

Political Environments and the Community College Baccalaureate:

An Event History Analysis

by

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ABSTRACT

Community colleges operate in political environments, and lawmakers increasingly include them in political rhetoric as solutions to economic, workforce, and social issues. A salient aspect of a community college president's practice is to interpret state political environments, and to advocate for beneficial, and against harmful, public policies. The purpose of this study was to examine how variables in states' political environments contributed to the adoption of higher education public policies by state governments.

A public policy trend beginning in the early 1990s among state governments is to authorize community colleges to offer bachelor's degrees. Using secondary data from 1990 to 2008 from 46 states, a non-experimental quantitative methodology featuring an event history analysis analyzed the effects of political factors on the authorization of community college bachelor's degrees. Event history analysis is a longitudinal proportional hazards regression technique that allows for examining the occurrence and timing of governmental actions. The analysis supports that Republican Party control of the lower house of the state's legislature increases the odds of a state government authorizing a community college bachelor's degree, and that Republican Party control of the executive and legislative branches of the state's government and higher levels of gubernatorial power decrease the odds of a state government authorizing community colleges to offer bachelor's degrees.

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CHAPTER I

INTRODUCTION

Elected leaders increasingly include community colleges in political rhetoric on challenges such as high unemployment levels, skills gaps in the workforce, and aligning educational outputs with labor market demand (Boggs, 2011; Kuntz, Gildersleeve, & Pasque, 2011). Nevertheless, inclusion in the political discourse does not ensure the adoption of policies that benefit community colleges because governments adopt public policies in the context of political environments, which include governmental institutions; political actors; economic, political, and social trends; and bureaucratic and governmental processes (Boggs, 2011; Duncan & Ball, 2011; Kuntz et al., 2011; McLendon, Mokher, & Flores, 2011). Lobbying tailored to a given political environment can result in the adoption of public policies that benefit colleges and universities (Boggs, 2011; Braucher, 2012; Duncan & Ball, 2011). Boggs (2011) notes that community college leaders, especially presidents, need to engage in political environments to influence expectations, address financial limitations, and respond to challenges and opportunities.

A common aspect of the community college presidency is to mediate the adoption of beneficial public policies through direct advocacy or lobbying, because few community colleges have adequate resources to hire professional political lobbyists (American Association of Community Colleges [AACC], 2013; Boggs, 2011; Duree, 2007; McLendon et al., 2011). In order to advocate effectively with limited resources for the adoption of beneficial public policies, a community college president must interpret and navigate her or his state's political environment (AACC, 2013; Boggs, 2011; Duncan & Ball, 2011; Duree, 2007; McLendon et al., 2011). Moreover, many current community

college presidents, who may have already developed these interpretation and navigation skills, plan to retire within the next decade, and community college leaders are concerned about the availability of skilled professionals to assume the role (AACC, 2013), which suggests a potentially acute problem in practice for presidents in understanding how political environments effect higher education public policy adoption.

Illustrating the relevance of political advocacy for the community college presidency, in a national survey of community college presidents, Weisman and Vaughan (2007) found that 93% of the 545 survey respondents reported lobbying for the college during the most recent legislative session, and 97% of the respondents reported interacting with state representatives and state senators at least two times each year. Although interacting with lawmakers is an important aspect of the community college president's political role, interaction alone might not be sufficient to facilitate the adoption of beneficial public policies (Tandberg & Ness, 2011). Developing the skills necessary to interpret a state's political environment, and to select lobbying or advocacy tactics to mediate the adoption of beneficial public policies, is essential for community college presidents but may be challenging, particularly for practitioners who are new to a presidency (AACC, 2013; Boggs, 2011; Duree, 2007).

In addition to the political challenges inherent in the community college presidency, community college presidents lead institutions that are committed to remaining relevant regionally by responding to shifting demographic, political, and economic trends (Bess & Dee, 2012; Thelin, 2004). Until recently, community colleges have responded to regional trends through academic programs that students could complete in two years or less, such as associate degrees, workforce training, industry

certificates, and adult basic education (Vaughn, 2006). Beginning in the 1990s, political, business, and community college leaders throughout the U.S. began to identify the scarcity of people with technical bachelor's degrees as an impediment to regional economic development and vitality (Floyd, Skolnik, & Walker, 2004). In response to this scarcity in regional labor markets, a number of states began authorizing community colleges to offer bachelor's degrees in addition to the colleges' traditional academic offerings (Vaughn, 2006; Wess, 2012). The growing number of states authorizing community college bachelor's degrees prompted the Carnegie Foundation for the Advancement of Teaching (2001) to create the *baccalaureate/associate and certificates* category of institution for those institutions where at least 10% of awards are bachelor's degrees.

When lawmakers authorize community colleges to offer bachelor's degrees, the colleges typically launch four-year degrees in technical fields for which there is demand in the local labor market that universities are not meeting (Floyd et al., 2004; Floyd & Walker, 2008). The appropriateness of expanding the community college mission to include four-year degrees is under debate among higher education leaders (Townsend, 2005; Wess, 2012). Some higher education leaders assert four-year degrees are a logical extension of community colleges' commitment to local access and regional relevance; conversely, others assert that graduates of community college baccalaureate programs will be less well prepared than university graduates are (Floyd et al., 2004). Regardless of a given president's opinion in the debate, when a state legislature considers authorizing community college bachelor's degrees, college presidents in that state would benefit from

understanding the mediating or restraining factors in a state's political environment in order to advocate effectively for their institutions (Braucher, 2012; Manias, 2007).

Statement of the Problem

Public policy decisions by lawmakers can have profound effects on virtually every aspect of a community college including institutional governance (Enders, de Boer, & Weyer, 2013; Knott & Payne, 2004; Romano, 2012), finance (Dar & Dong-Wook, in press; Li, Friedel, & Katsinas, 2012; McLendon, Hearn, & Mokher, 2009), student admission and remediation policies (Bettinger & Long, 2009; Martorell & McFarlin, 2011), programming and services (Elpus, 2007; Ewell, Boeke, & Zis, 2008; Plageman, 2011), technology decisions (Hearn, McLendon, & Mokher, 2008), and facilities (Dowd, 2004; Francis, 2006; Tandberg & Ness, 2011). Because public policy decisions by lawmakers can have profound effects on virtually every aspect of community colleges, it is critical for college leaders to engage in the state public policy development process, which occurs within the political environment of the state, to advocate against potentially harmful policies and advocate for beneficial policies (McGuinness, 2011). However, very little research on how political environments determine state public policy for community colleges exists, which hampers the practice of community college presidents as they engage in political advocacy (Lowry, 2007; McLendon & Hearn, 2007; McLendon et al., 2009).

The leader of an organization often engages or leads processes to interpret the internal and external environments, identify opportunities and threats, and develop strategies to position and protect the organization (Bess & Dee, 2012; Northouse, 2013). A prominent feature of the external environment that affects nearly every aspect of a

community college is the policy and regulatory context created by the state government. As a community college president fulfills his or her role of interpreting external, especially political, environments and securing the adoption of beneficial public policies, the president would benefit from a sophisticated understanding of political factors such as political party preferences, interest group activity, and allocation of power within the various branches of government (Dar & Dong-Wook, in press; Doyle, McLendon, & Hearn, 2010). The confluence of (a) the political focus on community colleges, (b) the necessity of effective political advocacy by community college presidents, and (c) the scarcity of research on how state political environments determine public policy presents a significant problem in practice for community college presidents. The reality of increasing competition for declining state financial resources in most states exasperates this challenge in practice because many of the entities competing for state allocations have the resources to hire expert political operatives (Braucher, 2012).

Purpose of the Study

The purpose of this study was to examine how variables in states' political environments contribute to the adoption of higher education policies by state governments. An understanding of how variables in a state's political environment affect higher education policy adoption would contribute to the practice of community college presidents by helping those presidents determine how to invest their advocacy efforts to influence regulations, statutes, and/or public funding (McLendon & Hearn, 2007).

Although much of the existing literature on the interplay of politics and higher education is based on anecdotal observations (e.g, Duncan & Ball 2011; McLendon, Hearn, & Deaton, 2006), a growing body of literature applies rigorous quantitative and qualitative

methodologies to explore this relationship (Tandberg & Griffith, 2013).

The study contributed to this emerging body of literature by exploring the political and economic factors within a state that support the expansion of the community college mission to include baccalaureate degrees. Very little research into how political environments affect community colleges exists (Lowry, 2007; McLendon & Hearn, 2007; McLendon et al., 2009). Research that deepens the understanding of how political factors influence higher education public policy development will address the problem in practice of how community college presidents can advocate effectively for beneficial public policies.

Significance of the Study

Practitioners and scholars continue to debate the appropriateness of expanding the missions of community colleges to offer bachelor's degrees (Floyd & Walker, 2008). Those who support the mission expansion argue that offering bachelor's degrees is an appropriate extension of community college's commitment to access, affordability, and regional relevance (e.g., Floyd & Walker, 2008; Townsend, 2005; Wess, 2012). Meanwhile, those who oppose the mission expansion argue that community college bachelor's degrees are redundant in the marketplace, and that community colleges lack the infrastructure, expertise, prestige, and academic rigor to offer competitive degrees (e.g., Floyd & Walker, 2008; Townsend, 2005; Wess, 2012). Highlighting the point in the debate about threatening the regional focus of community colleges when the institutions begin offering bachelor's degrees, Floyd and Walker (2008) found that colleges often drop the word *community* from the institution's name upon the launch of baccalaureate programs. Nevertheless, state lawmakers adopting public policy that

authorizes community colleges to offer bachelor's degrees is a trend in the United States (Vaughn, 2006; Wess, 2012). Regardless of whether a community college leader perceives expanding into offering baccalaureate programs as appropriate for his or her institution, understanding the political motivations and policy goals undergirding the adoption of this public policy will help college presidents develop compelling arguments to support his or her policy preference (McLendon & Hearn, 2007; Tandberg & Griffith, 2013).

Moreover, understanding and recognizing factors in the political environment that can lead to the adoption of legislation allowing community college mission expansion within the state will allow a community college president to (a) assess whether the change will benefit his or her institution, (b) develop lobbying strategies and prepare persuasive arguments, (c) interpret the political factors for internal and external stakeholders, and (d) proactively, rather than reactively, engage in the political process (Bess & Dee, 2012). Yet, no empirical evidence exists that examines the factors in a state's political environment that contribute to the authorization of community colleges to offer bachelor's degrees. Specifically, community college presidents would benefit from empirical evidence on the significance of various factors in a political environment contributing to policy adoption. A growing body of literature explores the relevance of factors such as how power is distributed among branches of state government, the length of gubernatorial tenure, term limits for lawmakers, relative political power of either Republicans or Democrats, and shifts in control from one political party to another, on the policy development process (e.g., Dowd, 2004; Hearn et al., 2008; Knott & Payne, 2004; McLendon et al., 2011; Tandberg & Griffith, 2013). This study contributed to the

literature and addressed a problem in practice for community college presidents by examining these political factors in the context of states authorizing community colleges to offer bachelor's degrees. Understanding of the influence of salient factors in the state's political environment can support significantly a community college president's ability to advocate effectively for his or her institution (Bess & Dee, 2012).

Research Questions

The objective of the study was to contribute to the practice of community college presidents by analyzing the relationships between political factors in a state and that state authorizing community colleges to offer bachelor's degrees. Because politics occur in complex environments, the analysis controlled for economic, educational, and bureaucratic factors drawn from a review of the literature conducted for this study. The economic factors included: (a) the unemployment rate within the state, and (b) neighboring states that already had authorized community colleges to offer bachelor's degrees. The educational factor was the proportion of the state's total number of undergraduate students enrolled by public community colleges. The bureaucratic factor was the type of higher education governance within the state.

The three questions that guided this research study were the following:

1. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and gubernatorial powers (independent variable), controlling for economic, educational and bureaucratic factors?
2. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and the level of

legislative professionalism within the state (independent variable),
controlling for economic, educational, and bureaucratic factors?

3. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and Republican Party control of executive and legislative branches of state government (independent variable), controlling for economic, educational, and bureaucratic factors?

Summary of Theoretical Framework

The theoretical framework for this study was the principal-agent theory. Enders et al. (2013) and Lowry (2007) explain that principal-agent theory anticipates that (a) institutions and individuals will make rational choices; (b) there will be conflict between the principal, in this case state government, and the agent, in this case community colleges, caused by differences in rational preferences; and (c) organizational design can address the conflict between the principal and the agent. Using principal-agent theory supports state lawmakers having limited time and attention to study choices; historical, normative, and cultural factors influencing how lawmakers evaluate options; and characteristics of community colleges affecting the choices lawmakers consider (Enders et al., 2013). Principal-agent theory also anticipates community college presidents will make rational decisions about the potential benefits or risks associated with different policy options and about the lobbying tactics most likely to influence lawmakers (Lowry, 2007).

Enders et al. (2013) explain that the conflict between the principal and the agent anticipated in principal-agent theory within the context of state governments and higher

education derives from higher education institutions desiring to maximize autonomy and lawmakers desiring control of public institutions. Furthermore, the principal-agent theory provides a parsimonious frame for the effect of state higher education governance types on lobbying efforts and public policy development. McLendon, Heller, and Young (2005) noted that lawmakers often attempt to create bureaucratic structures, like higher education governing bodies, to ensure the implementation of the lawmakers' preferences. In summary, principal-agent theory provided a parsimonious and appropriate theoretical framework for this study because the theory supports that (a) community colleges and state legislatures will make rational choices, (b) differences in the rational preferences of state lawmakers and community college leaders will cause conflict, and (c) organizational design, such as authorization to offer bachelor's degrees, can address that conflict.

Summary of Methodology

The study used a non-experimental quantitative methodology to examine how factors in a state government's political environment contribute to lawmakers in the state authorizing community colleges to offer bachelor's degrees. The study used event history analysis (EHA) to analyze relationships between the authorization of community colleges to offer bachelor's degrees among 46 states from 1990 to 2008 and factors in each state's political environment. McLendon, Mokher, and Flores (2011) explain that EHA is "a longitudinal analytic technique that is especially well suited for examining dynamic social phenomena, such as the occurrence and the timing of governmental actions" (p. 576). The study used publically available secondary data from the Education Commission of the States, the Bureau of Labor Statistics of the U.S. Department of Labor, the National Center for Education Statistics of the U.S. Department of Education,

and the *State Politics & Policy Quarterly* online data resources. Each of the data sources employ rigorous protocols to ensure data reliability for scientific inquiry. Furthermore, scientific datasets from specialized organizations is an accepted technique for obtaining secondary data (Zimmerman, 2003).

The dependent variable was state government authorizing community colleges to offer bachelor's degrees. The factors in a state's political environment that were the study's independent variables were gubernatorial power, legislative professionalism, and Republican Party control of executive and legislative branches of state government. The control variables were (a) the unemployment rate within the state, (b) neighboring states that had already authorized community colleges to offer bachelor's degrees, (c) the proportion of the state's total number of undergraduate students enrolled by public community colleges, and (d) the type of higher education governance within the state.

Although the origins of event history analysis are in the biomedical sciences (McLendon & Hearn, 2007), Berry and Berry (1990, 1992) introduced the use of EHA to study the adoption of public policies by state lawmakers. More recently, researchers have used EHA to study how political factors affect the development of higher education policy (McLendon & Hearn, 2007; Tandberg, & Griffith, 2013). EHA was appropriate for this study because it enabled analysis of a dichotomous dependent outcomes (either the state authorized community colleges to offer bachelor's degrees or it did not), and the status of possible explanatory variables, while incorporating the timing of an event (the authorization) into the model (McLendon et al., 2011).

The study analyzed data from 46 states because factors present in four states did not allow for analysis of all of the variables in the study. Alaska and Hawaii are states

that do not border other states; consequently, these states were not included in the analysis because the study controlled for the effects of policy diffusion from state-to-state as a factor in policy adoption. Nebraska was not included in the analysis because the nonpartisan legislature in Nebraska precluded analysis of political party control of state government, which was one of the independent variables (McLendon et al., 2011). West Virginia was excluded from analysis because that state authorized community colleges to offer bachelor's degrees prior to 1990 (Russell, 2010), and the time frame under analysis was 1990 to 2008.

