A study on the impact of funding on state-level community college governance systems

by

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DEDICATION

To my loving wife,

Jessica Fletcher, for being a true partner.

For our children,

may this one day inspire you

to achieve something bigger than yourself.

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ACKNOWLEDGMENTS

This dissertation is dedicated to all state community college (CC) directors and policy-makers across the U.S. who continue to lead their state systems with a commitment to the ideals of access, affordability, and quality for all who enroll. My appreciation also goes out to several others who have supported me on this journey:

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ABSTRACT

Building on a 2015 national landscape research study of state-level community college governance systems, the purpose of this study was to determine if there were correlational relationships between revenue resource funds, state-level community college governance systems, and state funding distribution formulae. Many states had experienced change since 2000, and therefore, it was important to research the impact of funding. Although state funding distribution formulae emerged organically, they remain exposed to ever-changing technological, economic, and political developments. Similarly, state-level community college governance systems also remain susceptible to these technological, economic, and political dynamics. It has been noted that these two subjects are in some way tied to each other and there was a void in the literature and research regarding statistically significant relationships between these two variables. A mixed-method research design was used that incorporated a partial open-ended electronic survey and finance data set for SPSS quantitative analysis, and the research data shows trends, patterns, and correlational relationships concerning revenue resource funds, state-level community college governance systems, and state funding distribution formulae. A discussion of the implications for practice, policy, and research are also presented.

Keywords: community college, funding, governance, taxonomy, research

CHAPTER 1. INTRODUCTION

Background of the Study

What began as one community college (CC) in Illinois circa 1901 has evolved to over a thousand in 1999 and still growing (Lovell &Trouth, 2002). CCs in America were founded to preserve and advance American democracy by making higher education available to the populace. The formation of what is now known as the comprehensive CC dates to the 1947 United States President's Commission on Higher Education. Though two-year institutions (e.g., Joliet Junior College), had been in existence prior to 1947, they did not fill the roles of the current institutions known as comprehensive CCs. President Truman stated, "This commission... will be charged with an examination of the functions of higher education in our democracy and of the means by which they can best be performed" (President's Commission on Higher Education, 1947, vol. 1, p. 5).

In order to preserve our democratic society, the Truman Commission stated that a new college system was needed in America. As a result, Congress supported this in 1963 with passage of the Higher Education Facilities Act. This Act authorized 22% of its higher education funds to be used for public CC facilities, with the only requirement being that there had to be state or local matching funds (Wattenbarger & Cage, 1974). This action paved the way for the rapid growth of CCs in America. During the period from 1960 to 1970, an average of one new CC per week was opened. Since 1975 approximately half of all first-time college students have enrolled in CCs (Blau, McVeigh, & Land, 2000; Warford, 2001/2002). CCs were established with an ‘open-door’ policy, and with financial policies that included large state appropriations and low student tuition in comparison to four-year institutions of higher education. This made

higher education very accessible and affordable to many who otherwise would not be able to pursue a postsecondary education.

The United States, a union of 50 states, does not have a common form of state-level CC system governance structure. In fact, the United States is unique, as there are a myriad of ways in which states can structure their higher education system. As Schuetz (2008) argued, "Shaped by a complex array of historic, social, economic, and political forces, the governance of America's CCs stands apart from that of public universities as well as from public primary and secondary schools" (p. 91). Tollefson (2000) similarly stated:

> Each American state has its own individual history. The origin, spectacular growth and evolution of public two-year colleges from an extension of one high school in Illinois in 1901 to over a thousand separate institutions…came about in part because of a national movement with great national leaders, and in part because of strong leadership within each state's educational and political systems. (p. 2)

As will be discussed, there is no dominant form for state-level CC governance. A brief history and overview of our nation's CCs demonstrated the different types of state-level governance practices and patterns, as well as the emerging issues that pose a challenge for governance. To understand the typology of CC governance structures across the 50 American States, it must first be recognized that CC governance is characterized as a complex web of relationships and arrangements that have evolved over time. Lovell and Trouth (2002) explained governance as:

> … It is decision-making authority for an organization, which is typically controlled by boards. Governing boards usually appoint the chief executive of the institution or system, establish policies and approve actions related to faculty and personnel, ensure fiscal integrity, and perform other management functions. (p. 91)

Coordination is another important piece in the state-level CC governance puzzle. State-level coordination was described by Lovell and Trouth (2002) as:

> The formal mechanism that states use to organize higher education. The responsibilities of coordinating boards include statewide planning and policy leadership; defining the mission for each postsecondary institution in the state; academic program review and approval; resource allocation... and etc. (p. 92)

It is a state-by-state choice, and variations include state versus local control, elected versus state or locally appointed board members, taxing authority versus no taxing authority, voluntary shared governance versus mandated shared governance, and a variety of combinations in-between (Schuetz, 2008). Authors have also observed a relationship between state funding and state control over CCs. For example, Garrett (1993) found:

> The level of funding provided by the primary revenue sources appears to have definite implications for the control of local campuses…The implication of this finding is that where shifts in funding occur, specifically to a greater proportion of state funding, a likely consequence will be a shift to greater state control. (p. 13)

Similarly, in Garrett et al.'s, (1999) national follow-up study in 1997, comparable conclusions were found:

> …the data shows that the level of funding by funding source determines whether the state or local board controls local campuses. In particular, it was determined that the percentage of state funding was associated with degree of centralization, where the proportion of state funding increases with increases in centralization of governance structures. (p. 9)

The problem is we do not know enough information about the connections between state-level CC governance structures and state funding distribution formulae across the national landscape. Considerable change has occurred across the U.S. since 2000 and there is a void in the literature.

Statement of Problem

It is not well known if there is a correlational relationship between state funding distribution formula and state-level CC governance structure. State funding distribution formulae

are tools utilized to substantiate the acquisition of funds and delineate the cost of education. Many states have experienced change since 2000 and it is critical to research whether or not state funding has been an influence and source of transformation. Moreover, 2007 was the most recent typology study about CC state funding distribution formulae. As a result of the gaps in literature, an up-to-date typology of state funding distribution formulae was also needed.

Purpose of Study

The purpose of this mixed methods study was to determine if there are any correlational relationships between state funding distribution formulae and state-level CC governance structures. A survey was sent to the National Council of State Community College Directors (NCSDCC) asking members (i.e., state directors or immediate delegates) questions about state funding distribution formulae and state-level CC governance structures. A mixed method analysis was conducted to determine if there are correlational relationships between state funding distribution formulae and state-level CC governance structures using IPEDS, prior research data, and the 2016 NCSDCC survey data. An intended consequence of this study was to identify relationships between variables, recognize trends, relationships, and patterns in data, but the analysis does not prove causes for said observed trends, relationships, and patterns. Variables were not manipulated and were only identified and studied as they occurred in a natural setting. The dissemination of this study may assist state directors and policymakers in becoming more aware about changes and trends in CC state governance and how the state offices are conducting business. Results could also serve as a tool to guide state legislative discussions regarding CC governance, funding, and policy.

Significance of the Study

The knowledge gained from this study will provide three contributions to the areas of state-level CC governance. First, the study contributes to the expanding knowledge base about state-level CC governance systems, funding, and more specifically, state funding distribution formulae. As more is known about the relationship of funding to state-level CC governance, it will be possible to more clearly understand the national landscape. This research study can be viewed as a piece of this puzzle. Second, this study was the first attempt to utilize the National Center for Education Statistics Database to investigate the correlational relationship between state funding distribution formulae and state-level CC governance structures across the national landscape. Finally, an ultimate issue addressed by this study was money (i.e., funding).

It is anticipated that the study will identify the impact and relationship between state funding distribution formulae and state-level CC governance systems across the national landscape. While this is a significant undertaking, the findings of this study could be a critical step in this direction. The findings from this research may have potential implications for practitioners, policymakers, and researchers across the U.S. who are involved with state-level governance over CCs. For example, as state legislatures restructure state-level CC governance and/or state funding distribution formula, the relationship between the two and state priorities for their CCs must be addressed.

Research Questions

The research questions that guided this study were:

1. Are there relationships between revenue resource funds and state-level CC governance structures? (E.g., tuition & fees; state and/or local support)

   a. If there are relationships, what kinds of impact do revenue resource funds have on state-level CC governance structures across the U.S.?

2. What is the current typology and national landscape of CC state funding distribution formulae?
   a. Are there relationships between revenue resource funds and state funding distribution formulae?
   b. Is there a relationship between state funding distribution formula and state-level CC governance structure?

Hypotheses

Based on a review of literature, three major hypothesis areas guided the mixed-method analysis of the data. First, it was hypothesized that across the national landscape state funding formulae have a direct correlation with state-level CC governance structures. Second, state funding distribution formulae have a measurable impact on levels and proportions of resource funds. Third, state-level CC governance structures have a measureable impact on levels and proportions of resource funds. The following hypotheses can also be found in Chapter 3. The specific hypotheses tested are shown below in null form:

State-Level CC Governance Structure

1) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

2) H_0: There is no statistically significant correlational relationship between general state appropriation revenue, state appropriation per FTE, and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state-level CC governance structure.

3) H_0: There is no statistically significant correlational relationship between local support revenue per FTE and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between local support revenue per FTE and state-level CC governance structure.

State Funding Distribution Formula

4) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

5) H_0: There is no statistically significant correlational relationship between state appropriation per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state funding distribution formula.

6) H_0: There is no statistically significant correlational relationship between local support revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between local support revenue per FTE and state funding distribution formula.

State Funding Distribution Formula * State-Level CC Governance Structure

7) H_0: There is no statistically significant impact of state funding distribution formula on state-level CC governance structure.

   H_1: There is a statistically significant impact of state funding distribution formula on state-level CC governance structure.

8) H_0: There is no significant correlational relationship between state funding distribution formula and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between state funding distribution formula and state-level CC governance structure.

All hypotheses were tested at a minimum of 0.05 level of significance with a Bonferroni correction of eight to ensure that the overall Type 1 error rate of 0.00625 is maintained, i.e., eight hypothesis tests were performed. Any hypothesis can be rejected with p-value ≤ 0.00625. (*) means there is a convolution of variable (state funding distribution formula) and variable (state-level CC governance structure) for functional analysis.

Conceptual Framework

A mixed-method research approach was used for this study. Two methods were employed; one, quantitative analysis using statistical software, and two, a survey that contained multiple-choice, multiple-response, and open-ended questions. Tashakkori and Teddlie (1998) argued that the term “mixed model” is more appropriate than “mixed method” …their point being that mixing often extends beyond just the methods used in the research. As Caracelli and Greene (1997) stated, “The ‘mixing’ may be nothing more than a side-by-side or sequential use of different methods…” (Bazeley, 2002). In fact, this side-by-side ‘mixing’ was essentially used

in the research design of this study. Ultimately, mixed methods analysis is a process of piecing together pieces of a puzzle to find answers to questions (Jick, 1979). Mixed methods can be viewed as the 'pragmatist's approach to analysis.' As Smith (1997) argued:

> From data in the form of numbers, one makes inferences in the same way as with data in the form of words, not by virtue of probabilistic algorithms. Statistics are not privileged. Inference is not mechanized. With this way of viewing knowledge, 'mixed' methods may even be a misnomer, as both surveys and participant observation yield equivalent data. Inferences are based on the inquirer's coordinating multiple lines of evidence to gain an overall understanding of the phenomenon…Yet, because the inquirer is the instrument, all information flows through a single perspective. (p. 77)

In sum, the notion is that numbers should be used where they help to answer questions, and also, that verbal comments should never be ignored. Furthermore, Bazeley (2002) argued:

> Mixed methods are used to enrich understanding of an experience or issue through confirmation of conclusions, extension of knowledge or by initiating new ways of thinking about the subject of the research…validity stems more from the appropriateness, thoroughness and effectiveness with which those methods are applied and the care given to thoughtful weighing of the evidence than from the application of a particular set of rules or adherence to an established tradition. (p. 420)

Much of the writing about mixed methods designs has focused on the use of component (parallel or sequential) designs in which the different elements are kept separate, thus allowing each element to be true to its own paradigmatic and design requirements…most reports of mixed methods studies report either parallel or sequential component designs (Creswell, 1994; Green et al., 1989; Morse, 1991; Morgan, 1998). Lastly, in the final analysis, methodology must be judged by how well it informed research purposes, more than how well it matched a set of conventions (Howe & Eisenhardt, 1990). Howe and Eisenhardt (1990) suggested the following standards should apply: Do the methods chosen provide data which can answer the question? Are the background assumptions coherent? Are the methods applied well enough for credible results?

All of the above are important perspectives presented by both qualitative and quantitative researchers, which provided the foundations for the research methodology of this study.

Limitations

This study has two limitations. First, a single-body, the *National Council of State Directors of Community Colleges*, was used as survey participants in this study to categorize the state-level CC governance structures and state funding distribution formulae for the 50 American States. As a result, it was a small group of participants and not a traditional quantitative sample (i.e., not a traditional probability sample). The survey participants make up a purposive sample, also known as judgmental, selective or subjective sampling, and it is a type of non-probability sampling technique (Lund Research Ltd., 2012). However, this sample can be described as an "expert sample", which is a type of purposive sampling technique that is used when research needs to glean knowledge from individuals that have particular expertise (Lund Research Ltd., 2012). Although, purposive sampling methods can be prone to researcher bias, it is only when judgments are ill-conceived or poorly considered (Lund Research Ltd., 2012). However, with this study, judgments have been based on a clear set of criteria, conceptual framework, theoretical framework, and methodological framework.

Second, due to the nature of software, the results were subject to the known reliability and validity of a specific software. Although some information about the software in regard to reliability and validity is known, the software may have limitations in measuring what it is supposed to measure. Ongoing research and subsequent testing with SPSS and other software programs will help further our understanding about the theories and concepts being measured in this study.

Summary

CCs will continue to be unique higher education institutions serving a wide variety of needs for the communities they serve. Moreover, CCs will continue to be a first, second, third, and, in some cases, last or only opportunity for students to enroll in higher education. CCs were created for the specific purpose of making higher education financially accessible to the populace. The CC mission is one of accessibility as opposed to the higher education tradition of selectivity and limited access. In order to accomplish this accessibility mission, it has been necessary for CCs' primary funding to come from sources other than student tuition and fees. A disproportional rise in student tuition and fees is in conflict with the CC mission and these higher education institutions require sound and compatible state-level funding and governance structures if they are to remain viable institutions in the future. This study will continue to investigate the relationships (and issues) between state-level CC governance systems and resource funds.

Definition of Terms

The following definitions were used for this study:

Community College (CC): A two-year public, not-for-profit, higher education institution with regional accreditation that most commonly awards associate degrees to students.

Full-Time Equivalent (FTE): The number of FTE students is calculated based on fall student headcounts as reported by the institution on the IPEDS Enrollment (EF) component. The full-time equivalent of students is a single value providing a meaningful combination of full-time and part-time students. Data products currently have two calculations of FTE students, using fall student headcounts and the other using 12-month instructional activity.

Governance: It is decision-making authority for an organization; typically controlled by boards. Governing boards usually appoint the chief executive of the institution or system, establish policies and approve actions related to faculty and personnel, ensure fiscal integrity, and perform other management functions.

Governing/coordinating Board: Establishes statewide policies, guidelines, and plans for CCs and/or post-secondary institutions across the state.

IPEDS: Refers to Integrated Postsecondary Education Data System, National Center for Education Statistics at U.S. Department of Education.

Local Support per FTE: Denotes the Integrated Postsecondary Education Data System's definition of local appropriations, education district taxes, and/or similar support.

National Council of State Directors of Community Colleges (NCSDCC): Is an affiliated council of the American Association of Community Colleges (AACC). The council provides a forum for the exchange of information about development, trends, and problems in state systems of CCs.

Revenue resource funds: In this study, encompasses state appropriations, tuition & fees, and local support (local appropriations, education district taxes, and/or similar support).

State funding distribution formula: A tool utilized to substantiate the acquisition of funds and delineate the cost of education.

Typology: Study of or analysis or classification based on types or categories.

Taxonomy: The process or system of describing the way in which different items are related by putting them into groups.

Dissertation Overview

Chapter 2 provides a literature review of the research associated with state-level CC governance systems and resource funds. The literature review begins with an exploration into the ideals and interrelationships of democracy and education. The literature review continues with an exploration of the evolution of America's CC, issues that are having an impact on state-level CC governance, and finally, a review of research and literature about state-level CC governance system taxonomies and typology of state funding, which both provide the context for situating this study.

Chapter 3 explores philosophical assumptions, methodological approach, data collection and analysis, and limitations associated with this research project. A mixed-method approach (Tashakkori and Teddlie, 1998; Caracelli and Greene, 1997; Bazeley, 2002; Jick, 1979; Smith, 1997; Creswell, 1994; Green and et al., 1989; Morse, 1991; Morgan, 1998; Howe and Eisenhardt, 1990) is utilized to position the study's data; a process of piecing together pieces of a puzzle to find answers to questions (Jick, 1979). Criteria for participant selection is explained in this chapter in addition to the hypotheses test and a rationale for data collection methods.

Chapter 4 presents the study's findings. Descriptions of constructed meaning, including participant responses, animate this chapter's findings. Data results from the 2016 NCSDCC survey, and statistical results from SPSS utilizing 2014 IPEDS finance data, are presented and delineated. Conclusions related to data and outcomes are also synthesized in this chapter.

Chapter 5 provides summaries, conclusions, and implications for practice, policy and research. Suggestions for future research based on this study is also included.

CHAPTER 2. LITERATURE REVIEW

The purpose of this chapter was to present a review of pertinent literature. The scope includes the founding, funding, and organization of state-level CC governance systems. Attention has been given to its mission, evolution, and the connections between state-level CC governance and funding. See (Appendix A) for a literature map and overview of the following review of pertinent literature.

Democracy and Education

Deickhoff (1950) argues that, "earning a decent-living, and being capable of making intelligent decisions" are attributes for a contributing and productive member of society. Furthermore, regarding maintenance for a healthy democracy, Roueche and Baker (1987) argued the necessity for every human being to be allowed to develop to their fullest potential, and that human development be a continuous and lifelong process for living a democratic life. After World War II, the preservation and maintenance of a democratic society was of great concern across the United States, and in fact, it was one that led to the formation of the President's Commission on Higher Education in 1947. The commission recommended the creation of what is now known as the "comprehensive CC". The purpose of the CC was to make higher education financially accessible to those who might not otherwise be able to afford and/or pursue a postsecondary education, and viewed it as an underlying objective for the preservation of a democratic society (President's Commission on Higher Education, 1947).

It has long been recognized/argued that education is a requirement for sustaining a healthy democracy. Plato's *Republic* echoes a "… dialectical relationship between education and

democracy…" and Socrates believed that, "…education could teach citizens how to be democratic…" (Nelson, 2001, p. 331). Moreover, America's first president George Washington urged the promotion of educational institutions, because it is "…essential that public opinion should be enlightened" (Diekhoff, 1950, p. 5). John Adams, another founding father, famously argued:

> Education is more indispensable, and must be more general, under a free government than any other. In a monarchy, the few who are likely to govern must have some education, but the common people must be kept in ignorance; in an aristocracy, the nobles should be educated, but here it is even more necessary that the common people should be ignorant; but in a free government knowledge must be general, and ought to be universal. (Diekhoff, 1950, p. 5)

A concept originating from the enlightenment, a movement began with the rationale for public schooling that would prepare democratic citizens, who could preserve their own individual freedom, and moreover, engage in responsible self-government (Altbach, 1998; Arrowood, 1970; Astin, 1997; Ehrlich, 1997; Halliday, 2001; Orrill, 1997; Severance, 1998).

In the same tone, Myers and Williams (1948) argued, "It is apparent that the main bulwark of a democracy is an informed and an intelligent citizenry…the teaching of this citizenry is the major task of education in a democracy" (p. 233). Moreover, Garms (1977) stated, "Better educated individuals may be better citizens, enriching the lives of those around them, operating our democracy more wisely and fairly…" (p. 25). Pangle and Pangle (2000) also argued that, "…democracy, as government of the people, by the people, and for the people, depends ultimately on the political wisdom and civic spirit of the people" (p. 21). Building on such philosophies, McDonnell's (2000) research found that progressive educators such as John Dewey, Henry Adams, and Charles Merriam also viewed education as a "keystone of democracy" (McDonnell, 2000, p. 3). Founded by Alexander Meiklejohn, the Experimental

College at the University of Wisconsin in 1926 was established with the belief that citizens needed to acquire knowledge to be democratic, and to use this freedom wisely (Nelson, 2001). The next section of this literature review describes the evolution of America's CC.

The Evolution of America's Community College

It has been commonly stated that the CC is a "unique American invention" (Breneman & Nelson, 1981; Cain, 1999), and it has origins in the early twentieth century. With foundations held in the American values, principles, and beliefs for higher education and democracy, it is referred to as "democracy's institution," the "people's college," (DiCroce, 1995; Diekhoff, 1950), and/or the "opportunity college," (Medsker, 1960). As suggested by Gleazer (1994), "A knowledge of history... can be a valuable resource in considering future directions" (p. 6). Likewise, a knowledge about the general history and evolution of today's American CC allows a better understanding about the context of state-level CC governance systems and funding.

The Junior College Movement

It is valuable to note the creation of the contemporary American CC was not the result of a nation-wide systematic, comprehensive master plan. CCs developed outside of the educational continuum that begins in kindergarten and ends with graduate school (Griffith & Connor, 1994; Metzger, 1987; Ratcliff, 1994). In early colonial times, primary level training and college training existed, but had very little linkages to private and public four-year colleges/universities, which were being established well before two-year secondary education systems (Ratcliff, 1994).

The earliest writings and theories favoring a two-year college concept has been traced to Du Pont de Nemours (Witt, Wattenbarger, Gollattscheck, & Suppiger, 1994), with his book

National Education, at the beginning of the nineteenth century and then translated into English in 1923 (Du Pont de Nemours, 1812/1923). Before America's industrialization, a grammar school education was typically sufficient enough for a majority of people in the U.S. In fact, as late as the early nineteenth century, it was not even required to have any level of college training to become a doctor, lawyer, or teacher (Hofstadter, 1952). Gradually however, with the onset of industrialization, the mandatory level of public education rose into what we know as the high school level. Coinciding with industrialization and economic transformation, the junior college movement "...was born in the American heartland...and spread rapidly throughout the expanding West" (Witt et al., 1994, p. 1).

By the late 1800s, when a college education became the goal of more students, colleges began to see the need for setting acceptable levels of preparation for their prospective students. One approach was to create a "junior college" as a "feeder institution" to a university. In 1902, President William Harper of the University of Chicago proposed the creation of Joliet Junior College, the earliest (and arguably first) two-year institution of higher education, which is still in existence today. President Harper and others viewed it essential to separate the first two years of college from the last two years, which they viewed as being more specialized and demanding (Bogue, 1957b; Gleazer, 1968; Hillway, 1958; Richardson & Leslie, 1980).

Not long after, universities began to establish expectations for high schools to adequately prepare students for the rigors of a college education by setting/dictating acceptable high school curriculum(s) and standards. From these developments, a fundamental reorganization of American education was slowly evolving, and another "...new institution of large future importance" (Cubberly, 1931, p. ix) had been taking form (i.e., the comprehensive CC). At the turn of the twentieth century, and with the arrival of industrialization, an effort to increase the

mandatory level of American education to the 13th and 14th years was initiated (Koos, 1925). Communities far removed from college locales, but wanting further educational opportunities for their youth, became part of the "high school elongation" (Eells, 1931; Eells, 1940) process by offering two additional years with local school board governance. In addition, there were other junior colleges of "independent creation" (Eells, 1931; Eells, 1940).

From these origins, universities, high schools, and independent boards all provided two years of education beyond the high school level in some form (Clark, 1960; Hillway, 1958; O'Connell, 1968). Furthermore, in-part, the junior college movement was fueled by America's expanding democracy (Witt et al., 1994). A noteworthy difference between the Age of the University and the Junior College Movement is that, "Whereas universities fought to remain exclusive, junior colleges measured their success by inclusion" (Witt et al., 1994, p. 3).

Age of the Community College

"The Age of the Community College—from the 1960s through the last decades of the twentieth century" (Diener, 1986, p. 3) was a continuation of the American dream for prosperity in a free society. Rather than being a history of sweeping social movements, or the influences of great individuals, the history of CCs was, as Witt et al. (1994) argued, "...a testimony of political commitment to providing educational opportunity to the many who would not otherwise be served" (p. 276). Summarizing Kerr's argument, the land grant movement was the great innovation in higher education in the nineteenth century. The great innovation of the twentieth century was the CC movement (Kerr, 1985).

Generally, further education has been valued and seen as a means to prosper. O'Connell (1968) accurately predicted that a high school education would be inadequate preparation for any

but the simplest jobs. Around the same time, an increase in demand for technicians and sub-professionals existed, and this necessity surpassed the need for professionally trained people. The evolution of the comprehensive CC in the twentieth century was an adaptation to meet this real social need and it "...was the next logical extension of educational opportunity after the common school, land grant college, and high school" (Gabert, 1991, p. 8).

Community College Mission. CC's open admissions, and multiple functions, distinguish it from earlier higher education institutions. Arguably, America's determination to preserve democratic society by bringing higher education to the general populace resulted in the multiple functions of what is now known as the 'comprehensive CC.' Contrast this to the mission of the earliest two-year institutions, (e.g., Joliet Junior College), which were solely for the purpose of transfer-education. Graduates would transfer to a four-year college or university, and this mission was the most significant function of the public junior college and its successor, the CC, until about the mid-1960s or early 1970s (Eaton, 1994b; Richardson & Leslie, 1980).

Most of America's early two-year colleges did not have vocational/technical continuing education, community service, and remedial/developmental education as part of their core mission and values. Training for employment became important during, and following, World War II as technology progressed, expanded, and created thousands of new jobs and job categories, all of which required an education beyond high school (Witt et al., 1994). The shift from "junior" to "community" college, and the accompanied increased emphasis on vocational education, coexisted with earlier liberal arts and transfer functions (Eaton, 1994a). As Richardson and Leslie (1980) argued:

> Despite the dominance of the academic transfer function, the history of the first eighty years of the American public junior college is a story of adaptation and evolution as these institutions responded to new clienteles and added the programs required to attract and serve them. (p. 3)

One of the clearest definitions of the college's role in the community can be found from the President's Commission on Higher Education (1947) report, which declared a belief in"...learning for the entire community, with or without the restrictions that surround formal course work... [gearing their] programs and services to the needs and wishes of the people [they] serve..." (vol. 1, p. 69). Baker, Dudziak, and Tyler (1994) credited the GI Bill, the "baby boom," and the space race, as a few of the forces that stimulated belief in educating the masses, community needs and services, open access, and vocational/technical education.

It would take nearly a quarter of a century after the President's Commission report for the community continuing education function to fully-emerge with a variety of services being provided (Witt et al., 1994). For example, education for economic development and institutional services were triggered by the social context of the 20 years from 1960 to 1980 (Baker et al., 1994). By 1980, CCs were serving several functions: academic transfer; vocational/technical; developmental/remedial; continuing education; community service; adult education; and assessment, skill training and placement (Richardson & Leslie, 1980; Tillery & Deegan, 1985; Wajngurt & Jones, 1993).

Legislation in most states includes academic transfer, vocational/technical education, continuing education, community service, and remedial/developmental education as necessary CC curricular functions to meet the needs of the communities they serve (Cohen & Brawer, 1996). It became apparent that the CC was "everything to everybody" (Seater, 1995, p. 5). An overriding issue today is whether CCs will be able to keep their multiple functions (i.e., funding concerns). As CCs suffer budget cuts (Katsinas & Palmer, 2005), they may lose their ability to

be comprehensive enough and flexible enough to change as needs change. They could also be forced into being just a transfer-oriented CC with "…the specter of admission requirements… which would mean closing the open door" (Griffith & Connor, 1994, p. 128).

Open Door Policy. The establishment of an open door policy, with financial policies comprised of sizable state appropriations and low student tuition, made CCs very accessible/affordable in comparison to four-year institutions. As a result, “schooling” became an option for many who otherwise would not be able to pursue a postsecondary education (Cohen & Brawer, 1996). Besides accommodating veterans and "baby boomers", CCs pioneered the open-door philosophy by bringing higher education to even larger numbers of people (Breneman & Nelson, 1981). According to George Boggs, former president of the American Association of Community Colleges, "Ensuring equal access to a college education...is the cornerstone of the community college mission" (Larose, 2002). A philosophy deeply rooted in the belief that a "...democracy can thrive, indeed survive, only if its people are educated to their fullest potential" (Vaughan, 2000, p. 4).

Rather than having the "...less flexible attitude that higher education is a product or commodity for a restricted proportion of individuals" (Fields, 1962, p. 69), the CC provides programs to meet the many and various needs of diverse groups within a society. The CC is "...expected to admit all applicants, without regard to ability, type of curriculum completed in high school, or any other aspect of background" (Clark, 1960, p. 45). CCs are "deliberately inclusive" (Griffith & Connor, 1994, p. 6). The open door admissions policy assumes that students should be given the opportunity to try (Gleazer, 1968). In fact, using a metaphor, one advocate has referred to the CC as "the Ellis Island of higher education" (Vaughan, 1983, p. 9).

In the early 1960s, open admissions were defined as the “right to fail" (Richardson, 1988, p. 28). However, it is "...one of the most misunderstood characteristics of community colleges" (Gabert, 1991, p. 15). Concern for the continuation of the open door philosophy began to show in the 1980s (Demaree, 1986; Nigliazzo, 1986) and since the 1990s, CCs have been hard-pressed to maintain their historic commitment to an open door policy. A general problem with funding from state governments has caused states to look for other ways to compensate, and at times, limiting access to the largest and perhaps, most important portal to achieving and maintaining socioeconomic status - the CC (Katsinas, 1994, p. 22).

Community Centered. The CC is rooted in serving the needs of the community (Gleazer, 1968). As Diener (1986) argued, higher education institutions dedicated to addressing the needs of the community were sorely needed. A key CC function was serving the community as a focal educational and cultural service area point (O'Connell, 1968; Vaughan, 2000). In this role, CCs came to be viewed as change agents for their local community (Anderson & Snyder, 1993). As Vaughan (2000) pointed out, it was "...no accident that *community* is part of the community college's name" (p. 6).

The multiple features of the CC have been compared to those attributed to the successes of a Wal-Mart store. The CC: “conveniently located, with lots of parking, offering something for everyone, maintaining good quality at low prices, with hours that allow for flexible shopping, and a commitment to personal service; like the discount chain, the CC seeks to make itself indispensable to the neighborhood...” (Cain, 1999, p. 2). For example, CCs by design have proven their ability to quickly adapt to business and industry needs by having the capability to offer a broad range of basic skills preparation and technical training that local partners desire

(Forde, 2002). This example highlights the significant contribution and strength that CCs have and will continue to provide across the nation, and the strong relationships they foster with their community partners. CCs have a variety of possible partnerships, and for many, they include: K-12 public elementary and secondary education, business leaders, Chambers of Commerce, representatives of economic and industry programs, and four-year institutions (Forde, 2002).

What were some of the key events that created today's comprehensive CC? Although it did not happen overnight, a series of historical events over time transformed the earliest junior colleges into what they are today.

Servicemen's Readjustment Act (GI Bill), 1944. The end of World War II created enormous social and economic problems for the United States. For example, one problem was absorbing hundreds of thousands of servicemen back into the workforce. The Servicemen's Readjustment Act (the GI Bill) of 1944 provided funds to veterans with choices on how to spend their money. For many, the choice was using the money to attend college; in effect, slowing their entry back into the workforce (Diekhoff, 1950). Though the Servicemen's Readjustment Act did not directly support only the CC, it indirectly had an immense effect on its growth. Combined with an open-door admission policy, and the changing demographics due to the "baby boom", this Act helped fuel the rapid growth and establishment of CCs during the 1960s and 1970s across the nation (Baker et al., 1994). Thanks to financial assistance from the GI Bill, World War II and Korean War veterans began flooding into the higher education system. According to Hansen and Stampen (1987), the period from 1947 to 1958 was described as:

> … the ascendance of higher education to a new level of prominence in American society. Colleges and universities had been instrumental in easing the transition from a wartime to a peacetime economy... [and

> with] knowledge of the important contributions of academe during World War II...people came to believe that colleges and universities could be instrumental in resolving other national problems. (p. 110)

The demand for a college education played a major role in the growth of the CC during the 1960s and 1970s.

Higher Education Facilities Act, 1963. A key idea and outcome of the Truman Commission was the call for a new college system to preserve America's democratic society, and this led to landmark 1963 legislative action with passage of the Higher Education Facilities Act (Gleazer, 1968). The Higher Education Facilities Act authorized 22% of available funds for new public CC facilities, requiring only that there be matching state and/or local funds (Wattenbarger & Cage, 1974). This Act marked the first time federal legislation made specific reference to public two-year institutions (Gleazer, 1968). Furthermore, this action paved the way for the imminent growth of CCs in America. During the 1960s and 1970s, an average of one new CC per week was opened (Breneman & Nelson, 1981). Since 1975, approximately half of all first-time college students have enrolled in CCs (Blau et al., 2000; Warford, 2001/2002).

Basic Education Opportunity Grant (BEOG), 1972. In 1972, the passage of the Basic Education Opportunity Grant emerged, which was a federal student financial aid system that provides grants to students based on financial need (i.e., known today as Pell Grants). This new and national need-based grant system achieved a goal and mission first proposed by the Truman Commission nearly a quarter of a century earlier (Hansen & Stampen, 1987). The higher education amendments of 1972 reshaped higher education by transferring federal student aid to the student rather than the institution. The amendments of 1972 also broadened the definition of

eligible institutions that could receive students and federal aid by also including non-degree granting postsecondary institutions. (Peterson & Dill, 1999).

Expansion of the Public Two-Year College

Because no public two-year colleges existed prior to 1900, "[t]he public junior college is entirely a twentieth-century phenomenon" (Clark, 1960, p. 3). In 1907, the state of California took the first step by passing legislation that permitted the creation of separate junior college districts, and it allowed local school boards to offer the first two-years of college work (Clark, 1960; Gabert, 1991; Vaughan, 2000). Opened in 1910, Fresno Junior College was the first California publicly funded school of its kind (Boggs & Cater, 1994). California, unlike eastern states, lacked an extensive system of small four-year colleges. Therefore, this gap allowed California to be fertile ground for the junior college movement (Witt et al., 1994, p. 32). By 1915 there were 19 public junior colleges in California (Starrak & Hughes, 1954). A growth spurt for public junior colleges in 1921, were in part, caused by developments in California (Koos, 1925). By 1922, 70 public junior colleges existed, with California having the most (Gabert, 1991). The 1930s saw 178 CCs and 45,000 students (Clark, 1960; Starrak & Hughes, 1954). By 1940, 261 public two-year colleges existed with 168,000 students (Clark, 1960; Starrak & Hughes, 1954).

The period of most rapid growth for public two-year schools was between 1942 and 1970 (Blau et al., 2000). After World War II, higher education in general expanded rapidly, with perhaps the most astonishing growth occurring with two-year colleges (Seater, 1995). The growth trend continued with 329 colleges and over 450,000 students by 1950 (Clark, 1960). Enrollments had grown from 592 in 1915 to 456,291 in 1950. Starrak and Hughes (1954) commented on this change, "The continuing growth of the junior college movement…when

measured both in terms of number of institutions and of their enrollments, has been nothing short of spectacular" (p. 24). The predictions in 1957 were that enrollments would double in the next 10-15 years (Bogue, 1957a). Events of the next decade proved Bogue's prediction an understatement. During the 1960s, CC enrollment *quadrupled*, reaching 2.3 million (Eaton, 1994a). In the ten-year period between 1958 and 1968, 500 new CCs emerged (Gleazer, 1968). Nationwide a total of 1,091 junior colleges existed by 1970.

America had built nearly one community or junior college per week for a decade. As the 1960 decade was ending, junior colleges were operating in all 50 states with slightly less than 2.5 million students (Witt et al., 1994). Blau et al. (2000) studied the expansion of public two-year schools between 1942 and 1970, the period of most rapid growth. They conclude that a large manufacturing sector and diversifying economy demanded a labor force with varied skills, which was supported by the vocational training function of the CC. In addition, because CCs could be built and opened quickly, they were assumed to be a cost-effective way to provide the necessary expansion of higher education (Breneman & Nelson, 1981).

The phenomenal growth of the CC during the 1960s is, in part, attributed to the combination of federal legislation discussed earlier, and other Acts, such as, the National Defense Education Act of 1958, the Vocational Education Act of 1963, the Higher Education Facilities Act of 1963, the Civil Rights Act of 1964 and the Higher Education Act of 1965. Taken together, these Federal Acts helped create a two-year college that by 1970 was significantly different than the junior college of the early 20th century (Eaton, 1994a). Their growth also came from social forces, such as the peak in the number of baby boomers and the end of school segregation in the South (Vaughan, 2000). The open admission policies, geographic distribution, and low tuition policies were also contributing growth factors (Carnegie

Commission of Higher Education, 1970). By 1992, two-year colleges enrolled 39% of all undergraduates, up from 27% in 1970 (Seater, 1995).

According to the American Association of Community Colleges (AACC), 1,108 CCs (public, tribal, and independent) with 12.3 million credit and non-credit students were in existence in 2014 (AACC, 2016). In general, the period between 1940 and 1980 saw American higher education move "…from an elite to a mass base" (Abrams, 1993, p. 22). In addition to general population expansion, several more reasons can be attributed to the increase in CC enrollments, such as: physical accessibility, older students' participation, financial aid, part-time attendance, and high attendance by low-ability, women, and minority students (Cohen & Brawer, 1996).

Issues That Impact State-Level Community College Governance

There are a number of issues in higher education that impact state-level governance over CCs. Some of these issues include *funding*, political-historical values and context, and state and federal policies related to higher education. For many states, state-level governance structures have remained the same, while in some states, change has been the norm.

Historical Values and Customs

It is important to note that every state has a unique historical context, values and prevailing customs, which influence and mold state-level CC governance structure. As argued by Bowen et al. (1998), “Several historical factors – such as the constitutional strength of the governor, the constitutional status of institutions, voter initiatives, and political influences – affect system design and governance structures” (p. 37).

For example, the state of Illinois has a constitutionally strong Governor who historically has exercised leadership on higher education issues, while in Texas, there has constitutionally been a weak Governor, where leadership on higher education issues has come from the Texas Legislature and the Lieutenant Governor (Bowen et al., 1998). In New York historically, there has been a constitutionally strong Governor who exercises leadership on higher education issues, with a full-time Legislature that is divided between upstate Republicans who dominate the Senate and downstate (urban) Democrats who control the Assembly and serve as "custodians" of higher education with a "fairly significant role" in setting the missions for their public campuses (Bowen et al., 1998).

