; ** p<0.01; * p<0.05; # p<0.1

Appendix D: Additional Models

State Adoption of Performance Funding (1979-2014)		
	Coefficient	Average Marginal Effects
Regional Influence	0.471*** (0.141)	0.013
Fiscal Condition	1.746 (1.603)	0.050
Educational Attainment	10.142** (3.710)	0.288
Tuition Change	-5.129$^{\#}$ (2.718)	-0.146
Enrollment Change	-10.220$^{\#}$ (5.760)	-0.290
Government Ideology	-0.016* (0.007)	-0.0005
Legislative Professionalism	1.380 (1.367)	0.039
Consolidated Governing Board	-0.349 (0.360)	-0.010
Intercept	-5.341*** (0.949)	-0.152
Pseudo R^2	0.154	
N	1265	

Note 1: Coefficients are from an event history analysis using logistic regression, two-tailed
Note 2: Robust standard errors in parentheses
Note 3: *** p<0.001; ** p<0.01; * p<0.05; $^{\#}$ p<0.1

State Adoption of Performance Funding with Cumulative Grants Added (2003-2014)		
	Coefficient	Average Marginal Effect
Regional Influence	0.225 (0.314)	0.011
Fiscal Condition	-1.068 (1.860)	-0.051
Educational Attainment	-0.591 (7.836)	-0.028
Tuition Change	-3.995 (4.286)	-0.193
Enrollment Change	-32.952** (11.559)	-1.590
Government Ideology	-0.035** (0.014)	-0.002
Legislative Professionalism	1.340 (3.655)	0.068
Consolidated Governing Board	0.366 (0.657)	0.018
Cumulative Lumina Grants to the State	0.184* (0.073)	0.009
Intercept	-1.826 (2.351)	-0.088
Pseudo R^2	0.278	
N	263	

Note 1: Coefficients are from an event history analysis using logistic regression, two-tailed
Note 2: Robust standard errors in parentheses
Note 3: ** $p<0.01$; * $p<0.05$

Appendix E: IRB Documents

Research Participation Information

The Diffusion of Performance-Based Funding Policy in Higher Education
Ivy Shen
(**IRB number: 7188**)

My name is Ivy Shen, I am a PhD candidate at the Department of Political Science at the University of Oklahoma. I am conducting this research titled "The Diffusion of Performance-Based Funding Policy in Higher Education" for my doctoral dissertation. The purpose of my study is to investigate state level higher education policymaking and nonprofits' engagement in higher education legislation.

The potential participants of this study are approximately 50 state government officials and staff members who engage in state higher education policy making; and about 50 employees who work for nonprofit organizations that engage in higher education legislation.

There will be a roughly 30-minute face-to-face interview. The interview pertains to state level higher education policymaking. There might be short follow-up calls if necessary.

Participation is completely voluntary. If you choose to participate, I will truly appreciate your help. Data collected from this study will only be used for research purposes. Your identity will not be revealed. The information we will be discussing during our interview involves low levels of sensitivity. Your participation will not be compensated. If you would like to discontinue participation during the interview, there will be no negative consequences.

If you have any questions or concerns about this research, you can reach me at 405-326-4733 or ishen@ou.edu. My dissertation committee chair is Professor Scott Lamothe (slamothe@ou.edu).

The University of Oklahoma is an equal opportunity institution.

Oral Consent Script to Participate in Research

Good morning/afternoon/evening. Would you be interested in participating in a research project I am conducting at the University of Oklahoma? I'd like you to participate because you either (1) work for the state government and you participate in state higher education legislation, or (2) work for a nonprofit organization that engages in higher education legislation.

I'm conducting this research project because I am hoping to learn more about states' decision to adopt or reject performance-based funding program in higher education and nonprofit organizations' engagement in this policy making. Approximately (1) 50 state government officials and staff members who engage in state higher education policy making, and (2) 50 employees who work for nonprofit organizations that engage in higher education legislation will participate. If you agree to participate, I will be asking you to take part in a face-to-face interview. This should take about 30 minutes. If necessary, I may schedule follow-up calls.