The event history analysis used the proportional hazard function developed by Cox (1972), which allowed for analysis of the probability of an event occurring each year under study. The analysis involved the creation of a separate observational record for each year that a state had the potential of authorizing community colleges to offer bachelor's degrees, which was termed a *state-year* (Allison, 1984; Berry & Berry, 1990, 1992). The dependent, independent and control variables were assigned the values they took in each state-year (Allison, 1984). Next, pooling data for all variables in each state-year into a single sample enabled estimation of the probability of each state authorizing community colleges to offer bachelor's degrees, and analysis of correlations between the dependent variable and the independent variables in the years when the event occurred (Allison, 1984).

Assumptions of the Study

The proposed study relied upon the following assumptions:

1. Community colleges need authorization from state governments to offer bachelor's degrees, and state governments have the ability to authorize

community colleges to offer bachelor's degrees. Although some state constitutions—Montana for example—expressly forbid community colleges from offering bachelor's degrees, it was assumed that lawmakers could choose to follow a legal process to change the constitution if necessary.

2. The study relied upon publically available secondary data from authoritative sources; however, it was assumed that the data from these sources were accurate and reliable.

Delimitations of the Study

The delimitation of the study was the timeframe, which was from 1990 to 2008. Data for states that authorized community colleges to offer bachelor's degrees prior to 1990 or after 2008 were not included.

Limitations to the Study

The limitations of this study included the following:

1. Because one of the control variables in the study was whether states authorize community colleges to offer bachelor's degrees subsequent to a bordering state doing so, data from Alaska and Hawaii were not included in the analysis because those states do not border other states.
2. Data from Nebraska was not included in the study because that state's nonpartisan legislature did not allow testing the effects of political party control of the legislature, which was the basis of one of the independent variables (McLendon, et al., 2011).

Definition of Terms

The following terms are used throughout this study and are defined as follows:

Community College Baccalaureate or Bachelor's Degree. Floyd and Walker (2008) define *community college baccalaureate degrees* as programs that are often in high-demand occupational fields such as teaching, business, allied health, and public service. Community college bachelor's degrees often focus on employability after graduation among place-bound students.

Hazard Rate. In an event history analysis design, *hazard rate* is the probability that a particular individual will experience an event in a given year, assuming that individual is at risk in that time period (Allison, 1984).

Lobbying. Merriam-Webster's Collegiate Dictionary (2006) defines *lobbying* as, "to conduct activities aimed at influencing public officials and esp. [sic] members of a legislative body on legislation" (para. 1).

Political environment. A *political environment* is the context in which a state's government operates. McLendon and Hearn (2007) explain that a political environment comprises institutions (e.g., legislature, governor, agencies, and boards), actors (e.g., interest groups, lobbyists, legislators, citizens, and governors), trends (e.g., political party power, policy diffusion, etc.), and processes (e.g., election cycle and legislative session schedule).

Public Policy. Peters (2013) explains, "Public policy is the sum of government activities, whether pursued directly or through agents, as those activities have an influence on the lives of citizens" (p. 4). Public policy includes the decisions taken by lawmakers, the discretion exercised by civil servants in how laws are interpreted and

agencies operate, and the effects of lawmakers' decisions and civil servants' actions on citizens (Peters, 2013).

Risk Set. In an event history analysis design, the *risk set* is the set of individuals that are at risk of experiencing an event in a given time period (Allison, 1984).

Summary

Interpreting a state's political environment and selecting lobbying or advocacy tactics to mediate the adoption of beneficial governmental policies is essential for community college presidents (AACC, 2013; Boggs, 2011; Duncan & Ball, 2011; Duree, 2007; McLendon et al., 2011), but may be challenging, particularly for practitioners who are new to a presidency (AACC, 2013; Boggs, 2011; Duree, 2007). The confluence of (a) the political focus on community colleges, (b) the necessity of effective political advocacy by community college presidents, and (c) the scarcity of research on how state political environments determine public policy presents a significant problem in practice for community college presidents. Beginning in the 1990s to present day, a number of states authorized community colleges to offer bachelor's degrees, which represents a significant change in policy for those states (Vaughn, 2006; Wess, 2012). Because enacting policy authorizing community colleges to offer bachelor's degrees is a dichotomous event, it presented an opportunity to use event history analysis to discover how a number of political, economic, and bureaucratic factors affected the process leading to this authorization.

Organization of the Remainder of the Study

This chapter presented the background of the problem in practice and description of the problem as well as the research questions, assumptions, and limitations. Chapter II

will present a review of the literature that pertains to the research questions and the purpose of this study. Chapter III will describe the research design in detail, including data collection and analysis methods. Chapter IV will provide the results of the data analysis as well as significant findings. Chapter V will present a discussion of the study findings, implications and recommendations for higher education practice, and recommendations for future research.

CHAPTER II

LITERATURE REVIEW

Chapter II presents a review of the literature on the effects of political environments on higher education public policy development, and a synthesis of findings from research studies about nonpolitical and political factors that affect the development of higher education policy. This chapter is organized into six sections: 1) community college baccalaureate degree and public policy, 2) political advocacy by higher education institutions, 3) the effects of political environments on higher education, 4) the effects of nonpolitical factors on higher education public policy, 5) the effects of political factors on higher education public policy, 5) theoretical framework, and 6) summary.

The purpose of the study was to examine how variables in states' political environments contributed to the adoption of higher education policies by state governments. An understanding of how variables in a state's political environment affect higher education policy adoption can contribute to the practice of community college presidents by helping those presidents determine how to invest their lobbying efforts to influence regulations, statutes, or public funding (McLendon & Hearn, 2007).

Community College Baccalaureate Degree and Public Policy

A public policy trend among state governments is for lawmakers to authorize community colleges to offer bachelor's degrees. Floyd and Walker (2008) define *community college baccalaureate degrees* as programs that are often in high-demand occupational fields such as teaching, business, allied health, and public service. Community college bachelor's degrees often focus on employability after graduation among place-bound students.

Throughout much of their history, community colleges have responded to regional trends through academic programs that students could complete in two years or less, such as associate degrees, workforce training, industry certificates, and adult basic education (Vaughn, 2006). Beginning in the 1990s, political, business, and community college leaders throughout the United States began to identify the scarcity of people with technical bachelor's degrees as an impediment to regional economic development and vitality (Floyd et al., 2004). In response to this scarcity in regional labor markets, a number of states began authorizing community colleges to offer bachelor's degrees in addition to the colleges' two-year academic offerings (Vaughn, 2006; Wess, 2012). The growing number of states authorizing community colleges to offer bachelor's degrees prompted the Carnegie Foundation for the Advancement of Teaching (2001) to create the *baccalaureate/associate and certificates* category of institution for those institutions where at least 10% of awards are bachelor's degrees.

Although state legislation authorizing community colleges to offer bachelor's degrees typically does not limit the type of degrees offered, Floyd and Walker (2008) found that community colleges typically launch bachelor's degrees in technical fields such as business, teaching, allied health, social services, security, agriculture, and technology. Floyd and Walker (2008) noted, "These are many of the academic fields that are not high on the status list for research universities, but these programs are essential for local workforce needs" (p. 108). Floyd et al. (2004) asserted that in some instances the mission expansion to offer bachelor's degrees is a natural outgrowth of the community college movement's commitment to access, and/or is a response to demand from business and industry to increase the number of bachelors-prepared candidates in

the labor market. Regardless of what prompts state lawmakers to consider public policy authorizing community colleges to offer bachelor's degrees, lawmakers develop and adopt this public policy in a political environment (Manias, 2007).

Opinions about the appropriateness of community colleges offering bachelor's degree programs vary among higher education leaders (Townsend, 2005; Wess, 2012). Regardless of the presidents' opinions on the appropriateness of mission expansion to include bachelor's degrees, community college presidents in states where lawmakers are considering authorizing two-year colleges to offer bachelor's degrees will need to understand the mediating or restraining factors in a state's political environment and be able to engage in effective advocacy (Braucher, 2012).

Political Advocacy by Higher Education Institutions

According to Merriam-Webster's Collegiate Dictionary (2006), to *lobby* is "to conduct activities aimed at influencing public officials and esp. [*sic*] members of a legislative body on legislation" (para. 1). Although the definition of lobbying seems quite clear, Gen and Wright (2013) describe a lack of clarity, agreement, and scholarship on the activities and strategies that constitute policy advocacy or lobbying. An exploration of the range of activities commonly associated with lobbying is too large for the context of this study, but includes relationship building with elected officials and their staff members, policy research and issue education, reporting scientific evidence or program outcomes, coalition building, leveraging interest groups, and participation or membership in industry groups (Cochran, Montgomery, & Rubin, 2010; Gen & Wright, 2013; Weerts, Cabrera, & Sandford, 2010). The literature on lobbying tactics that colleges and universities use, and how effective those strategies are for those

organizations, is limited (e.g., Kimberlin, 2010; McLendon & Hearn, 2007).

A common aspect of the community college presidency is to mediate the adoption of beneficial public policies through direct advocacy or lobbying, because few community colleges have adequate resources to hire professional political lobbyists (American Association of Community Colleges [AACC], 2013; Boggs, 2011; Duree, 2007; McLendon et al., 2011). In order to advocate effectively with limited resources for the adoption of beneficial public policies, a community college president must interpret and navigate her or his state's political environment (AACC, 2013; Boggs, 2011; Duncan & Ball, 2011; Duree, 2007; McLendon et al., 2011). Duree (2007), in a survey of currently serving community college presidents, found that legislative advocacy was among the top five challenges identified by the 415 respondents. Recognizing the importance of community college leaders effectively navigating and interpreting political environments, the AACC (2013) includes sophisticated communication and lobbying skills in a list of core competencies for community college leadership.

Engaging in political environments is important for community college leaders (AACC, 2013; Boggs, 2011), and the most direct approach to engagement is lobbying (Duncan & Ball, 2011; Duree, 2007; Kimberlin, 2010). McGrath (2006) conducted a qualitative study to identify the skills needed for effective lobbying by anyone attempting to advocate for the adoption of specific public policies by any government. McGrath's findings included the following skills:

- listening skills to detect subtle messages sent by elected officials;
- ability to form and maintain relationships, including the ability to be personable;

- being observant to gather subtle cues that will help judge the impact a message is having with a particular legislator;
- courtesy and pleasantness;
- fairness, honesty, and consistency; and
- integrity and credibility.

Many of these skills parallel the AACC's (2013) core competencies for community college presidents, which include polished communication skills, the ability to network and forge partnerships, and the ability to establish relationships with lawmakers.

Nevertheless, community college leaders in Duree's (2007) study identified lobbying as one of the biggest challenges in their practice.

Reporting Scientific Findings and Program Outcomes as a Lobbying Tactic

Higher education leaders, educators, and nonprofit agency leaders often choose to report scientific findings or program outcome data as a lobbying tactic because they are engaged in enterprises oriented toward evidence and data (Cochran et al., 2010; Coffman, et al., 2011; Elpus, 2007; Ritter, 2007). However, using a qualitative methodology with a sample of 11 current Texas legislators, Cochran et al. (2010) found that scientific evidence had little impact on public policy development and adoption effecting mental health services. The role of evidence in the lobbying process, according to the legislators interviewed by Cochran et al. (2010), was to identify and define the problem that legislation might address, and not in the actual development of the policy.

Moreover, Coffman et al. (2011) conducted seven case studies to illustrate how scientific scholarship and evidence affects public policy. Coffman et al. found that strong evidence can contribute to lobbying efforts, but political environments and effective

lobbying strategy, of which evidence was a minor aspect, were more important to success in the adoption of beneficial public policy. Notably, Coffman et al. also reported that providing evidence was a powerful tool in leveraging advocacy groups, accrediting bodies, and state agencies to assist in lobbying efforts.

Coalition Building and Interest Groups as a Higher Education Lobbying Tactic

Coalition building and interest groups are worthwhile lobbying tactics for higher education institutions (Dowd, 2004; Heaney, 2006; Scott, 2013; Tandberg, 2010; Warne, 2008). College and university leaders form lobbying coalitions when common policy interests exist, and the leaders perceive the coalition will maximize the political impact of the resources available for lobbying (Francis, 2006; Tandberg, 2006). Tandberg (2010), using a pooled, cross-sectional times-series analysis, found that the ratio of higher education interest groups to total interest groups in a state had significant and positive influence on state appropriations to higher education. Moreover, Tandberg (2010) found that having each higher education institution engage in its own lobbying efforts, either through individual effort or fluid interest group formation and dissolution, had a greater effect on state financing of higher education over time than when a state governing board represented all colleges and universities collectively. Dowd (2004), using data from the Integrated Postsecondary Education Data System to study 679 community colleges in 35 states, found political factors, such as coalition building more than economic factors or enrollment factors, explained public funding disparities between community colleges located in rural or suburban regions and community colleges located in urban regions. Dowd (2004) explained the disparities occurred in part because urban community college leaders and governing boards often strove to form coalitions with elected officials and

other stakeholders when lobbying for state funding formulas that were beneficial for their institutions.

Warne (2008) identified that coalition building among many actors, sometimes having very different primary agendas, is one way of understanding the process of policy development. In addition to forming coalitions with other postsecondary education institutions, higher education leaders join interest groups comprising participants who are not within the education sector; examples of potential interest group participants include other industry groups, businesses, governmental units, or social policy advocacy groups, when all of the groups' members recognize a shared objective (Tandberg, 2006, 2010; Scott, 2013; Weerts, 2007). Another source of interest group participants is college and university alumni, who are often intrinsically motivated to support their alma mater and sometimes enjoy previously established relationships with elected officials (Weerts et al., 2010).

In addition to interest groups, higher education leaders sometimes form coalitions with governmental agencies as a lobbying tactic. DeShazo and Freeman (2005) found that interagency lobbying is a powerful tool for influencing how, or if, an agency implements policies that are not within the agency's core function. Because of the efficiency and efficacy of interest groups and lobbying coalitions, scholars and practitioners have advised educators to obtain training on building coalitions and creating interest groups to amplify or strengthen the efficacy of their lobbying efforts (Boggs, 2011; Elpus, 2007; Ritter, 2007).

Highlighting the potential utility of interest groups, Heaney (2006) conducted a mixed methods study involving statistical analysis of 263 interviews with health policy

elites and a qualitative case study of the debate over the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, to explore how advocacy or interest groups form lobbying coalitions to strengthen the potency of their activities and messages. The case study participants were 171 prominent interest groups based on their frequency of testimony before Congress on healthcare matters, lobbying expenditures by each interest group, and nomination by health policy experts. Heaney (2006) found that interest groups serve as brokers across party lines, which empowers the groups in highly partisan environments. Additionally, a salient finding for higher education is that interest groups are most successful when those groups situate themselves in the center of a policy network and broker communication across multiple legislators, political parties, and other stakeholders (Heaney, 2006).

In addition to brokering information, interest groups can form alliances and support each other in their advocacy efforts. Tandberg (2006) used immersion case study and document analysis methodologies to study higher education interest group alliances. Tandberg (2006) found that higher education lobbyists report the formation of interest groups to be natural because the lobbyists have developed relationships with other political operatives, and know which organizations or institutions likely will join forces on a policy issue. Interest groups also support each other through shared information (Scott, 2013). Scott (2013) analyzed data submitted by lobbying organizations pursuant to the Lobbying Disclosure Act of 1995, from 1999 to 2002, to identify patterns in interest group formation and activity. Although Scott (2013) acknowledged that the data source did not reflect all lobbying activity, he found significant evidence that lobbyists rely upon other lobbyists for trustworthy information, and lobbyists form mutually

supportive communities with lobbyists representing other organizations. The findings supported by Heaney (2006), Tandberg (2006), and Scott (2013) suggest higher education institutions would benefit from engaging in interest group activity through the potential benefits of (a) serving as communication brokers (Heaney, 2006), (b) inter-interest group alliances (Tandberg, 2006), and (c) information acquisition (Scott, 2013).