When comparing and studying state-level CC governance structures, Bowen et al. (1998) found that state systems, "…differ in the way they link institutions to one another and to state government, and the way they use the key work processes" (p. 51). One might also ask, do historical factors influence governance structures? Bowen et al. (1998) found:

> No underlying logic seems to have guided the historical evolution of...state systems. Each system came to be what it currently is more as a consequence of geography, political culture, and historical accident than through any systematic or consistent effort to follow a particular set of design principles. (p. 53)

Furthermore, literature explains that the history and make-up of state government has an influence on choice of state-level CC governance structure, and the way it functions (Bowen et al., 1998). Historical and contextual factors, such as the relative strength of the Governor, the presence of a strong private higher education sector, constitutional status for public institutions, voter initiatives, and etc., are all important in the way states structure CC governance (Bowen et al., 1998).

State and Federal Policies

Federal and state policies also affect state-level CC governance structures. State-level CC governing/coordinating boards must work within state and federal government laws and regulations when shaping policy. Although there are a great number of federal and state policies, one policy area that has far-reaching effects is state funding. For example, while CCs in many states still collect revenue through local taxes, usually property taxes, the funding trend for the past three decades has been the combination of state government, federal government, and tuition/fees to finance CCs (Lovell & Trouth, 2002).

A question is raised as to whether there will be a shift-away from local governance/control toward greater state-level governance/coordination over CCs. Another study found that while authority rested with state boards, much of that power has been delegated to local CCs (Tollefson, 1996). Therefore, while CCs have greatly retained their local control over governance issues, there is no guarantee that states will continue to delegate such authority. Now that we begin to understand factors that influence state-level CC governance structures, next is a discussion on typology studies about state-level CC governance structures across the national landscape.

Typology of State-Level Community College Governance

In researching the literature, multiple taxonomies exist on state-level CC governance structures, and they are important for several reasons. First, taxonomies can shed light on the complex relationships in the governing of CCs across the U.S. The historical development of CCs in part explains such complex patterns. For example, CCs have been seen at various times as an extension of high school; as the first two years of a college system; and as a unique

educational enterprise separate from both secondary and higher education (Diener, 1994). Second, as the role of the CC changed, so too has state-level governance structure over CCs. As the definition of the CC evolves and changes, so too will state-level governance patterns (Tollefson & Fountain, 1994). Third, by understanding state-level governance structures of the 50 American States, state CC leaders can identify, anticipate, and better understand the strengths and weaknesses of their own systems to meet future challenges. For instance, for states whose state-level board supervise both two- and four- year colleges, two-year colleges are often overlooked by board members, who concentrate on what they perceive as more pressing issues at the four-year institutions. However, these states would be well positioned to respond to demands for improved articulation and collaboration in a K – 16 postsecondary model (Richardson & de los Santos, 2001). Finally, Lovell and Trouth (2002) argued:

> …Taxonomies also help define the placement of CCs within a state system. Depending on its place in the state system, a CC may face many levels of governance and coordination, which can create problems. Conflicts between state and local boards or between boards and the state legislature can arise when there is a dispute or some ambiguity over which entity has governing responsibilities. The existence of multiple levels of governance may also contribute to these misunderstandings about responsibilities. (p. 94)

For example, a study in California found that 22 different governing/coordinating entities shared CC governance responsibilities (Davis, 2001).

Bowen et al. Taxonomy (1997)

Bowen et al. (1997) developed a popular taxonomy that categorized the 50 American States into four distinct categories to represent differences in the design of their state-level higher education governance structures; f*ederal systems, unified systems, confederated systems,* and *confederated institutions*. Federal systems are those with "…institutional and multicampus

system governing boards, and a coordinating board with both responsibilities for all higher education and substantial authority…" (Bowen et al., 1997, p. 7). Unified systems are those in which, "…a single governing board is responsible for all degree-granting, public institutions" (Bowen et al., 1997, p. 7). Confederated systems are those that have a, "…planning or coordinating agency with some authority for the work processes, but that also have two or more governing boards of multi-campus subsystems in which the board or its chief executive negotiates budgets directly with elected officials" (Bowen et al., 1997, p. 7). Lastly, confederated institutions are those, "…systems that have institutional or multicampus governing boards, but that lack an agency with substantial responsibility for all higher education" (Bowen et al., 1997, p. 7).

(ECS) Taxonomy (1997)

Another taxonomy was created by the Education Commission of the States in 1997. This taxonomy classified states and their state-level CC governance structure as c*onsolidated governing board states, coordinating governing board states,* and *planning or service agency states*. Consolidated governing board states assign coordinating responsibilities to a board that also has primary responsibilities to govern the CCs under its jurisdiction. Coordinating board states have boards that serve as coordinating agencies between the state government and the governing boards of CCs. Governance is decentralized in these states. Finally, planning or service agency states have no statutory entity with coordinating authority but may have one to ensure good communication among CCs (Education Commission of the States, 1997).

Tollefson's Taxonomy (2000)

An additional taxonomy was developed by Tollefson (2000) who classified states into five models of state-level CC governance structure, which was similar to the ECS taxonomy. Tollefson categorized each state according to which type of state board has responsibility for CCs. In the first category, the state board of education is responsible for both CCs and K-12, this board usually has minimal control, and local boards remain autonomous (Tollefson, 2000). Second, responsibility for CCs reside in a state higher education board or commission. Third, state-level CC coordinating boards exercise responsibility for CCs. Fourth, there is a state CC governing board with direct control over the CC operations, and in the fifth category, a state board of regents is responsible for public universities and CCs (Tollefson, 2000).

Richardson et al. Taxonomy (1998)

Richardson, Baracco, Callan, and Finney (1998) created another taxonomy to define and categorize state-level CC structures within higher education. Their taxonomy was defined in terms of *federal systems*, *unified systems*, and *segmented systems*. A federal system organizes institutions under a range of governing boards that are required to work directly with a state-level coordinating board, and a unified system places all institutions under a single governing board that works directly with the governor and legislature in budgeting, program planning and approval, articulation, and information collection and reporting. Meanwhile, a segmented system has two or more governing boards that supervise single institutions or groups of institutions; there is no single state-level agency with statutory authority in the areas of budgeting, program planning and approval, articulation, and information collection and reporting (Richardson et al., 2000).

Richardson and de los Santos Taxonomy (2001)

Building on the Richardson, Baracco, Callan, and Finney (2000) typology study, Richardson and de los Santos (2001) suggested an updated and further delineated taxonomy. They posited seven categories for describing the array of state-level CC governance systems: *federal-federal, federal-unified, federal-segmented, unified, segmented-federal, segmented-unified, and segmented-segmented* states (Richardson & de los Santos, 2001). This taxonomy is summarized in Table 1 below (Lovell & Trouth, 2002, p. 93):

Table 1

Richardson and de los Santos Taxonomy (2001)

State-Level CC Governance Structure	Type of Organizations
Federal-Federal	Local governing boards for colleges, a coordinating board for all higher education institutions, and a separate statewide coordinating structure for CCs.
Federal-Unified	One statewide coordinating board for all higher education and a single statewide governing board for CCs.
Federal-Segmented	A statewide board that coordinates all higher education and several CCs or technical institutions that each have their own governing arrangements.
Unified	One governing board for all higher education institutions in the states.
Segmented-Federal	Two or more governing boards for higher education and either a coordinating board or governing board for CCs.
Segmented-Unified	Two or more statewide governing boards for higher education, and one of these boards will have responsibility for CCs
Segmented-Segmented	Two or more governing boards for higher education, but no board has overall responsibility for CCs, which in these states are governed by local CC governing boards.

Richardson and de los Santos' taxonomy is a seven category model that is larger than the others presented in this research project. The Katsinas (1996) taxonomy, which follows, is an unpublished model that incorporates five categories.

Theoretical Framework

Katsinas Taxonomy (1996)

The Katsinas (1996) taxonomy, which is *unpublished*, encompassed five different, but simply defined, categories of state-level CC governance structure. Despite being the oldest model discussed, it continues to prove itself an easy-to-apply model. They are: *rational model*; same coordinating board as K-12 model, but separate from universities; same coordinating board as universities model; under a university governing board model; or no coordinating board model. The *rational model*, is defined as a separate state-level CC governing/coordinating board that handles coordination issues and this CC governing/coordinating board possesses research and public policy capacity that legislators can call on to implement new initiatives (Katsinas, 1996).

The justification for using this taxonomy is two-fold. First, with five models it is more simplified than a few of the other taxonomies (e.g., as many as eight categories), but is more defined than taxonomies with as few as three categories. Second, and more importantly, this taxonomy's models are defined from the CC's perspective/position and/or location within a state's higher education system. The following table is created via 2014 document analysis & 2015 NCSDCC survey utilizing the Katsinas (1996) taxonomy (Fletcher & Friedel, 2017).

Table 2

State-Level CC Governance Structures (2015)

Coordinating/ governing board for CCs separate from K-12 & Univ. (20)	Same coordinating/ governing board as K-12, but separate from Univ. (3)	Same coordinating/ governing board as Univ. (18)	Coordination for CC governance falls beneath a Univ. coordinating/ governing board (5)	No state-level coordinating or governing board (4)
Alabama	Iowa	Arkansas	Alaska*	Arizona*
California	Florida	Connecticut	Idaho	Maryland
Colorado		Hawaii	Indiana	Michigan
Delaware		Kansas	Montana	Pennsylvania
Georgia		Massachusetts	New York*	South Dakota
Illinois		Minnesota		
Kentucky		Missouri		
Louisiana		Nebraska		
Maine		Nevada		
Mississippi		New Mexico		
New Hampshire		North Dakota*		
New Jersey		Ohio		
North Carolina		Oklahoma		
South Carolina		Oregon		
Vermont*		Rhode Island		
Virginia		Tennessee		
Washington		Texas		
West Virginia		Utah		
Wisconsin				
Wyoming				

*State did not complete the 2015 NCSDCC Survey; as a result, 2014 document analysis information was used to categorize and incorporate.

Funding Community Colleges

Contemporary CCs emerged in the 1960s at rates approaching one new institution per week in response to new opportunities and demands that could not be met by the existing public junior colleges established in the early 1900s (Mullin & Honeyman, 2007). Their three-pronged mission of transfer education, vocational education, and community service was to be realized through a solid financial model that included revenues from federal support, state support, local property taxes, student tuition and fees, and other minor, miscellaneous income sources (Phelan, 2014).

For decades, CCs derived their funding for current operating expenditures from several revenue sources, such as state government, local government, student tuition and fees, federal and state grants, and endowments. In most states the major sources of current funds were either state or local governments. However, over the years, recently the relationship among these funding sources has evolved into a diverse and often complicated series of formulae that direct the flow of funds to CCs (Mullin & Honeyman, 2007, p. 113). As Mullin and Honeyman (2007) observed:

> This evolution has progressed in an effort to maintain an objective, fair, and equitable distribution of funds to colleges; help college administrators and state policy makers understand the funding process; enhance the ability to predict revenue and plan for future operations at the college level; and control the growth or reduction of specific programs or activities within a given state. (p. 113)

There are many challenges facing those involved with the state-level governance over CCs, such as: competition from for-profit colleges, increasing availability of technology and online education, the changing demands of students and employers, calls for accountability and fiscal efficacy and more, which are all having a major impact on funding and governance matters (Phelan, 2014). Compounding these challenges, CC systems are experiencing a substantial shift away from state and local funding and a growing reliance on tuition and fees, without any significant and corresponding increases in student financial aid (Katsinas & Palmer, 2005).

Boards and college administrations struggle to keep costs low so as to provide a pathway for every person to realize the American Dream. Yet, with the rising costs of running a CC (i.e., utilities, materials, supplies, construction, salaries, healthcare, and benefits), the CC is caught in the middle. Additionally, there are increasing calls for improved quality and accountability. For example, the use of scorecards, benchmarks, ratings, and other reporting methodologies; it is no wonder why state CC systems are facing unprecedented fiscal strain (Field, 2014).

During the first-half of the twentieth century, higher education was funded on the basis of allowable tuition and simple allocations of state-aid that were based primarily on budget requests from individual institutions (MGT of America, 2001). Historically, the two-year college was funded either by a centralized state board, or through the K-12 public school system. In states whose two-year colleges were "controlled" by public K-12 school systems, competition generally occurred at the local-level for scarce resources generated by property taxes (Mullin & Honeyman, 2007). This relative simplicity was the result of uniform programmatic offerings across institutions and a non-diverse student population. However, as the number of institutions increased, student populations grew. And as program offerings expanded and diversified, many states started implementing funding distribution formulae to address the funding needs of higher education (MGT of America, 2001). By 1950, Texas, California, Indiana, and Oklahoma were using funding formulae for budgeting or resource allocation. In 1964, 16 states were identified as using formulae. By 1973, the number had increased to 25 states, and then to 33 by 1992 (MGT of America, 2001).

The exact level of total funding accounted for by each revenue source varies by state, reflecting the states' differing expectations and goals for CCs (Phelan, 2014). For example, some state legislatures at one time believed that tuition should be zero or very close to zero. Others suggested that funding streams should be relatively equivalent across the principal sources of state aid, local taxes, and student tuition; while some states decided that local property taxes should not be part of the funding picture whatsoever (Phelan, 2014).

Regardless of the specific financial design, it was/is obvious that not one, perfect, uniform financial model emerged nationally given the political, philosophical, and demographic diversity of the states (Phelan, 2014). In 1956, three patterns of state funding for CCs were

outlined by Leland L. Medsker. One method consisted of acquiring funds directly from the legislature. Another method was the flat grant, which established a fixed amount per unit (typically student headcount) to be paid by the state. Lastly, some states offered equalization aid in addition to a flat grant to guarantee minimum support for programs across colleges (Mullin & Honeyman, 2007).

Twenty years later, Wattenbarger and Starnes (1976) developed a four-part taxonomy to classify general models of state support: *negotiated budget funding, unit-rate formulae, minimum foundation funding,* and *cost-based program funding*:

- Negotiated budget funding occurred when an individual, representing a single institution or CC system, met with the legislature and negotiated an appropriation.
- Unit-rate formulae were based on a measure associated with institutional operation. The measure's frequency was multiplied by the cost of the measure to justify financial requests.
- Minimum foundation funding formulae provided a minimum level of state support after taking local wealth into account. One method of doing this was to conduct a unit-rate calculation and then subtract local tax revenue from the results; if this left a college district with funding that fell below a predetermined minimum level, the state contributed more money to the district to ensure it had the desired level of funding.
- Cost-based program funding extended unit-rate formulae by aligning funding to the various costs incurred by an institution; costs associated with libraries, facilities, or students.

Funding & State-Level Community College Governance

With regard to state-level CC governance and funding, Tollefson (2000) found, "Many authors have observed an apparent relationship between state funding and state control of community colleges" (p. 9). Further, Garrett (1997) conducted a national study and concluded:

> Once again, the data show that the level of funding by funding source determines whether the state or local board controls local campuses. In particular, it was determined that the percentage of state funding was associated with degree of centralization, where the proportion of state funding increases with increases in centralization of governance structures. (p. 9)

A study with the National Council of State Directors for Community Colleges further noted that the funding mix for CCs not only varies considerably by state, but increasingly so due to both fiscal and policy pressures (Friedel, 2010). Within states too, funding streams can differ across institutions in local property tax support due to factors such as differing property valuations, differing tax levy rates set by boards, or different perceptions that local residents might have about the extent to which they are willing to financially support the local college (Lombardi, 1973). Moreover, after many years of researching CC finance, Wattenbarger (1994) concluded, "Almost all the literature relating to financing community colleges assumes that educational opportunity offered by community colleges is a valid expenditure of public funds" (p. 334). There have been a limited amount of research studies investigating the relationships between funding and tuition and fees.

Kenton (2003) found some states rely heavily on tuition and fees for income (Ohio, Minnesota, North Dakota, Indiana, and Iowa), whereas others do not (Nebraska, Kansas, Illinois, and Wisconsin). Some states receive comparatively generous state appropriations, while others receive less funding form this source. Local support is an important revenue source in some states, but almost no income is derived from local support in others. As Kenton and et al. (2004) argued:

> The reasons for these differences in funding formulas may be divers, such as historical pattern of community college finance in the various states, the philosophy of a state…or the culture of the state. Governance also may be an issue in that no specific model for the governance of community colleges has been adopted by the various states". (p. 2)

Another related development and trend, states have begun moving away from a base funding distribution of state aid, including both a core allocation and a portion distributed on the basis of enrollment, and have now incorporated varying levels of performance-based funding into the mix. Phelan (2014) observed that based on differing capacities of CCs to meet performance expectations, and given the diversity of the student body served, performance based funding could further disadvantage certain institutions, reducing their funding base and diminishing their capacity to serve students.

Mullin and Honeyman Typology of Funding (2007)

State funding distribution formulae are tools utilized to substantiate the acquisition of funds and delineate the cost of education. Mullin and Honeyman (2007) developed a typology of CC state funding distribution formulae that placed 48 states into three categories and five subcategories. The following table was adapted from Mullin and Honeyman (2007):

Table 3

States by Funding Formula Type (Mullin and Honeyman, 2007)

No Formula (8)	Responsive (20)			Functional Component (22)	
No Formula	Cost of Education	Equalized	Option	Generalized	Tiered
Alaska	Alabama	Arizona	Iowa	California	Arkansas
Delaware	Maryland	Indiana	New York	Colorado	Illinois[b]
Hawaii	Mississippi	Kansas	Texas	Connecticut	Kentucky
Idaho	Montana	Missouri	Virginia	Florida	Massachusetts
Maine	New Jersey	Nebraska		Georgia	Michigan
New Hampshire	Oregon	North Dakota		Illinois[a]	Minnesota
Rhode Island	Pennsylvania	West Virginia		Nevada	North Carolina
Vermont	Wyoming[a]	Wyoming[b]		New Mexico	Ohio
				Tennessee	Oklahoma
				Utah	South Carolina
				Washington	
				Wisconsin	

Note: Louisiana was omitted, because at the time the study was conducted that state's funding formula was being reexamined in the wake of natural disasters. South Dakota was also omitted because it does not have a state-supported CC system.

a. Indicates that a budget request formula was utilized to justify state allocation requests.
b. Indicates that a distribution formula was utilized to distribute state allocations in manners that were different from the budget request formulae used in those states.

The categories are “no formula funding”; “responsive funding with three sub-categories: cost of education, equalized, and option funding; and “functional component funding with two subcategories: generalized and tiered funding.” (Mullin & Honeyman, 2007).

No Formula Funding. In the eight states without funding formulae, CCs were not funded on the basis of a common calculation. Two factors account for states falling into this category. First, in Alaska and Hawaii, CCs were absorbed into the state university. Second, the relatively low number of CCs in each of the six other states limited the need for formulaic state allocations. The number of CCs in these six states ranged from one to eight. (Mullin and Honeyman, 2007).

Responsive Funding. Responsive funding states utilize funding formulae in which costs are justified to maintain requisite operating aid while at the same time employing formula components that addressed funding disparities, changes in workload measures, or both. States that fell within this category *were further delineated into three subcategories*: cost of education funding, equalized funding, and option funding. (Mullin & Honeyman, 2007).

Cost of Education Funding. Utilized by eight states, the primary formula components use the *cost of education approach* to funding, which includes student enrollment and a cost of education factor, or a base amount. The cost of education factor was often a number of unspecified origin, except in Maryland where the legislature determined that full-time equivalent students at CCs should be funded at 25% of the funding for full-time equivalent students at four-year institutions in the state (Campbell & Hoy, 2006).

In each formula, the full-time equivalent student enrollment had a significant impact on the formula total. Two states—Montana and Pennsylvania—use cost of education factors that were influenced by the current political and fiscal contexts of the states. Conversations with one state leader implied that the cost of education factor had been determined in a number of ways. One approach was to work the formula backwards—a process in which the total state appropriation was entered, along with fixed factors (such as full-time equivalent students), to determine the variable cost of education factor. In three other states—Mississippi, Oregon, and Wyoming—a base amount served as a significant factor in the formula. (Mullin & Honeyman, 2007).

Equalized Funding. A unique formula component utilized by *equalized funding* states Arizona, Indiana, Kansas, Missouri, Nebraska, North Dakota, West Virginia, and Wyoming is the addition of equalization aid, in addition to, a cost of education factor. Equalization is achieved through various mechanisms; generally, allocations are based upon a threshold—a specified level or benchmark—that is deemed appropriate for determining equitable funding and that is exclusive to each state. For example, 10% of Nebraska's Program 151 funds (state aid to CCs) is distributed to institutions with insufficient property valuations. In addition, any CC in Nebraska raising more than 40% of its revenues through local taxes lost state aid on a dollar-for-dollar basis. (Mullin & Honeyman, 2007).

Option Funding. Four states—Iowa, New York, Texas, and Virginia—are further classified as *option funding* states because they have multiple funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. In Iowa, for

example, the inflation rate published by the U.S. Department of Labor determined which of the following three formulae will be enacted: the first, if the inflation rate stood at 0% to 2%, the second if the inflation rate stood at 2% to 4%, and the third if the inflation rate was greater than 4%. All three formulae have three components: a base funding allocation (the total appropriation received by all CCs in the previous fiscal year), a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component. If excess funds are available after funding the three components, two other components were introduced: an extraordinary growth adjustment and a three-year rolling average in enrollments. An inflation adjustment is included if the inflation rate fell into either the 2% to 4% category or the more than 4% category. Thus, as the inflation rate increased, inflation adjustments exert a stronger influence in the formula, and the proportional effect of enrollment on funding decreases.

Another example can be seen in the case of New York where the state financial assistance received by full-opportunity (open-admission) colleges is calculated as the lesser of two options. The first option is simply 40% of the net operating budget approved by the State University Board of Trustees. The second option is calculated as the sum of (a) the budgeted or actual full-time equivalent enrollment (whichever is smaller) multiplied by a specified rate per full-time equivalent student, and (b) up to half of the rental costs for physical space (Mullin & Honeyman, 2007).

Functional Component Funding. States justifying their costs in terms of the components of operation within an institution are categorized as utilizing *functional component funding*. An examination of the calculations within the formulae employed by these states results in two subcategories. Formulae in one subcategory, *generalized funding*, delineate costs in terms

of functional components, such as instruction or academic support, with measures and factors that are applicable to the entire institution (McKeown, 1996). Formulae in the second subcategory, *tiered funding*, incorporate further refinements that account for distinct differences in programs and levels of study. (Mullin & Honeyman, 2007).

The National Association of College and University Business Officers (NACUBO) outline 10 functional components where the costs of higher education institutions can be classified (NACUBO, 1988). Eight NACUBO components commonly funded by state or local governments are listed in the table below. The two categories not included for the purposes of this study are auxiliary expenses and hospitals, because they generally are not funded by state appropriations.

Although some of these functional components apply primarily to four-year institutions, others, such as instruction and student services, apply directly to the student-centered philosophy of CCs. Several states utilize additional components that are not outlined by NACUBO but that are determined to be vital to their CC systems. For example, a workforce development component can be found in 6 of 20 states (Mullin & Honeyman, 2007). In addition to these six states, three other states have separate state systems for workforce development: The Georgia Department of Technical and Adult Education, the Wisconsin Technical College System, and the South Carolina Technical College System (Mullin & Honeyman, 2007).

Generalized Funding. Generalized funding states utilize the same functional components within their formulae for justifying funding, but each do so in a different way. The instruction component for each state offers the best example of this variance in their funding formulae. For example, Florida calculates instruction utilizing faculty-related measures such as class size,

faculty credit-hour load, faculty status, fringe benefits, and support costs (Murphy, 2004). In California, however, the instruction component does not include faculty-related measures. Rather, California uses a unit-rate formula in which full-time equivalent students are multiplied by a per-credit cost figure that is determined by the Chancellor's office (Mullin & Honeyman, 2007).

Tiered Funding. Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs. According to McKeown (1996), cost refinement due to differentiation is a way of recognizing legitimate variations in costs and responding to the need for improved data collection and analysis. Arkansas and Oklahoma are two examples.

In Arkansas, the funding formula was found to be comprised of four credit-hour expenditure functions, another function that is based on the square footage of facilities, contact hours, and the credit-hour expenditure functions are further delineated into components of teaching salaries, academic support, student services, and institutional support (Mullin & Honeyman, 2007). Teaching salary needs were found to be refined into four cost categories: general education, technical education, basic skills, and allied health and each of the cost categories incorporate a workload standard to aid in the determination of funding for teaching salaries (Mullin & Honeyman, 2007).

In Oklahoma, Mullin and Honeyman (2007) found that NACUBO expenditure categories are used to determine costs at each institution in the state. Then, average costs per category per institution are calculated, which, in turn, are grouped into tiers as determined by the Oklahoma State Regents of Higher Education. The state average cost per category per tier is then divided

into the determined need per tier to reach a peer allocation factor. This factor is applied to each institution's average cost per category to determine the institution's total allocation need (Mullin & Honeyman, 2007). The following table is adapted from Mullin and Honeyman (2007):

Table 5

Expenditure Categories in Funding Formulae Used by Functional-Component States (2007)

State (20)	Instruction (14)	Research (6)	Public Service (6)	Academic Support (8)	Student Services (13)	Institutional Support (11)	Scholarship/ Fellowship (2)	Plant Operations (16)
Generalized Funding								
California	X				X	X		X
Colorado[a]								
Florida	X			X	X	X		X
Georgia	X	X		X	X	X		X
Illinois[b]	X		X					
Nevada	X	X		X	X	X		X
New Mexico					X		X	X
Tennessee	X		X		X	X		X
Washington								X
Wisconsin	X	X	X	X	X	X		X
Tiered Funding								
Arkansas	X			X	X	X		X
Illinois[c]								X
Kentucky	X			X	X	X		X
Mass.	X				X			X
Michigan	X				X	X		X
Minnesota	X	X	X	X				X
North Carolina[d]								
Ohio								
Oklahoma	X	X	X	X	X	X	X	X
South Carolina	X	X	X		X	X		X

a. Although Colorado does utilize program weights and program type, funding categories are not clearly delineated in the documents retrieved in this study.
b. Budget request formula.
c. Distribution formula.
d. Although North Carolina does utilize program weights and program type, funding categories are not clearly delineated in the documents retrieved in this study.

Summary

This chapter reviewed the body of literature concerning education and its role in democracy, the evolution of America's CC, issues that impact state-level CC governance, and taxonomies about state-level CC governance structures and state funding structures/mechanisms. For example, we saw that balances of power can influence state-level CC governance and structure. Parallel to the United States Federal government, each state has its own constitutional document and no two state's constitutional histories are alike, and this is a factor that impacts state-level governance and structure for CCs across the 50 American States.

For more than 50 years, CC systems have employed mechanisms that were borrowed from the K-12 arena, or are utilizing cost categories that are reflective of four-year institutions. On the other hand, as state appropriations decrease, as CCs begin to offer the baccalaureate degree, and as outcomes rather than access become the focal point of accountability for CCs in higher education, the state funding distribution formulae that have held on for so long may be in jeopardy. States' reasons for utilizing funding formulae has been justified and institutionalized over time and therefore are likely to continue.

However, although state funding distribution formulae emerged organically, they are changing in the wake of technological, economic, and political developments. One can only expect the evolution to continue, yet the question of what and how remains open. Likewise, across the nation, state-level CC governance systems emerged organically and are similarly facing the same technological, economic, and political developments. It has been noted that these two subjects are in some way tied to each other. However, what this relationship looks like, if there is any statistically significant relationship at all, remains to be well-known and studied. Literature concerning the impact of state funding distribution formulae on state-level CC

governance structures is very limited, and there is a void in the literature about statistically significant relationships between these two variables. The following chapter discusses the research methods and hypotheses of this study, which were informed by the following research questions:

1. Are there relationships between revenue resource funds and state-level CC governance structures? (E.g., tuition & fees; state and/or local support)
    a. If there are relationships, what kinds of impact do revenue resource funds have on state-level CC governance structures across the U.S.?
2. What is the current typology and national landscape of CC state funding distribution formulae?
    a. Is there a relationship between state funding distribution formula and state-level CC governance structure?
    b. If there is a relationship, what kinds of impact do state funding distribution formulae have on state-level CC governance structures across the U.S.?

CHAPTER 3. METHODOLOGY

Philosophical Assumptions

This study was designed to evaluate the current typology of 1) state funding distribution formulae of CCs and 2) state-level CC governance structures across the national landscape. Furthermore, this study investigated the relationship between state funding distribution formulae and state-level CC governance structures and also determined what kind of impact one variable has on the other. Given that two methods were used, a parallel-explanatory mixed-method research approach was proposed for this study – quantitative analysis by means of SPSS, and a survey, which includes multiple-choice, multiple-response, and open-ended questions. Tashakkori and Teddlie (1998) argued that the term "mixed model" is more appropriate than "mixed method" their point being that mixing often extends beyond just the methods used in the research. In addition, Caracelli and Greene (1997) stated, the 'mixing' may be nothing more than a side-by-side or sequential use of different methods (Bazeley, 2002). In fact, this side-by-side 'mixing' was essentially the research design of this study. Ultimately, mixed methods analysis is a process of piecing together pieces of a puzzle to find answers to questions (Jick, 1979). Mixed methods can be viewed as the 'pragmatist's approach to analysis.' Smith (1997) argued:

> From data in the form of numbers, one makes inferences in the same way as with data in the form of words, not by virtue of probabilistic algorithms. Statistics are not privileged. Inference is not mechanized. With this way of viewing knowledge, 'mixed' methods may even be a misnomer, as both surveys and participant observation yield equivalent data. Inferences are based on the inquirer's coordinating multiple lines of evidence to gain an overall understanding of the phenomenon… Yet, because the inquirer is the instrument, all information flows through a single perspective. (p. 77)

In sum, the notion is that numbers should be used where they help to answer questions, and in addition, verbal comments should never be ignored. Similarly, Bazeley (2002) claimed:

> Mixed methods are used to enrich understanding of an experience or issue through confirmation of conclusions, extension of knowledge or by initiating new ways of thinking about the subject of the research…validity stems more from the appropriateness, thoroughness and effectiveness with which those methods are applied and the care given to thoughtful weighing of the evidence than from the application of a particular set of rules or adherence to an established tradition. (p. 420)

Much of the writing about mixed-method research designs has focused on the use of component (parallel or sequential) designs in which the different elements are kept separate; most reports of mixed methods studies report either parallel or sequential component designs (Creswell, 1994; Green et al., 1989; Morse, 1991; Morgan, 1998).

Methodological Approach

In the broadest sense, this study was intended to investigate if there is a relationship between state funding distribution formulae and state-level CC governance structures across the national landscape. Due to the vast diversity of states across the U.S. in terms of socioeconomic composition, historical values and customs, and state/federal policies, the National Council of State Directors of Community Colleges (NCSDCC) was used as a purposive sample for the 2016 NCSDCC survey due to their expertise, experience, and perspectives regarding state-level governance, funding, and other issues associated with CCs in the larger context of a rapidly changing policy and politics environment.

Purposive sampling, also known as judgmental, selective or subjective sampling, is a type of non-probability sampling technique (Lund Research Ltd., 2012). Furthermore, unlike the various sampling techniques that can be used under probability sampling, the goal of purposive

sampling is non-randomization (Lund Research Ltd., 2012). The primary goal of purposive sampling is to focus on particular characteristics of interest and the sample being studied is not representative of the population. For mixed-method research designs this is not considered to be a weakness, rather, it is a choice. More specifically, this sample can be described as an "expert sample", which is a type of purposive sampling technique that is used when research attempts to glean knowledge from individuals that have particular expertise, i.e., the NCSDCC (Lund Research Ltd., 2012).

Furthermore, because the research and collection of financial data at the state-level would make for a monumental undertaking to uncover the national landscape, attempts were made to utilize the National Center for Education Statistics Database (IPEDS) as a "one-stop" shop for necessary data. IPEDS data that were used in this study are from the FY 2014 finance data set (most recent available) for all 50 U.S. states, and this information can be found in (Appendix B). Analysis of IPEDs financial information is based on data from all 50 states and can be referred to as a case of sampling with certainty because the entire population is used. It should be noted the IPEDS finance data is based on a reporting structure that may vary by state., e.g., Iowa has fifteen CCs rather sixteen as shown.

Study Setting

To examine relationships between funding and state-level CC governance structures, IPEDS data from Fiscal Year 2014, 2015 NCSDCC survey data, and 2016 NCSDCC survey data were used. This fiscal year was chosen for examination because it is the most recently finalized and available IPEDS data set containing finance information about higher education institutions. In order to analyze the relevant factors associated with funding, various data components were

collected. To assess funding and structure, key variables were identified. For the purpose of this study, the dependent variables were identified as state funding distribution formula, state appropriations, local support, tuition and fees, state appropriations per FTE, local support per FTE, and tuition and fees per FTE. Data was collected for only two-year institutions. Information was collected by, and through, the following sources:

- National Center for Education Statistics Database (IPEDS)
- National Council of State CC Directors (NCSDCC) Surveys

Dependent variables were collected from FY 2014 IPEDS finance data and the 2016 NCSDCC survey. The independent variables included state-level CC governance structures across the U.S. and some information about the independent variables was compiled from prior research (Fletcher & Friedel, 2017).

The National Center for Education Statistics is responsible for collection and interpretation of educational information and data in the United States. Administered by the Institute of Educational Sciences through the United States Department of Education, this is an integrated warehousing resource containing critical educational research data. The Department of Education mandates that institutions receiving federal financial assistance must participate in the Integrated Postsecondary Education Data System (IPEDS). Through IPEDS, information is collected about institutional characteristics including finance, enrollment, student financial aid, graduation rates, faculty staffing, and compensation levels. IPEDS has evolved into a useful tool for data assessment for peer institutions. Due to IPEDS' requirements, this is the most readily available source for data collection. This source was utilized to collect FY 2014 finance data on total revenues and revenues per FTE, by source, for all CCs across the U.S.

For the 2014 reporting cycle, 1,012 two-year public institutions reported. The system automatically performs audit checks utilizing previously submitted data. Checks are done throughout the data entry process and are rerun prior to "locking" information for submission. Because the completion of the IPEDS Finance Survey forms is mandatory for all institutions participating in any federal financial assistance program authorized by Title IV, it is assumed that this is the most comprehensive and best source of public two-year CC revenue funds information. It is also assumed that IPEDS Finance Survey forms have been completed as accurately and completely as possible by all CCs found in the data set (Appendix B). In sum, the data used in this study was sound and comprehensive in scope (IPEDS, 2016). Particular data extracted includes finance-data (*scale data*), state-level CC governance system data (*nominal data*), and state funding distribution formula data (*nominal data*). All of which provided the means for significant measurement, interpretation, and considerable validity.

Research Design

A parallel-explanatory mixed-method research approach was used for this study. Quantitative analysis by means of SPSS, and a survey, which included multiple-choice, multiple-response, and open-ended questions. Additionally, this study used an ex post facto research design. As described by Kerlinger (1973):

> Ex post facto research is systematic empirical inquiry in which the scientist [investigator] does not have direct control of variables. Inferences about relationships among variables are made from any determined variations between the studied variables. (p. 344)

As a result, the study plan involved the gathering and collection of data and information from a survey and 2014 FY finance data set from the IPEDS database. No manipulation of the variables by the researcher was possible; and instead, any determined differences was ex post facto in

nature because they stemmed from the differences in results/data from the National Center for Education Statistics database (IPEDS) and the 2016 NCSDCC survey.

Hypotheses

The specific hypotheses tested are shown below in null form:

State-Level CC Governance Structure

1) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

2) H_0: There is no statistically significant correlational relationship between general state appropriation revenue, state appropriation per FTE, and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state-level CC governance structure.

3) H_0: There is no statistically significant correlational relationship between local support revenue per FTE and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between local support revenue per FTE and state-level CC governance structure.

State Funding Distribution Formula

4) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

5) H_0: There is no statistically significant correlational relationship between state appropriation per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state funding distribution formula.

6) H_0: There is no statistically significant correlational relationship between local support revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between local support revenue per FTE and state funding distribution formula.

State Funding Distribution Formula*State-Level CC Governance Structure

7) H_0: There is no statistically significant impact of state funding distribution formula on state-level CC governance structure.

   H_1: There is a statistically significant impact of state funding distribution formula on state-level CC governance structure.

8) H_0: There is no significant correlational relationship between state funding distribution formula and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between state funding distribution formula and state-level CC governance structure.

All hypotheses were tested at a minimum of 0.05 level of significance with a Bonferroni correction of eight (performing 8 hypothesis tests) to ensure that the overall Type 1 error rate of 0.00625 is maintained when performing the eight independent hypothesis tests. Any null hypothesis was rejected with a p-value ≤ 0.00625.

Population and Sampling Plan

This research incorporated a quantitative analysis utilizing the 2014 FY Finance Data Set National Center for Education Statistics Database (Institute of Education Sciences, 2016), and included a survey sent to the National Council of State Community College Directors (NCSDCC). Correlational research was the quantitative design used in this dissertation. Correlational research attempts to determine the extent of a relationship between two or more variables using statistical data. In this type of design, relationships between and among a number of factors was sought and interpreted. This type of research recognizes relationships, trends, and patterns in the data, but not so far in its analysis to prove causes for any observed patterns. Cause and effect is not the basis of this type of observational research. Furthermore, all variables were not manipulated and were only identified and studied as they occur in a natural setting.

The NCSDCC is an affiliated council of the American Association of Community Colleges (AACC) and provides a forum for the exchange of information about development, trends, and problems in state systems of CCs (NCSDCC, 2016). Membership on the Council is open to the State Director of Public Community Colleges, designated by the State Board, which has the authority to plan, coordinate, and administer public CC programs as defined by the American Association of Community Colleges.

See http://www.statedirectors.org/copy_of_statedirectors/directors/ncsdcc.htm for an official list of members. This survey included a few open-ended questions to allow the possibility for themes and trends to emerge related to funding and state-level CC governance. Qualtrics, Iowa State University licensed software, was used to distribute the survey. Members of the NCSDCC were surveyed because of their knowledge, experience, and perspectives regarding state-level governance, funding, and other issues in the larger context of a rapidly

change state policy environment. It can be assumed that state directors of CCs are most knowledgeable about issues related to their own education sector. The Katsinas (1996) taxonomy about state-level CC governance structures, and the Mullin and Honeyman (2007) taxonomy about state funding distribution formulae structured and guided the survey questions. The IRB Consent Form that precedes the survey can be found in (Appendix E).

Survey Questions

Q1. State:

Q2. Name:

Q3. Which of the following categories best describes your state-level CC governance structure/system? (Katsinas taxonomy, 1996).

- Coordinating/governing board for CCs separate from K-12 & Universities
- Same coordinating/governing board as K-12, but separate from Universities
- Same coordinating/governing board as Universities
- Coordination for CC governance falls beneath a "University coordinating/governing board"
- No state-level coordinating/governing board

Q4. In practice, what body coordinates the collective action of the state's CCs? (I.e. lobbying, advocacy, development of legislative agenda)

- State governing board
- State coordinating council
- Association of CC presidents
- Association of CC trustees

- Combination of any of the above (or other), please specify:

Q5. Using your response for question #3, what are the primary responsibilities of your state's CC coordinating/governing board? (Please select all that apply)

- Establish policies and approves actions related to faculty and personnel
- Hire, evaluate, and terminate CEO
- Ensure fiscal integrity
- Academic program review and approval
- State-wide planning, i.e., strategic plan, facilities, technology plans
- State-wide policy leadership
- Defines mission for the state's higher education system
- Defines mission of each higher education sector
- Formulates legislative agenda
- Other decision-making authority (please specify):

Q6. Which of the following categories best describes your state's CC distribution funding formula? (Mullin & Honeyman taxonomy, 2007).