Your participation in this research doesn't involve any direct risks or benefits to you. The information has low levels of sensitivity. Your identity will not be revealed. The data collected will only be used for research purposes. The data will not be shared with other parties. You will not be compensated for participating in this research.

All of the information I'm collecting will be kept secure and confidential, and only I or the University of Oklahoma – Norman Campus Institutional Review Board will be able to look at it. If you have any questions about your rights as a participant or any concerns or complaints regarding your participation, you can contact me at 405-326-4733 or ishen@ou.edu. You can also direct questions to my dissertation committee chair, Professor Scott Lamothe, at slamothe@ou.edu, and OU's IRB at 405-325-8110 or irb@ou.edu.

During this interview, you will be asked to provide available information on performance funding in higher education. The interview will be recorded. The data collected will only be used for research purposes, your identifying information will not be shared with anyone else. The data collected will not be shared with anyone else. There might be quick follow-ups if necessary. You can quit the interview anytime you want. Would you like to go ahead and start this interview?

Interview questions:

Interview Questions for State Government Officials and Staff:

- Has your state government adopted performance-based funding in higher education?
- When did the adoption occur?
- When did performance-based funding first appear on the state government agenda?
- What information did the government refer to in making this decision (e.g., state university graduation rates, state financial condition)?
- What was the driving force for adopting this policy (e.g., federal pressure, observation of successful implementation of this policy in other states)?
- What prevented the state government from adopting this policy (e.g., other priorities, limited information of this program)?

Interview Questions for Nonprofit Organization Employees:

- Does your organization support performance funding in higher education?
- Is your organization particularly interested in higher education legislation?
- Has your organization engaged in activities to promote such program?
- What information has your organization publicly provided to state government officials regarding higher education?
- What information has your organization publicly provided to state government officials regarding performance funding in higher education?
- Is your organization currently active in advertising performance funding? If yes, could you please provide some details?
- Which states has your organization delivered information to regarding higher education issues?
- Which states has your organization delivered information to regarding performance funding?

Signed Consent to Participate in Research

Would you like to be involved in research at the University of Oklahoma?

I am Ivy Shen from the Department of Political Science and I invite you to participate in my research project entitled The Diffusion of Performance-Based Funding Policy in Higher Education. This research is being conducted over the phone. You were selected as a possible participant because you either (1) work for a state government and you engage in state higher education policy making; or (2) work for a nonprofit organization that engages in higher education legislation. You must be at least 18 years of age to participate in this study.

Please read this document and contact me to ask any questions that you may have BEFORE agreeing to take part in my research.

What is the purpose of this research? The purpose of this research is to investigate state level higher education policymaking and nonprofit organizations' involvement in higher education legislation.

How many participants will be in this research? About 50 state government officials and staff members who engage in state higher education policy making; and 50 nonprofit employees who work for an organization that engages in higher education legislation.

What will I be asked to do? If you agree to be in this research, you will be asked questions on state higher education legislation.

How long will this take? Your participation will take roughly 30 minutes and there may be short follow up calls.

What are the risks and/or benefits if I participate? The research involves no benefits or known risks

Will I be compensated for participating? You will not be compensated for your time and participation in this research.

Who will see my information? In research reports, there will be no information that will make it possible to identify you. Research records will be stored securely and only approved researchers and the OU Institution Review Board will have access to the records. The data collected will only be used for research purposes. Participants' identity will not be revealed.

You have the right to access the research data that has been collected about you as a part of this research. However, you may not have access to this information until the entire research has completely finished and you consent to this temporary restriction.

Do I have to participate? No. If you do not participate, you will not be penalized or lose benefits or services unrelated to the research. If you decide to participate, you don't have to answer any question and can stop participating at any time.

Audio Recording of Research Activities To assist with accurate recording of your responses, interviews may be recorded on an audio recording device. You have the right to refuse to allow such recording without penalty.

I consent to audio recording. ___Yes ___ No

Will I be contacted again? The researcher would like to contact you again to recruit you into this research or to gather additional information.