The Effects of Political Environments on Higher Education

A political environment is the context in which a state's government operates. McLendon and Hearn (2007) explain that a political environment comprises institutions (e.g., legislature, governor, agencies, and boards), actors (e.g., interest groups, lobbyists, legislators, citizens, and governors), trends (e.g., political party power, policy diffusion, etc.), and processes (e.g., election cycle and legislative session schedule). The literature, reporting both anecdotal observations and empirical evidence, emphasizes the salience of political environments on higher education public policy development (e.g., Duncan & Ball, 2011; Duree, 2007; Tandberg & Griffith, 2013). Moreover, producing more citizens with postsecondary credentials is common in state and national political rhetoric (Ewell et al., 2008). Despite the prevalence of, and common themes in, political rhetoric from state-to-state, governments adopt a wide range and mix of public policies relating to higher education (Ewell et al., 2008; Tandberg & Griffith, 2013).

Securing adequate funding in a political environment is important for public, private nonprofit, and proprietary postsecondary institutions (Braucher, 2012; Romano, 2012). In a survey of state directors of community college systems, Li et al. (2012) found that two of the five key issues reported by respondents were state funding policies and federal support of community colleges. Furthermore, through analysis of data from the

Integrated Postsecondary Education Data System (IPEDS), Romano (2012) found fluctuation in public support has direct impact on a broad range of community college programming, strategies, and structures. Despite this direct impact, scholars have conducted very little research on how political environments effect community college funding (Lowry, 2007; Romano, 2012).

Braucher (2012) illustrated the relationship between political environments and higher education funding by analyzing data from the U.S. Government Accountability Office on the proprietary postsecondary sector. Braucher found that between 77% and 90% of each proprietary institution's revenue was from the federal government. In 2009, the amount of revenue from the federal government to proprietary colleges and universities totaled \$4 billion in Pell funds and \$20 billion in federal student loans (Braucher, 2012). Braucher's findings support the importance of public policy, like the Pell program and subsidized student loans, on the financial viability of proprietary higher education institutions.

Furthermore, Braucher (2012) analyzed public records to study the lobbying and governmental relations efforts by proprietary postsecondary institutions in 2011 to shape the Department of Education's (DOE) proposed Gainful Employment Rule. The U.S. Department of Education (2014) explains that the Gainful Employment Rule, "establishes measures for determining whether certain postsecondary educational programs prepare students for gainful employment in a recognized occupation" (para 2). The DOE rule intended to increase regulation and accountability for institutions participating in the Pell program and in federal student loan programs (Braucher, 2012). Braucher found that proprietary postsecondary institutions invested significant time and money to shape the

Gainful Employment Rule, including (a) resetting the acceptable level of student loan defaults at a higher point, (b) increasing the acceptable ratio of student loan debt to income among an institution's program completers, (c) excluding students who stop attending before completing a program from the debt-to-income ratio calculation, and (d) reducing funding to the DOE to implement the rule. Given the high proportion of public funding in the revenue of proprietary institutions, obtaining these changes in the proposed rule were critical to the viability of the business model of the proprietary postsecondary sector (Braucher, 2012).

In contrast to the experience of proprietary institutions described by Braucher (2012), Herber-Swartzter and McNair (2010) used a qualitative case study methodology to examine how community college leaders responded to an ambiguous state mandate that full-time faculty teach 75% of courses without additional financial resources. Herbert-Swartzter and McNair (2010) found that the state mandate significantly impacted the operation of California community colleges. Herbert-Swartzter and McNair (2010) asserted that California community college leaders struggled to react to the state mandate instead of proactively lobbying the legislature to mitigate its impact, and consequently experienced significant operational and financial challenges. Meanwhile, the proprietary institutions studied by Braucher (2012) mitigated the potential financial and operational impact of a regulator change through engagement in the political environment.

In addition to the effect of political environments in determining higher education funding, political environments also affect higher education programs and strategies. Illustrating this point is the impact of the *American Graduation Initiative* on the community college sector (Kuntz et al., 2011). Kuntz et al. (2011) used critical discourse

analysis to study the *American Graduation Initiative*, which President Barack Obama introduced in 2009. A major component of the *American Graduation Initiative* was to increase completion rates among community college students (Kuntz et al., 2011). Kuntz et al. (2011) found that President Obama rhetorically aligned community colleges to economic ideology instead of social justice or human development ideologies. Supporting the Kuntz et al. (2011) analysis, Meyer (2006) asserts that an increasing number of elected officials regard higher education as an individual benefit instead of as a public benefit. According to Meyer, the belief held by many public officials that market forces would be more efficient and effective than governmental regulation stems from the concept that higher education is an individual benefit.

Subsequent to the introduction of the *American Graduation Initiative* by President Obama, the AACC, the Association for Community College Trustees, the Center for Community College Student Engagement, the League for Innovation in the Community College, the National Institute for Staff and Organizational Development, and the Phi Theta Kappa Honor Society jointly issued a commitment to increase student completion rates at community colleges (McPhail, 2011). Although McPhail (2011) does not explicitly state that the emphasis on completion rates stemmed from the *American Graduation Initiative*, the author stated, “The timing of such action is important. Community colleges are currently in the national spotlight, but the increased attention also means increased responsibility to our communities, our states, and our country—as well as to our students” (p. 2).

Political environments have influenced academic programming, admissions practices, and ancillary aspects of institutional missions (Plageman, 2011). Plageman

(2011) recommends that program directors within postsecondary institutions engage in political advocacy directly or encourage political engagement among students who are receiving services from programs, to safeguard federal and state funding streams for programs. Furthermore, Shaw and Jacobs (2003) described political and economic trends that exist in local, state, and federal contexts affecting community colleges. Shaw and Jacobs assert that these trends encourage the community college sector to focus increasingly on serving industry and business rather than students, which the authors stated has had a negative impact on the open enrollment mission of community colleges.

The Effects of Nonpolitical Factors on Higher Education Public Policy

Elected officials make policy choices based on a variety of factors including myriad economic and social conditions (Knott & Payne, 2004; McLendon et al., 2011). For scholars interested in higher education public policy adoption, nonpolitical factors that influence policy adoption include the state's economic conditions, policy diffusion from state-to-state, and the state's higher education governance model (McLendon & Hearn, 2007; Tandberg & Griffith, 2013). A growing body of literature applies rigorous quantitative methodologies to explore how various factors affect the adoption of higher education public policy (e.g., McLendon & Hearn, 2007; Tandberg & Griffith, 2013).

The important contributions higher education makes in a state's economy, such as addressing the unemployment rate, stimulating economic development, technology transfer, and workforce training are well established (Dar & Dong-Wook, in press; Tandberg & Griffith, 2013). The individual benefits of higher education are also well established (Baum, Ma, & Payea, 2013). Jacoby and Schneider (2009) explain that policy issues like higher education, which have benefits that are both collective (help all

citizens) and particularized (help individual citizens), result in complex and unique political alliances and policy outcomes. Therefore, economic factors such as degree of industrialization; economic cycles, population density; and the cost of primary and secondary education, healthcare, and welfare influence state appropriation levels to higher education (Dar & Dong-Wook, in press; Tandberg & Griffith, 2013). The complex interplay of economics, politics, and state higher education policy has been the subject of a number of studies (e.g., Dar & Dong-Wook, in press; Tandberg & Griffith, 2013).

Several studies have identified relationships between a state's unemployment rate and both state appropriations to higher education and lawmaker's political support of higher education (McLendon et al., 2009; Dar & Dong-Wook, in press). McLendon et al. (2009) conducted a pooled, cross-sectional, time-series analysis on higher education public policy decisions from 1984 to 2004 by 49 states ($N = 980$). McLendon et al. (2009) found that state unemployment rates correlated strongly and negatively with state appropriations, which supports the ideology that state economic cycles affect higher education funding levels. Dar and Dong-Wook (in press) studied the interaction of political parties, economic cycles, preferences of constituents, and policy preferences among elected officials in the formation of state higher education policy using data from 1977 to 2004 from 44 states ($N = 1,188$). Dar and Dong-Wook (in press) found a statistically significant negative relationship between political support for higher education and levels of partisan polarization and state unemployment rate.

In addition to unemployment rates, research suggests a relationship exists between other economic factors and higher education policy (e.g., Doyle, 2006; Doyle &

Gorbunov, 2011). In a study on states adopting merit-based student grant programs, Doyle (2006) used event history analysis to analyze data from 1998 to 2002 from 48 states ($N = 192$). Doyle (2006) found that states with higher levels of average income, which is an economic factor, were more likely to adopt merit-based student grant programs. In a study on the expansion of community colleges in the United States, Doyle and Gorbunov (2011) used a multilevel Poisson regression model to analyze data from 1969 to 2002 from 50 states. Doyle and Gorbunov (2011) found that a large youth population, representing economic demand, correlated strongly with an increase in the expansion of community colleges within a state. However, the researchers did not find a significant correlation between income inequality within a state and expansion of community colleges within the state.

Other studies suggest the relationship between unemployment rates and higher education policy does not consistently mediate public policy outcomes (McLendon et al., 2006; McLendon et al., 2007; Ness & Tandberg, 2013). Ness and Tandberg (2013) analyzed panel data from 1988 to 2004 from 50 states ($N = 800$), to study factors that influence state appropriations for higher education capital projects compared to higher education general fund appropriations. They found that the process for determining allocations for the higher education general fund is more often formula-driven and less prone to political influence than state capital expenditure processes, which are more open to political influence on a project-by-project basis. The economic and demographic factors Ness and Tandberg (2013) included in their study were (a) proportion of population older than 65, (b) income inequality, (c) unemployment, and (d) share of state general fund to Medicaid. Although Ness and Tandberg (2013) analyzed four economic

and demographic factors, they found that only income inequality, and not unemployment, was associated with increased higher education general fund allocations and spending on capital projects. In a study of economic, political, state-to-state policy diffusion, and demographic factors leading to states' adopting policies allowing undocumented immigrants to pay resident in-state tuition rates, McLendon et al. (2011) used event history analysis to study data from 1997 to 2007 from 47 states ($N = 470$). McLendon et al. (2011) found no significant relationship between state unemployment rate and adoption of tuition policies for undocumented immigrants.

In addition to state unemployment rates, relationships between other economic factors and higher education public policy do not consistently mediate public policy (McLendon et al., 2007; McLendon et al., 2006). McLendon et al. (2007) used event history analysis to study state legislative enactment of governance changes in higher education from 1985 to 2000 from 49 states ($N = 735$). Changes in state tax revenue were included as an economic independent variable. The researchers found no evidence linking legislation changing higher education governance with state tax revenue. Investigating how economic factors within a state might mediate the enactment of performance funding by state governments, McLendon et al. (2006) used event history analysis to study origins and spread of state performance-accountability policies for higher education from 1979 to 2002 from 47 states ($N = 1,081$). Regarding state short-term economic climates, no significant relationship to adoption of performance accountability policies was found.

State Governance Effects on Higher Education Public Policy

The structure or type of state governance for higher education can affect how institutions interact with the political environment of the state (Knott & Payne, 2004; Lowry, 2007). In their explanation of how state governance of higher education has changed over time with changing political environments, McLendon et al. (2005) divided trends in state governance of higher education into four eras. During the pre-1950s era, states allowed colleges and universities to have a great deal of autonomy, which resulted in most states implementing relatively weak planning or coordinating boards as the state's higher education governance model. During the 1950s, 1960s, and 1970s, the trend in state governance in higher education was to centralize authority and power in state-level regulatory or governing boards. When conservative ideology became more prominent in state governments during the 1980s and 1990s, many states reorganized their higher education governance models to emphasize decentralization and deregulation. In addition to a trend toward decentralization and deregulation of higher education state governance, in the 2000s a policy trend among state governments was to tie outcomes performance to state funding of higher education (Enders et al., 2013; McLendon et al., 2011). Research suggests that trends in state governance of higher education follow political/government trends from era to era (e.g., Enders et al., 2013; McLendon et al., 2005; McLendon et al., 2006, McLendon et al., 2011).

In order to operationalize the term state governance structure, McGuinness (2003) created a five level typology, the types include: (1) planning boards that conduct some statewide planning but have no coordination functions, (2) weak coordinating boards that have no budgetary review power but do coordinate some higher education functions, (3)

strong coordinating boards that exercise coordination functions including budgetary review, (4) governing boards that set policy and control budgetary decisions for only four-year institutions, and (5) governing boards for all institutions that oversee all public colleges and universities in the state. Knott and Payne (2004) and Lowry (2007) explain that elected officials choose a higher education governance type that reflects the political context and environment of the state. For example, a state government model where the governor has high influence is more likely to implement a centralized higher education governance type (Knott & Payne, 2004; Lowry, 2007). Meanwhile, a state government with a strong professional legislative model is more likely to implement a decentralized higher education governance model that allows each legislator to influence institutions within his or her district (Knott & Payne, 2004; Lowry, 2007).

Furthermore, elected officials are likely to view governing boards in McGuinness' (2003) typology as a mechanism for political control over higher education mission, policy, budgets, and outcomes (Knott & Payne, 2004; Lowry, 2007; McLendon et al., 2005). An unintended consequence of the governing board type of governance is that it often results in a decline in the higher education sector's lobbying or advocacy efforts because the governing board restricts access to elected officials (Knott & Payne, 2004, Lowry, 2007). Because the existence of governing organizations for higher education is a direct outgrowth of a state's political environment, a number of studies analyzing higher education in political contexts have included the state governance model for higher education as an independent variable (Doyle et al., 2010; Knott & Payne, 2004; Mokher & McLendon, 2009).

Knott and Payne (2004) found that states with consolidated governing boards,

including strong coordinating boards in the McGuinness (2003) typology, were more likely to have lower tuition rates and more emphasis on students than on research or faculty support, while states with planning agencies or weak coordinating boards were more likely to have universities with higher tuition and increased emphasis on research. Doyle et al. (2010) and Garcia Falconetti (2008) found relationships between state governance of higher education and other public policy outcomes. Doyle et al. (2010) used event history analysis to analyze data from 1986 to 1999 from 48 states ($N = 1,165$) to study the adoption of prepaid tuition programs or college savings plans as a state policy. Doyle et al. (2010) found that states with weak coordinating boards were more likely to adopt prepaid tuition and savings plans. Garcia Falconetti (2008) conducted qualitative semistructured interviews with 15 community college administrators in Florida to explore the effects on two-plus-two articulation agreements when the state abolished a strong governing board and adopted a decentralized higher education governance structure. Two-plus-two agreements between community colleges and four-year institutions ensure students pursuing a bachelor's degree can complete the first two years of coursework at a two-year college, and then transfer to a university to complete the final two years of coursework. Under the governing board model, Florida's higher education system had an extensive and well-developed two-plus-two articulation system that received broad political support by state lawmakers (Garcia Falconetti, 2008). Garcia Falconetti found that the majority of administrators interviewed perceived that the decentralization of state higher education governance negatively affected the state's politically popular two-plus-two system because the weaker form of state governance proved unable to mandate participation in the two-plus-two system.

Several studies suggest strong state governance structures more directly align higher education policy with the political preferences of elected officials (e.g., McLendon et al., 2006; Mokher & McLendon, 2009). Analyzing data from 1976 to 2005 from 47 states ($N = 1,363$) using event history analysis, Mokher and McLendon (2009) found that states with consolidated governing boards were more likely to adopt dual enrollment policies. Using event history analysis, McLendon et al. (2006) analyzed data from 47 states from 1979 to 2002 to study factors resulting in states adopting new higher education performance funding or budgeting policies. They found a significant relationship between the presence of a centralized governing board and states adopting higher education performance funding and budgeting policies. Although Mokher and McLendon (2009) asserted that these boards might facilitate coordination across institutions within a state, they did not find a similar effect among states with P-16 organizations. Nevertheless, Mokher and McLendon (2009) cite several qualitative studies that suggest universities resist dual enrollment programs despite political support for those programs among elected officials and McLendon et al. (2006) consider performance funding to be a policy not favored by most higher education leaders. In light of Mokher and McLendon's (2009) and McLendon et al.'s (2006) findings, it would appear these qualitative studies uncovered a trend that strong state governance structures more directly align higher education policy with the political preferences of lawmakers (Doyle et al., 2010; Knott & Payne, 2004).