- Responsive funding formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.
- Functional component funding formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.
- No formula (please describe how CCs are funded):

Q7. Is displayed if "responsive funding formula" is selected in Q6.

Q7. Which of the following sub-categories best describes your state's "Responsive Funding" distribution formula?

- Cost of education funding formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
- Equalized funding formula: Achieved through various mechanisms; generally, allocations are based on a threshold – a specified level or benchmark – that is deemed appropriate for determining equitable funding.
- Option funding formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. For example, a base funding allocation (the total appropriation received by all CCs in the previous fiscal year), a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component.

Q8. Is displayed if "functional component funding formula" is selected in Q6.

Q8. Which of the following sub-categories best describes your state's "functional component funding" distribution formula?

- Generalized funding formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year
- Tiered funding formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.

Q9. Is displayed if "functional component funding formula" is selected in Q6.

Q9. Which of the following components are part of your state's CC "functional component funding" distribution formula? (select as many that apply):

- Instruction
- Research
- Public Service
- Academic Support
- Student Services
- Institutional Support
- Scholarships and Fellowships
- Plant operations
- Other (please describe):

Q10. Does your state-level CC coordinating/governing body utilize a formula for generating legislative requests?

- Yes
- No

Q11. Is displayed if "yes" is selected in Q10.

Q11. Please explain/describe your state-level CC coordinating/governing body's formula/process for generating legislative request(s):

Q12. If you are interested in the results of this survey, please provide an e-mail address:

Human Subjects Approval and Informed Consent

The organizational plan of this study was submitted to the Institutional Review Board at Iowa State University for review and approval. The IRB-exempt approval form can be found in (Appendix E). Upon approval from Iowa State University's Institutional Research Board, potential participants were contacted, the NCSDCC body, by email with a URL to the Qualtrics

electronic survey. The email and first page of the survey (i.e., informed consent form) outlined this research project and served as a request for participation in this study.

Data Collection Procedures

In this study, two tools were used (Qualtrics and SPSS) to collect and measure independent variables and dependent variables from the Integrated Postsecondary Education Data System (IPEDS), 2015 NCSDCC survey data, and 2016 NCSDCC survey data. These variables are outlined below:

Independent Variables – State-level CC governance structures, the independent variables in this study, were measured using data from 2015 national landscape research utilizing the Katsinas (1996) taxonomy (Fletcher & Friedel, 2017).

Dependent Variables – The dependent variables in this study were state funding distribution formulae, state & local support, state and local revenues per FTE, tuition and fees, and tuition and fees per FTE. These variables were measured utilizing the most recently available FY 2014 revenue data from the Integrated Postsecondary Education Data System (IPEDS), 2016 NCSDCC Qualtrics survey, and 2015 NCSDCC Qualtrics survey.

Data Gathering Plans – Data was gathered using two types of electronic resources, Qualtrics and IPEDS. For the survey, repeated attempts were made to strive for all 50 American States to be represented in the data. However, due to time constraints the survey was closed on August 1, 2016. Data analysis was conducted using SPSS Software, version 23.

Data Analysis

Two types of analysis were executed for this study. First, to determine any quantifiable impact resource funds might have on state-level CC governance structures, descriptive statistics

and nonparametric tests (Kruskal-Wallis test and Spearman's Rho Rank Correlation test) were used. The dependent variables were kept as separate factors to keep these resource funds delineated, instead of combining these into a single combining factor. Second, to determine the relationship between state funding distribution formula and state-level CC governance structure from survey data, additional nonparametric tests and quantitative analyses were performed.

There are three general situations in which nonparametric tests can be used: when assumptions of parametric tests are violated, when the data for analysis is ordinal or nominal, or if the data for analysis is derived from small samples (Harris, Boushey, Bruemmer, & Archer, 2008). In this research, two situations encountered warranted the use of nonparametric tests: 1) data that included both ordinal and nominal variables and 2) partial data that was derived from small samples (i.e., ≤50 states were analyzed). Moreover, Harris et al. (2008) argued, "Violations of parametric test assumptions necessitate the use of nonparametric tests. Nonparametric tests are not dependent on a defined distribution (that is why they are often called distribution-free tests) or on statistical parameters such as means, standard deviations, and variances (p. 1490). There are three advantages for using nonparametric tests: 1) They are not dependent on a type of distribution (e.g., normal) 2) They are not dependent on the mean, standard deviation, or variance. 3) They provide useful statistical test options for ordinal and nominal data (Harris et al., 2008, p. 1491).

Limitations

Most of the survey results presented are respondents' insights. However, such insights are based on state public policy, statutes, and law. Although it can be assumed that state directors of CCs are most knowledgeable about issues related to their own education sector, their responses

to most questions can be interpreted only as best estimates. The survey participants make up a purposive sample, also known as judgmental, selective or subjective sampling, and it is a form of non-probability sampling technique (Lund Research Ltd., 2012). However, this sample can be described as an "expert sample", which is a type of purposive sampling technique that is used when research needs to glean knowledge from individuals that have particular expertise (Lund Research Ltd., 2012). Although, purposive sampling methods can be prone to researcher bias, it is only when judgments are ill-conceived or poorly considered (Lund Research Ltd., 2012). With this study, judgments have been based on a clear set of criteria, conceptual framework, theoretical framework, and methodological framework.

Additionally, there are some disadvantages to using nonparametric tests. They do not use all the characteristics of the data (e.g., means and standard deviations), but rather, often use ranks and directions (positive or negative) of the data (Harris et al., 2008). Similarly, because nonparametric tests do not use all the characteristics of the data, the results of the tests tend to be more conservative than parametric tests. This means that if a null hypothesis for a study is false, the nonparametric test is less likely to reject it than a parametric test (Harris et al., 2008).

Implications

This study can be used to inform future studies about how state-level CC governance systems and state funding distribution formulae relate to each other, and "mesh together." CC administrators and state-level CC directors should be well-versed in the findings and analyses from this study. Sharing these findings can serve as a validation, or re-evaluation, of the combination and relationship of their state-level CC governance structure and state funding mechanism/structure used within their own borders.

CHAPTER 4. FINDINGS AND ANALYSIS

This chapter presents the research findings of this study. The data related to research question number one, and its sub-research questions, utilize the 2014 FY finance data from IPEDS, and are presented in the first section of this chapter. (Refer to Appendix B) for the 2014 IPEDS FY finance data set.) Additionally, a second section follows with the data and results to address research question number two and its sub-research questions utilizing the NCSDCC 2016 survey data. (Refer to Appendix C for the NCSDCC 2016 survey data set.) It should be noted the following IPEDS data is based on a financing reporting structure that may vary by state, e.g., Iowa has fifteen CCs rather sixteen as shown. Again, *local support per FTE* denotes the Integrated Postsecondary Education Data System's definition of local appropriations, education district taxes, and/or similar support.

IPEDS 2014 Finance Data and SPSS Quantitative Analysis Results

Reliability Statistics

The following table shows reliability measures and statistics for the 2014 IPEDS finance data set used for this section of SPSS quantitative analysis. Since the IPEDS finance data is based on all 50 states, this information can be considered as a case of sampling with certainty. The analysis indicates the data from the 2014 FY finance information from IPEDS utilized for quantitative analysis is reliable and valid.

Table 6

All Variables: Inter-Item Correlation Matrix (2014 FY)

Item Statistics	Mean	Std. Deviation	N
Revenues from state appropriations per FTE	$3,874	$3,030	1011
Revenues from local support per FTE	$2,071	$4,005	1011

Inter-Item Correlation Matrix	Revenues from state appropriations per FTE	Revenues from local support per FTE
Revenues from state appropriations per FTE	1.000	-.173
Revenues from local support per FTE	-.173	1.000

Scale Statistics

Mean	Variance	Std. Deviation	Number of Items
$5,946.1454	21028548.277	$4,585.68951	2

Item Statistics	Mean	Std. Deviation	N
State appropriations	$13,216,943	$15,721,870	1011
Local support	$9,852,598	$18,472,661	1011
Revenues from state appropriations per FTE	$3,874	$3,030	1011
Revenues from local support per FTE	$2,071	$4,005	1011

Inter-Item Correlation Matrix	State appropriations	Local support,	Revenues from state appropriations per FTE	Revenues from local support per FTE
State appropriations	1.000	.380	.053	-.055
Local support	.380	1.000	-.255	.396
Revenues from state appropriations per FTE	.053	-.255	1.000	-.173
Revenues from local support per FTE	-.055	.396	-.173	1.000

Correlation Tests

After running reliability statistics, it is now known that the 2014 IPEDS finance data set is valid and has statistical significance for CCs across the national landscape. As a result, it is

important to run parametric Pearson Correlation tests between the dependent variables. As can be seen in the tables below, there are statistically significant correlations between the *dependent variables*.

Table 7

Parametric Correlations Across Multiple Appropriations and Revenues per FTE (2014 FY)

Correlations		State appropriations	Local support	Revenues from state appropriations per FTE
State appropriations	Pearson Correlation	1	.380**	.053
	Sig. (2-tailed)		.000	.094
	Sum of Squares and Cross-products	249677070448244544 0	111536406658454160	2536563342517
	Covariance	246960504894406	110322855250696	2511448853
	N	1012	1012	1011
Local support	Pearson Correlation	.380**	1	-.255**
	Sig. (2-tailed)	.000		.000
	Sum of Squares and Cross-products	111536406658454160	344748585409229890	-14389461650745
	Covariance	110322855250696	340997611680741	-14246991733
	N	1012	1012	1011
Revenues from state appropriations per FTE	Pearson Correlation	.053	-.255**	1
	Sig. (2-tailed)	.094	.000	
	Sum of Squares and Cross-products	2536563342517	-14389461650745	9275329332
	Covariance	2511448853.978	-14246991733.412	9183494.389
	N	1011	1011	1011
Revenues from local support per FTE	Pearson Correlation	-.055	.396**	-.173**
	Sig. (2-tailed)	.082	.000	.000
	Sum of Squares and Cross-products	-3481457080408.205	29578383523160.700	-2118745650.667
	Covariance	-3446987208.325	29285528240.753	-2097767.971
	N	1011	1011	1011

Table 8

Parametric Correlation Across Multiple Revenues and Local support per FTE (2014 FY)

Revenue Source	Correlations	Revenues from local support per FTE
State appropriations	Pearson Correlation	-.055
	Sig. (2-tailed)	.082
	Sum of Squares and Cross-products	-3481457080408.205
	Covariance	-3446987208.325
	N	1011
Local support	Pearson Correlation	.396**
	Sig. (2-tailed)	.000
	Sum of Squares and Cross-products	29578383523160.700
	Covariance	29285528240.753
	N	1011
Revenues from state appropriations per FTE	Pearson Correlation	-.173**
	Sig. (2-tailed)	.000
	Sum of Squares and Cross-products	-2118745650
	Covariance	-2097767
	N	1011
	Sig. (2-tailed)	
	Sum of Squares and Cross-products	16200995728
	Covariance	16040589
	N	1011

**Correlation is significant at the 0.05 level

Table 9

Parametric *Correlation Across State Appropriation per FTE & State Appropriation (2014 FY)*

Correlations		Revenues from state appropriations per FTE	State appropriations
Revenues from state appropriations per FTE	Pearson Correlation	1	.053
	Sig. (2-tailed)		.094
	Sum of Squares and Cross-products	9275329332	2536563342517
	Covariance	9183494.389	2511448853
	N	1011	1011
State appropriations	Pearson Correlation	.053	1
	Sig. (2-tailed)	.094	
	Sum of Squares and Cross-products	2536563342517	249677070448244544
	Covariance	2511448853	246960504894406
	N	1011	1012

Since the independent variable (i.e., state-level CC governance structure) is nominal data, it was also important to run nonparametric correlation tests between the dependent variables (Kendall's tau_b & Spearman's rho). As can be seen in the tables below, there are certainly statistically significant correlations between the *dependent variables*.

Table 10

Nonparametric Correlations: State Appropriation per FTE & State Appropriation (2014 FY)

Correlations			Revenues from state appropriations per FTE	State appropriations
Kendall's tau_b	Revenues from state appropriations per FTE	Correlation Coefficient	1.000	.188**
		Sig. (2-tailed)		.000
		N	1011	1011
	State appropriations	Correlation Coefficient	.188**	1.000
		Sig. (2-tailed)	.000	
		N	1011	1012
Spearman's rho	Revenues from state appropriations per FTE	Correlation Coefficient	1.000	.275**
		Sig. (2-tailed)		.000
		N	1011	1011
	State appropriations	Correlation Coefficient	.275**	1.000
		Sig. (2-tailed)	.000	
		N	1011	1012

**Correlation is significant at the 0.01 level (2-tailed).

Table 11

Nonparametric Correlations: Multiple Revenues and State and Local support (2014 FY)

	Nonparametric Correlations		State appropriations	Local support
Kendall's tau_b	State appropriations	Correlation Coefficient	1.000	.218**
		Sig. (2-tailed)		.000
		N	1012	1012
	Local support	Correlation Coefficient	.218**	1.000
		Sig. (2-tailed)	.000	
		N	1012	1012
	Revenues from state appropriations per FTE	Correlation Coefficient	.188**	-.244**
		Sig. (2-tailed)	.000	.000
		N	1011	1011
	Revenues from Local support per FTE	Correlation Coefficient	.064**	.783**
		Sig. (2-tailed)	.004	.000
		N	1011	1011
Spearman's rho	State appropriations	Correlation Coefficient	1.000	.294**
		Sig. (2-tailed)	.	.000
		N	1012	1012
	Local support	Correlation Coefficient	.294**	1.000
		Sig. (2-tailed)	.000	
		N	1012	1012
	Revenues from state appropriations per FTE	Correlation Coefficient	.275**	-.333**
		Sig. (2-tailed)	.000	.000
		N	1011	1011
	Revenues from Local support per FTE	Correlation Coefficient	.085**	.924**
		Sig. (2-tailed)	.007	.000
		N	1011	1011

**Correlation is significant at the 0.05 level

Table 12

Nonparametric Correlations: Appropriations and State and Local Revenues per FTE (2014 FY)

	Correlations		Revenues from state appropriations per FTE	Revenues from local support per FTE
Kendall's tau_b	State appropriations	Correlation Coefficient	.188**	.064**
		Sig. (2-tailed)	.000	.004
		N	1011	1011
	Local support	Correlation Coefficient	-.244**	.783**
		Sig. (2-tailed)	.000	.000
		N	1011	1011
	Revenues from state appropriations per FTE	Correlation Coefficient	1.000	-.210**
		Sig. (2-tailed)		.000
		N	1011	1011
	Revenues from local support per FTE	Correlation Coefficient	-.210**	1.000
		Sig. (2-tailed)	.000	
		N	1011	1011
Spearman's rho	State appropriations	Correlation Coefficient	.275**	.085**
		Sig. (2-tailed)	.000	.007
		N	1011	1011
	Local support	Correlation Coefficient	-.333**	.924**
		Sig. (2-tailed)	.000	.000
		N	1011	1011
	Revenues from state appropriations per FTE	Correlation Coefficient	1.000	-.283**
		Sig. (2-tailed)		.000
		N	1011	1011
	Revenues from local support per FTE	Correlation Coefficient	-.283**	1.000
		Sig. (2-tailed)	.000	
		N	1011	1011

**Correlation is significant at the 0.05 level.

Descriptive Statistics

The following tables and charts describe the "make-up" of CCs across the national landscape of state and state-level CC governance structures, and of resource funds across the

U.S. using data from the 2014 FY IPEDS database. The 2014 FY data are the most recent and accurate information available, which is known as "final release" data.

Table 13

Number of CCs Reported in 2014 Finance Survey (IPEDS)

		Number of CCs Reported
N	*Valid*	1,012
	Missing	0

The following table shows the number of CCs by state-level CC governance structure from the Katsinas taxonomy. As is shown, the majority of U.S. CCs are governed under either a *coordinating/governing board that is separate from K-12 and Universities* structure or a *same coordinating/governing board as university board* structure.

Table 14

Number of CCs by State-Level CC Governance Structure

State-Level CC Governance System	Frequency	Percent	Cumulative Percent
Coordinating/governing board for CCs separate from K-12 & university	471	46.5	46.5
Coordination for CC governance falls beneath a university coordinating/governing board	54	5.3	51.9
No state-level coordinating or governing board	85	8.4	60.3
Same coordinating/governing board as K-12, but separate from university	55	5.4	65.7
Same coordinating/governing board as university	347	34.3	100.0
Total	1012	100.0	

The following table depicts the number of CCs operating in each U.S. state.

Table 15

Number of CCs by State (IPEDS, 2014)

State	Frequency (*N*)	Percent (%)
Alabama	26	2.6
Alaska	2	.2
Arizona	19	1.9
Arkansas	22	2.2
California	116	11.5
Colorado	15	1.5
Connecticut	14	1.4
Delaware	3	.3
Florida	39	3.9
Georgia	27	2.7
Hawaii	6	.6
Idaho	4	.4
Illinois	48	4.7
Indiana	1	.1
Iowa	16	1.6
Kansas	25	2.5
Kentucky	16	1.6
Louisiana	16	1.6
Maine	7	.7
Maryland	16	1.6
Massachusetts	16	1.6
Michigan	28	2.8
Minnesota	31	3.1
Mississippi	15	1.5
Missouri	16	1.6
Montana	10	1.0
Nebraska	8	.8
Nevada	1	.1
New Hampshire	7	.7
New Jersey	19	1.9
New Mexico	19	1.9
New York	37	3.7
North Carolina	59	5.8
North Dakota	5	.5
Ohio	33	3.3
Oklahoma	25	2.5
Oregon	17	1.7
Pennsylvania	17	1.7
Rhode Island	1	.1
South Carolina	20	2.0
South Dakota	5	.5
Tennessee	39	3.9
Texas	62	6.1
Utah	6	.6
Vermont	1	.1
Virginia	24	2.4
Washington	20	2.0
West Virginia	9	.9
Wisconsin	17	1.7
Wyoming	7	.7
Total	1012	100.0

The following tables are one-sample t-tests for state appropriations and local support as a whole and per FTE across the national landscape.

Table 16

Resource Fund Statistics (2014 FY)

Resource Fund Statistics	Mean	Std. Deviation	Skewness	
Revenues from state appropriations per FTE	$3,874	$3,030	2.510	.077
Revenues from local support per FTE	$2,071	$4,005	8.767	.077
State appropriations	$13,211,703	$15,714,977	4.486	.077
Local support	$9,842,862	$18,466,120	3.727	.077

Table 17

One-Sample T-Test for Revenues per FTE (2014 FY)

One-Sample Statistics	N	Mean	Std. Deviation	Std. Error Mean
Revenues from state appropriations per FTE	1011	$3,874	$3,030	$95
Revenues from local support per FTE	1011	$2,071	$4,005.	$125
Revenues from tuition and fees per FTE	1011	$2,279	$1,543.	$48

One sample Test	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower
Revenues from state appropriations per FTE	40.651	1010	.000	$3,874	$3,687
Revenues from local support per FTE	16.448	1010	.000	$2,071	$1,824
Revenues from tuition and fees per FTE	46.957	1010	.000	$2,279	$2,184

The following table illustrates descriptive statistics for three revenue sources per FTE (tuition and fees, state appropriations per FTE, and local support per FTE).

Table 18

Descriptive Statistics on Revenues per FTE (2014 FY)

Descriptive Statistics		Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
N	*Valid*	1011	1011	1011
	Missing	1	1	1
Mean		$2,279	$3,874	$2,071
Median		$2,049	$3,372	$962
Mode		$1,568	$0.00	$0.00
Std. Deviation		$1,543	$3,030	$4,005
Variance		2383477	9183494	16040589
Skewness		2.072	2.510	8.767
Std. Error of Skewness		.077	.077	.077
Kurtosis		8.178	12.264	136.885
Std. Error of Kurtosis		.154	.154	.154
Minimum		$13.00	$0.00	$0.00
Maximum		$12,658	$28,446	$77,622
Sum		$2,305,079	$3,916,951	$2,094,602
Percentiles	*25*	$1,178	$2,161	$0.00
	50	$2,049	$3,372.	$962.00
	75	$2,983	$4,939	$2,874

The following table illustrates descriptive statistics for state appropriations and local support across the national landscape.

Table 19

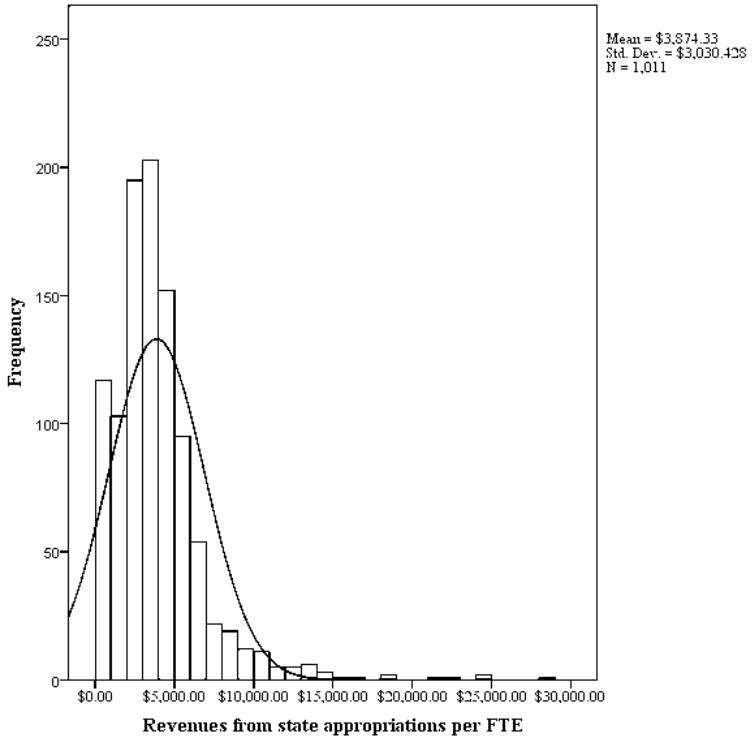
Descriptive Statistics on State and Local Support (2014 FY)

Descriptive Statistics		State appropriations	Local Support
N	*Valid*	1012	1012
	Missing	0	0
Mean		$13,211,703	$9,842,862
Median		$8,806,012	$1,993,224
Mode		$0.00	$0.00
Std. Deviation		$15,714,977	$18,466,120
Variance		246960504894405	340997611680741
Skewness		4.486	3.727
Std. Error of Skewness		.077	.077
Kurtosis		42.856	20.037
Std. Error of Kurtosis		.154	.154
Minimum		$0.00	$0.00
Maximum		$234,180,304	$179,789,467
Sum		$13,370,243,585	$9,960,976,950
Percentiles	*25*	$0.0000	$0.0000
	50	$1,993,224	$1,993,224
	75	$11,622,333	$11,622,333

Charts (1, 2, 3, and 4) below depict histograms for state and local support across the national landscape, and per FTE.

Chart 1

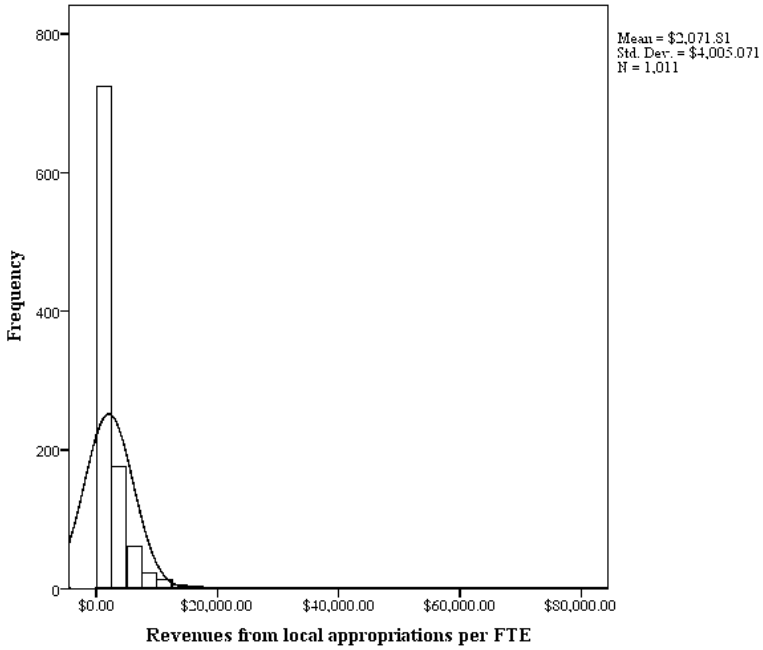
Histogram of 2014 State Appropriations per FTE (2014 FY)



(N) = Number of CCs

Chart 2

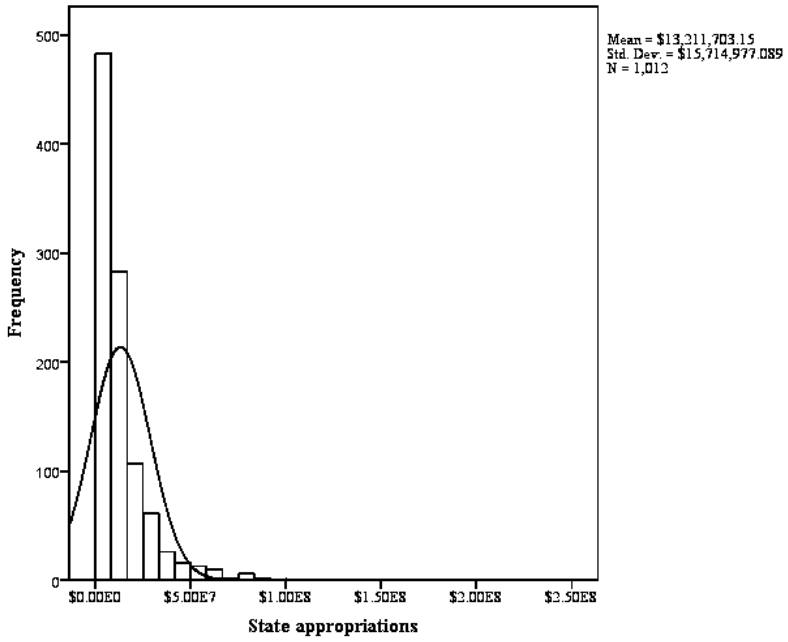
Histogram of Local Support per FTE (2014 FY)



(N) = Number of CCs

Chart 3

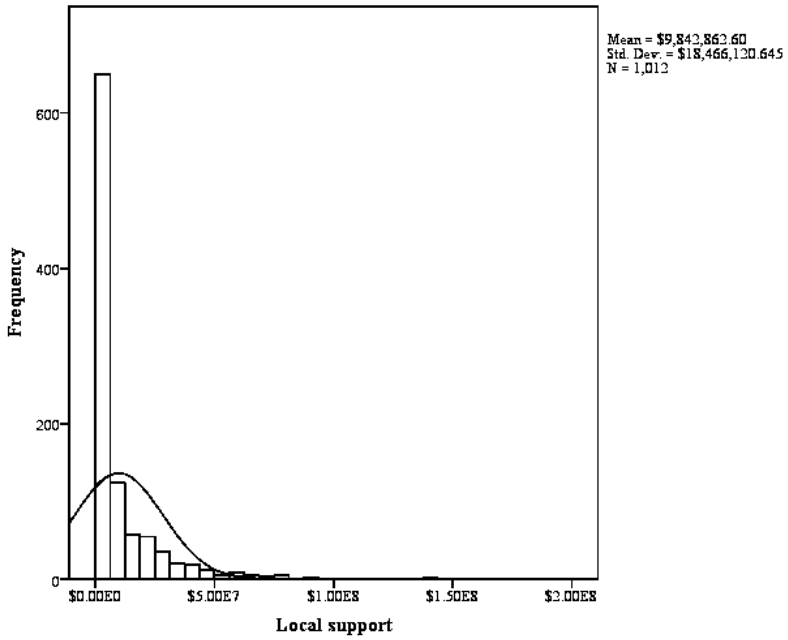
Histogram of State Appropriations (2014 FY)



(N) = Number of CCs

Chart 4

Histogram of Local Support (2014 FY)



(N) = Number of CCs

ANOVA Models

The following tables display ANOVA results of revenue funds and revenue funds per FTE. The results demonstrate validity and statistical significance across the national landscape. However, because our *independent variable* – state-level CC governance structure data – is nominal, it therefore requires further analysis utilizing nonparametric tests, which are in the next section of this chapter. ANOVA models were estimated to demonstrate and show that because of our *independent variable*, the parametric ANOVA model is not the most appropriate method for use in investigating the impacts and relationships of funding on state-level CC governance structure.

Table 20

Measures of Assoc.: Revenue per FTE and State-Level CC Gov. Structure (2014 FY)

Measures of Association	Eta	Eta Squared
Revenues from state appropriations per FTE State-Level CC Governance System*[a]	.240	.057
*Revenues from tuition and fees per FTE*State-Level CC Governance System*[a]	.268	.072
*Revenues from local support per FTE*State-Level CC Governance System*[a]	.167	.028

a. The grouping variable State-Level CC Governance System is a string, so the test for linearity cannot be computed.

Table 21

ANOVA: State & Local Support per FTE and State-Level CC Governance Structure (2014 FY)

ANOVA: Revenues per FTE			Sum of Squares	df	Mean Square
Revenues from state appropriations per FTE State-Level CC Governance System*	Between Groups	(Combined)	533219199.981	4	133304799.995
	Within Groups		8742110132.685	1006	8689970.311
	Total		9275329332.667	1010	
Revenues from local support per FTE State-Level CC Governance System*	Between Groups	(Combined)	452214209.629	4	113053552.407
	Within Groups		15748781518.664	1006	15654852.404
	Total		16200995728.293	1010	
*Revenues from tuition and fees per FTE * State-Level CC Governance System*	Between Groups	(Combined)	172991493.102	4	43247873.276
	Within Groups		2234320365.897	1006	2220994.399
	Total		2407311858.999	1010	

			F	Sig.
Revenues from state appropriations per FTE State-Level CC Governance System*	Between Groups	(Combined)	15.340	<.001
	Within Groups			
	Total			
Revenues from local support per FTE State-Level CC Governance System*	Between Groups	(Combined)	7.222	<.001
	Within Groups			
	Total			
Revenues from tuition and fees per FTE State-Level CC Governance System*	Between Groups	(Combined)	19.472	<.001
	Within Groups			
	Total			

a. The grouping variable State-Level CC Governance System is a string, so the test for linearity cannot be computed.

Table 22

ANOVA: State and Local Support (2014 FY)

ANOVA: State Appropriations & Local Support		Sum of Squares	df	Mean Square	F
Revenues from state appropriations per FTE	Between Groups	8814165959	926	9518537	1.734
	Within Groups	461163373	84	5490040	
	Total	9275329332	1010		
Revenues from local support per FTE	Between Groups	15403654988	926	16634616	1.752
	Within Groups	797340739.500	84	9492151	
	Total	16200995728	1010		

Table 23

ANOVA: Tukey's Test for Nonadditivity

ANOVA with Tukey's Test for Nonadditivity			Sig
Between People			
Within People	Between Items		.000
	Residual	Nonadditivity	.000
		Balance	
		Total	
	Total		
Total			

Grand Mean = $5,768,871.97

a. Kendall's coefficient of concordance W = 0.191.

b. Tukey's estimate of power to which observations must be raised to achieve additivity = 0.073.

Nonparametric Tests: Revenue Source & State-Level CC Governance Structure

The most appropriate nonparametric test for measuring statistically significant differences between state-level CC governance structure and revenue sources is the Kruskal-Wallis test. As Harris et al. (2008) noted:

> If more than two independent groups are compared on a quantitative or ordinal variable, and assumptions for the parametric one-way ANOVA are violated, the Kruskal-Wallis test is warranted…[moreover] it is the appropriate statistical test to determine statistically significant differences between multiple groups. Statistical significance for this test indicates that a difference exists somewhere between the groups. (p. 1493)

Furthermore, the Kruskal-Wallis test is used to determine whether the medians of two or more groups differ when using data that is not symmetric, such as skewed data in this context. It is a nonparametric alternative to a one-way ANOVA test, and it is a test that does not require the data to be normal, but instead uses the rank of the data values instead of the actual data values for the analysis.

For the results below, the specific variables involved include the independent variable state-level CC governance structure (categories from 1996 Katsinas taxonomy), and dependent variables include revenue source by state (state appropriations, local support; and tuition and fees); both in sum and per FTE. The specific test used will be the independent-samples Kruskal-Wallis test, and hypotheses are listed in the below chart. Level of significance used is P = 0.05 at a 95% confidence interval. As can be seen from running the test using SPSS, with a statistical significance of 0.000, and with the tests statistics generated, we can reject *ALL* null hypotheses with confidence.

State-Level CC Governance Structure

1) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state-level CC governance structure.

2) H_0: There is no statistically significant correlational relationship between general state appropriation revenue, state appropriation per FTE, and state-level CC governance structure.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state-level CC governance structure.

3) H_0: There is no statistically significant correlational relationship between local appropriation revenue per FTE and state-level CC governance structure.

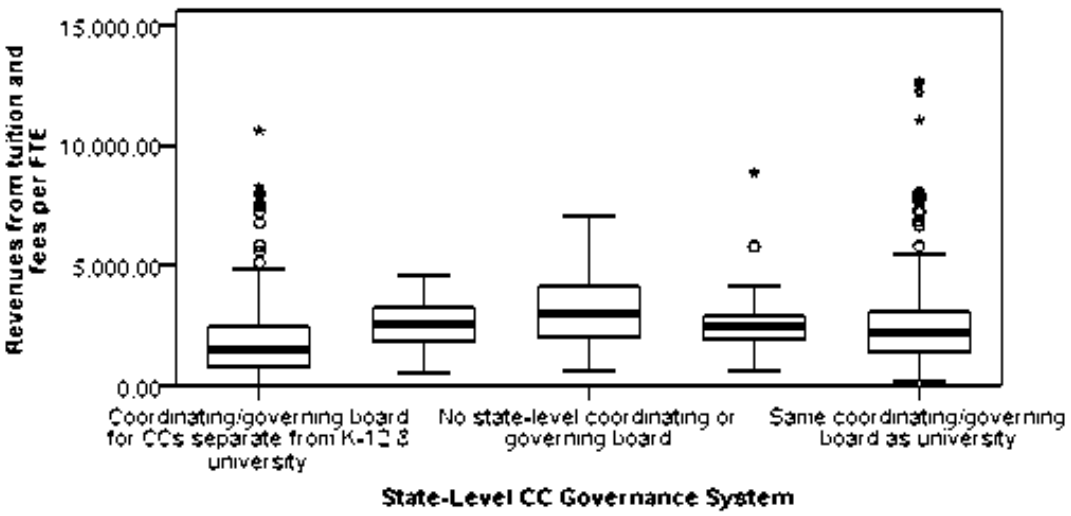
   H_1: There is a statistically significant correlational relationship between local appropriation revenue per FTE and state-level CC governance structure.

All hypotheses will be tested at a minimum of 0.05 level of significance with a Bonferroni correction of eight (performing 8 hypothesis tests) to ensure that the overall Type 1 error rate of 0.00625 is maintained when performing the eight independent hypothesis tests. Any hypothesis can be rejected with p-value ≤ 0.00625. These results show there are statistically significant differences between our dependent and independent variables.

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Revenues from tuition and fees per FTE is the same across categories of State-Level CC Governance System.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of Revenues from state appropriations per FTE is the same across categories of State-Level CC Governance System.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
3	The distribution of Revenues from local appropriations per FTE is the same across categories of State-Level CC Governance System.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 1. Hypotheses Tested: State-Level CC Governance Structure & Revenues per FTE (2014 FY)

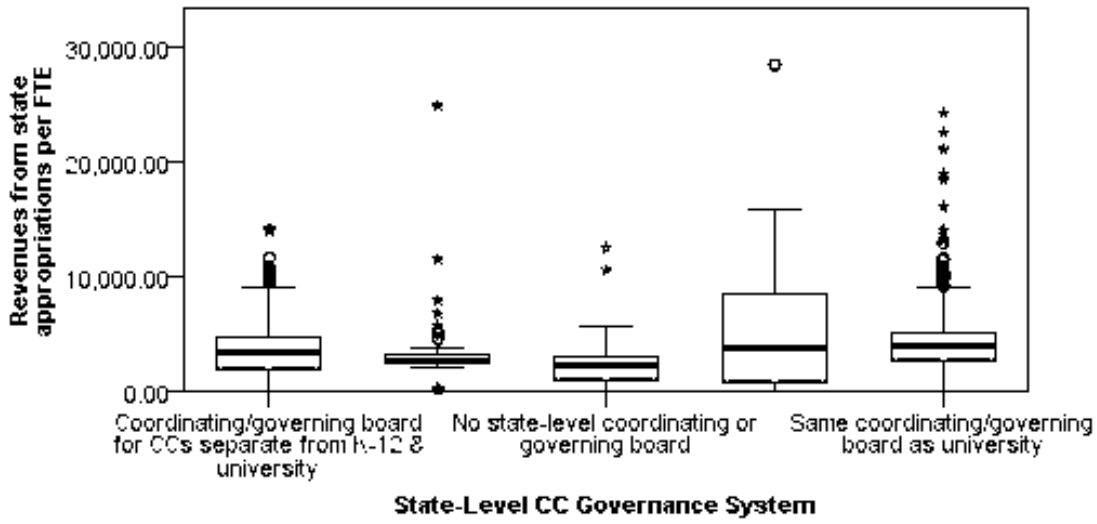


Total N	1,011
Test Statistic	110.500
Degrees of Freedom	4
Asymptotic Sig. (2-sided test)	.000

1. The test statistic is adjusted for ties.

Figure 2. Independent-Samples Kruskal-Wallis Test: Tuition and Fees Per FTE (2014 FY)

NOTE: 2nd column indicates "coordinating for CC governance falls beneath a university coordinating/governing board. 4th column indicates "same coordinating/governing board as K-12, but separate from university. (N) = Number of community colleges.