_____ I give my permission for the researcher to contact me in the future.

_____ I do not wish to be contacted by the researcher again.

Who do I contact with questions, concerns or complaints? If you have questions, concerns or complaints about the research or have experienced a research-related injury, contact me at ishen@ou.edu or 405-326-4733. My mailing address is: Dale Hall Tower, Room 205. 455 W. Lindsey St. Norman, OK 73019. My dissertation committee chair is Professor Scott Lamothe (slamothe@ou.edu).

You can also contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu if you have questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than the researcher(s) or if you cannot reach the researcher(s).

You will be given a copy of this document for your records. By providing information to the researcher(s), I am agreeing to participate in this research.

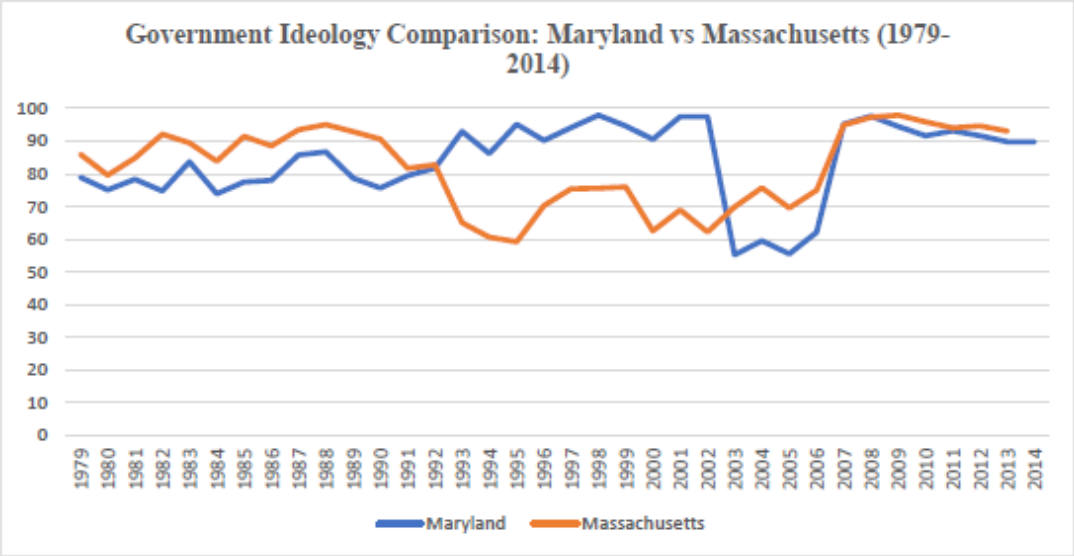
Participant Signature	Print Name	Date
Signature of Researcher Obtaining Consent	Print Name	Date

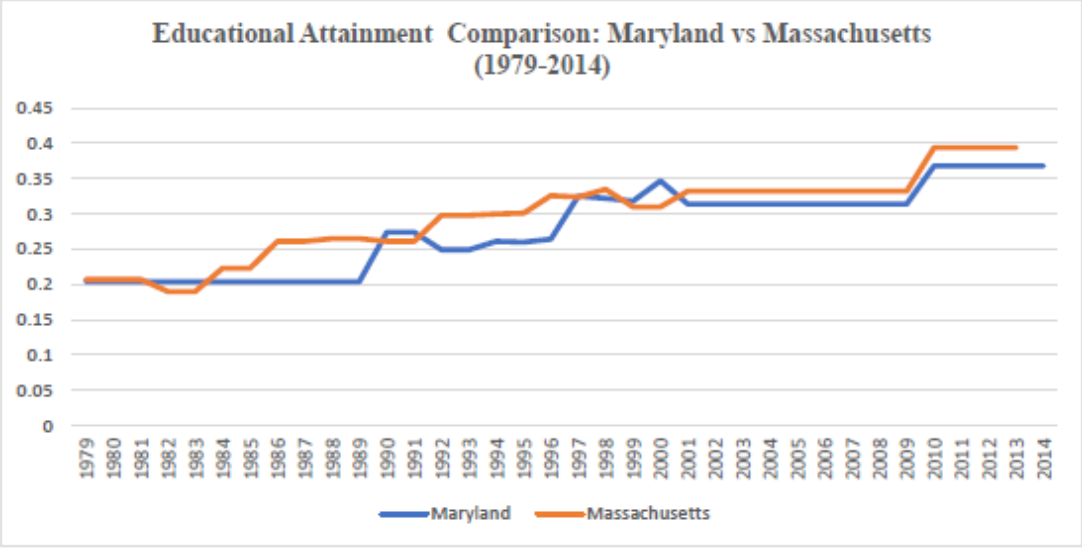
Appendix F: Official Websites Consulted for Data Collection