Although strong state governance structures may align higher education policy with the political preferences of lawmakers, Volkwein and Tandberg (2008) and McLendon et al. (2005) found only weak correlations between governance structures and

the actual performance of higher education institutions or the adoption of accountability measures by state governments. Applying time series cross sectional analysis, Volkwein and Tandberg (2008) used *Measuring Up* data from 2000, 2002, 2004, and 2006, to explore the extent to which the state performance grades and variations in grades over time were associated with type of higher education governance in place within the state. Callan (2008), the president of the National Center for Public Policy and Higher Education, which publishes *Measuring Up* reports, explained that the reports evaluate national and state-by-state performance on numerous dimensions, which are (a) college preparation, (b) access to college, (c) college graduation rates, (d) economic benefits of college attendance, (e) persistence disparities, and (f) college affordability. Volkwein and Tandberg (2008) found no strong correlation between state governance type and improved performance on *Measuring Up* categories. However, they found a modest negative correlation between strong centralized higher education governance types and performance on the college affordability and the economic benefits of college attendance dimensions. Higher education governance type may also influence state governments adopting specific policies to address college affordability. Analyzing data from 49 states from 1981 to 1998, McLendon et al. (2005) used a time series cross sectional fixed effects methodology to explore state higher education policy adoption. They found centralized governance types to have a very weak positive association with adoption of new postsecondary financing policies; however, there was no relationship between governance structure and the adoption of new accountability policies found.

Policy Diffusion Effects on Higher Education Public Policy

Walker (1969) found that, although a few state governments have established a consistent record of policy innovation, many states tend to adopt a policy only after it has proven effective in another state. Because states often emulate bordering or regional innovative states, new policies often diffuse regionally (Walker, 1969). Walker (1969) used the term *policy diffusion* to describe the phenomenon of a state being more likely to adopt a new public policy after a bordering state has adopted it. Researchers interested in how political environments affect state higher education public policy have included policy diffusion as an independent variable in research studies (e.g., McLendon & Hearn, 2007; McLendon et al., 2006).

Despite the parsimony of policy diffusion as a concept, five studies reported mixed results regarding the effect of policy diffusion on various state higher education public policies (McLendon et al., 2007). McLendon et al. (2011) found no evidence of policy diffusion in states adopting in-state resident tuition policies for undocumented immigrants. McLendon et al. (2006) found no evidence of policy diffusion in their study of states adopting performance accountability policies. McLendon et al. (2007) found no statistically significant evidence of policy diffusion effecting when states change the type of higher education governance structure within the state. In addition, Moker and McLendon (2009) found no evidence of a policy diffusion effect in their study of states adopting dual enrollment policies. Finally, Doyle (2006) found no evidence of policy diffusion in states adopting merit-based student grant programs.

Although five studies found no evidence of policy diffusion effecting state adoption of various higher education policies, two studies have identified evidence of

correlation between policy diffusion and state higher education policy (McLendon et al., 2005; Doyle et al., 2010). Applying the policy diffusion framework in their study, McLendon et al. (2005) found a strong correlation between a regional state having already adopted higher education financing policy innovations and other states adopting financing innovations. However, McLendon et al. (2005) found only a marginal correlation between states adopting accountability policy innovations when bordering states had done so. Doyle et al. (2010) found no policy diffusion effect for states adopting prepaid tuition plans, but a modest diffusion effect for states adopting tuition savings plans. McLendon et al. (2007) suggest mixed results concerning policy diffusion and states adopting new higher education public policy might relate to characteristics of the various policies under study or the strength of other political, demographic, or economic factors within a given state.

The Effects of Political Factors on Higher Education Public Policy

Although nonpolitical factors influence the choices elected officials make, political factors such as the official's political philosophy, degree of political party loyalty, constituents' preferences, and negotiations with colleagues to support other policies, are significant (Knott & Payne, 2004; McLendon et al., 2011). Adding to the political orientation and deal making of individual legislators are other factors in a state's political environment, including gubernatorial strength, competitiveness of elections, party strength, and term limits (Dowd, 2004; Hearn et al., 2008; Tandberg & Griffith, 2013). A growing body of literature focuses on how political factors influence the development of higher education public policy (e.g., McLendon & Hearn, 2007; Tandberg & Griffith, 2013).

The Effects of the Governor and Legislature on Higher Education Public Policy

The level of influence or power wielded by a state's governor relative to the power wielded by the legislature is a political factor scholars have considered when analyzing the development of public policy (Barrilleaux & Berkman, 2003). Ness and Tandberg (2013) found that higher levels of structural power held by a state's governor correlates with higher general fund allocations and lower funding for capital projects. Ness and Tandberg (2013) frame this finding in terms of a governor attempting to minimize the electoral benefit an individual legislator might gain through the funding of a capital project in his or her district. Researchers also have explored the interaction of governors' level of power and political party affiliation and other factors in states' political environments. In a study on the effects of interest groups on state higher education public policy using a pooled, cross-sectional times-series analysis to analyze data from 1976 to 2004 from 50 states, Tandberg (2010) included the relative power and political party affiliation of the state's governor as variables. Tandberg (2010) found no evidence that the relative power of the governor affected state appropriations to higher education, and that the presence of a Democratic governor had a relatively small effect on higher education appropriations. In a study of factors correlated with states' adopting dual enrollment programs as public policy, Mokher and McLendon (2009) also found no effect for institutional power of the governor within a state. Looking at the gubernatorial influence from a different perspective, McLendon et al. (2007) found that a longer tenure for a sitting governor is associated negatively with the likelihood of a change in the state governance structure of higher education. Governors with less tenure, however, were

associated with an increased likelihood of a state changing its higher education governance model (McLendon et al., 2007).

The structural power of a governor, of course, is relative to the influence of a state's legislature (Tandberg, 2010). Scholars often measure the level of legislative influence in terms of legislative professionalism (e.g., McLendon & Hearn, 2007; Tandberg & Griffith, 2013). Tandberg (2010) explains that scholars often operationalize the term *legislative professionalism* as the extent to which state legislatures are similar to the U.S. Congress in staffing levels, pay rates, and time in session. The literature suggests legislative professionalism and higher education policy decisions are correlated (Tandberg, 2010; Ness & Tandberg, 2013; McLendon, et al., 2009). Tandberg (2010) found a positive correlation between legislative professionalism and increased state funding of higher education. Ness and Tandberg (2013) operationalized the term *legislative professionalism* by comparing legislative salary levels. They found higher legislative salaries correlated positively with higher general fund allocations and capital project funding levels for higher education, although the effect on capital project funding levels was less than the effect on general fund allocations. Ness and Tandberg (2013) assert that higher legislative professionalism introduced greater analytical capacity, which resulted in a more sophisticated evaluation of capital projects. Although Ness and Tandberg (2013) used salary levels as a measure of legislative professionalism, McLendon et al. (2009) combined the number of full-time legislative staff, member pay, and session length to determine a state's level of legislative professionalism. They found that, as state legislatures become more similar to the U.S. Congress, states allocated more funding to higher education.

The Effects of Election Cycle and Term Limits on Higher Education Public Policy

Political scientists conceptualize the election cycle as a stimulus for elected officials facing competitive elections to demonstrate their efficacy by championing new policies as elections draw near (Doyle et al., 2010). Doyle et al. (2010) found that states with more competitive elections were less likely to adopt prepaid tuition plans or college savings programs. In their discussion of this finding, Doyle et al. (2010) suggested that these programs may fall into the category of policies intended primarily for the middle class, which politicians do not consider in terms of electoral politics. Regarding the effects of competitive elections on state higher education policy, Tandberg and Ness (2011) found a strong positive correlation between the variance in state capital expenditures for higher education in the state and the competitiveness of elections within the state. Additionally, Tandberg and Ness (2011) found the number of higher education interest groups in the state, and how similarly the legislature operated to the U.S. Congress, had a positive correlation with state capital expenditures.

Along with the effects of interest groups, competitive elections, and legislative professionalism, Tandberg and Ness (2011) found that states with formula funding for higher education general fund allocations spent more on higher education capital funding. Interestingly, Tandberg and Ness (2011) suggested formula funding for higher education reduces opportunities for legislators to increase funding through deal making, thereby increasing legislators' politically motivated efforts to secure capital funding for their districts. Taken together, the findings reported by Doyle et al. (2010) and Tandberg and Ness (2011) suggest the existence of a sophisticated calculus by elected officials in developing election strategy vis-à-vis higher education policy.

Another factor other than the election cycle that may correlate with higher education policy adoption by lawmakers is the existence of term limits (Tandberg, 2010). McLendon et al. (2009) hypothesized that term limits will result in declining higher education allocations as “patron saints” (p. 701), or legislators who aggressively support higher education, leave office due to term limits. However, McLendon et al. (2009) found that state term-limit laws resulted in an increase of higher education allocations. McLendon et al. (2009) attribute this effect to less experienced legislators relying more on higher education’s lobbyists for guidance on appropriate allocation levels. Conversely, Tandberg (2010), in a quantitative study using a pooled, cross-sectional times-series analysis, and drawing data from 1976 to 2004 from all 50 states, found no correlation between term-limit laws and state funding of higher education.

The Effects of Political Parties on Higher Education Public Policy

Higher education is a complex policy area in which political party preferences are somewhat unpredictable (Dar & Dong-Wook, in press; Mokher & McLendon, 2009). Conventional wisdom suggests that Democratic politicians will increase spending on higher education (Doyle et al., 2010); yet higher education may compete with other Democratic Party priorities such as social welfare programs or K-12 education, resulting in lower net allocations to higher education in states where the Democratic Party is influential (Dar & Dong-Wook, in press; Hearn et al., 2008). Furthermore, some aspects of higher education, such as the affordability and the regional economic benefit of community colleges, align with common Republican Party ideology (Dar & Dong-Wook, in press; Kuntz et al., 2011). The complexity of aligning higher education in a political party framework suggests it is a hybrid policy area exhibiting (a) shifting and complex

partnerships between the public and private sector, (b) legislators being less responsive to constituents' preferences, and (c) policies that produce a combination of "collective and particularized benefits" (p. 3), which results in unstable partisan coalitions (Dar & Dong-Wook, in press).

Predicting how political party influence within a state government will affect higher education policy in the state has proven difficult for scholars because higher education is a hybrid policy area (Dar & Dong-Wook, in press). In their study of factors effecting states' adoption of in-state resident tuition policies for undocumented immigrants, McLendon et al. (2011) found no significant effect for the percent of Democratic legislators in the state or for states where the populous was more politically liberal. Also demonstrating the difficulty of predicting political party support for higher education policy, McLendon and Hearn (2010) hypothesize that the level of Republican Party control within a state government would be more likely to adopt prepaid tuition plans or college savings programs because these programs shift responsibility for higher education funding from the state to the individual. Surprisingly, Doyle et al. (2010) found that states with more politically liberal governments are more likely to adopt these programs. Doyle et al. (2010) suggest that the fear of rising tuition rates make these programs popular with voters traditionally supportive of Democratic politicians.

Other higher education policy positions do appear to align with conventional political party preferences. For example, Mokher and McLendon (2009) found a strong positive correlation between unified Republican control of the state legislature and the adoption of dual enrollment programs. Mokher and McLendon (2009) suggest this finding aligns with Republican Party rhetoric supporting school choice in education.

McLendon et al. (2006) found that the percentage of Republican legislators correlated positively with states adopting performance funding and performance budgeting policies for higher education. Interestingly, McLendon et al. (2006) found that the presence of a Republican governor had no significant effect on states adopting performance programs. Using fixed-effects regression models, Dar and Dong-Wook (in press) analyzed data from 1977 to 2004 from 44 states to study state higher education appropriations per \$1,000 of personal income and total amount of state appropriations for higher education. Dar and Dong-Wook (in press) found that Democratic Party strength correlated positively with increased funding for higher education. However, the effect of Democratic Party strength becomes insignificant as unemployment rates increase, which supports the concept that other Democratic priorities may mitigate party support for higher education (Dar & Dong-Wook, in press).

Theoretical Framework of the Study

The principal-agent theory provides a parsimonious framework for an exploration of how political environments contribute to the development of higher education public policy. Spence and Zeckhauser (1971) developed principal-agent theory to study the relationships between insurance companies, the principal, and people buying automobile insurance, the agent. Spence and Zeckhauser explained that an insurance company has the power to (a) choose whether to insure a given driver, and (b) set the level of coverage and price of the insurance. The principal-agent framework anticipates a driver would want the insurance company to insure him or her fully against any loss. The conflict predicted by principal-agent theory stems from the dilemma that the insurance company does not know the driving behavior of each driver in real time; therefore, the company

can never fully insure a driver against loss (Spence & Zeckhauser, 1971). Conversely, each driver knows his or her driving behavior, but has no reliable mechanism for convincing an insurance company that the company reasonably can insure the driver against loss because the driver operates his or her vehicle safely (Spence & Zeckhauser, 1971). Consequently, Spence and Zeckhauser predict insurance companies will structure insurance policies to incentivize safe driving and discourage unsafe driving.

Political scientists adapted principal-agent theory to study the conflict inherent in political environments where (a) legislators, the principal, have power to make public funding choices but limited real-time knowledge about how bureaucrats will spend public funding, and (b) bureaucrats, the agents, have broad authority and latitude to interpret laws and implement policies day-to-day (Miller, 2005). However, the bureaucrats have no reliable mechanism for convincing lawmakers that the bureau's behavior aligns with the lawmakers' preferences (Miller, 2005). Similar to its application in the insurance industry, the political application of principal-agent theory anticipates asymmetry in power and information in the interactions of the principal and the agent (Miller, 2005). Moreover, principal-agent theory applied in political contexts predicts policies such as performance funding, governing boards, and politically motivated reorganization of bureaucracies (Miller, 2005).

Rational choice theory is an underpinning of the principal-agent theory. Ness and Tandberg (2013) and Scott (2013) explained that rational choice theory frames policy decisions in terms of the individual, his or her values, beliefs, analytical skills and desire to maximize personal benefit, and factors in the decision situation. Expanding on rational choice theory, Ness and Tandberg (2013), Skolnik (2008), and Tandberg (2010)

explained that institutionalism frames policy decisions in terms similar to rational choice theory, with expanded consideration of institutional features. Institutionalism accounts for environmental factors, and the “interests, beliefs, and attitudes of the administrators and professionals who have the power to define the interests of the institution and establish its goals and policies” (Skolnik, 2008, p. 131).

Principal-agent theory builds upon rational choice and institutionalism to explain the dynamics between two actors (Skolnik, 2008). Enders et al. (2013) and Lowry (2007) explained that principal-agent theory anticipates that (a) institutions will behave rationally, (b) there will be conflict between the principal, state government, and the agent, higher education institutions, caused by differences in rational choices, and (c) organizational design can address the conflict between the principal and the agent. Principal-agent theory supports that state lawmakers have limited time and attention to study choices; that historical, normative, and cultural factors will influence how lawmakers evaluate options; and, that the characteristics of community colleges will affect the choices lawmakers consider (Enders et al., 2013). Principal-agent theory also supports that community college presidents make rational decisions about the potential benefits or risks associated with different policy options, and about the lobbying tactics most likely to influence lawmakers (Lowry, 2007, Skolnik, 2008).

Enders et al. (2013) explained that the conflict between the principal and the agent anticipated in principal-agent theory within the context of state governments and higher education derives from higher education institutions desiring to maximize autonomy and lawmakers desiring control of public institutions. Furthermore, the principal-agent theory provides a parsimonious frame for the effect of state higher

education governance types on lobbying efforts and public policy development (McLendon et al., 2005). McLendon et al. (2005) note that lawmakers often attempt to create bureaucratic structures, like higher education governing bodies, to ensure the implementation of the lawmakers' preferences. In summary, principal-agent theory provides a parsimonious and appropriate framework to explore how political factors affect the development of higher education public policies, such as authorizing the community college bachelor's degree, in the context of state government.