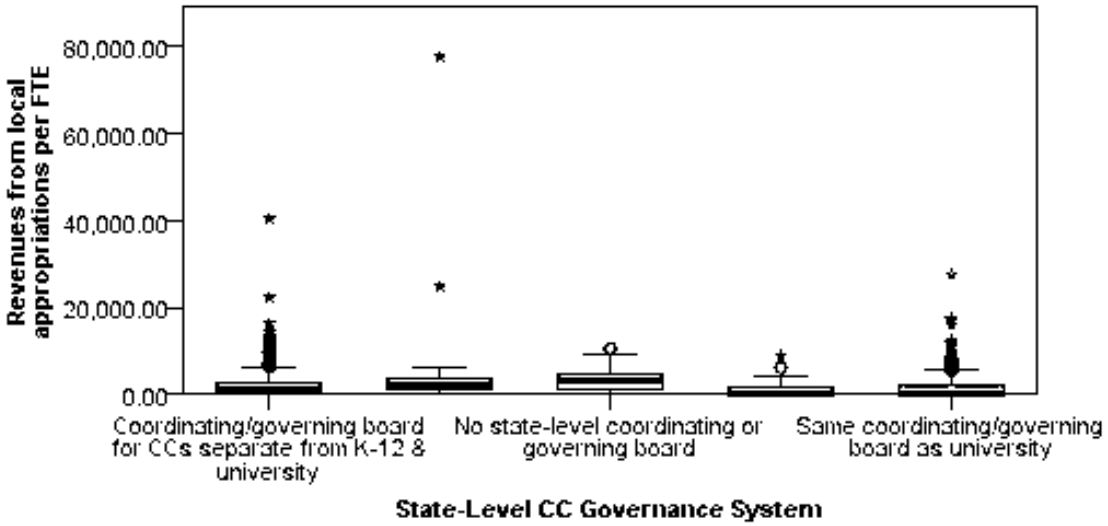


Total N	1,011
Test Statistic	62.794
Degrees of Freedom	4
Asymptotic Sig. (2-sided test)	.000

1. The test statistic is adjusted for ties.

Figure 3. Independent-Samples Kruskal-Wallis Test: State Appropriations per FTE (2014 FY)

NOTE: 2nd column indicates "coordinating for CC governance falls beneath a university coordinating/governing board. 4th column indicates "same coordinating/governing board as K-12, but separate from university. (N) = Number of community colleges.



Total N	1,011
Test Statistic	79.336
Degrees of Freedom	4
Asymptotic Sig. (2-sided test)	.000

1. The test statistic is adjusted for ties.

Figure 4. Independent-Samples Kruskal-Wallis Test: Local Support per FTE (2014 FY)

NOTE: 2nd column indicates "coordinating for CC governance falls beneath a university coordinating/governing board. 4th column indicates "same coordinating/governing board as K-12, but separate from university. (N) = Number of community colleges.

Breakdown of Revenue by State-Level CC Governance Structure

Now that is known there are statistically significant correlations between revenue resource fund distributions and state-level CC governance structure, it is important to breakdown these differences. The following table and charts illustrate revenue source distributions by state-level CC governance structure.

Table 24

Revenues per FTE by State-Level CC Governance Structure Statistics (2014 FY)

State-Level CC Governance Structure	Statistic	Revenues from state appropriations per FTE	Revenues from local support per FTE	Revenues from tuition and fees per FTE	SUM Revenues per FTE
Coordinating/governing board for CCs separate from K-12 & university	Mean	$3,572	$1,873	$1,990	$7,435
	Median	$3,394	$1,530	$1,049	
	N	470	470	470	
	Std. Deviation	$2,303	$1,401	$3,349	
	Minimum	$0.00	$13.00	$0.00	
	Maximum	$14,200	$10,605	$40,454	
	Range	$14,200	$10,592	$40,454	
	Variance	5304261	1963581	11217349	
	Kurtosis	1.861	6.567	41.342	
	Skewness	.910	2.017	4.880	
Coordination for CC governance falls beneath a university coordinating/governing board	Mean	$3,422	$2,548	$3,986	$9,956
	Median	$2,799.50	$2,555.50	$2,131.50	
	N	54	54	54	
	Std. Deviation	$3,544	$984	$10,787	
	Minimum	$0.00	$520	$0.00	
	Maximum	$24,864	$4,597	$77,622	
	Range	$24,864	$4,077	$77,622	
	Variance	12566640	968462	116364041	
	Kurtosis	25.884	-.411	43.006	
	Skewness	4.514	.148	6.361	
No state-level coordinating or governing board	Mean	$2,348	$3,155	$3,419	$8,922
	Median	$2,293	$2,997	$3,267	
	N	85	85	85	
	Std. Deviation	$2,015	$1,476	$2,576	
	Minimum	$0.00	$679	$0.00	
	Maximum	$12,517	$7,089	$10,670	
	Range	$12,517	$6,410	$10,670	
	Variance	4063391	2181284	6638629	
	Kurtosis	9.403	-.204	.137	
	Skewness	2.265	.456	.671	

Table 24 (continued)

State-Level CC Governance Structure	Statistic	Revenues from state appropriations per FTE	Revenues from local support per FTE	Revenues from tuition and fees per FTE	SUM Revenues per FTE
Same coordinating/governing board as K-12, but separate from university	Mean	$5,608	$2,597	$1,115	$9,320
	Median	$3,887.00	$2,520.00	$3.00	
	N	55	55	55	
	Std. Deviation	$5,592	$1,254	$1,744	
	Minimum	$0.00	$683	$0.00	
	Maximum	$28,446	$8,867	$8,893	
	Range	$28,446	$8,184	$8,893	
	Variance	31278282	1572721	3042719	
	Kurtosis	3.667	11.175	7.128	
	Skewness	1.517	2.540	2.353	
Same coordinating/governing board as university	Mean	$4,452	$2,524	$1,706	$8,682
	Median	$3,959	$2,260	$0.00	
	N	347	347	347	
	Std. Deviation	$3,206	$1,694	$3,224	
	Minimum	$0.00	$206	$0.00	
	Maximum	$24,310	$12,658	$27,741	
	Range	$24,310	$12,452	$27,741	
	Variance	10283316	2872592	10400574	
	Kurtosis	10.817	11.448	17.653	
	Skewness	2.587	2.665	3.513	
ALL CCs	Mean	$3,874	$2,279	$2,071	$8,224
	Median	$3,372	$2,049	$962	
	N	1011	1011	1011	
	Std. Deviation	$3,030	$1,543	$4,005	
	Minimum	$0.00	$13	$0.00	
	Maximum	$28,446	$12,658	$77,622	
	Range	$28,446	$12,645	$77,622	
	Variance	9183494	2383477	16040589	
	Kurtosis	12.264	8.178	136.885	
	Skewness	2.510	2.072	8.767	

Table 25

Revenues per FTE by State-Level CC Governance System and by State (2014 FY)

State-Level CC Governance System	State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE	
		Mean	Median	Mean	Median	Mean	Median
Coordinating /governing board for CCs separate from K-12 & university	Alabama	$1,906.00	$1,908.00	$5,546.04	$4,865.00	$24.85	$0.00
	California	$898.81	$751.50	$3,279.32	$3,412.50	$3,420.53	$2,622.50
	Colorado	$3,673.20	$3,770.00	$406.53	$0.00	$783.00	$0.00
	Delaware	$4,410.00	$4,334.00	$6,677.67	$6,952.00	$0.00	$0.00
	Georgia	$2,127.11	$1,999.00	$3,830.00	$3,702.00	$4.85	$0.00
	Illinois	$1,935.85	$1,809.50	$1,937.50	$1,690.00	$3,712.35	$3,639.00
	Kentucky	$1,457.88	$1,521.00	$2,805.25	$2,223.50	$1.00	$0.00
	Louisiana	$2,011.81	$2,005.00	$2,849.00	$2,870.50	$0.00	$0.00
	Maine	$1,573.57	$1,398.00	$6,416.57	$4,624.00	$0.00	$0.00
	Mississippi	$1,217.80	$922.00	$3,981.40	$3,680.00	$1,049.60	$996.00
	New Hampshire	$7,561.57	$7,597.00	$5,363.14	$4,441.00	$0.00	$0.00
	New Jersey	$3,512.05	$3,426.00	$1,206.42	$1,107.00	$1,744.11	$1,672.00
	North Carolina	$1,128.46	$998.00	$5,853.29	$5,740.00	$1,131.66	$1,127.00
	South Carolina	$2,494.20	$2,504.00	$1,886.20	$1,789.00	$751.10	$789.50
	Virginia	$2,491.54	$2,518.00	$3,980.63	$3,690.00	$40.88	$28.50
	Washington	$2,362.95	$2,383.00	$4,273.80	$3,995.50	$0.00	$0.00
	West Virginia	$2,106.38	$2,138.50	$3,926.00	$3,786.50	$359.75	$0.00
	Wisconsin	$2,784.24	$2,748.00	$1,468.29	$1,586.00	$11,161.76	$11,932.00
	Wyoming	$2,261.71	$2,128.00	$7,987.86	$8,077.00	$3,362.29	$3,550.00
Coordination for CC governance falls beneath a university coordinating/ governing board	Alaska	$3,963.50	$3,963.50	$12,432.00	$12,432.00	$38,811.00	$38,811.00
	Idaho	$2,029.00	$1,965.50	$5,271.50	$3,684.50	$1,453.75	$1,152.00
	Indiana	$2,043.00	$2,043.00	$3,481.00	$3,481.00	$0.00	$0.00
	Montana	$2,600.10	$2,569.50	$3,000.70	$2,446.00	$1,362.50	$0.00
	New York	$2,527.54	$2,589.00	$2,848.32	$2,790.00	$3,195.35	$2,453.00
No state-level coordinating or governing board	Arizona	$1,651.16	$1,568.00	$802.26	$106.00	$5,897.89	$5,647.00
	Maryland	$3,484.56	$3,407.00	$3,760.25	$2,960.50	$3,716.25	$3,554.50
	Michigan	$2,803.43	$2,904.50	$2,390.57	$2,290.00	$3,659.11	$3,337.00
	Pennsylvania	$4,713.65	$4,939.00	$2,757.65	$2,461.00	$979.76	$962.00
	South Dakota	$4,493.80	$5,103.00	$2,073.40	$3,119.00	$0.00	$0.00

Table 25 (continued)

State-Level CC Governance System	State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE	
		Mean	Median	Mean	Median	Mean	Median
Same coordinating/ governing board as K-12, but separate from university	Florida	$2,464.08	$2,287.00	$6,185.33	$3,887.00	$678.69	$0.00
	Iowa	$2,922.19	$2,934.50	$4,202.94	$3,994.50	$2,180.13	$2,053.00
Same coordinating/ governing board as university	Arkansas	$1,793.86	$1,494.00	$5,608.45	$5,411.50	$731.45	$599.00
	Connecticut	$2,773.29	$2,831.00	$8,771.36	$7,446.00	$0.00	$0.00
	Hawaii	$2,522.83	$2,337.00	$7,338.17	$6,776.00	$0.00	$0.00
	Kansas	$2,306.24	$2,583.00	$2,966.72	$2,564.00	$3,273.76	$2,143.00
	Massachusetts	$3,515.63	$3,365.50	$5,315.50	$4,954.50	$0.00	$0.00
	Minnesota	$3,059.13	$3,167.00	$4,100.94	$4,405.00	$0.00	$0.00
	Missouri	$2,461.63	$1,763.50	$1,650.00	$1,487.50	$1,101.25	$733.50
	Nebraska	$2,499.00	$2,162.50	$4,246.88	$3,543.00	$4,068.25	$4,595.00
	Nevada	$2,194.00	$2,194.00	$4,460.00	$4,460.00	$0.00	$0.00
	New Mexico	$1,522.21	$1,233.00	$4,767.68	$4,538.00	$2,049.37	$1,441.00
	North Dakota	$2,919.20	$2,966.00	$8,908.80	$7,923.00	$0.00	$0.00
	Ohio	$4,703.48	$3,594.00	$2,684.76	$3,312.00	$550.88	$0.00
	Oklahoma	$1,629.64	$1,460.00	$5,829.44	$4,170.00	$5,886.40	$302.00
	Oregon	$3,781.59	$3,658.00	$4,416.12	$4,286.00	$3,788.47	$3,481.00
	Rhode Island	$2,947.00	$2,947.00	$4,342.00	$4,342.00	$0.00	$0.00
	Tennessee	$1,634.28	$976.00	$4,844.54	$4,492.00	$0.00	$0.00
	Texas	$1,994.23	$1,733.50	$3,405.35	$2,677.50	$2,826.08	$2,571.00
	Utah	$2,122.50	$1,978.00	$8,835.00	$7,237.00	$0.00	$0.00
	Vermont	$5,346.00	$5,346.00	$1,637.00	$1,637.00	$0.00	$0.00

Table 26

Revenues per FTE by State (2014 FY)

State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE		MEANS SUM Revenues per FTE
	Mean	Median	Mean	Median	Mean	Median	MEANS SUM
Alabama	$1,906.00	$1,908.00	$5,546.04	$4,865.00	$24.85	$0.00	$7,476.89
Alaska	$3,963.50	$3,963.50	$12,432.00	$12,432.00	$38,811.00	$38,811.00	$55,206.50
Arizona	$1,651.16	$1,568.00	$802.26	$106.00	$5,897.89	$5,647.00	$8,351.31
Arkansas	$1,793.86	$1,494.00	$5,608.45	$5,411.50	$731.45	$599.00	$8,133.76
California	$898.81	$751.50	$3,279.32	$3,412.50	$3,420.53	$2,622.50	$7,598.66
Colorado	$3,673.20	$3,770.00	$406.53	$0.00	$783.00	$0.00	$4,862.73
Connecticut	$2,773.29	$2,831.00	$8,771.36	$7,446.00	$0.00	$0.00	$11,544.65
Delaware	$4,410.00	$4,334.00	$6,677.67	$6,952.00	$0.00	$0.00	$11,087.67
Florida	$2,464.08	$2,287.00	$6,185.33	$3,887.00	$678.69	$0.00	$9,328.10
Georgia	$2,127.11	$1,999.00	$3,830.00	$3,702.00	$4.85	$0.00	$5,961.96
Hawaii	$2,522.83	$2,337.00	$7,338.17	$6,776.00	$0.00	$0.00	$9,861.00
Idaho	$2,029.00	$1,965.50	$5,271.50	$3,684.50	$1,453.75	$1,152.00	$8,754.25
Illinois	$1,935.85	$1,809.50	$1,937.50	$1,690.00	$3,712.35	$3,639.00	$7,585.70
Indiana	$2,043.00	$2,043.00	$3,481.00	$3,481.00	$0.00	$0.00	$5,524.00
Iowa	$2,922.19	$2,934.50	$4,202.94	$3,994.50	$2,180.13	$2,053.00	$9,305.26
Kansas	$2,306.24	$2,583.00	$2,966.72	$2,564.00	$3,273.76	$2,143.00	$8,546.72
Kentucky	$1,457.88	$1,521.00	$2,805.25	$2,223.50	$1.00	$0.00	$4,264.13
Louisiana	$2,011.81	$2,005.00	$2,849.00	$2,870.50	$0.00	$0.00	$4,860.81
Maine	$1,573.57	$1,398.00	$6,416.57	$4,624.00	$0.00	$0.00	$7,990.14
Maryland	$3,484.56	$3,407.00	$3,760.25	$2,960.50	$3,716.25	$3,554.50	$10,961.06
Massachusetts	$3,515.63	$3,365.50	$5,315.50	$4,954.50	$0.00	$0.00	$8,831.13
Michigan	$2,803.43	$2,904.50	$2,390.57	$2,290.00	$3,659.11	$3,337.00	$8,853.11
Minnesota	$3,059.13	$3,167.00	$4,100.94	$4,405.00	$0.00	$0.00	$7,160.07
Mississippi	$1,217.80	$922.00	$3,981.40	$3,680.00	$1,049.60	$996.00	$6,248.80
Missouri	$2,461.63	$1,763.50	$1,650.00	$1,487.50	$1,101.25	$733.50	$5,212.88

Table 26 (continued)

State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE		MEANS SUM Revenues per FTE
	Mean	Median	Mean	Median	Mean	Median	MEANS SUM
Montana	$2,600.10	$2,569.50	$3,000.70	$2,446.00	$1,362.50	$0.00	$6,963.30
Nebraska	$2,499.00	$2,162.50	$4,246.88	$3,543.00	$4,068.25	$4,595.00	$10,814.13
Nevada	$2,194.00	$2,194.00	$4,460.00	$4,460.00	$0.00	$0.00	$6,654.00
New Hampshire	$7,561.57	$7,597.00	$5,363.14	$4,441.00	$0.00	$0.00	$12,924.71
New Jersey	$3,512.05	$3,426.00	$1,206.42	$1,107.00	$1,744.11	$1,672.00	$6,462.58
New Mexico	$1,522.21	$1,233.00	$4,767.68	$4,538.00	$2,049.37	$1,441.00	$8,339.26
New York	$2,527.54	$2,589.00	$2,848.32	$2,790.00	$3,195.35	$2,453.00	$8,571.21
North Carolina	$1,128.46	$998.00	$5,853.29	$5,740.00	$1,131.66	$1,127.00	$8,113.41
North Dakota	$2,919.20	$2,966.00	$8,908.80	$7,923.00	$0.00	$0.00	$11,828.00
Ohio	$4,703.48	$3,594.00	$2,684.76	$3,312.00	$550.88	$0.00	$7,939.12
Oklahoma	$1,629.64	$1,460.00	$5,829.44	$4,170.00	$5,886.40	$302.00	$13,345.48
Oregon	$3,781.59	$3,658.00	$4,416.12	$4,286.00	$3,788.47	$3,481.00	$11,986.18
Pennsylvania	$4,713.65	$4,939.00	$2,757.65	$2,461.00	$979.76	$962.00	$8,451.06
Rhode Island	$2,947.00	$2,947.00	$4,342.00	$4,342.00	$0.00	$0.00	$7,289.00
South Carolina	$2,494.20	$2,504.00	$1,886.20	$1,789.00	$751.10	$789.50	$5,131.50
South Dakota	$4,493.80	$5,103.00	$2,073.40	$3,119.00	$0.00	$0.00	$6,567.20
Tennessee	$1,634.28	$976.00	$4,844.54	$4,492.00	$0.00	$0.00	$6,478.82
Texas	$1,994.23	$1,733.50	$3,405.35	$2,677.50	$2,826.08	$2,571.00	$8,225.66
Utah	$2,122.50	$1,978.00	$8,835.00	$7,237.00	$0.00	$0.00	$10,957.50
Vermont	$5,346.00	$5,346.00	$1,637.00	$1,637.00	$0.00	$0.00	$6,983.00
Virginia	$2,491.54	$2,518.00	$3,980.63	$3,690.00	$40.88	$28.50	$6,513.05
Washington	$2,362.95	$2,383.00	$4,273.80	$3,995.50	$0.00	$0.00	$6,636.75
West Virginia	$2,106.38	$2,138.50	$3,926.00	$3,786.50	$359.75	$0.00	$6,392.13
Wisconsin	$2,784.24	$2,748.00	$1,468.29	$1,586.00	$11,161.76	$11,932.00	$15,414.29
Wyoming	$2,261.71	$2,128.00	$7,987.86	$8,077.00	$3,362.29	$3,550.00	$13,611.86

Chart 5

Mean Revenues from State Approp. per FTE by State-Level CC Governance Structure (2014 FY)

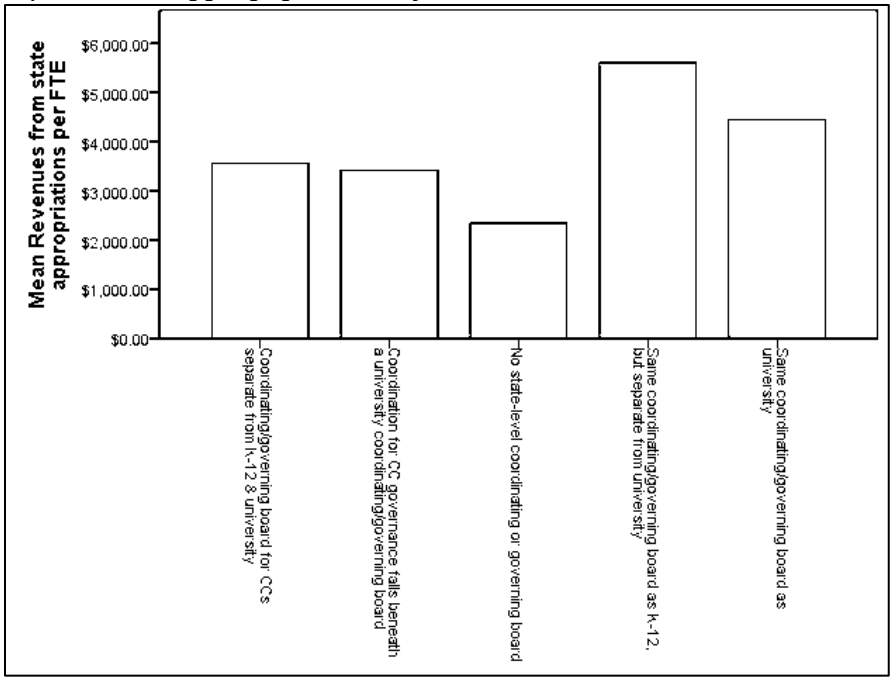


Chart 6

Mean Revenues from Local Support per FTE (2014 FY)

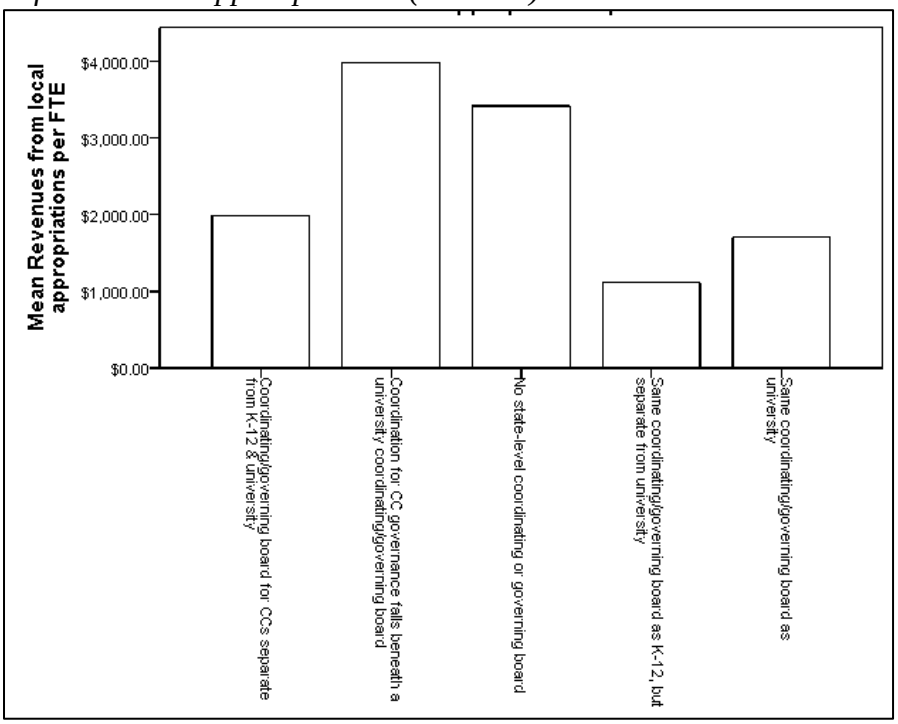


Chart 7

Mean Revenues from Tuition & Fees per FTE by State-Level CC Gov. Structure (2014 FY)

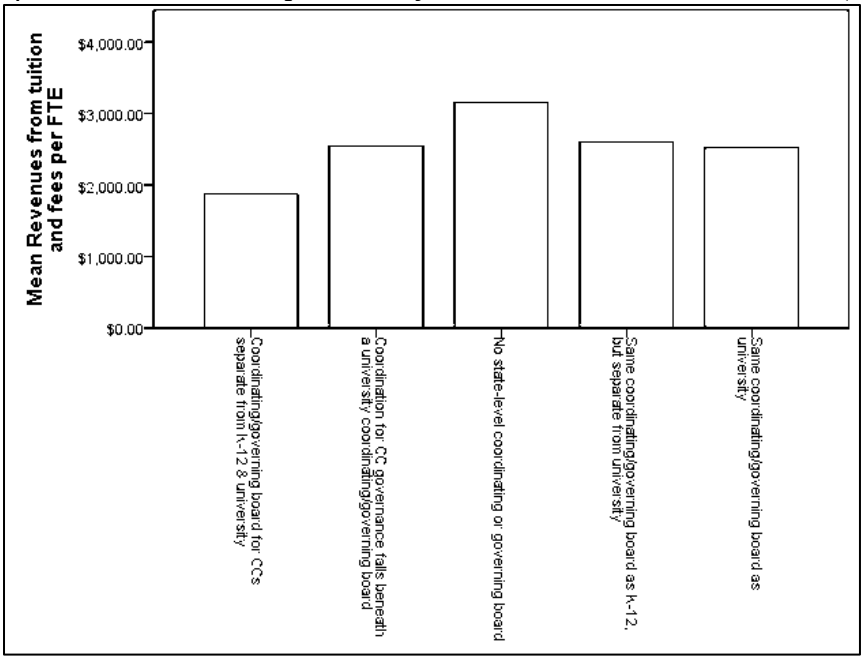


Chart 8

State-Level CC Governance Structure Comparison of Revenues per FTE (2014 FY)

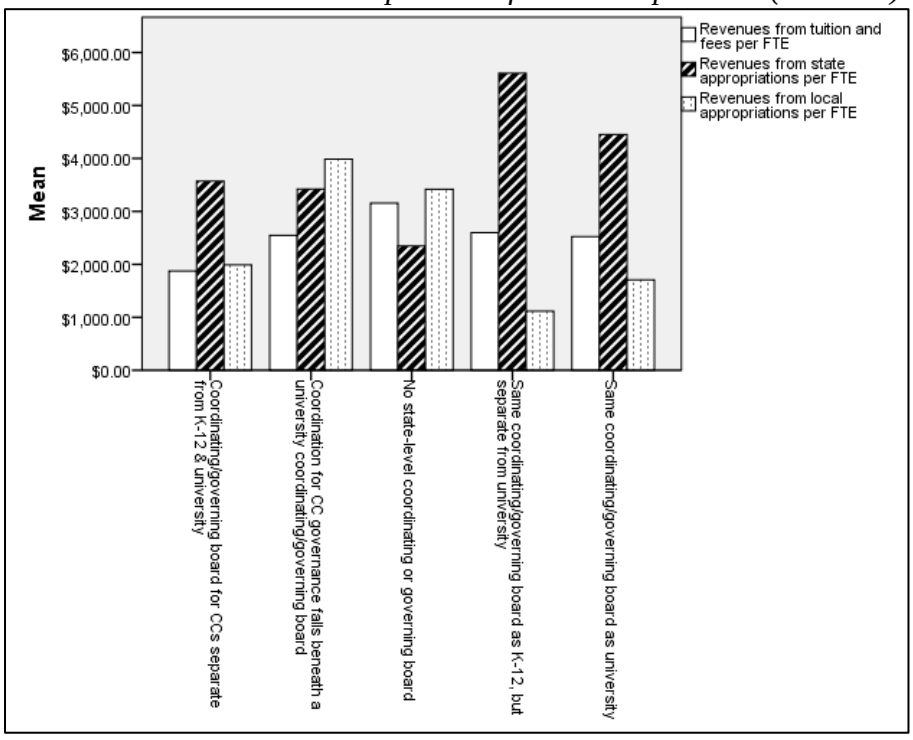
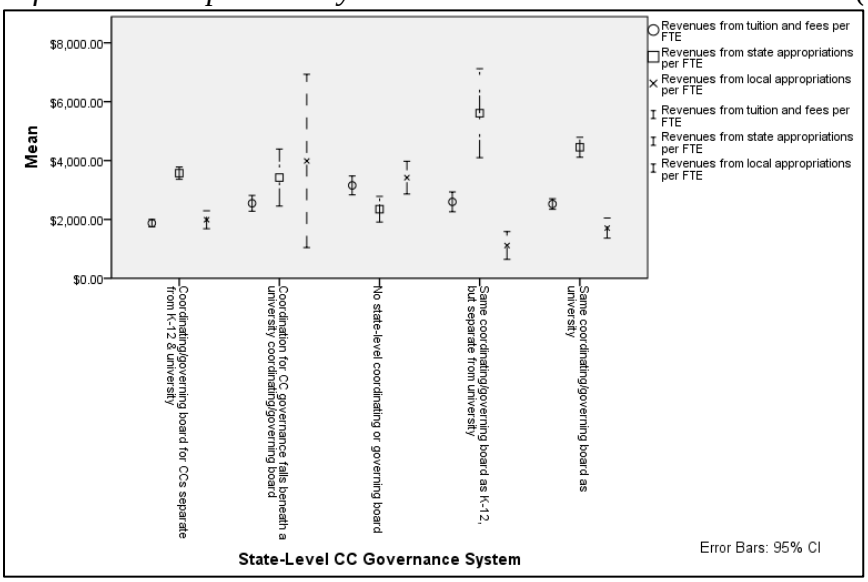


Chart 9

Clustered Error- for Revenues per FTE by State-Level CC Governance Structure (2014 FY)



NCSDCC 2016 Survey Results and SPSS Quantitative Analysis Results

A total of 43 (86%) state directors responded to this survey, and because the survey was sent out to all the NCSDCC group members, this can also be considered as a case of sampling with certainty. For the seven states (14%) missing in survey results, information for the questions in this 2016 survey were carried over and/or pulled from either the 2015 NCSDCC survey data and/or the Mullin and Honeyman's (2007) typology study. The states missing in the 2016 NCSDCC survey are indicated with an (*), they are: Alabama, Florida, Indiana, Minnesota, Nevada, New York, and Ohio. The data-set used for SPSS analysis in this section can be found in (Appendix C; to condense the data-set, 2014 FY IPEDS data about revenues per FTE for tuition and fees, state appropriations and local support are omitted). For all data analysis in this section, the sample size is 50 states (n=50).

Reliability Statistics

This section reiterates the validity of the 2014 IPEDS Finance data-set (this time analyzing a 50 (n=50) state sample), and also the data gathered from the survey data. In addition to descriptive and correlational statistics, the two data-sets will be used for quantitative and statistical cross-analysis using parametric and nonparametric tests. Table 27 contains the t-Test values for this study's three primary revenues per FTE; tuition and fees, state appropriations, and local support. For the nation, it can be assumed with 95% confidence that for a CC, the tuition and fees per FTE will be between $2,361 and $3,051; state appropriations per FTE will be between $3,668 and $5,011; and local support per FTE will be between $657 and $3,893.

Table 27

One-Sample t-Test for Three Primary Revenues Per FTE (2014 FY)

One-Sample Test	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Revenues from Tuition & Fees Per FTE	15.764	49	.000	$2,706.74418	$2,361.6927	$3,051.7957
Revenues from State Appropriations Per FTE	12.991	49	.000	$4,340.18545	$3,668.7854	$5,011.5855
Revenues from Local Support Per FTE	2.826	49	.007	$2,275.16364	$657.0651	$3,893.2622

Table 28 depicts the directional measures and test results between the state funding distribution formula categories as a whole, and the state-level CC governance structure categories as a whole. Tables 29, 30, and 31 depict the directional measures and test results between the state funding distribution formula categories as a whole, and revenues per FTE

(tuition and fees, state appropriations, and local support). SPSS tests include the lambda, the Goodman and Kruskal tau, and the uncertainty coefficient test. As can be seen, the values signify validity and reliability for statistical comparison of the two typologies/taxonomies for additional statistical and quantitative analysis.

Table 28

Correlations: State Funding Distribution Formula and State-Level CC Governance Structure

Directional Measures[e]		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Lambda	Symmetric	.190	.097	1.819	.069
	State Funding Distribution Formula Dependent	.179	.133	1.231	.218
	State-level CC governance structure/system Dependent	.200	.084	2.224	.026
Goodman and Kruskal tau	State Funding Distribution Formula Dependent	.149	.050		.067[c]
	State-level CC governance structure/system Dependent	.101	.049		.012[c]
Uncertainty Coefficient	Symmetric	.159	.047	3.235	.014[d]
	State Funding Distribution Formula Dependent	.183	.055	3.235	.014[d]
	State-level CC governance structure/system Dependent	.141	.041	3.235	.014[d]

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on chi-square approximation
d. Likelihood ratio chi-square probability.
e. ETA statistics are available for numeric data only.

Table 29

Correlations: State Funding Distribution Formula and Tuition and Fees Per FTE (2014 FY)

Directional Measures[e]		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Lambda	Symmetric	.390	.035	7.500	.000
	Revenues from Tuition & Fees Per FTE Dependent	.041	.028	1.443	.149
	State Funding Distribution Formula Dependent	1.000	.000	7.977	.000
Goodman and Kruskal tau	Revenues from Tuition & Fees Per FTE Dependent	.041	.000		.481[c]
	State Funding Distribution Formula Dependent	1.000	.000		.481[c]
Uncertainty Coefficient	Symmetric	.424	.013	25.346	.294[d]
	Revenues from Tuition & Fees Per FTE Dependent	.269	.011	25.346	.294[d]
	State Funding Distribution Formula Dependent	1.000	.000	25.346	.294[d]

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on chi-square approximation

d. Likelihood ratio chi-square probability.

e. ETA statistics are available for numeric data only.

Table 30

Directional Measures: State Funding Distribution Formula & State Approp. Per FTE (2014 FY)

Directional Measures[e]		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Lambda	Symmetric	.390	.035	7.500	.000
	Revenues from State Appropriations Per FTE Dependent	.041	.028	1.443	.149
	State Funding Distribution Formula Dependent	1.000	.000	7.977	.000
Goodman and Kruskal tau	Revenues from State Appropriations Per FTE Dependent	.041	.000		.481[c]

Table 30 (continued)

Directional Measures[e]		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Uncertainty Coefficient	State Funding Distribution Formula Dependent	1.000	.000		.481[c]
	Symmetric	.424	.013	25.346	.294[d]
	Revenues from State Appropriations Per FTE Dependent	.269	.011	25.346	.294[d]
	State Funding Distribution Formula Dependent	1.000	.000	25.346	.294[d]

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on chi-square approximation
d. Likelihood ratio chi-square probability.
e. ETA statistics are available for numeric data only.

Table 31

Directional Measures: State Funding Distribution Formula & Local Support Per FTE (2014 FY)

Directional Measures[e]		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Lambda	Symmetric	.349	.063	4.134	.000
	Revenues from Local support Per FTE Dependent	.030	.030	1.010	.312
	State-level CC governance structure/system Dependent	.700	.108	4.104	.000
Goodman and Kruskal tau	Revenues from Local support Per FTE Dependent	.091	.020		.179[c]
	State-level CC governance structure/system Dependent	.708	.024		.327[c]
Uncertainty Coefficient	Symmetric	.466	.035	8.415	.981[d]
	Revenues from Local support Per FTE Dependent	.341	.028	8.415	.981[d]
	State-level CC governance structure/system Dependent	.737	.065	8.415	.981[d]

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on chi-square approximation
d. Likelihood ratio chi-square probability.
e. ETA statistics are available for numeric data only.

Correlation Tests

Table 32 contains the Pearson correlation tests for the three primary revenues per FTE pulled from the 2014 IPEDS Finance data-set. This time however, the Pearson correlation test is based on the (n=50) state sample; i.e., revenues per FTE for each state as opposed to each CC. As can be seen there are statistically significant correlations between the three revenues per FTE *dependent variables*.

Table 32

Pearson Correlations: Revenues Per FTE (2014 FY)

Correlations		Revenues from Tuition & Fees Per FTE	Revenues from State Appropriations Per FTE	Revenues from Local support Per FTE
Revenues from Tuition & Fees Per FTE	Pearson Correlation	1	-.029	.078
	Sig. (2-tailed)		.839	.591
	Sum of Squares and Cross-products	72231289.290	-4132798.053	26404295.356
	Covariance	1474107.945	-84342.817	538863.171
	N	50	50	50
Revenues from State Appropriations Per FTE	Pearson Correlation	-.029	1	.358*
	Sig. (2-tailed)	.839		.011
	Sum of Squares and Cross-products	-4132798.053	273476632.430	235993852.382
	Covariance	-84342.817	5581155.764	4816201.069
	N	50	50	50
Revenues from Local support Per FTE	Pearson Correlation	.078	.358*	1
	Sig. (2-tailed)	.591	.011	
	Sum of Squares and Cross-products	26404295.356	235993852.382	1588427841.625
	Covariance	538863.171	4816201.069	32416894.727
	N	50	50	50

*Correlation is significant at the 0.05 level (2-tailed).

Table 33 contains additional correlation tests (Kendall's tau_b and Spearman's rho) for the three primary revenues per FTE pulled from the 2014 IPEDS Finance data-set. Again, this time the correlation tests are based on the (n=50) state sample; i.e., revenues per FTE for each state as a whole as opposed to each CC within a state. As can be seen there are statistically significant correlations between the three variables.

Table 33

Kendall's tau_b and Spearman's rho Correlations: Revenues Per FTE (2014 FY)

Correlations			Revenues from Tuition & Fees Per FTE	Revenues from State Appropriations Per FTE	Revenues from Local support Per FTE
Kendall's tau_b	Revenues from Tuition & Fees Per FTE	Correlation Coefficient	1.000	-.086	-.084
		Sig. (2-tailed)	-	.380	.407
		N	50	50	50
	Revenues from State Appropriations Per FTE	Correlation Coefficient	-.086	1.000	-.200*
		Sig. (2-tailed)	.380	-	.048
		N	50	50	50
	Revenues from Local support Per FTE	Correlation Coefficient	-.084	-.200*	1.000
		Sig. (2-tailed)	.407	.048	-
		N	50	50	50
Spearman's rho	Revenues from Tuition & Fees Per FTE	Correlation Coefficient	1.000	-.136	-.123
		Sig. (2-tailed)	-	.348	.394
		N	50	50	50
	Revenues from State Appropriations Per FTE	Correlation Coefficient	-.136	1.000	-.273
		Sig. (2-tailed)	.348	-	.055
		N	50	50	50
	Revenues from Local support Per FTE	Correlation Coefficient	-.123	-.273	1.000
		Sig. (2-tailed)	.394	.055	-
		N	50	50	50

*Correlation is significant at the 0.05 level (2-tailed).

Descriptive Statistics

Table 34 below depicts the source of data in frequency and percent for the 50 American States. The survey response rate was 86% and non-survey sources (2015 NCSDCC survey & Mullin and Honeyman 2007 typology) make up the other 14% of the data set for analysis.

Table 34

Number of States Recorded for Survey Analysis

Source	Frequency	Percent	Cumulative Percent
survey	43	86.0	86.0
non-survey	7	14.0	100.0
Total	50	100.0	

Table 35 and Chart 10 below provide descriptive statistics for question one of the survey, "Which of the following categories best describes your state-level CC governance structure/system?" (Katsinas taxonomy, 1996) It is worth point out that *coordinating/governing board for CCs separate from K-12 & Universities* is the most prevalent across the U.S. at 20 (40%) states.

Table 35

Count of State-Level CC Governance Structures/Systems Across U.S.

State-level CC governance structure/system	Frequency	Percent	Cumulative Percent
Same coordinating/governing board as University	18	36.0	36.0
Same coordinating/governing board as K-12, but separate from Universities	2	4.0	40.0
No state-level coordinating/governing board	5	10.0	50.0
Coordination for CC governance falls beneath a University coordinating/governing board	5	10.0	60.0
Coordinating/governing board for CCs separate from K-12 & Universities	20	40.0	100.0
Total	50	100.0	

Chart 10

Count of State-Level CC Governance Structures/Systems Across U.S.