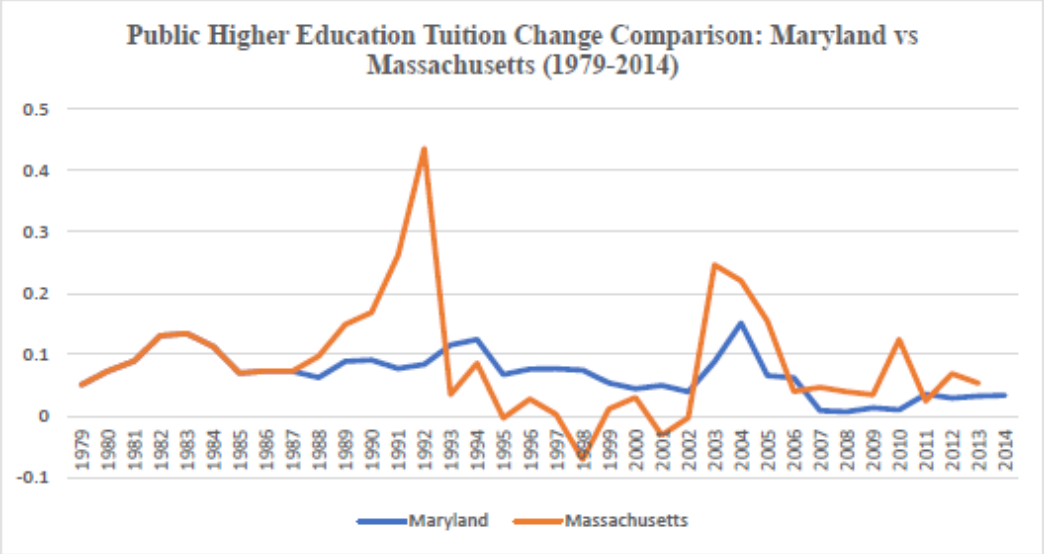
1. The Alabama Commission on Higher Education: http://www.ache.state.al.us/
2. The Official Website of the State of Alabama: http://www.alabama.gov/
3. The Alabama State Legislature: http://www.legislature.state.al.us/aliswww/default.aspx
4. The Alabama Department of Finance: http://finance.alabama.gov/
5. The Alabama Executive Budget Office: http://budget.alabama.gov/
6. The Government of Alabama: https://www.usa.gov/state-government/alabama
7. The Alabama Constitution: http://alisondb.legislature.state.al.us/alison/codeofalabama/constitution/1901/toc.htm
8. Transparency & Accountability in State Government (Alabama): http://open.alabama.gov/
9. Alabama Department of Archives and History: http://archives.state.al.us/
10. Mississippi Institutions of Higher Learning: http://www.ihl.state.ms.us/
11. The Official Website of the State of Mississippi: http://www.ms.gov/
12. The Mississippi State Legislature: http://www.legislature.ms.gov/Pages/default.aspx
13. The Mississippi Department of Finance & Administration: http://www.dfa.ms.gov/
14. The Mississippi Legislative Budget Office: http://www.lbo.ms.gov/
15. The Government of Mississippi: https://www.usa.gov/state-government/mississippi
16. The Mississippi Constitution: http://www.sos.state.ms.us/ed_pubs/constitution/constitution.asp