The authors of four studies have applied principal-agent theory to higher education public policy development (Toma, 1990; Lowry, 2001a; Lowry 2001b; Knott & Payne, 2004). Toma (1990) used principal-agent to frame a study of higher education governance structures and university outputs. Lowry (2001a) applied principal-agent theory in a study of university pricing and spending. Lowry (2001b) framed a study of the effects of state political interests and campus outputs on public university revenues using principal-agent. Knott and Payne (2004) applied principal-agent theory in a study on the impact of state governance structures on the management and performance of higher education institutions.

Summary

The literature on how political environments affect the development of state public policy for higher education, particularly for community colleges, is limited (Lowry, 2007; McLendon & Hearn, 2007; McLendon et al., 2009). Accordingly, the confluence of (a) the current political focus on community colleges, (b) the necessity of effective political advocacy by community college presidents, and (c) the scarcity of research on how state political environments help determine public policy for community

colleges presents a significant problem in practice. A growing body of literature applies rigorous quantitative and qualitative methodologies to explore the effects of political, economic, policy diffusion, and higher education governance models on higher education (McLendon & Hearn, 2007; Tandberg & Griffith, 2013).

CHAPTER III

METHODOLOGY

Chapter III presents the research design for this quantitative study. This chapter is organized into six sections, 1) research questions, 2) research design, 3) data collection, 4) data analysis, and 5) summary. The purpose of the study was to examine how variables in states' political environments contributed to the adoption of higher education policies by state governments. Specifically, the study examined how variables in a state government's political environment contributed to the authorization of community colleges to offer bachelor's degrees. The understanding of how variables in a state government's political environment affect higher education policy adoption will contribute to the practice of community college presidents by providing empirical evidence on how to invest their advocacy efforts to influence regulations, statutes, and public funding (McLendon & Hearn, 2007).

Research Questions

The three questions that guided this research study were the following:

1. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and gubernatorial powers (independent variable), controlling for economic, educational and bureaucratic factors?
2. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and the level of legislative professionalism within the state (independent variable) controlling for economic, educational, and bureaucratic factors?

3. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and Republican Party control of executive and legislative branches of state government (independent variable), controlling for economic, educational, and bureaucratic factors?

Research Design

To analyze how factors in a state government's political environment contributed to the state authorizing community colleges to offer bachelor's degrees, the study used a non-experimental quantitative methodology, which Creswell (2014) describes as "an approach for testing objective theories by examining the relationship among variables" (p. 4). The study of the phenomenon of state lawmakers adopting public policies in the framework of the principal-agent theory aligns with Muijs' (2011) assertion that quantitative research "is well suited for the testing of theories" (p. 8). Specifically, Muijs (2011) explains that a quantitative methodology is appropriate when a study will use mathematically based methods to analyze numerical data in search of relationships between variables, which is the intent of this study. In summary, a non-experimental quantitative methodology was appropriate for the study because the study examined the relationships between political variables in a state's political environment and the authorization by state lawmakers for community colleges to offer bachelor's degrees (Creswell, 2014; Muijs, 2011).

Type of Study and Study Setting

The study will use event history analysis (EHA) to examine each of the three research questions using data from 46 states from 1990 to 2008. McLendon, Deaton, and

Hearn (2007) explain, “Event history methods allow the researcher to study how the units of analysis make transitions from one state of being to another and how variation in the values of independent variables influences that change” (p. 660). Although the origins of event history analysis are in the biomedical sciences (McLendon & Hearn, 2007), Berry and Berry (1990, 1992) introduced the use of EHA to study the adoption of public policies by state governments. More recently, researchers have used EHA to study how political factors affect the development of higher education policy (McLendon & Hearn, 2007; Tandberg & Griffith, 2013). EHA was appropriate for this study because it enabled the researcher to focus on dichotomous dependent outcomes (either the state authorized community colleges to offer bachelor’s degrees or it did not) in correlation to explanatory variables, while incorporating the timing of an event (the authorization) into the model (Allison, 1984; McLendon et al., 2011).

Event history analysis involves determining the probability that an event will occur in a given year (Allison, 1984). The *risk set* and the *hazard rate* are concepts central to determining that probability (Allison, 1984; Berry & Berry, 1990, 1992). The *risk set* is the set of state governments that are at risk of authorizing community colleges to offer bachelor’s degrees each year (Allison, 1984; Berry & Berry, 1990, 1992). The number of state governments that enact authorizing laws in the preceding year reduced the risk set in the following year by that number. The *hazard rate* is the probability that a particular state will authorize community colleges in that state in a particular year if the state is at risk in that year, or in other words has not already enacted the authorization in a previous year (Allison, 1984; Berry & Berry, 1990, 1992).

Use of EHA required the researcher to decide to measure time exactly on a continuous scale or discreetly in units such as months, years, or decades (Allison, 1984). Because the authorization of community colleges to offer bachelor's degrees occurs in a given year, treating time as a discreet measure, specifically calendar years, was appropriate (Allison, 1984; Berry & Berry, 1990, 1992). The calendar years included in this study were all years from 1990 to 2008. A number of states initially authorized community colleges to offer bachelor's degrees in this time period (Vaughn, 2006; Wess, 2012), and 2008 was the most current national election year for which data were available.

The dichotomous dependent variable was state government authorizing community colleges to offer bachelor's degrees. The independent variables were gubernatorial power, legislative professionalism, and Republican Party control of executive and legislative branches of state government. The study controlled for (a) the unemployment rate within the state, (b) neighboring states that had already authorized community colleges to offer bachelor's degrees, (c) the proportion of the state's total number of undergraduate students enrolled by public community colleges, and (d) the type of higher education governance within the state.

Participants and Sampling

The participants were 46 of the state governments in the U.S. The data from 46 of the 50 states were analyzed because factors present in four states did not allow for analysis of all of the variables in the study. Alaska and Hawaii are states that do not border other states; consequently, these states were not included in the analysis because the study controlled for the effects of policy diffusion from state-to-state as a factor in

policy adoption. One of the independent variables was Republican Party control of the executive and legislative branches of state government; therefore, Nebraska was not included in the analysis because the state's nonpartisan legislature precluded analysis of Republican Party control of state government (McLendon et al., 2011).

West Virginia was also excluded from analysis because it authorized community colleges to offer bachelor's degrees prior to 1990 (Russell, 2010), and the period under analysis in this study was 1990 to 2008. Although New York authorized the Fashion Institute of Technology to offer bachelor's degrees in the 1970s, the New York state legislature authorized five community colleges to offer bachelor's degrees in 1998; consequently, the analysis included New York. In summary, the sample included all state governments except for Alaska, Hawaii, Nebraska, and West Virginia.

Data Collection

The study used publically available secondary data from 46 states collected by the Education Commission of the States (ECS), the Bureau of Labor Statistics of the U.S. Department of Labor, the National Center for Education Statistics of the U.S. Department of Education, and the *State Politics & Policy Quarterly* online data resource. Table 1 provides descriptions and source information for dependent, independent, and control variables. The ECS is a nonpartisan, nonprofit organization that tracks education public policy trends in all 50 states (ECS, 2014). The primary funding source for the ECS is membership dues paid by state governments (ECS, 2014). To fulfill the ECS mission to track education policy trends as a resource for state governments, the ECS staff (a) track education bills and laws on a weekly basis in each state by accessing state-sponsored online resources, (b) enter information about each education bill and law into ECS online

databases, and (c) annually check data accuracy with appropriate staff members in each state government to ensure the reliability of the collected data (ECS, 2014). Furthermore, the ECS databases include links to information about each bill or law allowing confirmation that the law meets the criteria for inclusion in this study. The ECS online database was the source of data on whether a state authorized a community college to offer bachelor's degrees in a given year (StateAuth variable), whether a bordering state authorized a community college to offer bachelor's degrees in a given year (PolicyDif variable), and the type of higher education governance in place in each state for each year (HEgov variable).

Table 1

Descriptions and Data Sources for the Proposed Study's Independent, Dependent, and Control Variables

Variable	Description	Source
StateAuth	Dichotomous variable (yes = 1; no = 0) indicating whether a state authorizes a community college to offer bachelor degrees in this year	Education Commission of the States http://www.ecs.org
RepCon	Dichotomous variable (yes = unified control; no = divided government) indicating unified Republican control of executive and legislative branches of state government in this year	State Politics & Policy Quarterly http://academic.udayton.edu/SPPQ-TPR/
GovPow	The sum of scores on a 5 point scale for the state governor's tenure potential, appointment power, budgetary power, party control, and veto power in this year divided by 6 (Beyle, 2007)	State Politics & Policy Quarterly
LegPro	Index incorporating lawmaker pay, session length, and legislative staff resources in the state where higher scores represent greater professionalism (Squire, 2007)	State Politics & Policy Quarterly
UnEmp	State's unemployment rate in this year	U.S. Bureau of Labor Statistics http://www.bls.gov/
PolicyDif	Dichotomous variable (yes = 1; no = 0) indicating whether bordering states authorized community colleges to offer bachelor's degrees in this year	Education Commission of the States
HEgov	Type of higher education governance in the state in this year using the McGuinness (2003) typology	Education Commission of the States
CCenrol	Proportion of undergraduate students enrolled by the state's public community colleges in this year	IPEDS http://nces.ed.gov/ipeds/

The Bureau of Labor Statistics of the U.S. Department of Labor (2008) coordinates the Local Area Unemployment Statistics (LAUS) program with state governments to generate total employment and unemployment estimates for each state (Bureau of Labor Statistics, 2008). The Bureau of Labor Statistics (2008) assumes responsibility for definitions, technical procedures, validation, and publication of the estimates. The Federal government, state governments, and local governments rely upon LAUS data for official business, and researchers use LAUS data to assess localized labor market developments and make comparisons across areas (Bureau of Labor Statistics, 2008). Each month the Bureau of Labor Statistics of the U.S. Department of Labor (2014) surveys approximately 144,000 businesses and government agencies, representing approximately 554,000 individual worksites, to develop state unemployment rate estimates for all 50 states. Furthermore, the Bureau of Labor Statistics (2014) noted the following:

To help control both sampling and nonsampling error, CES [current employment statistics] estimates are benchmarked annually to universe employment counts.

These counts are derived primarily from employment data reported on unemployment insurance (UI) tax reports that nearly all employers are required to file with state employment security agencies. (para. 4)

The LAUS program was the source for data on the annual unemployment rate in each state variable (UnEmp variable).

The National Center for Education Statistics (NCES, n.d.) notes that Title IV of the Higher Education Act of 1965, as amended, mandates the completion of all IPEDS surveys on enrollments in a timely and accurate manner for all institutions that participate

in any Federal financial assistance program. Although the NCES (n.d.) relies on colleges and universities to accurately report data to the Integrated Postsecondary Education Data System (IPEDS), the U.S. Department of Education has the authority to fine or limit, suspend, or terminate eligibility to participate in Federal financial assistance programs any institution that does not comply with IPEDS requirements and standards (NCES, n.d.).

The NCES of the U.S. Department of Education was the source of data on the proportion of undergraduate students enrolled annually by each state's public community colleges variable (CCenrol variable). Participating institutions report data on enrollment through the IPEDS using the following operational definition:

The number of students enrolled in the fall at postsecondary institutions. Students reported are those enrolled in courses creditable toward a degree or other formal award; students enrolled in courses that are part of a vocational or occupational program, including those enrolled in off-campus or extension centers; and high school students taking regular college courses for credit. (NCES, n.d.)

The *State Politics and Policy Quarterly* (SPPQ) is the peer-reviewed, official publication of the State Politics and Policy Section of the American Political Science Association (SPPQ, n.d.). The SPPQ online resource entitled *Practical Researcher* is a service designed to provide a data, methodological, and assessment resource for those conducting research on state politics (SPPQ, n.d.). The University of Dayton Political Science department maintains the *Practical Researcher* online databases using data from the U.S. Census Bureau of the U.S. Department of Commerce's *Statistical Abstract of the United States*, the Counsel of State Government's *Book of the States*, and peer-reviewed

research published in SPPQ (SPPQ, n.d.). Using the SPPQ data in this study enabled comparison of data from several sources for the same data points, which allowed the researcher to check the reliability of the data (Zimmerman, 2003). Zimmerman (2003) noted, “Specialized organizations that provide access to scientific data sets [such as the SPPQ *Practical Researcher*] are presently the most recognized way to find and obtain data” (p. 28). SPPQ (n.d.) states the following concerning the purpose of the online data resources:

The primary purpose of *State Politics and Policy Quarterly* is to foster and promote the rigorous, theoretically driven and methodologically sound study of political behavior and policy at the state level. SPPQ (n.d.) states the following concerning the purpose of the online data resources:

The central mission of “The Practical Researcher” is to support this objective by publishing material that addresses the practical issues of conducting research in this area. As such the section is service-oriented and seeks to publicize and record the contents and locations of publicly available data resources, supply a vehicle for addressing methodological issues central to state politics and policy research, provide a forum to assess the applied impact of research produced by the subdiscipline, and to provide an outlet to address other topics related to practical research interests. (para 1)

The SPPQ online resource was the source of data for the gubernatorial power (GovPow variable), legislative professionalism (LegPro variable), and Republican Party control of executive and legislative branches of state government (RepCon variable).

Data for specific variables was entered from the respective sources' online databases for each year, from 1990 through 2008, to Microsoft Excel. The data for some variables were not available on an annual basis. For example, gubernatorial power ratings were not available on an annual basis (Beyle, 2007). However, state governments infrequently make changes to these data points (Beyle, 2007). When data concerning a specific variable were not available for a specific year, the data from the previous year in question was substituted, which is a routine approach for EHA models (Allison, 1984; McLendon & Hearn, 2007).

Data preparation. Once the data was entered into a Microsoft Excel worksheet, the researcher proceeded to substitute missing data as described above before analyses were performed. Next, the following new variables were created from the extracted data:

- Dichotomous variable (yes = 1; no = 0) indicating whether a state authorizes a community college to offer bachelor degrees in each year;
- Dichotomous variable (yes = unified control; no = divided government) indicating unified Republican control of executive and legislative branches of state government in each year;
- The sum of scores on a five-point scale for governor's tenure potential, appointment power, budgetary power, party control, and veto power in this year divided by six;
- Index incorporating lawmaker pay, session length, and staff resources where higher scores on a five-point scale represent greater professionalism in each year;
- State's unemployment rate in each year;

- Dichotomous variable (yes = 1; no = 0) indicating whether bordering states authorized community colleges to offer bachelor's degrees in each year;
- Type of higher education governance in each year using the McGuinness (2003) typology;
- Proportion of undergraduate students enrolled by public community colleges in each year.

When all data were downloaded, necessary substitutions were completed, and the new variables were created, the Microsoft Excel file with the variables was imported into SPSS 21 for statistical analyses.

Data Analysis

Descriptive statistics were used to summarize the general characteristics of the independent, dependent, and control variables analyzed in this study (Creswell, 2014). For the 46 states included in the study, averages (mean) and variability (standard deviation) of the dependent, independent, and control variables for the period from 1990 to 2008 were reported. Reporting these descriptive statistics provided an understanding of the population (American Psychological Association, 2010).

To address each of the three research questions, an event history analysis was the most appropriate test because the dichotomous values of the independent variable were not measured on a ratio scale and the error terms were not normally distributed, which made other multiple regression tests impractical (Allison, 1984; Berry & Berry, 1990, 1992). Event history analysis enabled the use of dichotomous a dependent variable while allowing the values of independent variables to be any real number by using logistic

regression, which uses the natural logarithm of the odds that the event will occur (Allison, 1984; Berry & Berry, 1990, 1992). This study sought to analyze relationships between the dichotomous dependent variable (authorizing community college bachelor's degrees) and independent variables with ratio scale values. The independent variables were (1) gubernatorial power, the independent variable of the first research question; (2) legislative professionalism, the independent variable in the second research question; and (3) Republican control of the legislative and executive branches of state government, the independent variable in the third research question (Allison, 1984; Berry & Berry, 1990, 1992).