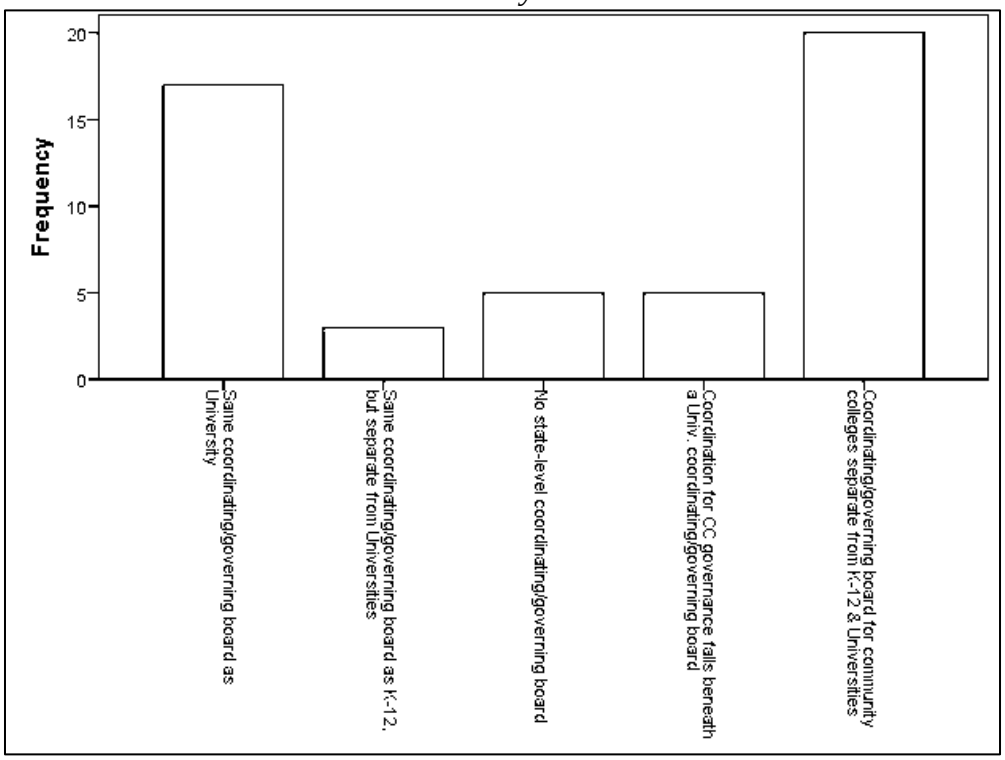


Table 36 and Chart 11 below provide descriptive statistics for question two of the survey, "In practice, what body coordinates the collective action of the state's CCs?" (I.e. lobbying, advocacy, development of legislative agenda) It is important to note that *State governing board* is the most prevalent cc governing/coordinating body across the U.S. at 20 (40%) states.

Table 36

Count of CC Governing/Coordinating Body Across the U.S.

CC governing/coordinating body that coordinates collective action	Frequency	Percent	Cumulative Percent
State governing board	**20**	40.0	40.0
State coordinating council	1	2.0	42.0
Other, please specify	2	4.0	46.0
No State-Level governing/coordinating body	3	6.0	52.0
Combination of any of the above (or other), please specify	17	34.0	86.0
Association of CC trustees	3	6.0	92.0
Association of CC presidents	4	8.0	100.0
Total	50	100.0	

Chart 11

Count of CC Governing/Coordinating Body Across the U.S.

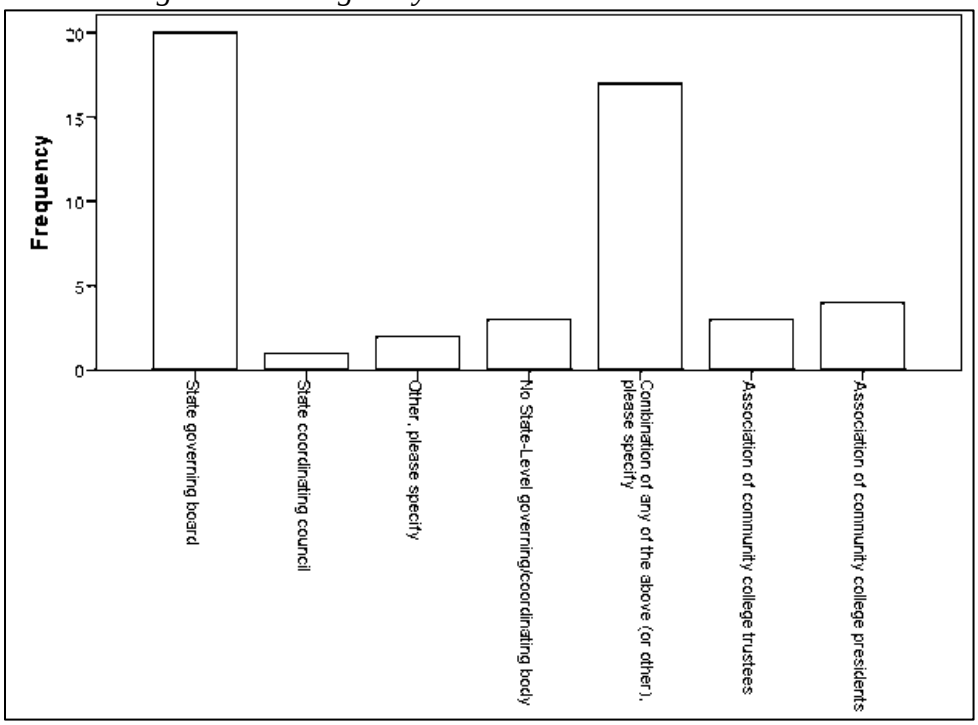


Table 37 and Chart 12 below provide descriptive statistics for question three of the survey, “Which of the following categories best describes your state’s CC distribution formula? (Mullin & Honeyman typology study, 2007)” It is important to note that a *Responsive Funding Formula* is the most prevalent type of state funding distribution formula across the U.S. at twenty-two (44%) states.

Table 37

Count of State Funding Distribution Formula Type Across the U.S.

State Funding Distribution Formula	Frequency	Percent	Cumulative Percent
Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	22	44.0	44.0
No Formula (please describe how CCs are funded):	18	36.0	80.0
Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	10	20.0	100.0
Total	50	100.0	

Chart 12

Count of State Funding Distribution Formula Type Across the U.S.

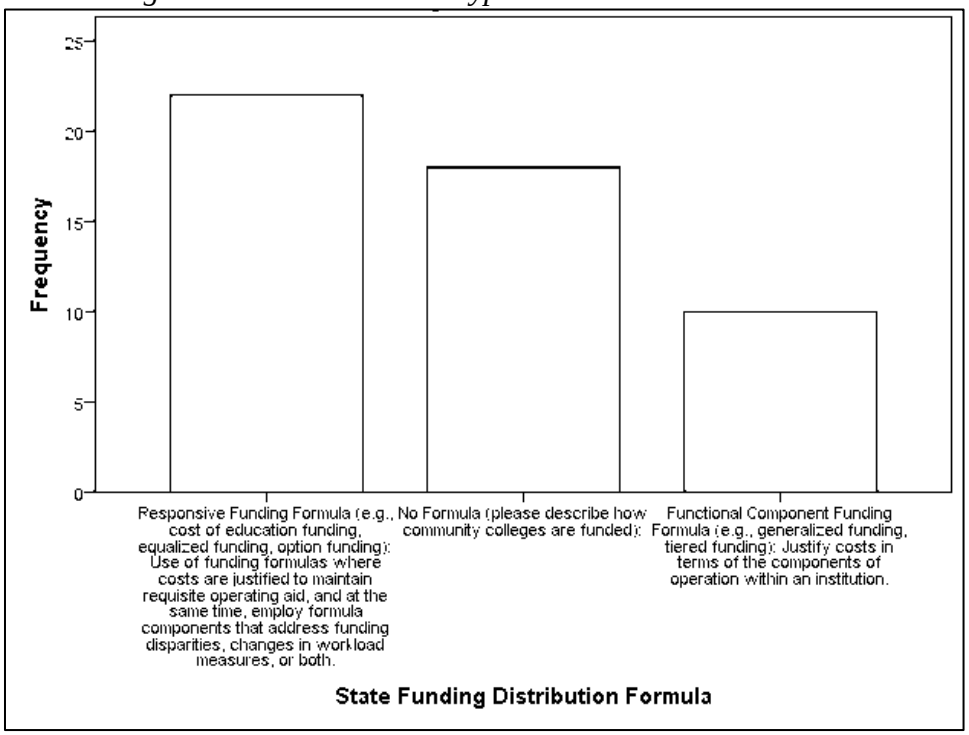


Table 38 and Chart 13 further delineates *responsive funding formula* into "option funding formula, equalized funding formula, and cost of education funding formula" Of the 22 (44%) of

states that use a *responsive funding formula* for their state distribution of funds to CCs, the most common category at ten (20%) of states use a "cost of education funding formula".

Table 38

Responsive Funding Sub-Categories for Responsive Funding Formula States (2016)

Responsive Funding Sub-categories	Frequency	Percent	Cumulative Percent
Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized.	5	10.0	10.0
N/A	28	56.0	66.0
Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold -a specified level or benchmark - that is deemed appropriate for determining equitable funding..	7	14.0	80.0
Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	10	20.0	100.0
Total	50	100.0	

Chart 13

Count of Responsive Funding Sub-Categories for Responsive Funding Formula States (2016)

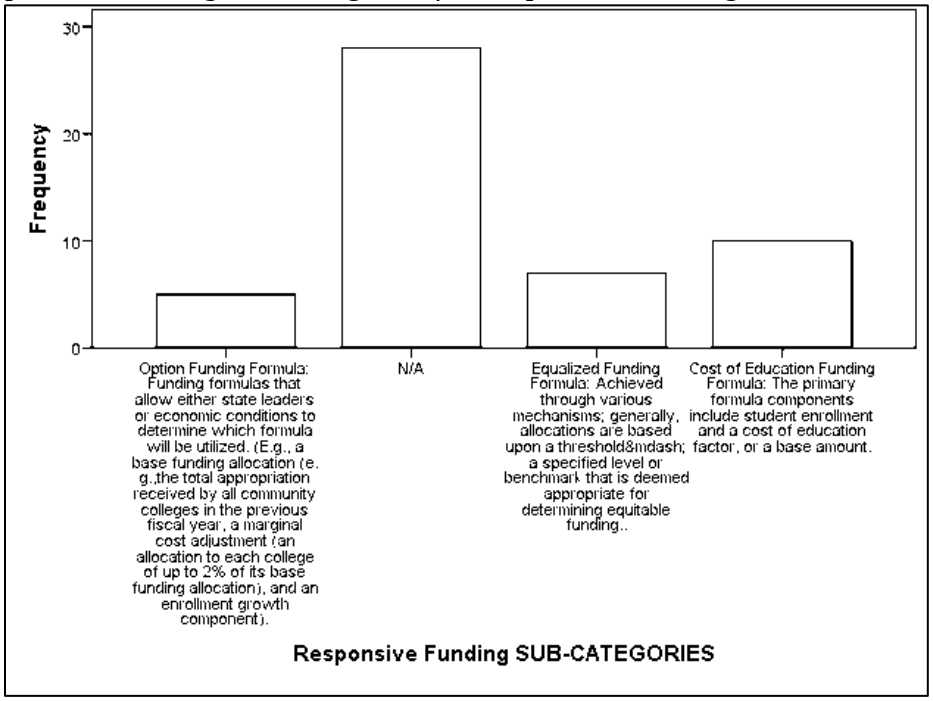


Table 39 and Chart 14 further delineate the *functional component funding formula* category into either "tiered funding formula or generalized funding formula." Of the ten (20%) of states that use a *functional component funding formula* for their state distribution of funds to CCs, the sub-categories were actually split at five (10%) of states between "tiered funding formula and generalized funding formula".

Table 39

Functional Component Funding Sub-Categories for Functional Component States (2016)

Functional Component Sub-categories	Frequency	Percent	Cumulative Percent
Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	5	10.0	10.0
N/A	40	80.0	90.0
Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	5	10.0	100.0
Total	50	100.0	

Chart 14

Functional Component Funding Sub-Categories for Functional Component States (2016)

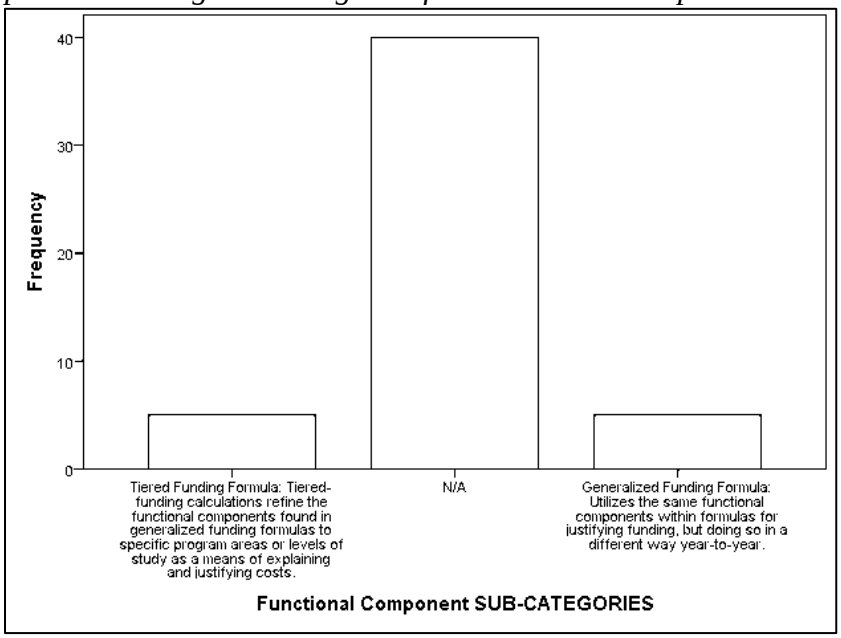


Table 40 is a crosstabulation of two categories, state funding distribution formula and state-level CC governance structure. It is meaningful to note that eleven (22%) states who structure their system using a CC coordinating/governing board separate from K-12 and universities are using a *responsive funding formula*.

Table 40

State Funding Distribution Formula by State-Level CC Governance Structure (2016)

	Coordinating/ governing board for CCs separate from K-12 & Universities	Coordination for CC governance falls beneath a Univ. coordinating/ governing board	No state-level coordinating/ governing board	Same coordinating/ governing board as K-12, but separate from Universities	Same coordinating/ governing board as University	Total
Functional Component Funding Formula (e.g., generalized funding, tiered funding)	1	0	1	1	7	10
No Formula (please describe how CCs are funded):	8	2	4	0	4	18
Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	11	3	0	2	6	22
Total	20	5	5	3	17	50

Table 41 offers a glance into question eight of the survey, "LEGISLATIVE REQUEST(S): Does your state-level CC coordinating/governing body utilize a formula for generating legislative requests?" (26%) state CC directors indicated "Yes".

Table 41

Count of State Directors Who Indicated CC Body Makes Legislative Requests (2016)

Legislative Request(s)	Frequency	Percent	Cumulative Percent
Yes	13	26.0	26.0
No	34	68.0	94.0
N/A	3	6.0	100.0
Total	50	100.0	

Table 42 and Charts 15, 16, and 17 are quick refreshers of pertinent revenue per FTE information from the 2014 IPEDS Finance Data-Set covered in the first-half of Chapter 4 of this dissertation for quantitative analysis in the sections to follow.

Table 42

Revenues Per FTE Statistics (Tuition and Fees, State Appropriations, Local Support) (2014 FY)

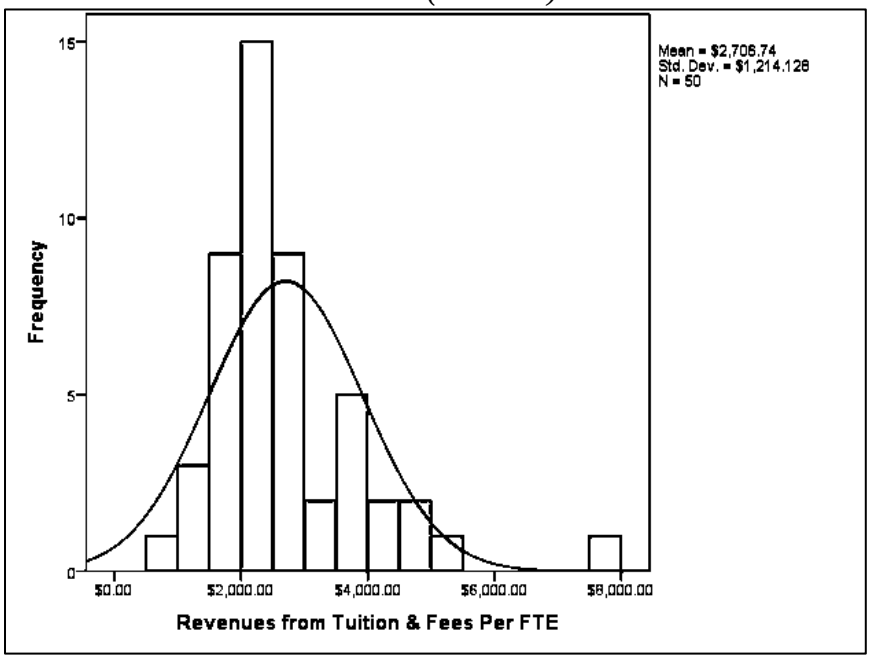
State-level CC governance structure/system		Revenues from Tuition & Fees Per FTE	Revenues from State Appropriations Per FTE	Revenues from Local Support Per FTE
Coordinating/governing board for CCs separate from K-12 & Universities	Mean	$2,638.4152	$3,816.3223	$1,377.1438
	N	20	20	20
	Std. Deviation	$1,612.26145	$2,070.08144	$2,617.49431
	Minimum	$898.81	$406.53	$0.00
	Maximum	$7,561.57	$7,987.86	$11,161.76
	Variance	2599386.968	4285237.165	6851276.486
	Kurtosis	3.691	-.740	10.720
Coordination for CC governance falls beneath a Univ. coordinating/governing board	Mean	$2,632.7281	$5,406.7049	$8,964.5203
	N	5	5	5
	Std. Deviation	$790.04442	$4,043.99437	$16,723.19249
	Minimum	$2,029.00	$2,848.32	$0.00
	Maximum	$3,964.00	$12,432.00	$38,811.00
	Variance	624170.184	16353890.429	279665167.048
	Kurtosis	2.893	3.806	4.908
No state-level coordinating/governing board	Mean	$2,955.9498	$2,708.0937	$2,851.5947
	N	5	5	5
	Std. Deviation	$1,202.29586	$1,235.12912	$2,360.50751
	Minimum	$1,651.00	$802.00	$4.85
	Maximum	$4,713.65	$3,830.00	$5,898.00
	Variance	1445515.330	1525543.937	5571995.689
	Kurtosis	-.226	.604	-1.354

Table 42 (continued)

State-level CC governance structure/system		Revenues from Tuition & Fees Per FTE	Revenues from State Appropriations Per FTE	Revenues from Local Support Per FTE
Same coordinating/governing board as K-12, but separate from Universities	Mean	$3,293.3548	$4,153.8903	$952.9391
	N	3	3	3
	Std. Deviation	$1,064.55052	$2,056.40540	$1,115.63647
	Minimum	$2,464.08	$2,073.40	$0.00
	Maximum	$4,493.80	$6,185.33	$2,180.13
	Variance	1133267.820	4228803.157	1244644.732
	Kurtosis	.	.	.
Same coordinating/governing board as University	Mean	$2,632.0854	$5,155.7155	$1,427.9949
	N	17	17	17
	Std. Deviation	$819.27101	$2,181.97960	$1,868.19406
	Minimum	$1,522.21	$1,650.00	$0.00
	Maximum	$4,703.48	$8,908.80	$5,886.40
	Variance	671204.992	4761034.991	3490149.060
	Kurtosis	1.218	-.447	.264
Total	Mean	$2,706.7442	$4,340.1854	$2,275.1636
	N	50	50	50
	Std. Deviation	$1,214.12847	$2,362.44699	$5,693.58365
	Minimum	$898.81	$406.53	$0.00
	Maximum	$7,561.57	$12,432.00	$38,811.00
	Variance	1474107.945	5581155.764	32416894.727
	Kurtosis	4.189	1.745	36.080

Chart 15

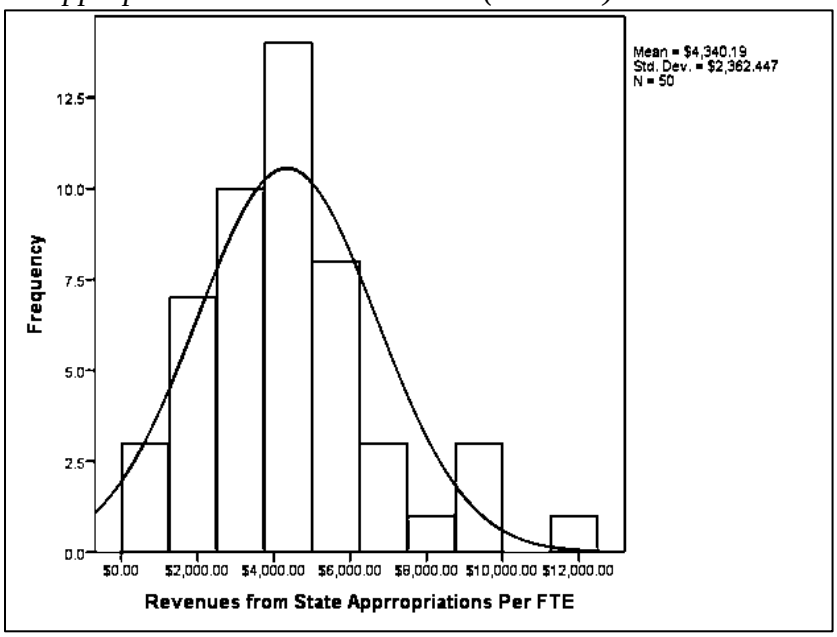
Histogram of Tuition & Fees Per FTE Revenue (2014 FY)



(N) = Number of states

Chart 16

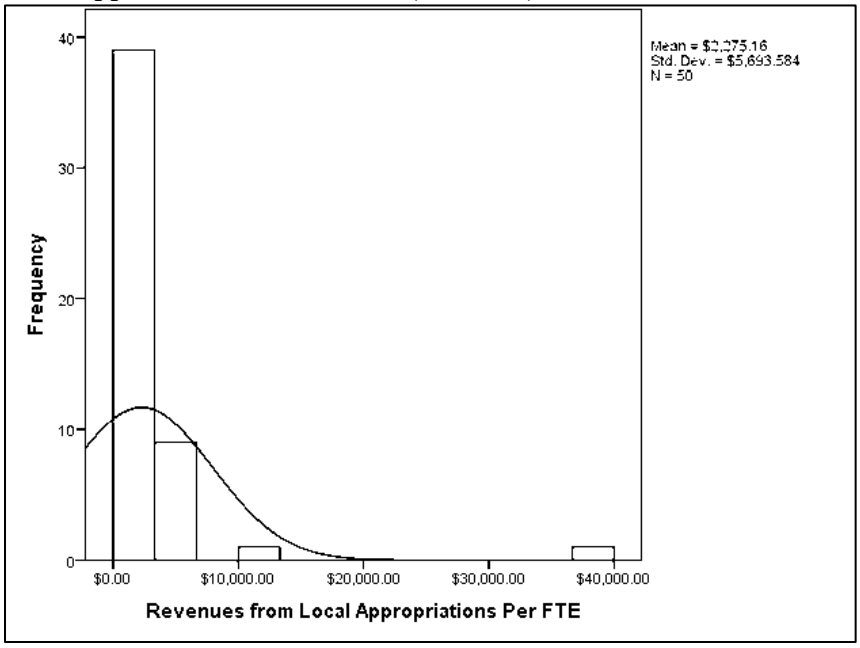
Histogram of State Appropriations Per FTE Revenue (2014 FY)



(N) = Number of states

Chart 17

Histogram of Local Support Per FTE Revenue (2014 FY)



(N) = Number of states

Table 43 provides summary statistics on the three "types" of state funding distribution formula across the three primary revenues of CCs, per FTE; revenues from tuition and fees, state

appropriations, and local support. First, revenues from tuition and fees were highest for states in the *no formula* category, but lowest in the *functional component funding formula* category. Second, revenues from state appropriations per FTE were highest for states in the f*unctional component funding formula* category, but lowest in the *responsive funding formula* category. Third, intriguingly revenues from local support per FTE were highest for states in the *no formula* category, while lowest in the *functional component funding formula* category.

Table 43

State Funding Distribution Formula Across Revenues Per FTE (2014 FY)

State Funding Distribution Formula		Revenues from Tuition & Fees Per FTE	Revenues from State Appropriations Per FTE	Revenues from Local support Per FTE
Functional Component Funding Formula: Justify costs in terms of the components of operation within an institution.	Mean	$2,519.7196	$5,252.8876	$768.9212
	N	10	10	10
	Std. Deviation	$973.15136	$2,186.13838	$1,108.04070
	Minimum	$1,128.46	$2,684.76	$0.00
	Maximum	$4,703.48	$8,908.80	$3,273.76
	Variance	947023.569	4779201.027	1227754.182
	Kurtosis	2.385	-.422	2.004
No Formula	Mean	$2,989.0288	$5,141.8591	$3,620.9393
	N	18	18	18
	Std. Deviation	$1,662.92893	$2,863.94275	$9,018.07713
	Minimum	$1,217.80	$802.00	$0.00
	Maximum	$7,561.57	$12,432.00	$38,811.00
	Variance	2765332.632	8202168.075	81325715.109
	Kurtosis	1.980	1.049	15.844
Responsive Funding Formula: Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Mean	$2,560.7952	$3,269.4061	$1,858.7301
	N	22	22	22
	Std. Deviation	$829.36272	$1,478.47985	$2,542.38400
	Minimum	$898.81	$406.53	$0.00
	Maximum	$4,493.80	$5,608.45	$11,161.76
	Variance	687842.527	2185902.673	6463716.418
	Kurtosis	.365	-.870	8.127
Total	Mean	$2,706.7442	$4,340.1854	$2,275.1636
	N	50	50	50
	Std. Deviation	$1,214.12847	$2,362.44699	$5,693.58365
	Minimum	$898.81	$406.53	$0.00
	Maximum	$7,561.57	$12,432.00	$38,811.00
	Variance	1474107.945	5581155.764	32416894.727
	Kurtosis	4.189	1.745	36.080

ANOVA Models

Table 44 and Table 45 display ANOVA results of revenue funds and revenue funds per FTE. The results demonstrate validity and statistical significance between states across the national landscape. However, because our *independent variable* – state funding distribution formula data is nominal, it therefore requires further analysis utilizing nonparametric tests in the next section of this chapter. ANOVA models were run to demonstrate and show that because of our *independent variable*, the parametric ANOVA model is not the most appropriate method for use in investigating the impacts and relationships of funding on state-level CC governance structure.

Table 44

Measures of Association	Eta	Eta Squared
*Revenues from Tuition & Fees Per FTE * State Funding Distribution Formula*	.177	.031
*Revenues from State Appropriations Per FTE * State Funding Distribution Formula*	.406	.165
*Revenues from Local support Per FTE * State Funding Distribution Formula*	.193	.037

Measures of Assoc.: Revenues per FTE and State-Level CC Gov. Structure (2014 FY)

Table 45

ANOVA Table: Revenues per FTE and State Funding Distribution Formula (2014 FY)

ANOVA Table[a]			Sum of Squares	df	Mean Square	F	Sig.
*Revenues from Tuition & Fees Per FTE * State Funding Distribution Formula*[a]	Between Groups	(Combined)	2252729.366	2	1126364.683	.757	.475
	Within Groups		69978559.924	47	1488905.530		
	Total		72231289.290	49			
*Revenues from State Appropriations Per FTE * State Funding Distribution Formula*[a]	Between Groups	(Combined)	45123009.787	2	22561504.894	4.644	.014
	Within Groups		228353622.643	47	4858587.716		
	Total		273476632.430	49			
*Revenues from Local support Per FTE * State Funding Distribution Formula*[a]	Between Groups	(Combined)	59102852.344	2	29551426.172	.908	.410
	Within Groups		1529324989.281	47	32538829.559		
	Total		1588427841.625	49			

a. The grouping variable State Funding Distribution Formula is a string, so the test for linearity cannot be computed.

Nonparametric Tests

For a sample of 50 (n=50) states, nonparametric tests were executed using SPSS and the specific variables used comprise of *independent* variable state funding distribution formula (categories used from 2007 Mullin and Honeyman taxonomy), and *dependent* variables tuition and fees per FTE, state appropriations per FTE, and local support per FTE. The specific tests executed are independent-samples Kruskal-Wallis tests, one-sample chi square tests, and one-sample Kolmogorov-Smirnov tests. Null hypotheses tested were:

4) H_0: There is no statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between tuition & fee revenue per FTE and state funding distribution formula.

5) H_0: There is no statistically significant correlational relationship between state appropriation per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state funding distribution formula.

6) H_0: There is no statistically significant correlational relationship between local appropriation revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between local appropriation revenue per FTE and state funding distribution formula.

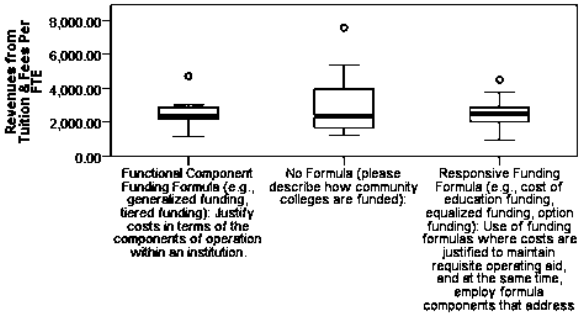
Level of significance used is P = 0.05 at a 95% confidence interval. As can be seen from executing the tests using SPSS, there is one result with a statistical significance of 0.029, and we can therefore reject null hypothesis five with confidence – H_0: The distribution of revenues from state appropriations per FTE is the same across categories of state funding distribution formula.

However, there is no statistically significant correlational relationships between tuition and fees revenue per FTE and state funding distribution formula, and there is no statistically significant correlational relationship between local appropriation per FTE and state funding distribution formula.

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Revenues from Tuition & Fees Per FTE is the same across categories of State Funding Distribution Formula.	Independent-Samples Kruskal-Wallis Test	.941	Retain the null hypothesis.
2	The distribution of Revenues from State Appropriations Per FTE is the same across categories of State Funding Distribution Formula.	Independent-Samples Kruskal-Wallis Test	.029	Reject the null hypothesis.
3	The distribution of Revenues from Local Appropriations Per FTE is the same across categories of State Funding Distribution Formula.	Independent-Samples Kruskal-Wallis Test	.461	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 5. *Independent-Samples Kruskal-Wallis Test: State Funding Distribution Formula*

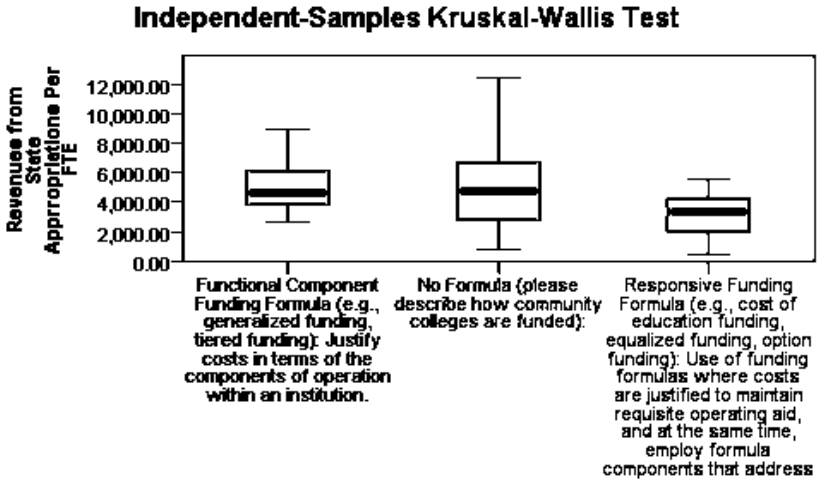


Total N	50
Test Statistic	.122
Degrees of Freedom	2
Asymptotic Sig. (2-sided test)	.941

1. The test statistic is adjusted for ties.
2. Multiple comparisons are not performed because the overall test does not show significant differences across samples.

Figure 6. Kruskal-Wallis Test: Tuition & Fees Per FTE and State Funding Formula (2014 FY)

(N) = Number of states

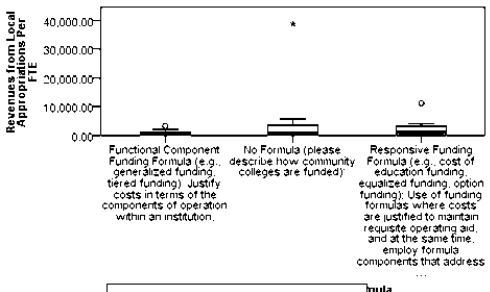


Total N	50
Test Statistic	7.049
Degrees of Freedom	2
Asymptotic Sig. (2-sided test)	.029

1. The test statistic is adjusted for ties.

Figure 7. Kruskal-Wallis Test: State Approp. Per FTE & State Funding Formula (2014 FY)

(N) = Number of states

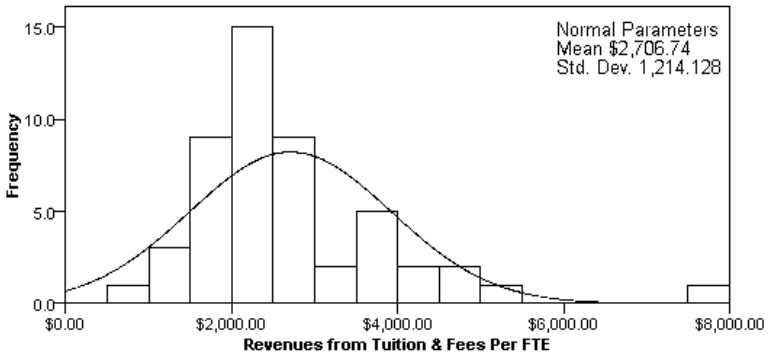


Total N	50
Test Statistic	1.547
Degrees of Freedom	2
Asymptotic Sig. (2-sided test)	.461

1. The test statistic is adjusted for ties.
2. Multiple comparisons are not performed because the overall test does not show significant differences across samples.

Figure 8. Kruskal-Wallis Test: Local Support Per FTE & State Funding Formula (2014 FY)

(N) = Number of states

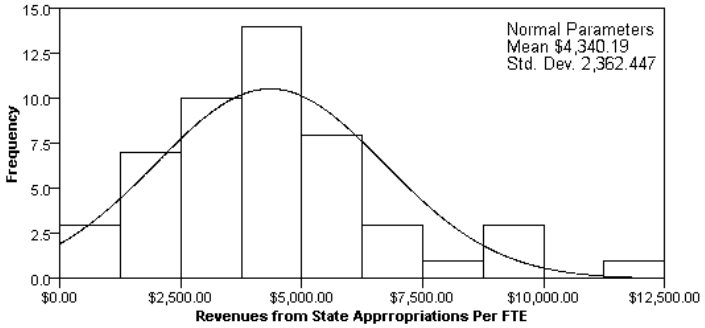


Total N		50
Most Extreme Differences	**Absolute**	.162
	Positive	.162
	Negative	-.092
Test Statistic		.162
Asymptotic Sig. (2-sided test)		0.002[1]

[1] Lilliefors Corrected

Figure 9. *Kolmogorov-Smirnov Test: 2014 Tuition & Fees Per FTE (2014 FY)*

(N) = Number of states

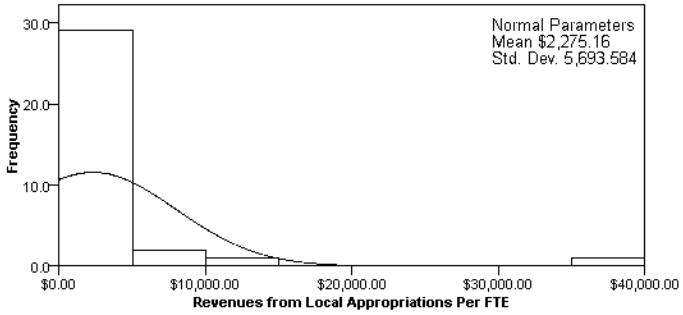


Total N		50
Most Extreme Differences	**Absolute**	.120
	Positive	.120
	Negative	-.052
Test Statistic		.120
Asymptotic Sig. (2-sided test)		0.07[1]

[1] Lilliefors Corrected

Figure 10. One-Sample Kolmogorov-Smirnov Test: State Appropriations Per FTE (2014 FY)

(N) = Number of states



Total N		50
Most Extreme Differences	**Absolute**	.345
	Positive	.296
	Negative	-.345
Test Statistic		.345
Asymptotic Sig. (2-sided test)		0[1]

[1] Lilliefors Corrected

Figure 11. One-Sample Kolmogorov-Smirnov Test: Local Support Per FTE (2014 FY)

(N) = Number of states

Breakdown of State Funding Distribution Formula Results

Now that quantitative analysis has been conducted on data related to research question one utilizing the 2014 FY finance data from IPEDS in the first section of this chapter and the 2016 NCSDCC survey data addressing research question two in the second section of this chapter, we can begin to piece together the data into the table below. Chapter 5 of this study will contain more thorough summaries, conclusions, and implications for practice, policy, and research.