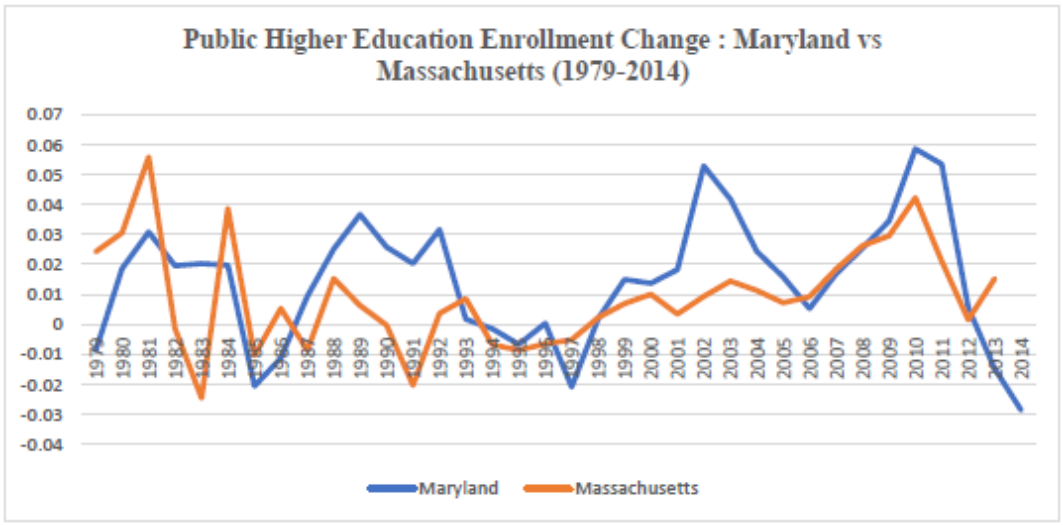
Appendix G: Comparisons between Maryland and Massachusetts

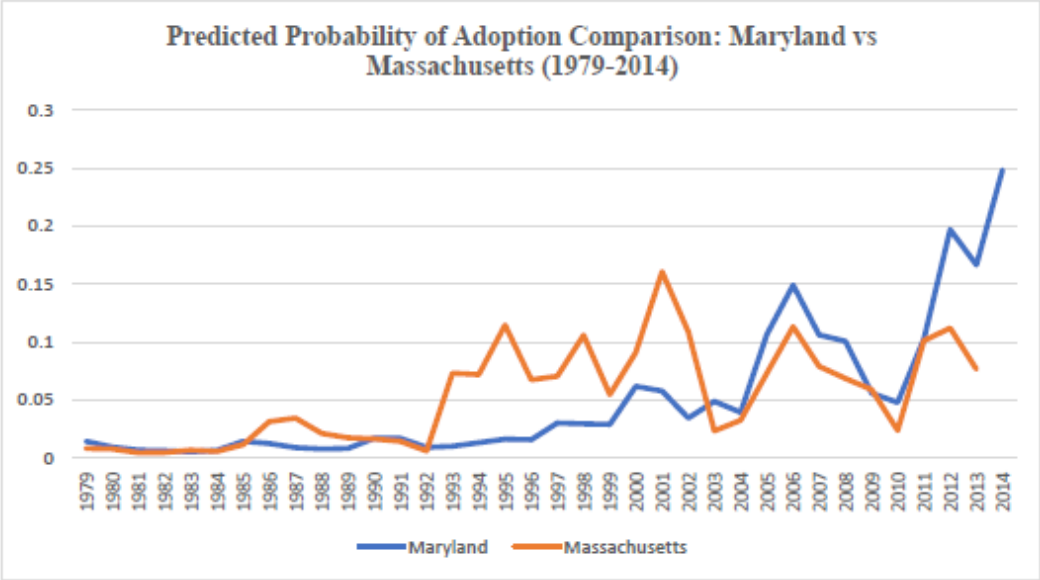
Comparisons between Maryland and Massachusetts on Government Ideology, Tuition and Enrollment Change, and Precited Probability of Performance funding Adoption






Public Higher Education Tuition Change Comparison: Maryland vs Massachusetts (1979-2014)
0.5
0.4
0.3
0.2
0.1
0
-0.1
1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014
Maryland
Massachusetts


Public Higher Education Enrollment Change : Maryland vs Massachusetts (1979-2014)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
-0.02
-0.03
-0.04
1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014
Maryland
Massachusetts



Note: Massachusetts adopted performance funding in 2013, therefore the data for the state is missing for 2014 in the comparison figures