In order to conduct the event history analysis for this study, the researcher created a separate observational record for each year that each state was at risk of authorizing community colleges to offer bachelor's degrees, which was termed a *state-year* (Allison, 1984; Berry & Berry, 1990, 1992). The number of state-years was 874, which was determined by multiplying the number of participants, 46 states, by the years from 1990 to 2008, which were 19. The independent and control variables were assigned the values they took in each state-year (Allison, 1984). The next step was to pool the 874 state-years into a single sample, estimate the probability of states authorizing community colleges to offer bachelor's degrees, and estimate the population parameters from the sample (Allison, 1984).

Risk set and hazard function. In the EHA model, the risk set was the set of states in the sample that could authorize community colleges to offer bachelor's degrees in a given year (Allison, 1984; Berry & Berry, 1990, 1992). Therefore, the size of the risk set decreased at the end of each year if states in the sample authorized community

college bachelor's degrees. As a risk set decreases, Berry and Berry (1990, 1992) explain that, "The hazard rate is then presumed to be determined by a set of independent variables. Of course, the hazard rate, being a probability, is an unobserved variable" (p. 398). In this study, the observed dependent variable for estimating effects was a dichotomous variable scored one for each case when a state authorized community colleges to offer bachelor's degrees, zero otherwise.

Of primary importance for event history analysis is the hazard function, $\lambda_i(t)$, which is the probability that an individual will experience the event during a particular point in time, given that the individual is at risk at that time (Berry & Berry, 1990, 1992). Doyle (2006) explains that support for assumptions about the underlying form of the baseline hazard rate varies according to circumstances in the study, and suggests using the more flexible form for the hazard function developed by Cox (1972). The Cox (1972) proportional hazards model does not depend on any particular parametric assumptions about the shape of the hazard rate for event occurrence. Using the Cox (1972) proportional hazards model to understand how state characteristics affect the hazard rate for states' authorizing community colleges to offer bachelor's degrees is appropriate because there is no reason to expect any particular shape of the underlying hazard rate for states' adopting this public policy (Doyle, 2006).

Cox (1972) specified the hazard rate as, $\lambda_i(t) = \lambda_o(t)e^{x_i\beta}$, where $i = 1 \dots n$, and x is a vector of covariates for unit i . As in other regression models, β denotes a vector of coefficients standardized so that they have variances of one. By taking this approach, one can determine which of the independent variables has a greater effect on the dependent variable when measuring the variables in different units of measurement (Blossfeld,

Hamerle, & Mayer, 2014). The variable t is a random nonnegative variable denoting time until event. In the Cox model the baseline hazard function of the duration dependence, λ_0 , is assumed to be constant across all observations and is not directly estimated in the model. Therefore, Cox divides out λ_0 when comparing the proportional hazards of subject a and subject b :

$$\frac{\lambda_a(t)}{\lambda_b(t)} = \frac{\lambda_0(t)e^{x_a(t)\beta}}{\lambda_0(t)e^{x_b(t)\beta}} = \frac{e^{x_a(t)\beta}}{e^{x_b(t)\beta}}$$

The particular form of the model in this study was:

$$\lambda(y_{i,t}) = \exp[\beta_1(RepCon_{i,t}) + \beta_2(GovPow_{i,t}) + \beta_3(LegPro_{i,t}) + \beta_4(UnEmp_{i,t}) + \beta_5(PolicyDif_{i,t}) + \beta_6(HEgov_{i,t}) + \beta_7(CCenrol_{i,t}) + y_{i,t}]$$

Where $y_{i,t}$ is authorization of a community college to offer bachelor's degrees in state i in year t and β_{1-7} is the vector of independent and control variables.

Censoring. In EHA studies that analyze a specific timeframe, events that occurred before the beginning of the timeframe under study are considered left censored, and events that have not occurred by the end of the timeframe are considered right censored. Because the study analyzed data from 1990 to 2008, there were (a) states that authorized community colleges to offer bachelor's degrees prior to 1990, and (b) states that had not authorized community colleges to offer bachelor's degrees by 2008 (Blossfeld et al., 2014; Steel, 2005). The study took the most common approach to address left and right censoring by including data from state-years under analysis and ignoring data from years not under analysis (Blossfeld et al., 2014; Steele, 2005). Regarding right censoring, Steele (2005) recommends against excluding individuals who have not experienced the event within the timeframe of observation because doing so

could lead to (a) a drastic reduction in sample size, and (b) bias because the excluded cases are unlikely to be a random subset of the original sample. Accordingly, states that had not authorized community colleges to offer bachelor's degrees by 2008 were included in the analysis for this study.

Summary

The purpose of this study was to examine how variables in a state government's political environment contribute to the adoption of a higher education policy. Understanding of how variables in a state government's political environment affect higher education policy adoption would contribute to the practice of community college presidents by helping those presidents determine how to invest their advocacy efforts to influence regulations, statutes, or public funding (McLendon & Hearn, 2007). The three research questions that guided the study included the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and (a) gubernatorial powers within a state, (b) the level of legislative professionalism within a state, and (c) Republican Party control of executive and legislative branches of state government, while controlling for specific economic, educational and bureaucratic factors. The study deployed a quantitative event history analysis to study secondary data from reliable and authoritative sources on 46 states from 1990 to 2008. The study applied the proportional hazards model developed by Cox (1972) to determine if relationships existed between the dependent, independent, and control variables.

CHAPTER IV

FINDINGS

Chapter IV presents the findings of the study. This chapter is organized into three sections: 1) summary of the study, 2) summary of the research design, and 3) the findings of the study.

Summary of the Study

The purpose of this study was to examine how a state government's political environment contributes to the authorization of community colleges to offer bachelor's degrees. The understanding of how a state government's political environment affects higher education policy will contribute to the practice of community college presidents by providing empirical evidence on how to invest their advocacy efforts to influence regulations, statutes, and public funding (McLendon & Hearn, 2007). The three research questions that guided this study are the following:

1. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and gubernatorial powers (independent variable), controlling for economic, educational, and bureaucratic factors?
2. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and the level of legislative professionalism within the state (independent variable) controlling for economic, educational, and bureaucratic factors?

3. What is the relationship between state governments authorizing community colleges to offer bachelor's degrees (dependent variable) and Republican Party control of executive and legislative branches of state government (independent variable), controlling for economic, educational, and bureaucratic factors?

Summary of the Research Design

This qualitative study was framed by the principal-agent theoretical framework. The study applied a non-experimental quantitative methodology featuring event history analysis (EHA) to address the three research questions. Secondary data from 1990 to 2008 was collected for 46 of the 50 states in the U.S. The states not included in the study include Nebraska, Hawaii, and Alaska because aspects of the states preclude analysis of a study variable, and West Virginia was not included because the state authorized a community college bachelor's degree prior to 1990. EHA was used to determine if the independent variables (gubernatorial power, legislative professionalism, and Republican Party control of the executive and legislative branches of state government) and control variables (diffusion of the authorization policy to bordering states, type of higher education governance in each state, and unemployment rate in each state) increased the probability that a state would authorize community colleges to offer bachelor's degrees in a given year (dependent variable). Publically available secondary data for the dependent variable, independent variables, and control variables were obtained from the Education Commission of the States, the Bureau of Labor Statistics of the U.S. Department of Labor, the National Center for Education Statistics of the U.S. Department of Education, and the *State Politics & Policy Quarterly* online data resources.

Data Collection

Data for the dependent variable and the two control variables were obtained through a three-step process. First, a search was conducted of the Education Commission of the States online database for relevant enacted legislation by state and topic from 1994 to 2008. Second, a search was conducted of the 46 individual state government websites for relevant legislation from 1990 through 1993. Third, a comparison of the dataset developed through the first two steps with policy research published by the American Association of State Colleges and Universities (Russell, 2010), and Floyd and Walker's (2008) findings on authorization of the community college bachelor's degree from state-to-state was conducted.

The data for (a) partisan control of the lower and upper houses of each state's legislature and each state's gubernatorial branch (RepCon independent variable), (b) gubernatorial power (GovPow independent variable), and (c) the level of legislative professionalism (LegPro independent variable) in each of the 46 states were obtained through the *State Policy and Politics Quarterly* (SPPQ) online data resource. Klarner (2001) developed the SPPQ data on partisan control of the branches of state government, and Beyle (2007) developed the SPPQ data on gubernatorial power. A comparison of Klarner's data and Beyle's data, to data published in annual editions of the Council of State Governments' *Book of the States* from 1990 through 2008 was conducted. Derived ratings for years not addressed by Klarner and Beyle respectively were from data published in annual editions of the *Book of the States*. The SPPQ state dataset provided

data on levels of legislative professionalism in each state government from 1990 through 2005. SPPQ data on legislative professionalism were compared to data in the *Book of the States* from 1990 to 2005, and a rating for each of the 46 state legislatures from 2006 through 2008 were derived using the Squire (2007) index and data from the *Book of the States* for each year in the study.

Data on the unemployment rate in each of the 46 states or each year from 1990 to 2008 (UnEmp control variable) were downloaded from the U.S. Bureau of Labor Statistics *Local Area Unemployment Statistics* program to a Microsoft Excel spreadsheet. Data on the proportion of undergraduate students enrolled by each of the 46 state’s public community colleges from 1990 to 2008 (CCenrol control variable) were obtained from 11 editions of the *Digest of Education Statistics*, which the National Center for Education Statistics of the U.S. Department of Education publishes. Table 2 lists each edition of the *Digest of Education Statistics* accessed and the number of the table with enrollment data for each state.

Table 2

Digest of Education Statistics Editions Accessed for Proportion of Students Enrolled by Community Colleges

Digest Year	Table	Data Year(s)
1993	195	1990, 1991
1995	194	1992, 1993
1997	196	1994, 1995
1999	199	1996, 1997
2001	197	1998, 1999
2003	199	2000, 2001
2004	196	2002
2005	195	2003, 2004
2007	206	2005
2009	214	2006, 2007
2011	223	2008

Analysis of the Findings of the Study

Once all data were entered into Microsoft Excel, the Excel spreadsheet was

imported into SPSS 21 and analyzed to produce descriptive statistics including proportions, percentages, means, and standard deviations. SPSS 21 also was used to conduct an event history analysis (EHA) featuring a backward Wald elimination method and Cox (1972) proportional hazards producing an estimated logit coefficient (B), a Wald statistic, degrees of freedom (df), significance (sig.), odd ratio or Exp(B), and the 95% confidence interval for the odds ratio for each variable. Table 3 presents the distribution of authorization of community college bachelor’s degrees (dependent variable) by year. Although few states authorized community college bachelor’s degrees each year, 26 authorizations occurred from 1990 to 2008. Of the 26 authorizations that occurred from 1990 to 2008, 42.3% ($n = 11$) occurred from 2003 through 2005.

Table 3

Authorization of Community College Bachelor’s Degrees among 46 States

Year	Number of Authorizations	% of States	States Abbreviations
1992	1	2.1	UT
1993	2	4.3	UT, VT
1995	1	2.1	ID
1996	2	4.3	GA, NY
1997	1	2.1	GA
1998	2	4.3	AR, NV
2001	2	4.3	FL, LA
2002	1	2.1	AR
2003	4	8.5	FL, MN, TX, UT
2004	4	8.5	IN, NV, NM, OK
2005	3	6.4	IN, NM, WA
2006	1	2.1	ND
2007	1	2.1	NV
2008	1	2.1	WA

The continuous variables, which are variables that have an infinite number of possible values (Garson, 2013), analyzed in this study were gubernatorial power (GovPow variable), legislative professionalism (LegPro variable), the annual state unemployment rate (UnEmp variable), and the proportion of undergraduate students enrolled by the state’s public community colleges (CCenrol variable). Table 4 provides a

description of the analyzed data for the gubernatorial power variable. The results of the analysis of the data on gubernatorial power support Beyle's (2007) assertion that a governor's power, as measured by the governor's tenure potential, appointment power, budgetary power, party control, and veto power, changes very little from year-to-year within each state. Furthermore, as results also suggest there is very little variability in gubernatorial power from state-to-state as measured by the standard deviation in gubernatorial power ratings each year.

Table 4

Gubernatorial Power Ratings for States' Executive (GovPow independent variable)

Year	N	Minimum	Maximum	Mean	SD
1990	46	2.4	4.0	3.295	0.415
1991	46	2.4	4.0	3.302	0.414
1992	46	2.5	4.0	3.329	0.413
1993	46	2.5	4.0	3.344	0.389
1994	46	2.5	4.3	3.382	0.400
1995	46	2.5	4.3	3.404	0.408
1996	46	2.6	4.3	3.44	0.417
1997	46	2.7	4.2	3.421	0.436
1998	46	2.7	4.1	3.38	0.441
1999	46	2.7	4.1	3.412	0.432
2000	46	2.7	4.3	3.463	0.428
2001	46	2.7	4.3	3.461	0.430
2002	46	2.7	4.1	3.442	0.400
2003	46	2.7	4.5	3.463	0.427
2004	46	2.5	4.5	3.448	0.434
2005	46	2.5	4.1	3.429	0.405
2006	46	2.5	4.3	3.457	0.429
2007	46	2.5	4.3	3.446	0.426
2008	46	2.6	4.3	3.493	0.410

Legislative professionalism (LegPro independent variable) comprised ratings of lawmaker pay, legislative session length, and legislative staff resources in each state.

Larger values equated to greater levels of professionalism in the state legislature. The

analysis of the data suggests that the only legislatures with professionalism ratings at or above 0.5 each year from 1990 to 2008 were California, Michigan, and New York. The average rating for all states from 1990 to 2008 ($M = 0.193$) is relatively low, and suggests that there is very little variability in legislative professionalism from state-to-state as measured by standard deviation, which is included in Table 5.

Table 5

Legislative Professionalism Ratings for State Governments (LegPro independent variable)

Year	N	Minimum	Maximum	Mean	SD
1990	46	0.042	0.659	0.2185	0.147
1991	46	0.042	0.659	0.2185	0.147
1992	46	0.042	0.659	0.2185	0.147
1993	46	0.042	0.659	0.2185	0.147
1994	46	0.042	0.659	0.2185	0.147
1995	46	0.042	0.659	0.2185	0.147
1996	46	0.034	0.571	0.1815	0.124
1997	46	0.034	0.571	0.1815	0.124
1998	46	0.034	0.571	0.1815	0.124
1999	46	0.034	0.571	0.1815	0.124
2000	46	0.034	0.571	0.1815	0.124
2001	46	0.034	0.571	0.1815	0.124
2002	46	0.034	0.571	0.1815	0.124
2003	46	0.027	0.626	0.1819	0.118
2004	46	0.027	0.626	0.1819	0.118
2005	46	0.027	0.626	0.1819	0.118
2006	46	0.027	0.626	0.1819	0.118
2007	46	0.027	0.626	0.1819	0.118
2008	46	0.027	0.626	0.1819	0.118

The unemployment rate (UnEmp control variable) for each of the 46 states in the study was obtained from the Bureau of Labor Statistics of the U.S. Department of Labor *Local Area Unemployment Statistics* program. The descriptive statistics reported in Table 6 suggest that unemployment rates varied more among the 46 states included in the

study than the variability in legislative professionalism and gubernatorial power in those states. The average unemployment rate from 1990 to 2008 among the 46 states included in the study was 5.12%.