Table 46

State-Level CC Governance Structure & State Funding Distribution Formula by State

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
AK	Coordination for CC governance falls beneath a Univ. coordinating/governing board	No Formula (please describe how CCs are funded):	Funding is incremental based on underlying costs, or a proportional decrement.
*AL**	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
AR	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
AZ	No state-level coordinating/governing board	No Formula (please describe how CCs are funded):	However two of ten CC districts in Arizona have been completely defended by the state; while funding formulae are present in State statutes, those formulae are no longer applied.
CA	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
CO	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
CT	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.
DE	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	The CC system in Delaware receives the same percentage increase in funding as the two state funded 4 year institutions.
*FL**	Same coordinating/governing board as K-12, but separate from Universities	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.
GA	No state-level coordinating/governing board	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.
HI	Same coordinating/governing board as University	No Formula (please describe how CCs are funded):	Public funding is appropriated on a base budget plus additions, subject to legislative appropriations. Legislative biennium budget considerations approve the add-on items, some of which are very specific (a new extension agent), others are broadly defined such as an initiative to improve Native Hawaiian graduation. Legislative action also approves the funding associated with the settlement of all collective bargaining agreements as an addition to the base budget. Colleges retain tuition as a component of the operating budget

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
IA	Same coordinating/governing board as K-12, but separate from Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation (e.g., the total appropriation received by all CCs in the previous fiscal year, a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component).
ID	Coordination for CC governance falls beneath a Univ. coordinating/governing board	No Formula (please describe how CCs are funded):	Base plus maintenance of operations for personnel costs, benefits, compensation, and replacement capital. Funding for new initiatives on a case-by-case basis.
IL	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation (e.g. The total appropriation received by all CCs in the previous fiscal year, a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component).
*IN**	Coordination for CC governance falls beneath a Univ. coordinating/governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
KS	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
KY	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	KCTCS's funding distribution funding formula has elements for the cost of programs using the Classification of Programs (CIP) with variation in funding, contains an element for high demand - high wage programs, includes elements for maintenance and operations, libraries, academic and institution support as well as the ability to redistribute funding for equity. However, in recent years with continuous state appropriation cuts, declining enrollment and no local funding, it has been extremely hard to use the model to redistribute funding. Rather, KCTCS's model was designed largely with the thought of there being new funding which would make the transition of redistribution easier. The current model is under review and will be aligned to the newly to be designed state performance-outcomes based model for Kentucky postsecondary education institutions.
LA	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation (e.g., the total appropriation received by all CCs in the previous fiscal year, a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component).
MA	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
MD	No state-level coordinating/governing board	No Formula (please describe how CCs are funded):	Funding is linked by formula to funding levels at the public four-year colleges and universities
ME	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	N/A
MI	No state-level coordinating/governing board	No Formula (please describe how CCs are funded):	Funding formula applies to new money only each year that distributes new money: 30% across the board; 30% weighted contact hours (health, technology weighted 2x); 30% performance (10% number of completions, 10% rate of completions, 10% improvement in completions); 5% admin costs; 5% local strategic value (calculated based on providing/participating in a variety of local activities)

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
*MN**	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.
MO	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
MS	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	MSCJC funding formula provides a base amount of 15% of the prior year formula appropriation, which is shared equally among the 15 colleges. The remaining formula funds are distributed using FTE enrollment in Academic, Career, and Technical with additional weights for high cost programs. An incentive is also provided for hosting and providing eLearning (online)courses.
MT	Coordination for CC governance falls beneath a Univ. coordinating/governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
NC	Coordinating/governing board for CCs separate from K-12 & Universities	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.
ND	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
NE	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation (e.g. The total appropriation received by all CCs in the previous fiscal year, a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component).
NH	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	N/A
NJ	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
NM	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.
*NV**	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.
*NY**	Coordination for CC governance falls beneath a Univ. coordinating/governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation (e.g., the total appropriation received by all CCs in the previous fiscal year, a marginal cost adjustment (an allocation to each college of up to 2% of its base funding allocation), and an enrollment growth component).
*OH**	Same coordinating/governing board as University	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.

Table 46 (continued)

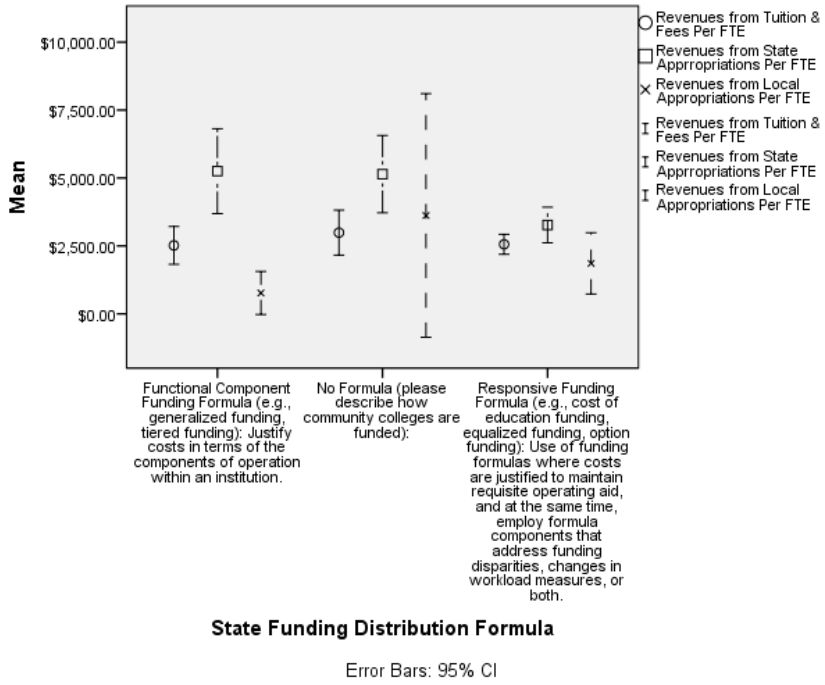
State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
OK	Same coordinating/governing board as University	No Formula (please describe how CCs are funded):	Performance Funding Formula using measurable performance standards (graduation rate, retention, etc.)
OR	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
PA	No state-level coordinating/governing board	No Formula (please describe how CCs are funded):	Pennsylvania's CCs receive operating and capital funding from the State. Operational funding is distributed as a base amount plus an allocation based on FTE. So for FY 16-17, the total operating appropriation was $232.111M. Of that amount, $226.45M was distributed as it was in the previous Fiscal Year, and $5.661M was distributed based on FTEs. Capital funding is distributed based on project.
RI	Same coordinating/governing board as University	No Formula (please describe how CCs are funded):	Formula funding has been a legislative agenda item for several years but not yet implemented. General Assembly largely determines the level of state support to each of the three public institutions. Governor's Office controls whether the Board/Council permits tuition and fee changes.
SC	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
SD	Same coordinating/governing board as K-12, but separate from Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
TN	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
TX	Same coordinating/governing board as University	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
UT	Same coordinating/governing board as University	No Formula (please describe how CCs are funded):	Coordinated approach based on system priorities. Funding is categorized by compensation increases, market demand, performance outcomes, and capital development.

Table 46 (continued)

State	State-Level CC Governance Structure/System	State Funding Distribution Formula	State Funding Distribution Subcategory/ No Formula Response
VA	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.
VT	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	The CC of Vermont is a member of the Vermont State College System. There are five colleges in the system. The other four colleges are residential and offer Associate and Bachelor's Degrees. CCV is the only CC in Vermont. The legislative appropriation is given to the system and then divided equally. Each college gets 20% of the appropriation. The state appropriation represents about 12-14 % of our operating budget.
WA	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding.
WI	Coordinating/governing board for CCs separate from K-12 & Universities	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - a specified level or benchmark that is deemed appropriate for determining equitable funding..
WV	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	The colleges were originally given line item appropriations based on their FTE in 2004. No change has been made to that original formula. Thus, our largest CC (which has grown significantly)has the second lowest appropriation in the State.
WY	Coordinating/governing board for CCs separate from K-12 & Universities	No Formula (please describe how CCs are funded):	Utilize a two-part funding allocation model to distribute state and local appropriations based on 1) fixed operational costs 2) variable costs driven by instruction-related functions, with a component based on performance (completion, granting of diplomas/certificates)

Chart 18

Revenues Per FTE by State Funding Distribution Formula (2014 FY)



State-Level CC Governance Structure * State Funding Distribution Formula

Table 47 below provides parameter estimates between two variables, *independent variable* state-level CC governance structure, and *dependent variable* state funding distribution formula. (*) denotes the convolution of variable (state-level CC governance structure) and variable (state funding distribution formula) for functional analysis. As shown, it can be seen that for all state-level CC governance types, each has at least one relationship with one of three state funding distribution formula categories.

7) H_0: There is no statistically significant impact of state funding distribution formula on state-level CC governance structure.

   H_1: There is a statistically significant impact of state funding distribution formula on state-level CC governance structure.

8) H_0: There is no significant correlational relationship between state funding distribution formula and state-level CC governance structure.

H_1: There is a statistically significant correlational relationship between state funding distribution formula and state-level CC governance structure.

All hypotheses will be tested at a minimum of 0.05 level of significance.

Table 47

*Parameter Estimates: State-level CC structure*State Funding Distribution Formula*

State-level CC governance structure/system[a]		B	Std. Error	Wald	df	Sig.	Exp(B)
Coordinating/ governing board for CCs separate from K-12 & Universities	Intercept	1.655	.865	3.655	1	.056	
	State Appropriations Per FTE	.000	.000	2.375	1	.123	1.000
	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	-1.987	1.234	2.594	1	.107	.137
	No Formula	.909	.995	.834	1	.361	2.481
	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	0[b]	.	.	0	.	.
Coordination for CC governance falls beneath a Univ. coordinating/governing board	Intercept	-1.179	1.213	.944	1	.331	
	State Appropriations Per FTE	.000	.000	.250	1	.617	1.000
	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	-20.871	.000	.	1	.	8.627E-10
	No Formula	-.471	1.485	.100	1	.751	.625
	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	0[b]	.	.	0	.	.
No state-level coordinating/governing board	Intercept	-16.900	2.086	65.644	1	.000	
	State Appropriations Per FTE	-.001	.001	5.144	1	.023	.999
	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	19.789	1.517	170.178	1	.000	392815113
	No Formula	21.815	.000	.	1	.	2978548946
	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	0[b]	.	.	0	.	.
Same coordinating/governing board as K-12, but separate from Universities	Intercept	-.981	1.558	.396	1	.529	
	State Appropriations Per FTE	.000	.000	.008	1	.930	1.000
	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.]	-.781	1.537	.258	1	.612	.458
	No Formula	-19.502	.000	.	1	.	3.392E-9
	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	0[b]	.	.	0	.	.

a. The reference category is: Same coordinating/governing board as University
b. This parameter is set to zero because it is redundant.

The crosstabs results, Table 48 below, presents some noteworthy findings. States with a coordinating/governing board for CCs separate from K-12 and Universities, or states whose coordination for CC governance fell beneath a university board, were most likely to have a *responsive funding formula* as their state funding distribution mechanism. Meanwhile, states with a same coordinating/governing board as university were most likely to have a *functional component funding formula* as their state funding distribution mechanism. For states with no state-level coordinating/governing board, they were more than likely to not have a state funding distribution mechanism; i.e., *no formula*. States with a same coordinating/governing board as K-12, but separate from universities are also more likely to have a *responsive funding formula* in place as their state funding distribution mechanism.

Table 48

State-Level CC Governance Structure & State Funding Distribution Formula (2014 FY)

Crosstabs			Functional Component Funding Formula	No Funding Formula	Responsive Funding Formula
Coordinating/governing board for CCs separate from K-12 & Universities	Revenues from State Appropriations Per FTE	Count Median	1 $5,853.29	8 $4,672.27	11 $2,849.00
Coordination for CC governance falls beneath a Univ. coordinating/governing board	Revenues from State Appropriations Per FTE	Count Median	0	2 $8,851.75	3 $3,000.70
No state-level coordinating/governing board	Revenues from State Appropriations Per FTE	Count Median	1 $3,830.00	4 $2,574.11	0
Same coordinating/governing board as K-12, but separate from Universities	Revenues from State Appropriations Per FTE	Count Median	1 $6,185.33	0	2 $3,138.17
Same coordinating/governing board as University	Revenues from State Appropriations Per FTE	Count Median	7 $4,460.00	4 $6,583.80	6 $4,331.50

Tables 49 and 50 below provides directional measures and Chi-Square results between the two variables being measured, *independent variable* state-level CC governance structure, and *dependent variable* state funding distribution formula. As shown, it can be seen that for all state-level CC governance and state funding distribution formula types statistically significant relationships exist.

Table 49

Correlations: State-Level CC Governance Structure & State Funding Distribution Formula

Directional Measures		Value	Asymptotic Standardized Error[a]	Approximate T[b]	Approximate Significance
Lambda	Symmetric	.190	.097	1.819	.069
	State Funding Distribution Formula Dependent	.179	.133	1.231	.218
	State-level CC governance structure/system Dependent	.200	.084	2.224	.026
Goodman and Kruskal tau	State Funding Distribution Formula Dependent	.149	.050		.067[c]
	State-level CC governance structure/system Dependent	.101	.049		.012[c]
Uncertainty Coefficient	Symmetric	.159	.047	3.235	.014[d]
	State Funding Distribution Formula Dependent	.183	.055	3.235	.014[d]
	State-level CC governance structure/system Dependent	.141	.041	3.235	.014[d]

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on chi-square approximation
d. Likelihood ratio chi-square probability.

Table 50

Chi-Square Tests: State-Level CC Governance Structures & State Funding Distribution Formula

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.627[a]	8	.048
Likelihood Ratio	19.239	8	.014
N of Valid Cases	50		

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .60.

Summary

After running SPSS Quantitative analysis in two-parts – NCSDCC 2016 Survey Analysis and SPSS Analysis utilizing three data sets: 2016 NCSCC Survey Data, 2014 FY Finance IPEDS Data, and 2015 NCSDCC Survey Data; several themes, concepts, discoveries, and findings have been revealed. From the findings, the questions and uncertainty about the relationships between state-level CC governance structures and resource funds is becoming more clear. In chapter 5, results from chapter 4 will be used to begin to piece together this immense puzzle.

CHAPTER 5. SUMMARY AND CONCLUSIONS, AND IMPLICATIONS FOR PRACTICE, POLICY, AND RESEARCH

This chapter includes summaries and conclusions about the findings from Chapter 4, along with considerations and implications for practice, policy, and research. The purpose of this mixed-method study was to better understand correlational relationships between resource funds, state-level CC governance structures, and state funding distribution formulae across the national landscape. Based on existing literature, this study was unique because this research explored and examined relationships linking two major fields of study; CC state distribution funding formulae and state-level CC governance structures. Various datasets were used for analysis and examination: the IPEDS 2014 fiscal year finance survey for all CCs in the U.S., the CC state director responses from the 2016 NCSDCC survey, and the CC state director responses from a 2015 NCSDCC survey of a previous study (Fletcher & Friedel, 2017).

It is envisioned that the results of this study, and its dissemination, will prove useful for individuals involved with the state-level leadership and direction of CC governance and finance.

State-level CC directors and state legislators can make use of the knowledge and information from this research to identify opportunities of fiscal growth, identify fiscal weak points, and/or identify possible disconnects between state distribution funding model and state-level CC governance structure. Furthermore, the key results and findings of the national landscape in this chapter can be used as a quick reference and helpful guide for CC state directors and state legislators in the evaluation and assessment of their own state-level CC governance structure and state funding distribution formula.

Conclusions

Conclusions and discussions about the research data and findings in Chapter 4 are organized into three primary segments: first, the IPEDS 2014 finance data and SPSS analysis results; second, the 2016 NCSDCC survey results and SPSS analysis results; and third, implications for policy, practice and research. With this chapter, an attempt will be made to put-together the many pieces of this puzzle. In this study, though the revenue resource funds (tuition & fees, state appropriations, and local support as *dependent variables*) were applied as separate factors, the fact that they were highly correlated leads to the possibility that all three could be treated as parts of a single underlying dimension. However, this would be the premise of a second-order factor analysis not covered in the scope of this study, but an item for future research.

IPEDS 2014 Finance Data and SPSS Analysis Discussion

Reliability Statistics Conclusions

Examining reliability statistics in Chapter 4, a few conclusions can be made. From the *inter-item correlation matrix* table, we can deduce that the 2014 FY IPEDS Finance data set used for quantitative analysis is reliable and valid. Statistically significant correlations can be found where inter-items have a P-value ≥ 0.05. Statistically significant correlations for the dependent variables used in this study include the following pairs: state appropriations and local support; local support and local support per FTE; local support and state appropriations per FTE; state appropriations per FTE and local support. Interestingly however, there was not a statistically significant correlation between state appropriations and state appropriations per FTE. This shows a weaker relationship, and could mean that dollar-per-dollar, state appropriation as a sum is not a significant indicator for the dollar-level value of state appropriations per FTE funded to state CCs.

Correlation Test Conclusions

Both parametric and nonparametric correlation tests were run; refer back to Chapter 4 for all tables and figures with detailed and delineated results. Based on the Pearson test, Kendall's tau_b test, and Spearman's rho test between dependent variables, all correlation coefficients were statistically significant at the 0.05 level (2-tailed). What this means is that the dollar-level value for one source of revenue will be influenced by another. For example, tuition and fees (and per FTE) will be affected by the other two dependent variables, state appropriations (and per FTE) and/or local support (and per FTE), and vice-versa.

Descriptive Statistics Conclusions

Scrutinizing the descriptive statistics results for the 2014 FY IPEDS 2014 data set in Chapter 4, there are a few intriguing findings and conclusions. First, it is worthwhile to note that (n=818) CCs across the U.S. are currently governed under two of the five state-level CC governance structure models defined by the Katsinas (1996) taxonomy; *coordinating/governing board for CCs separate from K-12 and University* (n=471), and *same coordinating/governing board as a university board* (n=347). It is important to keep this statistic in mind as we navigate deeper into the research findings and results from Chapter 4. Also worthwhile to note, of the (n=1,012) CCs operating across the U.S., a majority (n=510) are operating in just thirteen states: Alabama, California, Florida, Georgia, Illinois, Kansas, Michigan, Minnesota, New York, North Carolina, Ohio, Tennessee, and Texas. Collectively, these states account for 50.4% of all CCs currently operating across the U.S. according to the 2014 FY IPEDS finance data set.

Second, across the national landscape, observations from one-sample t-tests on state and local support as a sum, and per FTE, signify that these two sources of revenue are skewed to the right. This denotes that a good number of state and local governments are more generous in their state and local support per FTE for CCs.

Third, there were some interesting statistics about revenues per FTE for CCs across the national landscape. The medians and standard deviations respectively were: tuition and fees per FTE $2,049/$1,543; state appropriations per FTE $3,372/$3,030; and local support per FTE $962/$4,005. Studying these results, it is evident that tuition and fees and state appropriations the two biggest revenue sources for CCs across the national landscape.

It is worthwhile to note that the median and standard deviation for local support per FTE was $962/$4,005 respectively. It can be deduced that a number of states across the nation are

relying on, but bringing in, a significant amount of monetary revenue from local support. Moreover, from running and analyzing one-sample t-tests on mean values for revenues per FTE, the national mean for state appropriations per FTE was $3,874 with a SD of $3,030 and skewness of 2.510, and the national mean for local support per FTE is $2,071 with a SD of $4,005 and skewness of 8.767.

As can be inferred, both state appropriation per FTE and local appropriation per FTE are significantly skewed to the right. Across the U.S., state appropriations per FTE are generally going to be higher than the median value of $3,372. Similarly, local support per FTE is generally going to be higher than the median value of $962. In aggregate for all states in the U.S., CC state and local support amounted to $1.993 million at the 50th percentile, and $11.662 million at the 75th percentile respectively. Again, showing that these two revenue sources are skewed significantly to the right.

Nonparametric Test Conclusions

The three null hypotheses mentioned in Chapters 3 and 4, "the distribution of *tuition and fees per FTE; state appropriations per FTE; local support per FTE* is the same for all five state-level CC governance structures", were tested by way of the nonparametric independent-samples Kruskal-Wallis test at a 0.05 significance level with a Bonferroni correction of eight, and all were measured at a statistical significance of *0.000*. As a result, all three null hypotheses can be *rejected* with statistical confidence. Based on the data inputs and test outputs, it can certainly be argued and assumed with confidence that all three revenue sources – *tuition and fees per FTE; state appropriations per FTE; local support per FTE* – will differ and vary significantly from

state-to-state based on the type of state-level CC governance system in practice (models as defined by the Katsinas taxonomy).

Revenue Breakdown Conclusions

Delineating *revenue resource funds* per FTE by state-level CC governance structure even further produced additional findings. Again, it should be noted that for *all* CCs, regardless of state-level CC governance structure across the U.S., the mean state appropriation revenue per FTE was $3,874 with standard deviation $3,030; the mean local appropriation revenue per FTE was $2,279 with standard deviation $1,543; and the mean tuition/fee revenue per FTE was $2,071 with standard deviation $4,005.

Scrutinizing *state appropriations per FTE* by referring back to Table 24, it should be noted that states using a "no state-level coordinating or governing board" structure were well below the national mean. These states included: Arizona, Maryland, Michigan, Pennsylvania, and South Dakota. Meanwhile, states using a "same coordinating/governing board as K-12, but separate from university board" structure were well above the national mean. These states included: Iowa and Florida.

Examining *local support per FTE* by referring back to Table 24, it should be noted that states with a "same coordinating/governing board as K-12, but separate from university" structure were below the national mean, and these states included: Iowa and Florida. Conversely, states implementing a "Coordination for CC governance falls beneath a university coordinating/governing board" structure were well above the national mean. These states included: Alaska, Idaho, Indiana, Montana, and New York.

Analyzing *tuition and fees per FTE* by looking at Chart 18, it should be noted that states utilizing a "coordinating/governing board for CCs separate from K-12 and University" structure were well below the national mean. These states included: Alabama, California, Colorado, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maine, Mississippi, New Hampshire, New Jersey, North Carolina, South Carolina, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Meanwhile, states utilizing a "no state-level coordinating or governing board" structure were well above the national mean. These states included: Arizona, Maryland, Michigan, Pennsylvania, and South Dakota.

The following Table 51 provides a summary analysis of revenues per FTE by state-level CC governance system. As we can see,

Table 51

Summary: Revenues per FTE and State-Level CC Governance System (2014 FY)

State- Level CC Governance System	Average of Revenues from Tuition and Fees Per FTE	Average of Revenues from State Appropriations Per FTE	Average of Revenues from Local Support Per FTE	SUM OF AVERAGES
Coordinating/governing board for CCs separate from K-12 & university	$1,873	$3,572	$1,990	$7,435
Coordination for CC governance falls beneath a university coordinating/governing board	$2,548	$3,423	$3,987	$9,958
No state-level coordinating or governing board	$3,156	$2,348	$3,419	$8,923
Same coordinating/governing board as K-12, but separate from university	$2,597	$5,609	$1,115	$9,321
Same coordinating/governing board as university	$2,524	$4,452	$1,706	$8,682
U.S. Average	$2,280	$3,874	$2,072	$8,226

2016 NCSDCC Survey and SPSS Analysis Discussion

The survey response rate was more than satisfactory with forty-three state directors (86%) reporting, (i.e., forty-three states represented in the survey data). For the seven state (14%) directors who did not complete the 2016 NCSDCC survey, data was collected from either the 2015 NCSDCC survey data and/or the Mullin and Honeyman (2007) typology study. The states missing in the survey data of this study were asterisked (*) and include: Alabama, Florida, Indiana, Minnesota, Nevada, New York, and Ohio. The sample size is 50 states (n=50) for all data analysis conclusions in this segment of the chapter.

Reliability Statistics Conclusions

Examining reliability statistics in Chapter 4, a few conclusions can be made. From the *one-sample t-test for the three primary revenues per FTE* table and the *Directional Measures Between State Funding Distribution Formula and State-Level CC Governance Structure* tables, we can again deduce that the 2014 FY IPEDS Finance data set used for quantitative analysis is reliable and valid. Statistically significant correlations were found where inter-items had a P-value ≥ 0.05. Statistically significant correlations for the variables used in this study included the following pairs: state funding *distribution formula* and *state-level CC governance structure*; *tuition/fees per FTE* and *state funding distribution formula*; *state appropriations per FTE* and s*tate funding distribution formula*; and *local support per FTE* and *state funding distribution formula*.

Correlation Tests Conclusions

Both parametric and nonparametric correlation tests were run; refer back to Chapter 4 for all tables and figures with detailed and delineated results. Based on the Pearson test, Kendall's tau_b test, and Spearman's rho test between and across the dependent variables, all correlation coefficients were statistically significant at the 0.05 level with a Bonferroni correction of eight. What this means is that the dollar-level of income for one revenue source was affected by the other two revenue sources. For example, tuition and fees per FTE is influenced by the other two dependent variables, state appropriations per FTE and/or local support per FTE, and vice-versa.

Descriptive Statistics Conclusions

Analyzing and cross-analyzing the 2016 NCSDCC survey data with IPEDS 2014 finance data descriptive statistics from Chapter 4, there are some intriguing findings and conclusions worthy of discussion. It should first be noted that of the five different types of state-level CC governance structures, as defined by the Katsinas taxonomy (1996), the *coordinating/governing board for CCs separate from K-12 and Universities* structure was the most widespread state-level CC governance structure/system across the U.S. at twenty (40%) states. However, the *same coordinating/governing board as University* structure was also widespread at seventeen (34%) states. Combined, these two state-level CC governance structures exist in practice for thirty-seven (74%) of states in the U.S. *Same coordinating/governing board as K-12, but separate from universities* state-level CC governance structure model is the least commonly practiced structure at three (6%) states in the U.S.

Examining the 2016 NCSDCC survey results concerning state funding distribution formulae, as defined by the Honeyman and Mullin (2007) taxonomy, twenty-two (44%) states

utilized a *responsive funding formula* as their state funding distribution tool for allocating state appropriations to CCs. Again, this state funding distribution mechanism is defined as using, funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measure, or both (Mullin & Honeyman, 2007).

For the first model, twenty-two (44%) states practiced a *responsive funding formula* in the state distribution of funds to CCs. Ten (20%) of these states further delineated themselves by using a *cost of education funding formula* as their primary method, where the primary formula components included student enrollment and a cost of education factor, or a base amount (Mullin & Honeyman, 2007). Another seven (14%) of these states delineated themselves by using an *equalized funding formula* as their primary method, where funding was achieved through various mechanisms; generally, allocations based on a threshold – specified level or benchmark – that was deemed appropriate for determining equitable funding (Mullin & Honeyman, 2007). The remaining five (10%) of these states delineated themselves as utilizing an *option funding formula*, where funding formulae were used that allowed either state leaders or economic conditions to determine which formula was to be used, e.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component was used (Mullin and Honeyman, 2007).

For the second model, ten (20%) states across the U.S. utilized a *functional component funding formula,* where costs were justified in terms of the components of operation within an institution (Mullin & Honeyman, 2007) as their allocation method of state funds to CCs. These ten (20%) states were further delineated into two sub-categories: *generalized funding formula,* which utilized the same functional components within formulae for justifying funding, but did so

in a different way year-to-year (Mullin & Honeyman, 2007) and *tiered funding formula*, where calculations refined the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs (Mullin & Honeyman, 2007). For these two sub-categories, it was evenly-split at five (10%) states each.

For the third model, eighteen (36%) states across the U.S. utilized no formalized state funding distribution formula; i.e., *no state funding formula*. Figure 12 is a word cloud of the comments from states who *did not* utilize a *state funding formula*. Based on the narrative responses of state CC directors in this model, the qualitative data indicated that state appropriations and state budget requests were incorporating concepts like "performance based funding", "graduation completion", "program performance", "base allocations", "redistribution", and etc. Linking these concepts together, in general, CCs in *no funding formula* states were receiving a level of state appropriation, in addition to, supplemental funding based on "performance" metrics.

Figure 12. No State Formula: Word Cloud (2016)

Summarizing the crosstabs results between *independent variable* (state-level CC governance structure) and *dependent variable* (state funding distribution formula), the most common combination in practice across the U.S. at eleven (22%) states was *coordinating/governing board for CCs separate from K-12 and Universities*******Responsive funding formula*.

Most intriguing, two combinations were non-existent in practice. Zero (0%) states across the U.S. were practicing a *same/coordinating/governing board as K-12; separate from Univ.*******No formula* and/or *no state-level CC coordinating governing board*******responsive funding formula* governance/funding combination. The first is actually a good finding, considering it would be seriously detrimental and deeply concerning for a *same/coordinating/governing board as K-12; separate from Univ.* system to implement a *no state funding distribution formulae* for CC and K-12 schools. The second finding is rather not very surprising. It would be counter-intuitive for states to practice a *no state-level CC coordinating governing board* structure/system, but have a *responsive funding formula*, let alone any type of state funding distribution formula.

Nonparametric Test Conclusions

For the 2016 NCSDCC survey sample, nonparametric tests were executed by means of SPSS quantitative analysis utilized the three state distribution formulae models (*independent variable)* as defined by the Mullin and Honeyman taxonomy (2007). Tuition and fees per FTE, state appropriations per FTE, and local support per FTE were the *dependent* variables. Null hypotheses tested were:

4) H_0: There is no statistically significant correlational relationship between tuition and fee revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between tuition and fee revenue per FTE and state funding distribution formula.

5) H_0: There is no statistically significant correlational relationship between state appropriation per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between state appropriation revenue per FTE and state funding distribution formula.

6) H_0: There is no statistically significant correlational relationship between local appropriation revenue per FTE and state funding distribution formula.

   H_1: There is a statistically significant correlational relationship between local appropriation revenue per FTE and state funding distribution formula.

Based on the independent-samples Kruskal-Wallis tests results, null hypotheses four (.941 sig.) and six (.461 sig.) were retained, while null hypothesis number five was *rejected* (.029 sig.). Null hypotheses four and six, there is no statistically significant correlational relationships between tuition and fee revenue per FTE and state funding distribution formula, and there is no statistically significant correlational relationship between local appropriation per FTE and state funding distribution formula, were *retained*. Null hypothesis five, that there is a statistically significant correlational relationship between state appropriations per FTE and state funding distribution formula, was rejected and therefore warranted further analysis in the segments to follow.

Break down of State Funding Distribution Formula Typology Results

Table 52 provides a 2016 update to the Mullin and Honeyman (2007) typology study covered in Chapter 2. As can be seen, forty (80%) of states were implementing a *no funding formula* or *responsive funding formula* approach in the state distribution (i.e., state appropriation) of funds to CCs in the U.S. Delineating further, states in the *functional component funding formula* category were evenly split at five (10%) between two sub-categories; a *generalized funding* or a *tiered funding* method. Similarly, states in the *responsive funding formula* category are further delineated into three sub-categories: *cost of education, equalized,* or *option* funding. Ten (45%) states in this category utilized a *cost of education* approach, seven (32%) states in this category utilized an *equalized funding* method, and five (23%) states in this category utilized an *option funding* process.

Table 52

NCSDCC 2016 Update: Mullin and Honeyman Taxonomy

No Formula (18)	Responsive (22)			Functional Component (10)	
No Formula	Cost of Education	Equalized	Option	Generalized	Tiered
Alaska	Alabama	Colorado	Illinois	Connecticut	Kansas
Arizona	Arizona	Indiana	Iowa	Florida	Minnesota
Delaware	California	Missouri	Louisiana	Georgia	New Mexico
Hawaii	Massachusetts	Oregon	Nebraska	Nevada	North Carolina
Idaho	Montana	Tennessee	New York	North Dakota	Ohio
Kentucky	New Jersey	Washington			
Maine	South Carolina	Wisconsin			
Maryland	South Dakota				
Michigan	Texas				
Mississippi	Virginia				
New Hampshire					
Oklahoma					
Pennsylvania					
Rhode Island					
Utah					
Vermont					
West Virginia					
Wyoming					

Table 53 provides a summary of state director responses for states that were implementing a *no formula* approach with the state distribution of funds to CCs.

Table 53

State Director Responses for No State Distribution Formula States (2016)

Abbr.	No Formula (please describe how CCs are funded):
AK	Funding is incremental and based on underlying costs, or a proportional decrement.
AZ	Two of ten CC districts have been completely defended by the state; while funding formulae are present in State statutes, those formulae are no longer applied.
DE	The CC system receives the same percentage increase in funding as the two state funded 4 year institutions.
HI	Public funding is appropriated on a base budget plus additions, subject to legislative appropriations. Legislative biennium budget considerations approve the add-on items, some of which are very specific, others are broadly defined such as an initiative to improve Native Hawaiian graduation. Legislative action also approves the funding associated with the settlement of all collective bargaining agreements as an addition to the base budget. Colleges retain tuition as a component of the operating budget
ID	Base plus maintenance of operations for personnel costs, benefits, compensation, and replacement capital. Funding for new initiatives on a case-by-case basis.
KY	Funding distribution funding formula has elements for the cost of programs using the Classification of Programs (CIP) with variation in funding. Contains an element for high demand - high wage programs, includes elements for maintenance and operations, libraries, academic and institution support as well as the ability to redistribute funding for equity. The current model is under review and will be aligned to the newly designed state performance-outcomes based model for KY postsecondary education institutions.
MD	Funding is linked by formula to funding levels at the public four-year colleges and universities
MI	Funding formula applies to new money only: 30% across the board; 30% weighted contact hours (health, technology weighted 2x); 30% performance (10% number of completions, 10% rate of completions, 10% improvement in completions); 5% admin costs; 5% local strategic value (calculated based on providing/participating in a variety of local activities)
MS	MACJC funding formula provides a base amount of 15% of the prior year formula appropriation, which is shared equally among the 15 colleges. The remaining formula funds are distributed using FTE enrollment in Academic, Career, and Technical with additional weights for high cost programs.
OK	Performance Funding Formula using measurable performance standards
PA	CCs receive operating and capital funding from the State. Operational funding is distributed as a base amount plus an allocation based on FTE. So for FY 16-17, the total operating appropriation was $232.111M. Of that amount, $226.45M was distributed as it was in the previous Fiscal Year, and $5.661M was distributed based on FTEs. Capital funding is distributed based on project.
RI	Formula funding has been a legislative agenda item for several years but not yet implemented. General Assembly largely determines the level of state support to each of the three public institutions. Governor's Office controls whether the Board/Council permits tuition and fee changes.
UT	Coordinated approach based on system priorities. Funding is categorized by compensation increases, market demand, performance outcomes, and capital development.
VT	The CC of Vermont is a member of the Vermont State College System. There are five colleges in the system. CCV is the only CC in Vermont. The legislative appropriation is given to the system and then divided equally. Each college gets 20% of the appropriation. The state appropriation represents about 12-14 % of our operating budget.
WV	The colleges were originally given line item appropriations based on their FTE in 2004. No change has been made to that original formula. Thus, our largest CC (which has grown significantly)has the second lowest appropriation in the State.
WY	Utilize a two-part funding allocation model to distribute state and local appropriations based on 1) fixed operational costs and 2) variable costs driven by instruction-related functions, with a component based on performance (completion, granting of diplomas/certificates)
ME & NH	Not described

Table 54 is a 2016 update for states who are currently implementing a *functional component funding formula* for the state distribution of funds to CCs. It is worth pointing out that instruction, academic support, student services, and plant operations were the most common components found in the state funding distribution formulae of states in this category. Not very unexpected considering such categories are typically the most expensive line items of a CC's budget. It is interesting that only two *functional component* states utilized scholarships/fellowships as components in their state funding distribution formulae. More than ever, student debt at graduation is becoming an increasingly hot topic and concern. Increasing state appropriations for this component could be increasingly and important factor to keep students enrolled and motivated to graduate/complete their CC degree/certificate/credential.

Table 54

Expenditure Categories in Funding Formulae Used by Functional-Component States (2016)

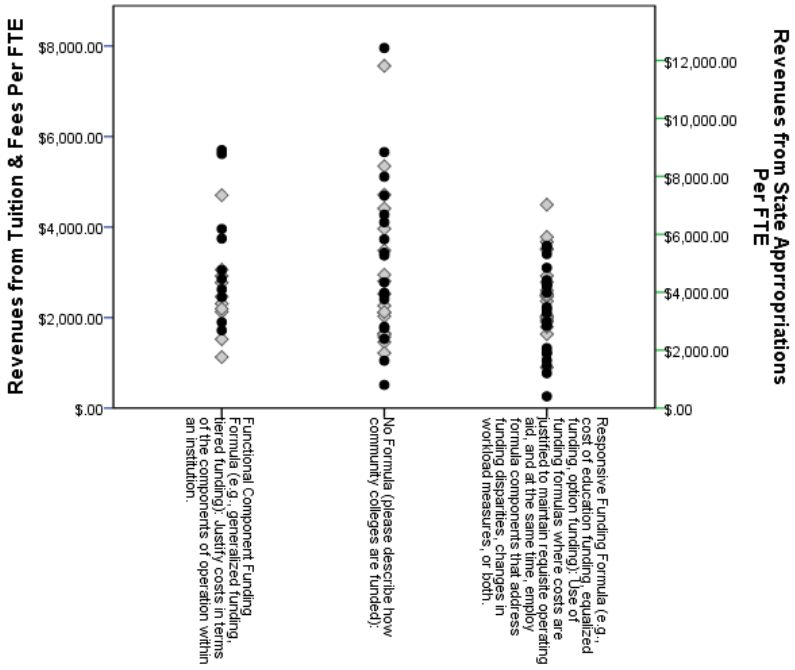
State (10)	Instruction (9)	Research (3)	Public Service (2)	Academic Support (8)	Student Services (7)	Institutional Support (7)	Scholarship /Fellowship (2)	Plant Operation (7)
Generalized Funding								
Connecticut	X			X	X	X	X	X
Florida	X			X	X	X		X
Georgia	X			X	X	X		X
Nevada	X	X		X	X	X		X
North Dakota	X	X	X	X	X	X	X	X
Tiered Funding								
Kansas	X			X	X	X		X
Minnesota	X	X	X	X				X
New Mexico	X							
North Carolina	X			X	X	X		
Ohio[a]								

a. No components specified.

Analyzing Chart 19, several observations can be made. When it comes to tuition and fees and state appropriations per FTE, there was a greater amount of variability for states who do not have a state funding distribution formula compared to states who had either a *responsive funding formula* or *functional component funding formula*. Though not tested in this research, one might hypothesize that states not utilizing a state funding distribution formula are experiencing a degree of unpredictability when predicting and planning for state appropriations per FTE year-to-year. If this is the case, such circumstances could be placing a great amount of stress on CC presidents and administrators with budget management, and/or forecasting calculations of tuition and fees to students.

Chart 19

Scatterplot: Tuition and Fees and State Appropriations Per FTE (2014 FY)

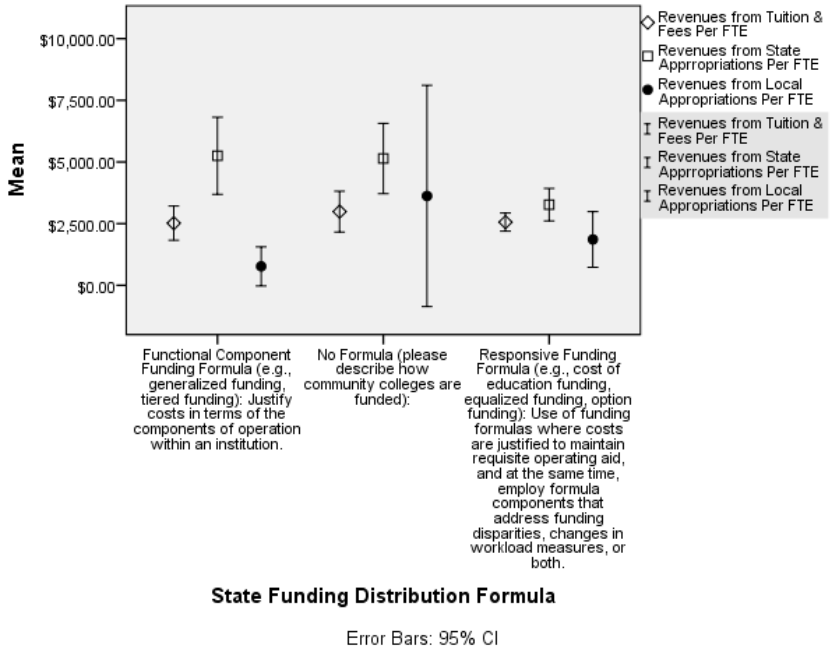


Examining Chart 21, we again saw a good amount of variability for state appropriations per FTE in *no state funding distribution formula* states, as well as *functional component funding formula* states. There was an even greater amount of variability for local support per FTE for *no*

state funding distribution formula states. Again, these are factors that will continue to have an impact on the CCs' ability to forecast/plan tuition and fees for students, budgets, and etc.; particularly during times of financial strain.

Chart 20

Revenues Per FTE Means by State Funding Distribution Formula (2014 FY)



State-Level CC Governance Structure * State Funding Distribution Formula

In Chapter 4, null hypotheses seven and eight at a minimum level of 0.05 significance, with a Bonferroni correction of eight, were tested and produced findings and results where we can *reject* and accept the alternate hypotheses shown below.

7) H_0: There is no statistically significant impact of state funding distribution formula on state-level CC governance structure.

   H_1: There is a statistically significant impact of state funding distribution formula on state-level CC governance structure.

8) H_0: There is no significant correlational relationship between state funding distribution formula and state-level CC governance structure.

H_1: There is a statistically significant correlational relationship between state funding distribution formula and state-level CC governance structure.

In summary, state funding distribution formulae have a statistically significant impact on state-level CC governance structure and a statistically significant correlational relationship between the two exist. Moreover, the crosstab results found in Tables 47 and 48 presented some additional, and interesting, findings. States with a *coordinating/governing board for CCs separate from K-12 & Universities* or *coordinating for CC governance beneath a university board* were more likely to have a *responsive funding formula* as their state funding distribution mechanism. Meanwhile, *states with a same coordinating/governing board as university* were more likely to have a *functional component funding formula* as their state funding distribution mechanism. For states with no state-level coordinating/governing board, they were also more likely to not have a state funding distribution mechanism (i.e., *no formula*).

Furthermore, the Lambda, Goodman and Kruskal tau, and uncertainty coefficient tests, provided directional measures between the two variables. Not assuming the null hypothesis, statistically significant relationships between the two variables did exist (all values were above the 0.05 level of significance with a Bonferroni correction of eight).

Implications for Policy, Practice, and Research

Now that the 2016 NCSDCC survey and 2014 IPEDS finance data set results have been analyzed and discussed – what, where, and how do these "pieces of the puzzle" fit together? After a comprehensive and exhaustive review of this study's research findings and data, the following recommendations/suggestions are for invested state-level parties involved with the governing and funding strategy process for CCs. The following recommendations/suggestions

could be also considered as "food for thought" for state legislative and/or CC discussions across the U.S. From a state-level point of view, one approach is to think about the relationships between primary objectives of funding CCs and the distribution of state resource funds/appropriations.

With *no-formula* strategies, institutions can benefit if individual institutional needs reflecting unique missions can be highlighted in funding negotiations. Drawbacks include the possibility for informal allocations to be influenced by political considerations rather than institutional needs; a lack of transparency in the process used for allocating funds; and a limited ability for colleges to plan for the future, particularly with biennial budgets. Furthermore, whereas a reduction in funding would limit growth, a state legislature may not have any direct control over which and what programs would be affected. States whose CCs are currently absorbed into a state university system and/or whom have a relatively low number of CCs (or will in the future), could arguably in theory have *no need* for a CC formulaic state funding distribution formula. From this research, it was known that eighteen (36%) states were *not* utilizing a formula in the state distribution of their funds: Alaska, Arizona, Delaware, Hawaii, Idaho, Kentucky, Maine, Maryland, Michigan, Mississippi, New Hampshire, Oklahoma, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. For states with *no state-level CC governance structure/system*, it is again worth noting that from the tests and results it was discovered that *state appropriations per FTE* were well below the national mean and median. These states included: Arizona, Maryland, Michigan, Pennsylvania, and South Dakota. State legislatures and/or CCs in these states may want to reconsider, or reevaluate, their coordination strategies and/or advocacy efforts (at minimum, think about how they distribute state funds) to reduce the level of tuition and fees assessed to students. States with *no state-level*

governing/coordinating governance structure/system were highest in tuition and fees per FTE across the U.S. in median and mean.

Responsive funding formula strategies benefit from a process that tends to be less complex. It also allows stakeholders to obtain a fairly general understanding about how state allocations are being requested and/or distributed. Additionally, because a major factor of this formula model is FTE enrollment, the predicted revenues are fairly accurate. However, a drawback is they do not provide for the calculations of other variable factors. For example, cost of education for different programs (e.g., vocational/technical programs vs. general education). Finally, except in those states in the equalized funding subcategory, there were no assurances that the distribution of funds would be equitable and objective (Mullin & Honeyman, 2007).

Functional-component formulae were developed specifically to enhance the prediction of future revenues and to control the costs of programs and activities. These formulae help stakeholders feel confident in their rationale for state distribution of funds. A potential drawback for these types of formulae is often the composition of long and complex multi-staged calculations. For the general populace, these can be difficult to understand (e.g., state legislators, faculty, staff). This fact creates a context where the manipulation of numbers becomes easier and therefore raises a concern about the reliability of cost and revenue estimates (Mullin & Honeyman, 2007).

In sum, if state legislators want to enhance the ability to predict revenue and plan for future operations at the college level as a primary financing objective for CCs, it is strongly suggested that a *responsive funding formula* or *functional component funding formula* be used. If the primary objective is to maintain an objective, fair, and equitably distribution of funds to CCs, a *responsive funding – equalized* state funding distribution formula is strongly encouraged.

If a state's primary objective is to facilitate an understanding of the CC funding process by college administration and/or state policymakers, then any of the *responsive funding (cost of education, equalized,* or *option)* state funding distribution formulae are recommended as a strategy. From this research, it was known that twenty-two (44%) states were using a *responsive funding distribution formula (cost of education, equalized, or option)*: Alabama, Arkansas, California, Colorado, Illinois, Indiana, Iowa, Louisiana, Massachusetts, Missouri, Montana, Nebraska, New Jersey, New York, Oregon, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, and Wisconsin.

Currently, many states (and possibly more in the future) are strategizing ways to control growth or reduce the enrollment of specific programs or activities for CCs. As a result, states are utilizing a *functional component funding formula* with the state distribution of funds to CCs. It is strongly recommended that any states wanting to tackle this objective consider the implementation of a *functional component funding formula*. Ten (20%) states were identified as utilizing a *functional component funding formula* in the state distribution of funds to CCs: Connecticut, Florida, Georgia, Kansas, Minnesota, Nevada, New Mexico, North Carolina, North Dakota, and Ohio.

Another Variable in the Mix

Revealed in the survey results, there is a change and force shaking up state-level CC systems across the U.S. in areas of finance and governance – performance based funding and sometimes coined outcomes based funding. Six (12%) CC state-level directors of *no formula* (i.e., no state funding distribution formulae) states explicitly mentioned performance

based/outcome based measures in their open-ended survey responses about state funding of CCs: Kentucky, Michigan, Oklahoma, Rhode Island, Utah, and Wyoming.

Is it possible the number of states using performance/outcomes based components in their state funding distribution formulae will continue to grow? Will state legislatures discuss and evaluate the implementation of such measures? Although the flames of popularity have begun to wane, it is arguable that performance based funding's appeal to state legislators will not go away anytime soon. Any debate about the pros and cons of performance base funding components in state distribution formulae for CCs is beyond the scope of this research…but recently, the Century Foundation published a report about state policies that link funding of public colleges (either four-year and two-year institutions, or both) with measures of performance (e.g., graduation rates and degree production numbers) and found roughly thirty-five (70%) states are either developing, or are operating, forms of performance-based funding for higher education (Fain, 2016).

Based on these developments, further research could be needed to create a new state funding distribution taxonomy. It would be easy to lump performance based funding component states into the *no formula* category for state funding distribution of CCs. However, Table 55 below is proposed for what could be considered as a Mullin and Honeyman taxonomy "2.0." Since states in the *functional component* funding category justify the distribution of their funds to CCs according to the operational components of an institution, performance based funding (as another component) is being argued and proposed as a possible third "sub-category" for *functional component* funding. Rationale – each of the eight components mentioned in the Mullin & Honeyman (2007) taxonomy – instruction, research, public service, academic support, student services, institutional support, scholarship/fellowship, plant operations could include

performance based funding/outcome measures. Moreover, the measures of these components could be comparable, analyzable, and measurable in theory, in monetary and/or units to benchmarks, standards, peer institutions, and etc. Additionally, it would be likely up to the state legislatures to decide how such outcomes/components are measured.

Whether or not this theory/concept is in the best interest of higher education is beyond the scope of this paper and it would necessitate additional research and discussion. It would be very interesting to research the relationships and effects between state funding distribution formulae models, as defined by the Mullin & Honeyman (2007) taxonomy, and performance/outcome based performance measures.

Table 55

Mullin and Honeyman Taxonomy 2.0

No Formula (12)	Responsive (22)			Functional Component (16)		
No Formula	*Cost of Education*	*Equalized*	*Option*	*Generalized*	*Tiered*	*Performance Based Funding*
Alaska	Alabama	Colorado	Illinois	Connecticut	Kansas	Kentucky
Arizona	Arkansas	Indiana	Iowa	Florida	Minnesota	Michigan
Delaware	California	Missouri	Louisiana	Georgia	New Mexico	Oklahoma
Hawaii	Massachusetts	Oregon	Nebraska	Nevada	North Carolina	Rhode Island
Idaho	Montana	Tennessee	New York	North Dakota	Ohio	Utah
Maine	New Jersey	Washington				Wyoming
Maryland	South Carolina	Wisconsin				
Mississippi	South Dakota					
New Hampshire	Texas					
Pennsylvania	Virginia					
Vermont						
West Virginia						

Legislative Budgeting Request Capability – A Powerful Tool

Across the U.S., another finding and discovery from survey results was the surprisingly limited use of legislative budget requests mechanisms across the U.S. It is a potent tool that state-level CC governance systems can utilize … however, only thirteen (26%) state CC governing/coordinating bodies are currently applying and using this process. For example, in the state of Arkansas, the CC coordinating/governing body annually submits a legislative "needs based" funding formula which categorizes cost of educational delivery into three categories and is enrollment driven based on FTE's for allied health, general and basic education, and career and technical education.

In another example, CCs in Montana submit budget reports and recommendations to the CC coordinating/governing body, which are then prioritized. Every other year, this body creates budget requests sent to the state legislature.

In North Carolina, a legislative request formula is used that is determined by the amount of enrollment growth and salary increase funds. It is a collaborative process that involves the college presidents' association, trustees' association, and the State Board to identify legislative requests.

The state of Mississippi utilizes a similar collaborative process. The Mississippi Board for CCs (MCCB) requests, receives, and distributes state funds appropriated by the Legislature to the colleges. The MCCB has statutory authority to "fix standards for CCs to qualify for appropriations, and qualifications for CC teachers". The Mississippi Association of Community and Junior Colleges (MACJC) funding formula provides a base amount of 15% of the prior year formula appropriation, which is shared equally among the 15 colleges. The remaining formula

funds are distributed using FTE enrollment in Academic, Career, and Technical with additional weights for high cost programs.

In Texas, the legislative funding formula request is based on the cost of instruction, and is submitted to the Commissioner of Higher Education. The total amount and the criteria for the formula is also recommended. The Commissioner then makes a recommendation to the legislature; ninety percent of funding is based on the formula, and ten percent is performance based on student graduation rates.

The state of Wyoming uses a similar funding formula request and is based on a two-part funding allocation model for state and local support based on fixed operational costs and variable costs driven by instruction-related functions, and a third component based on performance (completion and number of diplomas/certificates).

In Kansas, the Higher Education Coordination Act provides that the Kansas Board of Regents shall "serve as the representative of the public postsecondary educational system before the Governor and the Kansas Legislature." (K.S.A. 74-3202c (b) (2)). This statement provides the foundation for a budgeting model that reflects the recurring theme of maintaining a system wide focus on requesting and advocating for increases in State General Fund appropriations for public postsecondary education. The Board requests and advocates for the Governor and Legislature to appropriate funding to the Board, which it then further allocates to sectors and institutions based on its determination of system-wide needs, appropriate institutional accountability and the performance of institutions. Annually, the Kansas Board of Regents submits a unified budget request which includes the base state grants and other specific appropriations to the coordinated institutions (19 CCs, six technical colleges, Washburn University), programs administered by the Board of Regents (student aid, adult education, GED,

etc.), and any increase in funds requested by the Board for the entire postsecondary education system.

2016 "State-Level CC Governance and Finance Handbook"

Table 56 below is a streamlined "handbook" that quickly and easily showcases the characteristics of every state in the U.S. related to state-level CC governance structure, state funding distribution formula, and state CC governing/coordinating body. All in one place, this "handbook" can be a helpful reference tool for all state CC officials/directors with their policy discussions with governors, state legislators, CC presidents, and etc., related to governance and funding policy issues, concerns, and planning (i.e., a one-stop shop). This "handbook" showcases all 50 states' state funding distribution formula, state-level CC governance structure, and CC governing/coordinating body that coordinates the collective action of the state. The dissemination of this novel "handbook", and what could be considered a "hybrid" taxonomy combining Mullin and Honeyman's study (state funding distribution formula) and Katsinas' study (state-level CC governance structure), could prove useful for state CC directors/officials, state legislators and/or CC administrators as a kind of "cheat sheet" for quickly referencing any state. The results conveniently organized and formatted below can serve as a helpful tool to guide legislative discussions and/or other policymaking circles associated with state-level CC governance, policy, and funding.

Table 56

State Funding Distribution and State-Level CC Governance Structure by State (2016)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
AK	No Formula: Funding is incremental based on underlying costs, or a proportional decrement.	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board
*AL**	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
AR	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Association of CC presidents
AZ	No Formula: Two of ten CC districts have been completely defended by the state; while formulae are present in state statutes, those formulae are no longer applied.	No state-level coordinating/governing board	Combination of any of the above (or other), please specify
CA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
CO	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
CT	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	State governing board
DE	No Formula: The CC system in Delaware receives the same percentage increase in funding as the two state funded 4 year institutions.	Coordinating/governing board for CCs separate from K-12 and Universities	Association of CC trustees

Table 56 (continued)

*FL**	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as K-12, but separate from Universities	Other, please specify
GA	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	No state-level coordinating/governing board	No State-Level governing/coordinating body
HI	No Formula: Public funding is appropriated on a base budget plus additions, subject to legislative appropriations. Legislative biennium budget considerations approve the add-on items, some of which are very specific (a new extension agent), others are broadly defined such as an initiative to improve Native Hawaiian graduation. Legislative action also approves the funding associated with the settlement of all collective bargaining agreements as an addition to the base budget. Colleges retain tuition as a component of the operating budget	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
IA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as K-12, but separate from Universities	Combination of any of the above (or other), please specify
ID	No Formula: Base plus maintenance of operations for personnel costs, benefits, compensation, and replacement capital. Funding for new initiatives on a case-by-case basis.	Coordination for CC governance falls beneath a Univ. coordinating/governing board	No State-Level governing/coordinating body
IL	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	Combination of any of the above (or other), please specify
*IN**	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
KS	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
KY	No Formula: Funding distribution funding formula has elements for the cost of programs using the Classification of Programs (CIP) with variation in funding, contains an element for high demand - high wage programs, includes elements for maintenance and operations, libraries, academic and institution support as well as the ability to redistribute funding for equity. In recent years with continuous state appropriation cuts, declining enrollment and no local funding, it has been extremely hard to use the model to redistribute funding. Rather, KCTCS's model was designed largely with the thought of there being new funding which would make the transition of redistribution easier. The ***current model is under review*** and will be aligned to the newly to be designed state performance-outcomes based model for Kentucky postsecondary education institutions.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
LA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
MA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
MD	No Formula: Funding is linked by formula to funding levels at the public four-year colleges and universities	No state-level coordinating/governing board	Association of CC presidents

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
ME	No Formula: Not known.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
MI	No Formula: Funding formula applies to new money only each year that distributes new money: 30% across the board; 30% weighted contact hours (health, technology weighted 2x); 30% performance (10% number of completions, 10% rate of completions, 10% improvement in completions); 5% admin costs; 5% local strategic value (calculated based on providing/participating in a variety of local activities)	No state-level coordinating/governing board	Combination of any of the above (or other), please specify
*MN**	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	Other, please specify
MO	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Association of CC presidents
MS	No Formula: Funding formula provides a base amount of 15% of the prior year formula appropriation, which is shared equally among the 15 colleges. The remaining formula funds are distributed using FTE enrollment in Academic, Career, and Technical with additional weights for high cost programs. An incentive is also provided for hosting and providing eLearning (online)courses.	Coordinating/governing board for CCs separate from K-12 and Universities	Combination of any of the above (or other), please specify
MT	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
NC	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
ND	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	State governing board
NE	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Association of CC trustees
NH	No Formula: Not known.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
NJ	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	Combination of any of the above (or other), please specify
NM	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
*NV**	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	State governing board

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
*NY**	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordination for CC governance falls beneath a Univ. coordinating/governing board	Combination of any of the above (or other), please specify
*OH**	Functional Component Funding Formula (e.g., generalized funding, tiered funding): Justify costs in terms of the components of operation within an institution.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
OK	No Formula: Performance Funding Formula using measurable performance standards (graduation rate, retention, etc.)	Same coordinating/governing board as University	State governing board
OR	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify
PA	No Formula: Pennsylvania's CCs receive operating and capital funding from the State. Operational funding is distributed as a base amount plus an allocation based on FTE. So for FY 16-17, the total operating appropriation was $232.111M. Of that amount, $226.45M was distributed as it was in the previous Fiscal Year, and $5.661M was distributed based on FTEs. Capital funding is distributed based on project.	No state-level coordinating/governing board	Combination of any of the above (or other), please specify
RI	No Formula: Formula funding has been a legislative agenda item for several years but not yet implemented. General Assembly largely determines the level of state support to each of the three public institutions. Governor's Office controls whether the Board/Council permits tuition and fee changes.	Same coordinating/governing board as University	Combination of any of the above (or other), please specify

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
SC	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	Combination of any of the above (or other), please specify
SD	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as K-12, but separate from Universities	Combination of any of the above (or other), please specify
TN	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
TX	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Same coordinating/governing board as University	Association of CC presidents
UT	No Formula: Coordinated approach based on system priorities. Funding is categorized by compensation increases, market demand, performance outcomes, and capital development.	Same coordinating/governing board as University	State governing board

Table 56 (continued)

State	State Funding Distribution Formula	State-Level CC Governance Structure	State CC governing/coordinating body
VA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
VT	No Formula: The CC of Vermont is a member of the Vermont State College System. There are five colleges in the system. The other four colleges are residential and offer Associate and Bachelor's Degrees. CCV is the only CC in Vermont. The legislative appropriation is given to the system and then divided equally. Each college gets 20% of the appropriation. The state appropriation represents about 12-14 % of our operating budget.	Coordinating/governing board for CCs separate from K-12 and Universities	No State-Level governing/coordinating body
WA	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
WI	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding): Use of funding formulae where costs are justified to maintain requisite operating aid, and at the same time, employ formula components that address funding disparities, changes in workload measures, or both.	Coordinating/governing board for CCs separate from K-12 and Universities	State governing board
WV	No Formula: The colleges were originally given line item appropriations based on their FTE in 2004. No change has been made to that original formula. Thus, our largest CC (which has grown significantly)has the second lowest appropriation in the State.	Coordinating/governing board for CCs separate from K-12 and Universities	State coordinating council
WY	No Formula: Utilize a two-part funding allocation model to distribute state and local appropriations based on 1) fixed operational costs and 2) variable costs driven by instruction-related functions, with a component based on performance (completion, granting of diplomas/certificates)	Coordinating/governing board for CCs separate from K-12 and Universities	Association of CC trustees

* Denotes state director did not complete the 2016 NCSDCC survey. As a result, state-level CC governance information was pulled from the 2015 NCSDCC survey data set. State funding distribution formula information was pulled from the Mullin & Honeyman (2007) study.

Summary

CCs will continue to be unique higher education institutions serving a wide variety needs for the communities they serve. Moreover, CCs will continue to be a first, second, third, and, in some cases, last or only opportunity of higher education for students. CCs were created for the specific reason of making higher education financially accessible to the populace. The CC mission is one of accessibility as opposed to the higher education tradition of selective admission. In order to accomplish this accessibility mission, it has been necessary for CCs' primary funding to come from sources other than student tuition and fees. A disproportional rise in student tuition and fees is in conflict with the CC mission and these higher education institutions require sound and compatible state-level funding and governance structures if they are to remain viable institutions in the future. This study, and others to follow, will continue to investigate the relationships (and issues) between state-level CC governance systems and funding. Table 57 below is a quick summary and review of revenues per FTE by State-Level CC governance structure.

Table 57

Summary: Revenues per FTE by State-Level CC Governance Structure (2014 FY)

State-Level CC Governance Structure		Revenues from state appropriations per FTE	Revenues from local support per FTE	Revenues from tuition and fees per FTE	SUM Revenues per FTE
Coordinating/governing board for CCs separate from K-12 & university	Mean	$3,572	$1,873	$1,990	$7,435
	Median	$3,394	$1,530	$1,049	
	N	470	470	470	
	Std. Deviation	$2,303	$1,401	$3,349	
	Minimum	$0.00	$13.00	$0.00	
	Maximum	$14,200	$10,605	$40,454	
Coordination for CC governance falls beneath a university coordinating/governing board	Mean	$3,422	$2,548	$3,986	$9,956
	Median	$2,799.50	$2,555.50	$2,131.50	
	N	54	54	54	
	Std. Deviation	$3,544	$984	$10,787	
	Minimum	$0.00	$520	$0.00	
	Maximum	$24,864	$4,597	$77,622	

Table 57 (continued)

State-Level CC Governance Structure		Revenues from state appropriations per FTE	Revenues from local support per FTE	Revenues from tuition and fees per FTE	SUM Revenues per FTE
No state-level coordinating or governing board	Mean	$2,348	$3,155	$3,419	$8,922
	Median	$2,293	$2,997	$3,267	
	N	85	85	85	
	Std. Deviation	$2,015	$1,476	$2,576	
	Minimum	$0.00	$679	$0.00	
	Maximum	$12,517	$7,089	$10,670	
Same coordinating/governing board as K-12, but separate from university	Mean	$5,608	$2,597	$1,115	$9,320
	Median	$3,887.00	$2,520.00	$3.00	
	N	55	55	55	
	Std. Deviation	$5,592	$1,254	$1,744	
	Minimum	$0.00	$683	$0.00	
	Maximum	$28,446	$8,867	$8,893	
Same coordinating/governing board as university	Mean	$4,452	$2,524	$1,706	$8,682
	Median	$3,959	$2,260	$0.00	
	N	347	347	347	
	Std. Deviation	$3,206	$1,694	$3,224	
	Minimum	$0.00	$206	$0.00	
	Maximum	$24,310	$12,658	$27,741	
ALL CCs	Mean	$3,874	$2,279	$2,071	$8,224
	Median	$3,372	$2,049	$962	
	N	1011	1011	1011	
	Std. Deviation	$3,030	$1,543	$4,005	
	Minimum	$0.00	$13	$0.00	
	Maximum	$28,446	$12,658	$77,622	

Table 58 below provides a summary and review of revenues per FTE by state-level CC governance structure and state.

Table 58

Summary: Revenues per FTE by State-Level CC Governance Structure and by State (2014 FY)

State-Level CC Governance System	State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE	
		Mean	Median	Mean	Median	Mean	Median
Coordinating/governing board for CCs separate from K-12 & university	Alabama	$1,906.00	$1,908.00	$5,546.04	$4,865.00	$24.85	$0.00
	California	$898.81	$751.50	$3,279.32	$3,412.50	$3,420.53	$2,622.50
	Colorado	$3,673.20	$3,770.00	$406.53	$0.00	$783.00	$0.00
	Delaware	$4,410.00	$4,334.00	$6,677.67	$6,952.00	$0.00	$0.00
	Georgia	$2,127.11	$1,999.00	$3,830.00	$3,702.00	$4.85	$0.00
	Illinois	$1,935.85	$1,809.50	$1,937.50	$1,690.00	$3,712.35	$3,639.00
	Kentucky	$1,457.88	$1,521.00	$2,805.25	$2,223.50	$1.00	$0.00
	Louisiana	$2,011.81	$2,005.00	$2,849.00	$2,870.50	$0.00	$0.00
	Maine	$1,573.57	$1,398.00	$6,416.57	$4,624.00	$0.00	$0.00
	Mississippi	$1,217.80	$922.00	$3,981.40	$3,680.00	$1,049.60	$996.00
	New Hampshire	$7,561.57	$7,597.00	$5,363.14	$4,441.00	$0.00	$0.00
	New Jersey	$3,512.05	$3,426.00	$1,206.42	$1,107.00	$1,744.11	$1,672.00
	North Carolina	$1,128.46	$998.00	$5,853.29	$5,740.00	$1,131.66	$1,127.00
	South Carolina	$2,494.20	$2,504.00	$1,886.20	$1,789.00	$751.10	$789.50
	Virginia	$2,491.54	$2,518.00	$3,980.63	$3,690.00	$40.88	$28.50
	Washington	$2,362.95	$2,383.00	$4,273.80	$3,995.50	$0.00	$0.00
	West Virginia	$2,106.38	$2,138.50	$3,926.00	$3,786.50	$359.75	$0.00
	Wisconsin	$2,784.24	$2,748.00	$1,468.29	$1,586.00	$11,161.76	$11,932.00
	Wyoming	$2,261.71	$2,128.00	$7,987.86	$8,077.00	$3,362.29	$3,550.00
Coordination for CC governance falls beneath a university coordinating/governing board	Alaska	$3,963.50	$3,963.50	$12,432.00	$12,432.00	$38,811.00	$38,811.00
	Idaho	$2,029.00	$1,965.50	$5,271.50	$3,684.50	$1,453.75	$1,152.00
	Indiana	$2,043.00	$2,043.00	$3,481.00	$3,481.00	$0.00	$0.00
	Montana	$2,600.10	$2,569.50	$3,000.70	$2,446.00	$1,362.50	$0.00
	New York	$2,527.54	$2,589.00	$2,848.32	$2,790.00	$3,195.35	$2,453.00

Table 58 (continued)

State-Level CC Governance System		Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE	
		Mean	Median	Mean	Median	Mean	Median
No state-level coordinating or governing board	Arizona	$1,651.16	$1,568.00	$802.26	$106.00	$5,897.89	$5,647.00
	Maryland	$3,484.56	$3,407.00	$3,760.25	$2,960.50	$3,716.25	$3,554.50
	Michigan	$2,803.43	$2,904.50	$2,390.57	$2,290.00	$3,659.11	$3,337.00
	Pennsylvania	$4,713.65	$4,939.00	$2,757.65	$2,461.00	$979.76	$962.00
	South Dakota	$4,493.80	$5,103.00	$2,073.40	$3,119.00	$0.00	$0.00
Same coordinating/governing board as K-12, but separate from university	Florida	$2,464.08	$2,287.00	$6,185.33	$3,887.00	$678.69	$0.00
	Iowa	$2,922.19	$2,934.50	$4,202.94	$3,994.50	$2,180.13	$2,053.00
Same coordinating/governing board as university	Arkansas	$1,793.86	$1,494.00	$5,608.45	$5,411.50	$731.45	$599.00
	Connecticut	$2,773.29	$2,831.00	$8,771.36	$7,446.00	$0.00	$0.00
	Hawaii	$2,522.83	$2,337.00	$7,338.17	$6,776.00	$0.00	$0.00
	Kansas	$2,306.24	$2,583.00	$2,966.72	$2,564.00	$3,273.76	$2,143.00
	Massachusetts	$3,515.63	$3,365.50	$5,315.50	$4,954.50	$0.00	$0.00
	Minnesota	$3,059.13	$3,167.00	$4,100.94	$4,405.00	$0.00	$0.00
	Missouri	$2,461.63	$1,763.50	$1,650.00	$1,487.50	$1,101.25	$733.50
	Nebraska	$2,499.00	$2,162.50	$4,246.88	$3,543.00	$4,068.25	$4,595.00
	Nevada	$2,194.00	$2,194.00	$4,460.00	$4,460.00	$0.00	$0.00
	New Mexico	$1,522.21	$1,233.00	$4,767.68	$4,538.00	$2,049.37	$1,441.00
	North Dakota	$2,919.20	$2,966.00	$8,908.80	$7,923.00	$0.00	$0.00
	Ohio	$4,703.48	$3,594.00	$2,684.76	$3,312.00	$550.88	$0.00
	Oklahoma	$1,629.64	$1,460.00	$5,829.44	$4,170.00	$5,886.40	$302.00
	Oregon	$3,781.59	$3,658.00	$4,416.12	$4,286.00	$3,788.47	$3,481.00
	Rhode Island	$2,947.00	$2,947.00	$4,342.00	$4,342.00	$0.00	$0.00
	Tennessee	$1,634.28	$976.00	$4,844.54	$4,492.00	$0.00	$0.00
	Texas	$1,994.23	$1,733.50	$3,405.35	$2,677.50	$2,826.08	$2,571.00
	Utah	$2,122.50	$1,978.00	$8,835.00	$7,237.00	$0.00	$0.00
	Vermont	$5,346.00	$5,346.00	$1,637.00	$1,637.00	$0.00	$0.00

Table 59 below is a review and summary of tuition and fees, state appropriations, and local support per FTE, including a sum of the three revenues per FTE for quick state-by-state comparisons.

Table 59

Summary: Revenues per FTE by State (2014 FY)

State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE		MEANS SUM Revenues per FTE
	Mean	Median	Mean	Median	Mean	Median	MEANS SUM
Alabama	$1,906.00	$1,908.00	$5,546.04	$4,865.00	$24.85	$0.00	$7,476.89
Alaska	$3,963.50	$3,963.50	$12,432.00	$12,432.00	$38,811.00	$38,811.00	$55,206.50
Arizona	$1,651.16	$1,568.00	$802.26	$106.00	$5,897.89	$5,647.00	$8,351.31
Arkansas	$1,793.86	$1,494.00	$5,608.45	$5,411.50	$731.45	$599.00	$8,133.76
California	$898.81	$751.50	$3,279.32	$3,412.50	$3,420.53	$2,622.50	$7,598.66
Colorado	$3,673.20	$3,770.00	$406.53	$0.00	$783.00	$0.00	$4,862.73
Connecticut	$2,773.29	$2,831.00	$8,771.36	$7,446.00	$0.00	$0.00	$11,544.65
Delaware	$4,410.00	$4,334.00	$6,677.67	$6,952.00	$0.00	$0.00	$11,087.67
Florida	$2,464.08	$2,287.00	$6,185.33	$3,887.00	$678.69	$0.00	$9,328.10
Georgia	$2,127.11	$1,999.00	$3,830.00	$3,702.00	$4.85	$0.00	$5,961.96
Hawaii	$2,522.83	$2,337.00	$7,338.17	$6,776.00	$0.00	$0.00	$9,861.00
Idaho	$2,029.00	$1,965.50	$5,271.50	$3,684.50	$1,453.75	$1,152.00	$8,754.25
Illinois	$1,935.85	$1,809.50	$1,937.50	$1,690.00	$3,712.35	$3,639.00	$7,585.70
Indiana	$2,043.00	$2,043.00	$3,481.00	$3,481.00	$0.00	$0.00	$5,524.00
Iowa	$2,922.19	$2,934.50	$4,202.94	$3,994.50	$2,180.13	$2,053.00	$9,305.26
Kansas	$2,306.24	$2,583.00	$2,966.72	$2,564.00	$3,273.76	$2,143.00	$8,546.72
Kentucky	$1,457.88	$1,521.00	$2,805.25	$2,223.50	$1.00	$0.00	$4,264.13
Louisiana	$2,011.81	$2,005.00	$2,849.00	$2,870.50	$0.00	$0.00	$4,860.81
Maine	$1,573.57	$1,398.00	$6,416.57	$4,624.00	$0.00	$0.00	$7,990.14
Maryland	$3,484.56	$3,407.00	$3,760.25	$2,960.50	$3,716.25	$3,554.50	$10,961.06
Massachusetts	$3,515.63	$3,365.50	$5,315.50	$4,954.50	$0.00	$0.00	$8,831.13
Michigan	$2,803.43	$2,904.50	$2,390.57	$2,290.00	$3,659.11	$3,337.00	$8,853.11

Table 59 (continued)

State	Revenues from tuition and fees per FTE		Revenues from state appropriations per FTE		Revenues from local support per FTE		MEANS SUM Revenues per FTE
	Mean	Median	Mean	Median	Mean	Median	MEANS SUM
Minnesota	$3,059.13	$3,167.00	$4,100.94	$4,405.00	$0.00	$0.00	$7,160.07
Mississippi	$1,217.80	$922.00	$3,981.40	$3,680.00	$1,049.60	$996.00	$6,248.80
Missouri	$2,461.63	$1,763.50	$1,650.00	$1,487.50	$1,101.25	$733.50	$5,212.88
Montana	$2,600.10	$2,569.50	$3,000.70	$2,446.00	$1,362.50	$0.00	$6,963.30
Nebraska	$2,499.00	$2,162.50	$4,246.88	$3,543.00	$4,068.25	$4,595.00	$10,814.13
Nevada	$2,194.00	$2,194.00	$4,460.00	$4,460.00	$0.00	$0.00	$6,654.00
New Hampshire	$7,561.57	$7,597.00	$5,363.14	$4,441.00	$0.00	$0.00	$12,924.71
New Jersey	$3,512.05	$3,426.00	$1,206.42	$1,107.00	$1,744.11	$1,672.00	$6,462.58
New Mexico	$1,522.21	$1,233.00	$4,767.68	$4,538.00	$2,049.37	$1,441.00	$8,339.26
New York	$2,527.54	$2,589.00	$2,848.32	$2,790.00	$3,195.35	$2,453.00	$8,571.21
North Carolina	$1,128.46	$998.00	$5,853.29	$5,740.00	$1,131.66	$1,127.00	$8,113.41
North Dakota	$2,919.20	$2,966.00	$8,908.80	$7,923.00	$0.00	$0.00	$11,828.00
Ohio	$4,703.48	$3,594.00	$2,684.76	$3,312.00	$550.88	$0.00	$7,939.12
Oklahoma	$1,629.64	$1,460.00	$5,829.44	$4,170.00	$5,886.40	$302.00	$13,345.48
Oregon	$3,781.59	$3,658.00	$4,416.12	$4,286.00	$3,788.47	$3,481.00	$11,986.18
Pennsylvania	$4,713.65	$4,939.00	$2,757.65	$2,461.00	$979.76	$962.00	$8,451.06
Rhode Island	$2,947.00	$2,947.00	$4,342.00	$4,342.00	$0.00	$0.00	$7,289.00
South Carolina	$2,494.20	$2,504.00	$1,886.20	$1,789.00	$751.10	$789.50	$5,131.50
South Dakota	$4,493.80	$5,103.00	$2,073.40	$3,119.00	$0.00	$0.00	$6,567.20
Tennessee	$1,634.28	$976.00	$4,844.54	$4,492.00	$0.00	$0.00	$6,478.82
Texas	$1,994.23	$1,733.50	$3,405.35	$2,677.50	$2,826.08	$2,571.00	$8,225.66
Utah	$2,122.50	$1,978.00	$8,835.00	$7,237.00	$0.00	$0.00	$10,957.50
Vermont	$5,346.00	$5,346.00	$1,637.00	$1,637.00	$0.00	$0.00	$6,983.00
Virginia	$2,491.54	$2,518.00	$3,980.63	$3,690.00	$40.88	$28.50	$6,513.05
Washington	$2,362.95	$2,383.00	$4,273.80	$3,995.50	$0.00	$0.00	$6,636.75
West Virginia	$2,106.38	$2,138.50	$3,926.00	$3,786.50	$359.75	$0.00	$6,392.13
Wisconsin	$2,784.24	$2,748.00	$1,468.29	$1,586.00	$11,161.76	$11,932.00	$15,414.29
Wyoming	$2,261.71	$2,128.00	$7,987.86	$8,077.00	$3,362.29	$3,550.00	$13,611.86

Table 60 provides a snapshot and summary of the 2016 NCSDCC survey results on the three state funding distribution models (Mullin & Honeyman, 2007), and the 2014 IPEDS finance data related to tuition & fees per FTE. For tuition & fees per FTE, residing in the bottom quartile is ideal as this means that lower levels of tuition & fees are being assessed to CC students. What is interesting is that five (10%) states utilizing a *responsive funding formula* for the state distribution of funds were also in the bottom quartile for tuition & fees assessed to CC students. On the contrary, six (12%) states with *no formula* for state distribution of funds were also in the top quartile for tuition & fees assessed to CC students.

Table 60

Mullin and Honeyman Taxonomy 2.0: 2016 NCSDCC Survey & 2014 IPEDS Results (2014 FY)

No Formula (12)	Responsive (22)			Functional Component (16)		
No Formula	*Cost of Education*	*Equalized*	*Option*	*Generalized*	*Tiered*	*Performance Based Funding*
Alaska	Alabama	**Colorado**	Illinois	Connecticut	Kansas	*Kentucky*
Arizona	*Arkansas*	Indiana	Iowa	Florida	Minnesota	Michigan
Delaware	*California*	*Missouri*	Louisiana	Georgia	*New Mexico*	*Oklahoma*
Hawaii	**Massachusetts**	**Oregon**	Nebraska	Nevada	*North Carolina*	Rhode Island
Idaho	Montana	*Tennessee*	New York	North Dakota	**Ohio**	Utah
Maine	**New Jersey**	Washington				Wyoming
Maryland	South Carolina	Wisconsin				
Mississippi	**South Dakota**					
New Hampshire	*Texas*					
Pennsylvania	Virginia					
Vermont						
West Virginia						

Top quartile for median tuition & fees per FTE are in **bold** (state, local, and tuition and fees)
Bottom quartile for median tuition & fees per FTE are *italicized* (state, local, and tuition and fees)

Future Research

The following recommendations for future research are suggested based on the findings of this study. It is recommended that a research study take place where specific or all state-level CC administrators and policymakers are subjects (qualitative and/or quantitative); such a study could reveal the use of state strategic planning processes, state budget request processes, and etc., in an attempt to balance their comprehensive CC mission with available revenue. Such a study could also uncover information about different types of budgeting methods and/or plans for obtaining alternative revenue sources. For example, what is the relationship of state priorities to CC governance structures? For example, will more states integrate an increased emphasis of workforce/economic development into their CC mission?

A future research study could also investigate the relationship between state funding distribution formula models and performance based funding. For example, is there a relationship between state funding distribution formula models and performance/outcomes based elements?

In another example, as state legislatures restructure their state-level CC governance, what is the impact on the state priorities for CCs? Additionally, as states become more engaged in delivering dual/concurrent enrollment with high schools and/or developing career academies, what is the impact on state-level governance structures for K-12 schools and the CCs? For example, will state legislatures merge the state board of education (K-12) with the state coordinating/governing board of CCs? As federal and state initiatives expand the CC workforce development functions, will we see a merger of the state workforce development boards and the CC boards, or could we see a change in the composition of each of these boards? For instance, will the state workforce development boards be mandated to have representation from the CC

state governing board, and vice-versa? What is the impact of the composition of these boards on programs and services delivered by CCs?