Table 6

Unemployment Rate among 46 States (UnEmp control variable)

Year	N	Minimum	Maximum	Mean	SD
1990	46	3.740	8.600	5.490	0.996
1991	46	3.583	10.483	6.512	1.320
1992	46	3.550	11.21	6.901	1.450
1993	46	3.533	10.47	6.335	1.340
1994	46	3.350	8.775	5.577	1.180
1995	46	3.241	7.875	5.156	1.070
1996	46	3.158	7.400	5.046	1.010
1997	46	2.908	6.791	4.615	0.995
1998	46	2.750	6.491	4.251	0.962
1999	46	2.625	6.225	4.013	0.915
2000	46	2.266	5.683	3.807	0.849
2001	46	2.750	6.425	4.465	0.845
2002	46	3.316	7.583	5.343	0.962
2003	46	3.541	8.158	5.582	0.983
2004	46	3.475	7.316	5.162	0.913
2005	46	3.450	7.766	4.893	0.990
2006	46	2.975	6.883	4.431	0.943
2007	46	2.591	7.075	4.333	0.942
2008	46	3.033	8.300	5.348	1.240

The proportion of undergraduate students in each state enrolled in community colleges was another control variable included in the study (CCenrol variable). The analysis of the data (see Table 7) indicates that the proportion of undergraduate students enrolled by community colleges varied significantly from state to state. However, the data also suggest the proportion enrolled by community colleges generally increased year-after-year from 1990 to 2008.

Table 7

Proportion of States' Total Undergraduate Enrollment at Community Colleges

Year	N	Minimum	Maximum	Mean	SD
1990	46	0.59%	55.15%	30.86%	0.59%
1991	46	0.58%	59.36%	31.78%	0.58%
1992	46	0.57%	59.12%	32.49%	0.57%
1993	46	0.65%	58.05%	32.36%	0.65%
1994	46	0.64%	69.46%	38.96%	0.64%
1995	46	0.70%	68.66%	39.11%	0.70%
1996	46	8.99%	68.93%	39.76%	8.99%
1997	46	8.76%	69.07%	39.79%	8.76%
1998	46	8.62%	68.52%	39.39%	8.62%
1999	46	8.32%	68.19%	39.29%	8.32%
2000	46	8.10%	71.37%	39.76%	8.10%
2001	46	8.84%	71.59%	40.44%	8.84%
2002	46	8.41%	71.27%	40.75%	8.41%
2003	46	13.20%	69.04%	40.94%	13.20%
2004	46	14.30%	69.81%	40.25%	14.30%
2005	46	14.61%	69.65%	39.74%	14.61%
2006	46	16.36%	81.70%	44.96%	16.36%
2007	46	2.74%	69.67%	39.14%	2.74%
2008	46	11.51%	70.62%	40.06%	11.51%

The data for Republican Party control of the executive and legislative branches in each state (RepCon variable) was obtained from the *State Politics and Policy Quarterly* online data resource. Table 8 provides a description of the analyzed data for Republican Party control of each branch of each state's government. The percentage of states with Republican governors for the period 1990 to 2008 ranged from 36.2% ($n = 17$) to 68.1% ($n = 32$). Over 60% ($n > 28$) of the states had Republican governors from 1995 through 2000. The year with the least number of states with Republican governors was 2008 at 40.4% ($n = 19$). The data show a steady increase in the percentage of upper houses of state legislatures controlled by the Republican Party from 1990 through 2004. The Republican Party controlled the highest percentage of upper houses in 2003 and 2004

with 59.6% ($n = 28$) each year. The Republican Party controlled only 25.5% ($n = 12$) of the lower houses of state legislatures in 1990. The data showed an increase from 31.9% ($n = 15$) to 51.1% ($n = 24$) in the percentage of lower houses controlled by the Republican Party from 1993 to 1994.

Table 8

Republican Control of Each Branch of State Governments among 46 states

Year	Governor		Upper House		Lower House	
	Frequency	%	Frequency	%	Frequency	%
1990	20	42.6	13	27.7	12	25.5
1991	20	42.6	14	29.8	12	25.5
1992	20	42.6	17	36.2	15	31.9
1993	17	36.2	17	36.2	15	31.9
1994	19	40.4	23	48.9	24	51.1
1995	30	63.8	23	48.9	24	51.1
1996	16	34.0	23	48.9	21	44.7
1997	32	68.1	23	48.9	21	44.7
1998	32	68.1	23	48.9	21	44.7
1999	31	66.0	23	48.9	21	44.7
2000	30	63.8	26	55.3	23	48.9
2001	30	63.8	26	55.3	22	46.8
2002	28	59.6	27	57.4	23	48.9
2003	23	48.9	28	59.6	24	51.1
2004	25	53.2	28	59.6	24	51.1
2005	25	53.2	24	51.1	24	51.1
2006	25	53.2	24	51.1	24	51.1
2007	20	42.6	23	48.9	18	38.3
2008	19	40.4	19	40.4	18	38.3

In 2007, the percentage of lower houses the Republican Party controlled declined to 38.3% ($n = 18$), and remained the same in 2008. The Republican Party controlled the executive and legislative branches of state governments for more than 20% ($n > 9$) of the 46 states from 1994 to 2006. The year with the lowest percentage of states in which the Republican Party controlled the executive and legislative branches of state government

was 1990, with just 6.4% ($n = 3$) of states having unified Republican Party control that year (Table 9 below provides a breakdown for all years).

Table 9

Republican Party Control of Two Branches of State Government among 46 States

Year	Frequency	%
1990	3	6.4
1991	4	8.5
1992	4	8.5
1993	4	8.5
1994	11	23.4
1995	15	31.9
1996	12	25.5
1997	11	23.4
1998	11	23.4
1999	13	27.7
2000	14	28.8
2001	14	29.8
2002	14	29.8
2003	11	23.4
2004	11	23.4
2005	10	21.3
2006	11	23.4
2007	9	19.1
2008	9	19.1

Policy diffusion was a dichotomous variable indicating whether a neighboring state had authorized a community college bachelor's degree prior to a state authorizing one (PolicyDif control variable). Table 10 shows the frequency distribution of whether neighboring states authorized community colleges to offer bachelor's degrees. The period from 1990 to 2008 reported a large year wise variability in percentage of neighboring states authorizing community college bachelor's degrees. The range of percentage of states was as low as 0.0% ($n = 0$) to as high as 83.0% ($n = 39$). Although a very low percentage of states authorized community college bachelor's degrees in the early 1990s, a surge in neighboring states authorizing community colleges to offer bachelor's degree

started in 1996, and increased again in 2003. During the period from 2004 to 2008, more than 80% ($n \geq 38$) of states that authorized community college bachelor's degrees had a neighboring state that had already authorized community college bachelor's degrees.

Table 10

Occurrence of a State Authorizing a Community College Bachelor's Degree after a Neighboring State had Authorized a Degree

Year	Frequency	Percentage
1992	5	10.6
1993	8	17.0
1994	9	19.1
1995	12	25.5
1996	20	42.6
1997	20	42.6
1998	26	55.3
1999	25	53.2
2000	25	53.2
2001	27	57.4
2002	27	57.4
2003	32	68.1
2004	38	80.9
2005	38	80.9
2006	39	83.0
2007	39	83.0
2008	39	83.0

The type of higher education governance structure used in a state was determined using the typology developed by McGuinness (2003). The McGuinness (2003) governance types include: Type 1 - planning boards that conduct some statewide planning but have no coordination functions; Type 2 - weak coordinating boards that have no budgetary review power but do coordinate some higher education functions; Type 3 - strong coordinating boards that exercise coordination functions including budgetary review; Type 4 - governing boards that set policy and control budgetary decisions for only four-year institutions; and Type 5 governing boards for all institutions that oversee all public colleges and universities in the state. Across the study period, more than 50% ($n > 23$) of states had Type 3 or Type 4 higher education governance.

The higher education governance types least likely found in states from 1990 to 2008 were Type 1 and Type 2, which averaged 11.29% ($n = 5$) and 8.19% ($n = 3$) of state governance structures respectively.

Event History Analysis

A Cox (1972) proportional hazards event history analysis was conducted to analyze the relationship between states authorizing a community college bachelor's degree (dependent variable) and gubernatorial power, legislative professionalism, and Republic Party control of the executive and legislative branches of state government (independent variables), while controlling for state unemployment rate, the type of higher education governance, and proportion of undergraduate students enrolled by community colleges in each state (control variables). Event history analysis is a longitudinal proportional hazards regression technique that allows for examining the occurrence and timing of governmental actions (McLendon, et al., 2011). Cox proportional hazards regression model was fitted by taking all the control and independent variables in the model. A backward elimination method using the Wald test significance value was used to develop the most parsimonious model (Garson, 2013). This method of variable selection starts by taking all the control and predictor variables in the model. Then, the variable having the smallest Wald test value was dropped from the model and the regression model was estimated again (Garson, 2013). This procedure was repeated until no single predictor variable could be dropped from the regression model because all remaining variables contributed significantly to the model. Table 11 provides the results of the backward elimination process, which was completed after eight steps with the final model retaining three variables. The three significant predictors of authorization of

community college bachelor's degrees were (1) Republican Party control of the lower house of the state's legislature (LoCon), (2) Republican Party control of the executive and legislative branches state's government (RepCon), and (3) governor's power as determined by Beyle's (2007) calculation (GovPow).

Table 11

Backward Wald Elimination Method Cox Regression Analysis

		B	Wald	df	Sig.	Exp(B)	95.0% CI for Exp(B)	
							Lower	Upper
Step 1	GovCon	.750	1.601	1	.206	2.118	.662	6.771
	UpCon	-.276	0.268	1	.605	0.759	.267	2.156
	LoCon	1.908	2.997	1	.083	6.741	.777	58.470
	RepCon	-2.432	3.711	1	.054	0.088	.007	1.043
	GovPow	-.812	2.131	1	.144	0.444	.149	1.321
	LegPro	-.584	0.038	1	.845	0.557	.002	193.337
	UnEmp	.208	1.236	1	.266	1.232	.853	1.779
	PolicyDif	.580	1.660	1	.198	1.786	.739	4.316
	Hegov		3.549	4	.470			
	Hegov(1)	-.659	0.595	1	.440	0.517	.097	2.762
	Hegov(2)	-13.299	0.001	1	.981	0.000	.000	0.000
	Hegov(3)	-.199	0.155	1	.694	0.820	.305	2.205
	Hegov(4)	-1.519	3.094	1	.079	0.219	.040	1.190
	CCenrol	-.771	0.190	1	.663	0.462	.014	14.878
Step 2	GovCon	.771	1.752	1	.186	2.163	.690	6.777
	UpCon	-.255	0.238	1	.625	0.775	.278	2.158
	LoCon	1.909	3.009	1	.083	6.743	.780	58.264
	RepCon	-2.465	3.893	1	.048	0.085	.007	.984
	GovPow	-.857	2.844	1	.092	0.424	.157	1.149
	UnEmp	.200	1.201	1	.273	1.221	.854	1.744
	PolicyDif	.581	1.665	1	.197	1.787	.740	4.318
	Hegov		3.535	4	.473			
	Hegov(1)	-.689	0.671	1	.413	0.502	.097	2.611
	Hegov(2)	-13.404	0.001	1	.981	0.000	.000	0.00
	Hegov(3)	-.203	0.163	1	.687	0.816	.304	2.190
	Hegov(4)	-1.512	3.065	1	.080	0.220	.041	1.198
	CCenrol	-.903	0.302	1	.583	0.405	.016	10.162

		Table 11, Continued				95.0% CI for Exp(B)		
						Lower	Upper	
		B	Wald	df	Sig.	Exp(B)		
Step 3	GovCon	.774	1.742	1	.187	2.168	.687	6.844
	LoCon	1.827	2.830	1	.093	6.216	.740	52.234
	RepCon	-2.557	4.251	1	.039	0.078	.007	.881
	GovPow	-.853	2.826	1	.093	0.426	.158	1.152
	UnEmp	.211	1.375	1	.241	1.235	.868	1.759
	PolicyDif	.570	1.589	1	.207	1.768	.729	4.287
	Hegov		3.603	4	.462			
	Hegov(1)	-.690	0.678	1	.410	0.502	.097	2.591
	Hegov(2)	-13.394	0.001	1	.981	0.000	0.000	0.000
	Hegov(3)	-.192	0.145	1	.704	0.826	0.308	2.216
	Hegov(4)	-1.518	3.094	1	.079	0.219	0.040	1.190
CCenrol	-1.016	0.389	1	.533	0.362	0.015	8.824	
Step 4	GovCon	.794	1.825	1	.177	2.213	.699	7.004
	LoCon	1.894	3.050	1	.081	6.646	.793	55.682
	RepCon	-2.681	4.746	1	.029	0.069	.006	.764
	GovPow	-.891	3.155	1	.076	0.410	.154	1.096
	UnEmp	.180	1.057	1	.304	1.197	.850	1.685
	PolicyDif	.595	1.722	1	.189	1.813	.746	4.407
	Hegov		3.991	4	.407			
	Hegov(1)	-.687	0.677	1	.411	0.503	.098	2.584
	Hegov(2)	-13.552	0.001	1	.980	0.000	.000	0.000
	Hegov(3)	-.276	0.322	1	.571	0.759	.292	1.969
	Hegov(4)	-1.628	3.741	1	.053	.196	.038	1.022
Step 5	GovCon	.497	0.831	1	.362	1.644	.564	4.790
	LoCon	2.067	3.771	1	.052	7.904	.981	63.695
	RepCon	-2.899	5.933	1	.015	0.055	.005	.568
	GovPow	-.885	3.060	1	.080	0.413	.153	1.112
	UnEmp	.093	0.280	1	.596	1.097	.779	1.546
	PolicyDif	.530	1.436	1	.231	1.699	.714	4.043
Step 6	GovCon	.509	0.875	1	.349	1.664	.573	4.837
	LoCon	2.146	4.143	1	.042	8.548	1.083	67.474
	RepCon	-2.947	6.152	1	.013	0.052	.005	.539
	GovPow	-.921	3.434	1	.064	0.398	.150	1.055
	PolicyDif	.524	1.407	1	.236	1.689	.710	4.014

		Table 11, Continued				95% CI for Exp(B)		
		B	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 7	LoCon	1.930	3.504	1	.061	6.892	.913	52.018
	RepCon	-2.455	5.359	1	.021	0.086	.011	.686
	GovPow	-.742	2.661	1	.103	0.476	.195	1.161
	PolicyDif	.567	1.675	1	.196	1.763	.747	4.163
Step 8	LoCon	1.959	3.609	1	.057	7.091	.940	53.505
	RepCon	-2.364	4.994	1	.025	0.094	.012	.748
	GovPow	-.761	2.721	1	.099	0.467	.189	1.154

Note. B = estimated logit coefficient. Exp(B) = odds ratio of the individual coefficient.

The estimate of the hazard ratio for the variable LoCon was $\text{Exp}(B) = 7.091$. The 95% confidence interval for this estimate was (0.94, 53.51). Controlling for other variables in the model, the odds of authorization of a community college bachelor's degree when the lower house of the legislature is controlled by the Republican Party is over seven times the odds of authorization when the lower house is not controlled by the Republican party. The estimate of the hazard ratio for the predictor RepCon was $\text{Exp}(B) = 0.094$. The 95% confidence interval for this estimate was (0.012, 0.748). Controlling for other variables in the model, when the Republican Party controlled the executive and legislative branches of state government, the odds of authorizing a community college bachelor's degree were 9.4% ($\text{Exp}(B) = 0.094$) lower than the likelihood of authorization when the Republican Party did not control the executive and legislative branches of the state government. In other words, the analysis of the data suggests that the Republican Party controlling only the lower house of the state legislature increased the odds of authorization while the Republican Party controlling two branches of state government reduced the odds of authorization of a community college bachelor's degree.

The estimate of the hazard ratio for the predictor GovPow was $\text{Exp}(B) = 0.467$.

The 95% confidence interval for this estimate was (0.189, 1.154). The odds of a state government authorizing a community college bachelor's degree declined as a governor's power increased, controlling for other variables in the model. An increase of one unit of governor's power using Beyle's (2007) calculation was associated with a decrease of 46.7% in the odds of authorization of a community college bachelor's degree.

The result of the Cox (1972) proportional hazards regression analysis indicated that control of the lower house of legislature by the Republican Party, control of the executive and legislative branches of state government by the Republican Party, and higher levels of gubernatorial power significantly affected the odds of a state authorizing a community college bachelor's degree. Control of the lower house of legislature significantly increased the odds, while control of the executive and legislative branches of the state government and the governor's power significantly reduced the odds of authorization to community colleges to offer bachelor's degree.

Relationship between State Governments and Community College Bachelor's Degrees

Research question 1 sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and gubernatorial powers, controlling for economic, educational, and bureaucratic factors. The analysis of the data indicated that a significant relationship exists (Wald = 2.721, $\text{Exp}(B) = 0.467$) between the level of a governor's power (GovPow) and a state government authorizing a community college bachelor's degree. Specifically, the results suggested that as a governor's power increased by one unit, as measured by Beyle's (2007) calculation, the odds of a state government authorizing a community college

bachelor's degree decreased by almost 50%. The analysis of the data suggested that the economic, educational, and bureaucratic control variables did not influence this relationship because each of these variables dropped from the model prior to the eighth iteration of the Wald test.

Research question 2 sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and legislative professionalism, controlling for economic, educational, and bureaucratic factors.

Legislative professionalism (LegPro) was the first variable dropped from the model. The Cox (1972) analysis suggests that there was not a significant relationship (Wald = 0.038, $\text{Exp}(B) = 0.557$) between the level of professionalism within a state's legislature and that government authorizing a community college bachelor's degree. As noted earlier, the level of legislative professionalism was at or above 0.5 for only three states each year from 1990 to 2008. Therefore, any relationship between high legislative professionalism and states authorizing community college bachelor's degrees may have been undetectable given the small number of states with high legislative professionalism included in the study.

Research question 3 sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and Republican Party control of executive and legislative branches of state government, controlling for economic, educational, and bureaucratic factors. The analysis of the data suggested that Republican Party controlling the executive and legislative branches of state government significantly reduced the likelihood of authorization of a community college bachelor's degree (Wald = 4.994, $\text{Exp}(B) = 0.094$). However, the data also suggested that

Republican Party control of the lower house of a state's legislature significantly increased the odds that the state would authorize a community college bachelor's degree (Wald = 3.069, $\text{Exp}(B) = 7.091$). These results suggest that the Republican Party control of branches of a state government has a complex relationship with the odds of that state government authorizing a community college bachelor's degree.

Summary

The purpose of this study was to examine how a state government's political environment contributes to the authorization of community colleges to offer bachelor's degrees. The results of a Cox (1972) proportional hazards regression analysis suggest Republican Party control of the lower house of the state's legislature increase the odds of a state government authorizing a community college bachelor's degree. The results also suggest Republican Party control of the executive and legislative branches of the state's government and higher levels of gubernatorial power decrease the odds of a state government authorizing community colleges to offer bachelor's degrees. The level of legislative professionalism within a state government had no effect on the odds that a state would authorize a community college bachelor's degree.

CHAPTER V

DISCUSSION, RECOMMENDATIONS, AND CONCLUSIONS

Chapter V provides a discussion of the overall findings of the study. The chapter includes (a) an overview of the study, (b) discussion of the findings, (c) implications for higher education, (d) recommendations for higher education, (e) recommendations for future research, and (f) conclusion.

Overview of the Study

The purpose of the study was to examine how a state government's political environment contributed to the authorization of community colleges to offer bachelor's degrees. The research questions that guided the study addressed the relationships between state governments authorizing a community college bachelor's degree (dependent variable) and gubernatorial power, legislative professionalism, and Republican Party control of the executive and legislative branches of state government (independent variables). The study controlled for the state's unemployment rate, the type of state higher education governance structure, and the proportion of undergraduate students enrolled by community colleges in the state (control variables). Publically available secondary data for the dependent variable, independent variables, and control variables were obtained from the Education Commission of the States, the Bureau of Labor Statistics of the U.S. Department of Labor, the National Center for Education Statistics of the U.S. Department of Education, the *State Politics & Policy Quarterly* online data resources, and the Council of State Governments' *Book of the States*.

Analysis of the data showed that 26 authorizations of community college bachelor's degrees occurred from 1990 to 2008, but that few states authorized community

college bachelor's degrees each year. The analysis showed very little variability in gubernatorial power, legislative professionalism, and higher education governance type from state-to-state from 1990 to 2008. Gubernatorial power showed very little variability from state-to-state and from year-to-year within each state. The analysis revealed that only three state legislatures had levels of legislative professionalism at or above 0.5 each year from 1990 to 2008, and that the average rating of legislative professionalism for all states from 1990 to 2008 ($M = 0.193$) was relatively low. The type of higher education governance within each state changed very little from 1990 to 2008; over 50% ($n > 23$) of the 46 states had strong coordinating boards that exercised coordination functions, including budgetary review or governing boards that set policy and controlled budgetary decisions for only four-year institutions.

In addition, the findings indicated more variability in the proportion of undergraduates enrolled by community colleges, Republican Party control of branches of state government, and policy diffusion. The proportion of each state's undergraduate population enrolled by community colleges generally increased year-after-year from 1990 to 2008. However, the proportion of undergraduate students enrolled by community colleges varied significantly from state to state. Republican Party control of the upper and lower houses of the legislative branch and the executive branch of state governments also varied significantly from state-to-state and from year-to-year. The analysis also revealed that policy diffusion, which is the phenomenon wherein states are more likely to adopt a public policy when a neighboring state has already done so (Walker, 1969), ranged from 0.0% ($n = 0$) to 83.0% ($n = 39$) from 1990 to 2008.

The event history analysis employing Cox (1972) proportional hazards and a Wald backward variable elimination process suggested that, when the Republican Party controlled the lower house of the state's legislature, the state was seven times more likely to authorize a community college bachelor's degree (Wald = 3.069; Exp(B) = 7.091), controlling for other variables (i.e., gubernatorial power and Republican Party control of the executive and legislative branches of government). Interestingly, the analysis also suggested Republican Party control of the executive and legislative branches of the state's government (Wald = 4.994; Exp(B) = 0.094) decreased the odds of authorization by 9.4%, controlling for other variables (i.e., Republican Party control of the lower house of the state legislature and gubernatorial power). Higher levels of gubernatorial power (Wald = 2.721; Exp(B) 0.467) decreased the odds of a state government authorizing community colleges to offer bachelor's degrees by 46.7%, controlling for other variables (i.e., Republican Party control of the lower house of the state legislature and Republican Party control of the lower house of the state legislature). None of the other independent or control variables included in the study significantly affected the odds that a state government would authorize a community college bachelor's degree.

Discussion of the Findings

This study contributed to a growing body of literature supporting that political environments affect nearly every aspect of community colleges (e.g., Bettinger & Long, 2009; Dar & Dong-Wook, in press; McLendon, Hearn, & Mokher, 2009; Tandberg & Ness, 2011). Research question one sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and gubernatorial powers, controlling for economic, educational, and bureaucratic

factors. The findings suggest that as governors' power increased the odds of the state government authorizing a community college bachelor's degree declined by nearly 50%. Ness and Tandberg (2013) and McLendon, Deaton, & Hearn (2007) found significant correlations between higher levels of structural power held by a state's governor and state allocations to general fund versus capital projects and changes in the type of higher education governance within a state respectively. Ness and Tandberg (2013) suggested a strong governor might support general fund increases instead of capital project funding in order to limit the political benefit a legislator might realize from a capital project in his or her district. Similarly, the findings of this study suggest a governor might resist authorizing a community college bachelor's degree in order to limit the potential political benefit for legislators in the community college's service region.

Research question two sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and legislative professionalism, controlling for economic, educational, and bureaucratic factors. A number of researchers have found correlations between legislative professionalism and higher education funding (e.g., Tandberg, 2010; Ness & Tandberg, 2013; McLendon, et al., 2009). Nevertheless, the Cox (1972) analysis found no significant relationship between the level of legislative professionalism and authorization of a community college bachelor's degree (Wald = 0.038, Exp(B) = 0.557). Because only three of 46 state legislatures had relatively high legislative professionalism ratings from 1990 to 2008, any effect of this variable may have been undetectable in the analysis.

Research question three sought to determine what the relationship was between state governments authorizing community colleges to offer bachelor's degrees and

Republican Party control of executive and legislative branches of state government, controlling for economic, educational, and bureaucratic factors. Dar and Dong-Wook (in press) noted higher education policy is a hybrid policy area exhibiting (a) shifting and complex partnerships between the public and private sector, (b) legislators being less responsive to constituents' preferences, and (c) policies that produce a combination of "collective and particularized benefits" (p. 3), which results in unstable partisan politics. The findings in this study suggested that the Republican Party controlling the executive and legislative branches of state government reduced the likelihood of authorization of a community college bachelor's degree (Wald = 4.994, Exp(B) = 0.094). However, the findings also support that Republican Party control of the lower house of a state's legislature significantly increased the odds that the state would authorize a community college bachelor's degree (Wald = 3.069, Exp(B) = 7.091). These findings support Dar and Dong-Wook's (in press) assertion that the relationship between higher education policy, specifically related to community college bachelor's degrees, and political party politics is complex.

Implications for Higher Education

The political rhetoric of many national and state politicians describes community colleges as instrumental to addressing high unemployment levels, skills gaps in the workforce, aligning educational outputs with labor market demand, and other economic and social issues (Boggs, 2011; Kuntz, Gildersleeve, & Pasque, 2011). However, inclusion in the political discourse does not ensure the enactment of public policies that benefit the higher education sector (Boggs, 2011; Duncan & Ball, 2011; Kuntz et al., 2011; McLendon, Mokher, & Flores, 2011). Community college leaders, especially

college presidents, need to interpret political environments and engage in effective advocacy to influence lawmaker expectations, secure adequate public financial support, and mediate the passage of beneficial legislation (AACC, 2013; Boggs, 2011). Although conventional wisdom holds that interpreting political environments is a subtle art (e.g., Cochran et al., 2010; McGrath, 2006), this study's findings suggest leveraging empirical evidence can mediate the success of a higher education leader's political advocacy.

Because successful political advocacy requires the interpretation of complex political environments (Plageman, 2011; Shaw & Jacobs, 2003), the findings of this study, which presented an approach for collecting and interpreting empirical evidence on political variables that increase the odds of success for political advocacy, has significant implications for higher education. The findings support that Republican Party control of the executive and legislative branches of state government and the level of gubernatorial power in a state government reduce the odds of authorization of a community college bachelor's degree and that Republican Party control of the lower house of a state legislature increases the odds of authorization. The implication of these findings for higher education leaders is to help them determine when conditions in the political environment are optimal to secure state authorization to offer bachelor's degrees. Although the purpose of this study was to explore political environments in the specific context of community college bachelor's degrees, the findings support that political environments affect higher education public policy. An implication of these findings are that college leaders should empirically analyze the political environments of their states as an aspect of their political advocacy practices.

Recommendations for Higher Education

The American Association of Community Colleges (2013) advocates for community college leadership doctoral programs to adjust curricula and focus to develop future institutional leaders who are “capable of hitting the ground leading” (p. 4). Furthermore, the AACC (2013) notes research-based doctoral programs “could be greatly enhanced by an increased focus on the applicability of research to institutional practice” (p. 4). The findings of this study support that political environments affect the adoption of public policies concerning community colleges, specifically, the authorization of community college bachelor’s degrees. This study presents an example of how higher education practitioners can apply empirical research on political environments to their political advocacy. Specifically, even a new a community college president can apply the findings of this study to interpret Republican Party control of the executive and legislative branches of state government and gubernatorial power in the context of higher education policy adoption.

The findings of this study suggest a community college president who plans to lobby for authorization of a bachelor’s degree should assess the relative power of the state’s governor. Furthermore, he or she might time the initiation of lobbying efforts by monitoring the partisan composition of the legislature, particularly that of the lower house of the legislature. Given the limited empirical research on the relationship between political environments and the passage of policies affecting higher education in general and community colleges in particular (e.g., Lowry, 2007; McLendon & Hearn, 2007; McLendon et al., 2009), the implications of the findings of this study potentially expand beyond the community college bachelor’s degree public policy debate. The data

necessary to conduct the event history analysis employed in this study are readily available and free (Tandberg & Griffith, 2013), and the necessary statistical tests are included in both SPSS and Stata (Garson, 2013). Contributing to a growing body of literature using event history analysis to study higher education policy development (McLendon & Hearn, 2007), this study demonstrated that regardless of the policy issue of interest to a higher education leader, he or she can collect and analyze data using event history analysis to determine which political, economic, social, and bureaucratic variables are likely to increase or decrease the odds the policy will receive support in the state's political environment.

Recommendations for Future Research

The analysis did not find that legislative professionalism significantly affected the odds that a state government would authorize a community college bachelor's degree. However, the only state legislatures rated at or above 0.5 on the scale developed by Squire (2007) were New York, Michigan, and California. The scale used by Squire (2007) incorporates lawmaker pay, session length, and legislative staff resources. Several studies have found correlations between legislative professionalism and adoption of various higher education policies (e.g., Tandberg, 2010; Ness & Tandberg, 2013; McLendon, et al., 2009). Future qualitative research could focus on states with high levels of legislative professionalism to assess how that phenomenon interacts with gubernatorial power and political party control of state governments to affect higher education policy adoption.

The findings in this study suggest that gubernatorial power, Republican Party control of the lower house of the state legislature, and Republican Party control over the

executive and legislative branches of the state government affected the odds that a state would authorize a community college bachelor's degree. However, increased odds do not ensure passage of a public policy. Future qualitative research on the lived experiences of community college presidents in the 26 states that authorized community college bachelor's degrees from 1990 to 2008 would contribute to understanding the interaction of political environments and the human-relational aspects of lobbying and political advocacy (Duree, 2007; Weisman & Vaughan, 2007)

Although event history analysis originated in the biomedical sciences (McLendon & Hearn, 2007), its utility in the study of the adoption of public policies is well established (Berry & Berry; 1990, 1992, McLendon & Hearn, 2007). The confluence of (a) the political focus on community colleges, (b) the necessity of effective political advocacy by community college presidents, and (c) the scarcity of research on how state political environments determine public policy presents a significant problem in practice for community college presidents. Future research exploring the relationships between the adoption of public policies important to higher education and variables in state political environments that increase or decrease the odds of adoption for those policies would benefit practitioners, and it would contribute to understanding this policy area in general.

Conclusion

The purpose of this non-experimental quantitative study was to examine how a state government's political environment contributed to the authorization of community colleges to offer bachelor's degrees. The research questions guiding this study focused on the relationship between state authorization of community college bachelor's degrees

(dependent variable) and gubernatorial power, legislative professionalism, and Republican Party control of the executive and legislative branches of state government (independent variables), controlling for economic, bureaucratic, and educational factors (control variables). The study employed an event history analysis using Cox (1972) proportional hazards to analyze data among 46 states from 1990 to 2008. The results indicated that when the Republican Party controlled the lower house of the state's legislature, the state was seven times more likely to authorize a community college bachelor's degree (Wald = 3.069; Exp(B) = 7.091), controlling for other variables. The analysis also suggested Republican Party control of the executive and legislative branches of the state's government (Wald = 4.994; Exp(B) = 0.094) decreased the odds of authorization by 9.4%, controlling for other variables. Higher levels of gubernatorial power (Wald = 2.721; Exp(B) 0.467) decreased the odds of a state government authorizing community colleges to offer bachelor's degrees by 46.7%, controlling for other variables. None of the other independent or control variables included in the study significantly affected the odds that a state government would authorize a community college bachelor's degree.

An essential skill for community college presidents is the ability to interpret a state's political environment and select lobbying or advocacy tactics to mediate the adoption of public policies that benefit his or her institution (AACC, 2013; Boggs, 2011; Duncan & Ball, 2011; Duree, 2007; McLendon et al., 2011). This study built upon a growing body of literature demonstrating how higher education practitioners can use event history analysis to study the relationship between the adoption of public policies and relevant political, bureaucratic, social, and educational factors in a state's political

environment.

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