A tremendous but valuable project, historical studies could be conducted on all, or selected, states from the three different state distribution funding formula categories to determine various patterns and trends in financing CCs over a certain period of time. Insights could be gained regarding the formation and compilation of every state CC system, state regulatory bodies, educational philosophies, and the educational needs of each state.

Reflection

I found this dissertation to be both exciting and enlightening, yet a trial and lesson of persistence and determination. It was surprising to me when I saw the diversity and combination (and relationships between) of state-level CC governance structures and funding models. The extensive work and effort it took to survey and contact state directors via email and other forms of contact was a valuable learning experience. As I reflect on this dissertation from start to finish, I am eternally grateful for my committee's generosity, experience, wisdom, knowledge, and their beings. I am more thankful than words can express for their support and guidance to me on this journey to its successful completion.

After writing the recommendations for future research section of this study, it made me realize how much more there is to learn about state-level CC governance and funding models. For example, I was struck by how few state-level CC systems are utilizing a state legislative budgeting requests process. Deeper research into this topic would be valuable to learn more about state legislative budgeting requests process and its relationship with state-level CC

governance structures and/or state funding distribution formulas. This could be another 50 state study.

I also found it curious that there were a good number of *no state funding distribution formula* states who also mentioned performance/outcome based funding components for how CCs were funded. I think additional research or follow-up is needed with state CC directors of these "no formula" states to clarify and discover how performance/outcomes based funding components are being executed.

I was actually less surprised about *no state-level CC coordinating or governing board* states being well below the national mean for state appropriations per FTE, but was rather surprised that *same coordinating/governing CC board as K-12, but separate from university board* state systems were well above the curve. A common concern and preconception has been that K-12 takes priority over CCs related to funding concerns, but perhaps this is not necessarily the case. It very well may be possible that CCs in these states are riding K-12's "coat-tails", and are better off because of it.

Lastly, I held the belief that states with *no state-level CC governance system* would be in the top-quartile for tuition & fees assessed to students. This study validated that this was true. If the results of this study prove anything, I believe it demonstrates that coordination/partnerships between CCs related to governance and finance is more important than ever. CCs can no longer ignore and/or insulate themselves from their external environments.

As I reflect on this dissertation journey from start to finish, I am eternally grateful for my committee's generosity, experience, wisdom, knowledge, mentorship, and support. I am more thankful than words can describe for their support and guidance on this voyage to its successful completion.

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APPENDIX A. LITERATURE MAP

Democracy & Education

- Deickhoff (1950)
- Roueche & Baker (1987)
- President's commission on higher ed. (1947)
- Nelson (2001)
- Altbach (1998); Arrowood (1970); Astin (1997); Ehrlich (1997)
- Halliday (2001); Orrill (1997); Severance (1998)
- McDonnell (2000)
- Myers & Williams (1948)
- Garms (1977)
- Pangle and Pangle (2000)

The Evolution of America's CC

- Breneman & Nelson (1981); Cain (1999)
- DiCroce (1995); Diekhoff (1950)
- Medsker (1960)
- Gleazer (1994)

The Junior College Movement

- Griffith & Connor (1994); Metzger (1987); Ratcliff (1994)
- Witt, Wattenbarger, Gollattscheck, & Suppiger (1994)
- Du Pont de Nemours (1812/1923)
- Hofstadter (1952)
- Witt et al. (1994)
- Bogue (1957b); Gleazer (1968); Hillway (1958); Richardson & Leslie (1980)
- Cubberly (1931)
- Koos (1925)
- Eells (1931); Eells (1940)
- Clark (1960); Hillway (1958); O'Connell (1968)

Age of the Community College

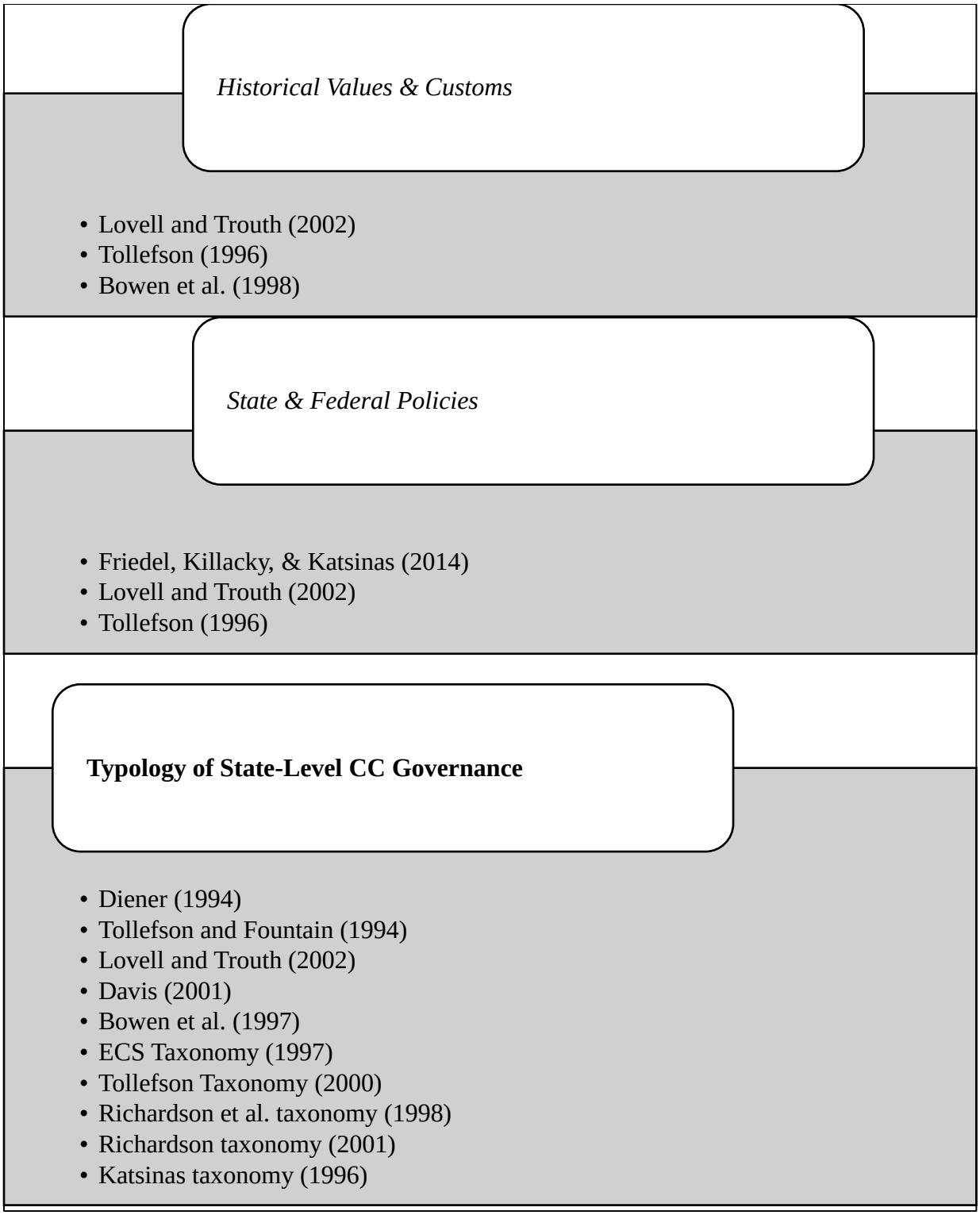
- O'Connell (1968); Gabert (1991); Eaton (1994b)
- Richardson & Leslie (1980)
- Eaton (1994a); Richardson and Leslie (1980)
- Baker, Dudziak, and Tyler (1994); Baker et al., (1994)
- Richardson & Leslie (1980); Tillery & Deegan (1985); Wajngurt & Jones (1993)
- Cohen & Brawer (1996); Seater (1995); Griffith & Connor (1994)
- Breneman & Nelson (1981); Larose,(2002); Vaughan (2000); Fields (1962)

Expansion of the Public Two-Year College

- Clark (1960); Gabert (1991); Vaughan (2000)
- Boggs & Cater (1994); Witt et al. (1994); Starrak & Hughes (1954)
- Koos (1925); Gabert (1991); Clark (1960); Starrak & Hughes (1954)
- Blau et al. (2000); Seater (1995); Bogue (1957a); Gleazer (1968)
- Eaton (1994a); Vaughan (2000)
- Carnegie Commission of Higher Education (1970); AACC (2016)
- Abrams (1993); Cohen and Brawer (1996)
- Breneman & Nelson (1981); Wattenbarger (1994)

Issues that Impact State-Level CC Governance

- Friedel, Killacky, & Katsinas (2014)
- Bowen et al. (1998)
- Katsinas and Palmer (2005)


Historical Values & Customs
• Lovell and Trouth (2002)
• Tollefson (1996)
• Bowen et al. (1998)
State & Federal Policies
• Friedel, Killacky, & Katsinas (2014)
• Lovell and Trouth (2002)
• Tollefson (1996)
Typology of State-Level CC Governance
• Diener (1994)
• Tollefson and Fountain (1994)
• Lovell and Trouth (2002)
• Davis (2001)
• Bowen et al. (1997)
• ECS Taxonomy (1997)
• Tollefson Taxonomy (2000)
• Richardson et al. taxonomy (1998)
• Richardson taxonomy (2001)
• Katsinas taxonomy (1996)

Typology of State Funding Formulas

- Mullin & Honeyman (2007
- Phelan (2014)

Funding Community Colleges

- Mullin & Honeyman (2007
- Phelan (2014)
- Katsinas & Palmer (2005)
- Field (2014)
- MGT of America (2001)
- Wattenberger & Starnes (1976)

Funding & State-Level CC Governance

- Tollefson (2000)
- Garrett (1997)
- Friedel (2010)
- Lombardi (1973)
- Kenton (2003)
- Kenton and et al. (2004)

Mullin & Honeyman Typology

- No Formula Funding
- Responsive Funding (cost of education; equalized; option)
- Functional Component Funding (generalized; tiered)

- Mullin & Honeyman (2007)
- Campbell & Hoy (2006)
- McKeown (1996)
- NACUBO (1988)
- Murphy (2004)

APPENDIX B. IPEDS 2014 FINANCE DATA SET

It should be noted the following IPEDS data is based on a reporting structure that may vary by state., e.g., Iowa has fifteen CCs rather sixteen as shown.

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Alabama	**$49,556**	**$144,197**	**$646**
Coordinating/governing board for CCs separate from K-12 & university	**$49,556**	**$144,197**	**$646**
Alabama Southern Community College	$1,528	$7,061	$0
Bevill State Community College	$1,961	$5,748	$0
Bishop State Community College	$1,494	$4,913	$98
Central Alabama Community College	$2,100	$5,922	$0
Chattahoochee Valley Community College	$1,641	$3,704	$0
Enterprise State Community College	$2,055	$4,674	$0
Gadsden State Community College	$1,702	$4,859	$0
George C Wallace State Community College-Dothan	$1,928	$4,083	$0
George C Wallace State Community College-Hanceville	$2,551	$4,150	$0
George C Wallace State Community College-Selma	$1,184	$5,207	$0
H Councill Trenholm State Technical College	$2,493	$7,847	$0
J F Drake State Community and Technical College	$1,292	$4,871	$0
J F Ingram State Technical College	$13	$11,622	$0
James H Faulkner State Community College	$2,423	$3,063	$373
Jefferson Davis Community College	$1,178	$6,154	$0
Jefferson State Community College	$2,708	$3,284	$0
John C Calhoun State Community College	$3,170	$2,813	$0
Lawson State Community College-Birmingham Campus	$1,374	$5,517	$0
Lurleen B Wallace Community College	$1,684	$5,280	$175
Marion Military Institute	$3,286	$13,986	$0
Northeast Alabama Community College	$1,845	$3,364	$0
Northwest-Shoals Community College	$1,624	$4,085	$0
Reid State Technical College	$1,888	$10,860	$0
Shelton State Community College	$2,132	$4,376	$0
Snead State Community College	$2,171	$3,235	$0
Southern Union State Community College	$2,131	$3,519	$0
Alaska	**$7,927**	**$24,864**	**$77,622**
Coordination for CC governance falls beneath a university coordinating/governing board	**$7,927**	**$24,864**	**$77,622**
AVTEC-Alaska's Institute of Technology	$4,340	$24,864	$0
Ilisagvik College	$3,587	$0	$77,622

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Arizona	**$31,372**	**$15,243**	**$112,060**
No state-level coordinating or governing board	**$31,372**	**$15,243**	**$112,060**
Arizona Western College	$679	$654	$5,385
Central Arizona College	$1,192	$541	$10,598
Chandler-Gilbert Community College	$1,907	$101	$4,552
Cochise County Community College District	$744	$1,422	$2,545
Coconino Community College	$2,788	$952	$4,223
Eastern Arizona College	$752	$5,190	$1,624
Estrella Mountain Community College	$1,491	$102	$4,767
GateWay Community College	$2,394	$106	$8,203
Glendale Community College	$1,489	$101	$4,880
Mesa Community College	$1,957	$101	$4,800
Mohave Community College	$1,568	$587	$6,361
Northland Pioneer College	$1,245	$4,119	$7,133
Paradise Valley Community College	$1,876	$101	$5,927
Phoenix College	$1,488	$101	$6,221
Pima Community College	$1,742	$413	$5,647
Rio Salado College	$2,724	$101	$3,242
Scottsdale Community College	$2,294	$101	$7,041
South Mountain Community College	$982	$101	$8,241
Yavapai College	$2,060	$349	$10,670
Arkansas	**$39,465**	**$123,386**	**$16,092**
Same coordinating/governing board as university	**$39,465**	**$123,386**	**$16,092**
Arkansas Northeastern College	$1,285	$10,924	$725
Arkansas State University-Beebe	$1,750	$4,512	$571
Arkansas State University-Mountain Home	$1,146	$4,645	$1,147
Arkansas State University-Newport	$2,061	$5,172	$659
Black River Technical College	$1,435	$4,851	$0
College of the Ouachitas	$1,606	$4,886	$0
Cossatot Community College of the University of Arkansas	$1,165	$4,623	$1,123
East Arkansas Community College	$1,538	$8,305	$328
Mid-South Community College	$7,747	$6,174	$2,355
National Park Community College	$1,809	$5,117	$627
North Arkansas College	$942	$5,717	$512
NorthWest Arkansas Community College	$2,757	$2,190	$1,684
Ozarka College	$827	$4,088	$387
Phillips Community College of the University of Arkansas	$431	$9,162	$1,889
Pulaski Technical College	$1,450	$2,393	$0
Rich Mountain Community College	$1,318	$5,656	$638
South Arkansas Community College	$1,636	$5,651	$236
Southeast Arkansas College	$1,884	$6,413	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Southern Arkansas University Tech	$2,349	$6,341	$0
University of Arkansas Community College-Batesville	$1,221	$5,970	$1,411
University of Arkansas Community College-Hope	$1,197	$6,516	$1,303
University of Arkansas Community College-Morrilton	$1,911	$4,080	$497
California	**$104,262**	**$380,401**	**$396,782**
Coordinating/governing board for CCs separate from K-12 & university	**$104,262**	**$380,401**	**$396,782**
Allan Hancock College	$678	$4,753	$2,704
American River College	$451	$3,304	$1,141
Antelope Valley College	$350	$5,458	$662
Bakersfield College	$540	$3,172	$3,028
Barstow Community College	$339	$5,828	$1,719
Berkeley City College	$1,088	$3,420	$3,378
Butte College	$930	$3,703	$1,401
Cabrillo College	$987	$3,980	$5,554
Canada College	$750	$46	$7,292
Cerritos College	$700	$3,869	$1,619
Cerro Coso Community College	$742	$3,141	$2,998
Chabot College	$1,081	$3,799	$3,993
Chaffey College	$797	$1,903	$4,383
Charles A Jones Career and Education Center	$60	$0	$0
Citrus College	$971	$5,047	$388
City College of San Francisco	$1,415	$5,708	$4,713
Coastline Community College	$850	$1,465	$2,896
College of Alameda	$1,067	$3,354	$3,312
College of Marin	$1,196	$46	$10,188
College of San Mateo	$1,100	$68	$10,698
College of the Canyons	$931	$4,329	$1,022
College of the Desert	$776	$1,003	$7,273
College of the Redwoods	$772	$4,021	$2,103
College of the Sequoias	$418	$4,353	$2,475
College of the Siskiyous	$1,256	$5,161	$4,550
Columbia College	$660	$0	$0
Contra Costa College	$721	$2,670	$3,465
Copper Mountain Community College	$318	$8,792	$0
Cosumnes River College	$458	$3,303	$1,109
Crafton Hills College	$522	$3,850	$3,685
Cuesta College	$1,101	$2,066	$4,540
Cuyamaca College	$807	$2,380	$3,038
Cypress College	$781	$3,171	$3,209
De Anza College	$1,689	$1,122	$2,212

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Diablo Valley College	$1,917	$2,059	$2,795
Downey Adult School	$8,269	$2,720	$0
East Los Angeles College	$610	$3,405	$1,812
East San Gabriel Valley Regional Occupational Program	$328	$0	$0
El Camino College-Compton Center	$293	$5,862	$1,750
El Camino Community College District	$1,045	$4,246	$2,822
Evergreen Valley College	$1,153	$823	$8,861
Feather River Community College District	$753	$5,212	$4,534
Folsom Lake College	$691	$3,592	$1,216
Foothill College	$2,085	$1,386	$2,731
Fresno City College	$422	$4,515	$1,498
Fullerton College	$788	$3,200	$3,239
Gavilan College	$693	$3,352	$3,605
Glendale Community College	$881	$5,057	$1,431
Golden West College	$1,005	$1,730	$3,425
Grossmont College	$480	$1,851	$2,363
Hartnell College	$362	$2,090	$4,461
Imperial Valley College	$383	$4,940	$1,750
Irvine Valley College	$1,461	$29	$6,709
Lake Tahoe Community College	$1,280	$5,577	$2,592
Laney College	$1,197	$3,761	$3,715
Las Positas College	$1,051	$3,692	$3,881
Lassen Community College	$934	$5,298	$916
Long Beach City College	$565	$5,058	$1,231
Los Angeles City College	$650	$4,252	$2,263
Los Angeles County College of Nursing and Allied Health	$4,167	$0	$40,454
Los Angeles Harbor College	$794	$3,955	$2,105
Los Angeles Mission College	$500	$4,332	$2,305
Los Angeles Pierce College	$764	$3,839	$2,043
Los Angeles Southwest College	$200	$4,539	$2,416
Los Angeles Trade Technical College	$336	$4,214	$2,243
Los Angeles Valley College	$636	$4,022	$2,140
Los Medanos College	$663	$2,986	$3,821
Mendocino College	$545	$5,280	$3,139
Merced College	$567	$5,932	$1,528
Merritt College	$1,265	$3,977	$3,928
MiraCosta College	$1,082	$351	$6,902
Mission College	$1,055	$0	$9,810
Modesto Junior College	$528	$0	$0
Monterey Peninsula College	$1,104	$3,332	$4,790
Moorpark College	$1,024	$2,976	$2,122

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Moreno Valley College	$764	$4,323	$1,811
Mt San Antonio College	$849	$5,203	$1,017
Mt San Jacinto Community College District	$481	$3,945	$2,138
Napa Valley College	$1,068	$832	$5,311
Norco College	$722	$4,087	$1,712
Ohlone College	$1,604	$2,529	$2,610
Orange Coast College	$984	$1,694	$3,352
Oxnard College	$439	$3,696	$2,635
Palo Verde College	$468	$9,880	$1,436
Palomar College	$1,000	$2,429	$4,638
Pasadena City College	$1,337	$4,351	$1,913
Porterville College	$347	$3,172	$3,028
Reedley College	$486	$4,307	$1,423
Rio Hondo College	$581	$6,291	$1,541
Riverside City College	$791	$4,475	$1,875
Sacramento City College	$437	$3,313	$1,129
Saddleback College	$1,557	$30	$7,041
San Bernardino Valley College	$546	$3,451	$3,303
San Diego City College	$628	$3,383	$5,593
San Diego Mesa College	$419	$2,255	$3,727
San Diego Miramar College	$501	$1,687	$4,464
San Joaquin Delta College	$460	$3,882	$1,968
San Jose City College	$1,503	$879	$9,473
Santa Ana College	$560	$3,538	$2,292
Santa Barbara City College	$1,857	$3,128	$2,209
Santa Monica College	$2,437	$3,943	$843
Santa Rosa Junior College	$1,110	$2,791	$3,317
Santiago Canyon College	$491	$3,100	$2,008
Shasta College	$779	$3,340	$2,535
Sierra College	$1,054	$717	$4,877
Skyline College	$700	$43	$6,807
Solano Community College	$693	$4,624	$4,446
Southwestern College	$314	$5,005	$2,734
Taft College	$796	$2,542	$6,797
Ventura College	$643	$3,144	$2,181
Victor Valley College	$394	$4,986	$1,714
West Hills College-Coalinga	$680	$5,070	$312
West Hills College-Lemoore	$455	$5,889	$691
West Los Angeles College	$780	$4,308	$2,293
Woodland Community College	$350	$1,175	$3,651
Yuba College	$369	$1,237	$3,843

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Colorado	**$55,098**	**$6,098**	**$11,745**
Coordinating/governing board for CCs separate from K-12 & university	**$55,098**	**$6,098**	**$11,745**
Aims Community College	$2,981	$2,125	$11,745
Arapahoe Community College	$4,555	$0	$0
Colorado Northwestern Community College	$5,120	$0	$0
Community College of Aurora	$4,533	$0	$0
Community College of Denver	$3,770	$0	$0
Front Range Community College	$4,561	$0	$0
Lamar Community College	$3,495	$1,922	$0
Morgan Community College	$3,757	$0	$0
Northeastern Junior College	$3,792	$0	$0
Otero Junior College	$2,731	$0	$0
Pickens Technical College	$1,726	$2,051	$0
Pikes Peak Community College	$3,942	$0	$0
Pueblo Community College	$2,614	$0	$0
Red Rocks Community College	$4,636	$0	$0
Trinidad State Junior College	$2,885	$0	$0
Connecticut	**$38,826**	**$122,799**	**$0**
Same coordinating/governing board as university	**$38,826**	**$122,799**	**$0**
Asnuntuck Community College	$3,603	$10,486	$0
Capital Community College	$1,863	$8,122	$0
GateWay Community College	$2,679	$5,971	$0
Housatonic Community College	$2,404	$6,132	$0
Howell Cheney Technical High School	$1,249	$11,385	$0
Manchester Community College	$3,153	$6,893	$0
Middlesex Community College	$3,095	$6,966	$0
Naugatuck Valley Community College	$3,009	$7,273	$0
Northwestern Connecticut Community College	$2,983	$14,088	$0
Norwalk Community College	$3,683	$6,639	$0
Quinebaug Valley Community College	$2,407	$9,882	$0
Stratford School of Aviation Maintenance Technicians	$2,503	$14,070	$0
Three Rivers Community College	$2,609	$7,381	$0
Tunxis Community College	$3,586	$7,511	$0
Delaware	**$13,230**	**$20,033**	**$0**
Coordinating/governing board for CCs separate from K-12 & university	**$13,230**	**$20,033**	**$0**
Delaware Technical Community College-Owens	$4,698	$6,952	$0
Delaware Technical Community College-Stanton/Wilmington	$4,198	$7,094	$0
Delaware Technical Community College-Terry	$4,334	$5,987	$0
Florida	**$96,099**	**$241,228**	**$26,469**
Same coordinating/governing board as K-12, but separate from university	**$96,099**	**$241,228**	**$26,469**

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Atlantic Technical College	$4,122	$0	$4,122
Bradford-Union Technical Center	$1,844	$0	$0
Brewster Technical Center	$1,988	$0	$0
Charlotte Technical Center	$2,560	$11,645	$0
CHOICE High School and Technical Center	$1,532	$0	$0
D A Dorsey Educational Center	$1,551	$28,446	$3
D G Erwin Technical Center	$905	$0	$0
Florida Keys Community College	$2,503	$8,308	$0
Florida Panhandle Technical College	$2,445	$8,254	$0
Fort Myers Institute of Technology	$2,266	$2,462	$0
Fred D. Learey Technical Center	$3,522	$0	$0
George Stone Technical Center	$1,047	$0	$0
George T Baker Aviation School	$1,596	$0	$6,244
Hillsborough Community College	$2,363	$2,763	$0
Immokalee Technical Center	$2,287	$12,371	$826
Lake Technical College	$2,578	$9,419	$244
Lindsey Hopkins Technical Education Center	$2,040	$13,929	$0
Lorenzo Walker Institute of Technology	$2,706	$7,543	$0
Manatee Technical Institute	$1,854	$7,704	$286
Marchman Technical Education Center	$683	$1,391	$1,137
Marion County Community Technical and Adult Education Center	$5,813	$8,837	$36
Miami Lakes Educational Center	$1,552	$0	$8,893
Mid Florida Tech	$8,867	$15,871	$311
North Florida Community College	$972	$8,645	$0
Orlando Tech	$1,626	$13,546	$0
Pinellas Technical College-Clearwater	$2,078	$13,609	$0
Pinellas Technical College-St. Petersburg	$1,994	$13,282	$0
Radford M Locklin Technical Center	$1,073	$0	$0
Ridge Career Center	$2,526	$10,696	$0
Robert Morgan Educational Center	$2,635	$0	$0
Sheridan Technical College	$2,190	$0	$0
Tallahassee Community College	$1,693	$2,918	$0
Taylor Technical Institute	$2,798	$2,311	$0
Technical Education Center-Osceola	$2,736	$132	$1,332
Tom P Haney Technical Center	$2,899	$12,469	$0
Traviss Career Center	$2,650	$12,644	$0
Walton Career Development Center	$3,061	$3,887	$3,035
William T McFatter Technical College	$2,970	$0	$0
Withlacoochee Technical Institute	$3,574	$8,146	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Georgia	**$57,432**	**$103,410**	**$131**
Coordinating/governing board for CCs separate from K-12 & university	**$57,432**	**$103,410**	**$131**
Albany Technical College	$1,515	$2,454	$0
Athens Technical College	$2,135	$3,589	$115
Atlanta Technical College	$1,267	$2,786	$0
Augusta Technical College	$1,329	$3,799	$0
Bainbridge State College	$2,792	$4,703	$0
Central Georgia Technical College	$1,417	$3,372	$0
Chattahoochee Technical College	$2,492	$2,625	$0
Coastal Pines Technical College	$2,144	$7,202	$0
Columbus Technical College	$1,554	$3,249	$16
Georgia Military College	$3,651	$0	$0
Georgia Northwestern Technical College	$1,547	$3,747	$0
Georgia Perimeter College	$2,819	$3,702	$0
Georgia Piedmont Technical College	$1,544	$3,994	$0
Grady Health System Professional Schools	$5,603	$0	$0
Gwinnett Technical College	$2,522	$2,630	$0
Lanier Technical College	$2,550	$3,760	$0
Moultrie Technical College	$1,850	$4,764	$0
North Georgia Technical College	$2,147	$4,234	$0
Oconee Fall Line Technical College	$1,423	$6,717	$0
Ogeechee Technical College	$1,812	$3,556	$0
Savannah Technical College	$1,581	$2,993	$0
South Georgia Technical College	$2,084	$5,193	$0
Southeastern Technical College	$2,101	$7,461	$0
Southern Crescent Technical College	$1,261	$3,185	$0
Southwest Georgia Technical College	$1,999	$6,311	$0
West Georgia Technical College	$1,923	$3,233	$0
Wiregrass Georgia Technical College	$2,370	$4,151	$0
Hawaii	**$15,137**	**$44,029**	**$0**
Same coordinating/governing board as university	**$15,137**	**$44,029**	**$0**
Hawaii Community College	$1,873	$6,866	$0
Honolulu Community College	$2,512	$9,044	$0
Kapiolani Community College	$3,746	$4,520	$0
Kauai Community College	$2,162	$12,907	$0
Leeward Community College	$2,827	$4,006	$0
Windward Community College	$2,017	$6,686	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Idaho	**$8,116**	**$21,086**	**$5,815**
Coordination for CC governance falls beneath a university coordinating/governing board	**$8,116**	**$21,086**	**$5,815**
College of Southern Idaho	$1,903	$3,919	$1,385
College of Western Idaho	$2,715	$2,188	$919
Eastern Idaho Technical College	$1,470	$11,529	$0
North Idaho College	$2,028	$3,450	$3,511
Illinois	**$92,921**	**$93,000**	**$178,193**
Coordinating/governing board for CCs separate from K-12 & university	**$92,921**	**$93,000**	**$178,193**
Black Hawk College	$1,560	$1,648	$3,983
Carl Sandburg College	$2,480	$1,509	$6,033
City Colleges of Chicago-Harold Washington College	$1,349	$658	$719
City Colleges of Chicago-Harry S Truman College	$843	$1,212	$836
City Colleges of Chicago-Kennedy-King College	$1,383	$853	$2,494
City Colleges of Chicago-Malcolm X College	$627	$1,163	$1,741
City Colleges of Chicago-Olive-Harvey College	$657	$689	$2,646
City Colleges of Chicago-Richard J Daley College	$570	$1,170	$916
City Colleges of Chicago-Wilbur Wright College	$1,221	$895	$786
College of DuPage	$3,424	$2,840	$5,591
College of Lake County	$2,368	$3,114	$6,403
Danville Area Community College	$1,728	$1,942	$2,831
Elgin Community College	$2,273	$74	$7,662
Frontier Community College	$910	$4,880	$2,825
Heartland Community College	$3,117	$2,897	$5,280
Highland Community College	$2,486	$1,180	$5,446
Illinois Central College	$3,253	$2,143	$5,001
Illinois Valley Community College	$1,911	$3,528	$4,417
John A Logan College	$1,572	$0	$2,888
John Wood Community College	$3,304	$345	$3,797
Joliet Junior College	$2,565	$187	$5,000
Kankakee Community College	$2,219	$2,605	$3,662
Kaskaskia College	$1,774	$0	$2,366
Kishwaukee College	$2,176	$3,250	$4,258
Lake Land College	$1,467	$61	$1,695
Lewis and Clark Community College	$3,225	$243	$5,765
Lincoln Land Community College	$3,509	$3,035	$5,391
Lincoln Trail College	$1,263	$6,769	$2,452
McHenry County College	$2,454	$2,595	$5,901
Moraine Valley Community College	$2,716	$762	$3,024
Morton College	$1,079	$4,642	$2,677
Oakton Community College	$2,265	$0	$6,835

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Olney Central College	$812	$4,353	$897
Parkland College	$2,452	$857	$3,616
Prairie State College	$1,375	$1,688	$3,245
Rend Lake College	$1,074	$3,560	$1,960
Richland Community College	$872	$0	$4,658
Rock Valley College	$1,768	$1,692	$4,298
Sauk Valley Community College	$1,845	$2,125	$4,448
Shawnee Community College	$1,656	$316	$2,812
South Suburban College	$345	$2,237	$4,154
Southeastern Illinois College	$1,132	$4,017	$2,601
Southwestern Illinois College	$3,177	$2,364	$3,013
Spoon River College	$4,009	$3,929	$4,407
Triton College	$2,201	$1,012	$3,450
Wabash Valley College	$453	$2,428	$432
Waubonsee Community College	$2,220	$2,603	$6,097
William Rainey Harper College	$3,782	$2,930	$6,784
Indiana	**$2,043**	**$3,481**	**$0**
Coordination for CC governance falls beneath a university coordinating/governing board	**$2,043**	**$3,481**	**$0**
Ivy Tech Community College	$2,043	$3,481	$0
Iowa	**$46,755**	**$67,247**	**$34,882**
Same coordinating/governing board as K-12, but separate from university	**$46,755**	**$67,247**	**$34,882**
Des Moines Area Community College	$2,011	$2,655	$1,594
Eastern Iowa Community College District	$2,310	$3,672	$2,233
Ellsworth Community College	$3,248	$4,843	$3,653
Hawkeye Community College	$2,520	$3,881	$2,028
Indian Hills Community College	$3,665	$4,710	$1,130
Iowa Central Community College	$3,865	$3,718	$1,543
Iowa Lakes Community College	$2,544	$5,766	$2,812
Iowa Western Community College	$2,924	$3,039	$1,620
Kirkwood Community College	$2,289	$3,645	$2,117
Marshalltown Community College	$3,378	$5,037	$3,800
North Iowa Area Community College	$3,898	$5,586	$2,064
Northeast Iowa Community College	$2,958	$3,685	$2,813
Northwest Iowa Community College	$3,606	$5,162	$2,127
Southeastern Community College	$2,945	$4,108	$1,813
Southwestern Community College	$2,598	$4,179	$2,042
Western Iowa Tech Community College	$1,996	$3,561	$1,493

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Kansas	**$57,656**	**$74,168**	**$81,844**
Same coordinating/governing board as university	**$57,656**	**$74,168**	**$81,844**
Allen County Community College	$1,638	$2,930	$1,032
Barton County Community College	$2,883	$1,963	$2,143
Butler Community College	$2,815	$2,912	$2,016
Cloud County Community College	$1,791	$3,029	$1,814
Coffeyville Community College	$3,225	$2,299	$5,532
Colby Community College	$2,393	$2,006	$5,055
Cowley County Community College	$963	$2,462	$1,862
Dodge City Community College	$2,021	$1,964	$7,700
Flint Hills Technical College	$3,051	$4,292	$205
Fort Scott Community College	$2,865	$2,501	$2,093
Garden City Community College	$793	$1,954	$7,518
Highland Community College	$2,849	$1,917	$695
Hutchinson Community College	$1,617	$2,954	$3,469
Independence Community College	$1,279	$2,687	$6,493
Johnson County Community College	$2,999	$2,848	$6,934
Kansas City Kansas Community College	$2,640	$2,564	$7,124
Labette Community College	$1,154	$2,512	$4,261
Manhattan Area Technical College	$2,583	$3,585	$0
Neosho County Community College	$3,162	$1,844	$3,493
North Central Kansas Technical College	$3,017	$5,525	$0
Northwest Kansas Technical College	$3,990	$5,180	$0
Pratt Community College	$1,438	$2,518	$5,440
Salina Area Technical College	$2,250	$6,426	$293
Seward County Community College and Area Technical School	$1,580	$2,380	$6,672
Wichita Area Technical College	$2,660	$2,916	$0
Kentucky	**$23,326**	**$44,884**	**$16**
Coordinating/governing board for CCs separate from K-12 & university	**$23,326**	**$44,884**	**$16**
Ashland Community and Technical College	$1,566	$3,120	$16
Big Sandy Community and Technical College	$662	$3,692	$0
Bluegrass Community and Technical College	$2,323	$1,089	$0
Elizabethtown Community and Technical College	$1,312	$2,048	$0
Gateway Community and Technical College	$1,461	$2,617	$0
Hazard Community and Technical College	$997	$5,626	$0
Henderson Community College	$1,854	$3,445	$0
Hopkinsville Community College	$1,839	$1,880	$0
Jefferson Community and Technical College	$2,096	$1,982	$0
Madisonville Community College	$1,637	$3,691	$0
Maysville Community and Technical College	$1,476	$2,172	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Owensboro Community and Technical College	$1,451	$2,231	$0
Somerset Community College	$679	$2,126	$0
Southcentral Kentucky Community and Technical College	$1,567	$2,135	$0
Southeast Kentucky Community and Technical College	$711	$4,814	$0
West Kentucky Community and Technical College	$1,695	$2,216	$0
Louisiana	**$32,189**	**$45,584**	**$0**
Coordinating/governing board for CCs separate from K-12 & university	**$32,189**	**$45,584**	**$0**
Baton Rouge Community College	$2,869	$2,839	$0
Bossier Parish Community College	$2,670	$1,209	$0
Capital Area Technical College	$549	$4,339	$0
Central Louisiana Technical Community College	$1,241	$3,794	$0
Delgado Community College	$3,357	$2,181	$0
Fletcher Technical Community College	$3,434	$1,770	$0
Louisiana Delta Community College	$1,840	$3,484	$0
Louisiana State University-Eunice	$2,727	$2,918	$0
Northshore Technical Community College	$1,344	$3,113	$0
Northwest Louisiana Technical College	$599	$4,261	$0
Nunez Community College	$1,558	$2,205	$0
River Parishes Community College	$2,170	$2,152	$0
South Central LA Technical College-Young Memorial Campus	$3,085	$2,902	$0
South Louisiana Community College	$1,576	$2,678	$0
Southern University at Shreveport	$918	$3,166	$0
SOWELA Technical Community College	$2,252	$2,573	$0
Maine	**$11,015**	**$44,916**	**$0**
Coordinating/governing board for CCs separate from K-12 & university	**$11,015**	**$44,916**	**$0**
Central Maine Community College	$887	$3,852	$0
Eastern Maine Community College	$1,398	$4,384	$0
Kennebec Valley Community College	$2,500	$4,624	$0
Northern Maine Community College	$817	$9,926	$0
Southern Maine Community College	$1,617	$2,972	$0
Washington County Community College	$3,458	$14,200	$0
York County Community College	$338	$4,958	$0
Maryland	**$55,753**	**$60,164**	**$59,460**
No state-level coordinating or governing board	**$55,753**	**$60,164**	**$59,460**
Allegany College of Maryland	$2,665	$3,326	$3,306
Anne Arundel Community College	$3,340	$2,966	$3,669
Baltimore City Community College	$959	$12,517	$59
Carroll Community College	$4,012	$3,012	$3,654
Cecil College	$3,474	$3,491	$5,306
Chesapeake College	$3,234	$4,327	$3,929

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
College of Southern Maryland	$5,066	$2,218	$3,256
Frederick Community College	$4,144	$2,771	$3,629
Garrett College	$3,203	$5,720	$7,260
Hagerstown Community College	$5,136	$2,653	$2,938
Harford Community College	$2,937	$2,362	$3,416
Howard Community College	$4,514	$2,796	$4,520
Montgomery College	$3,661	$2,955	$5,821
Prince George's Community College	$3,142	$2,875	$3,480
The Community College of Baltimore County	$4,190	$2,556	$2,627
Wor-Wic Community College	$2,076	$3,619	$2,590
Massachusetts	**$56,250**	**$85,048**	**$0**
Same coordinating/governing board as university	**$56,250**	**$85,048**	**$0**
Berkshire Community College	$3,925	$8,877	$0
Bristol Community College	$3,400	$3,817	$0
Bunker Hill Community College	$2,921	$3,055	$0
Cape Cod Community College	$2,938	$5,729	$0
Greenfield Community College	$5,003	$8,960	$0
Holyoke Community College	$3,490	$4,914	$0
Massachusetts Bay Community College	$3,331	$5,344	$0
Massasoit Community College	$4,900	$4,545	$0
Middlesex Community College	$3,581	$4,369	$0
Mount Wachusett Community College	$3,763	$5,287	$0
North Shore Community College	$3,250	$4,922	$0
Northern Essex Community College	$2,511	$4,987	$0
Quincy College	$4,918	$0	$0
Quinsigamond Community College	$3,250	$3,959	$0
Roxbury Community College	$2,137	$10,121	$0
Springfield Technical Community College	$2,932	$6,162	$0
Michigan	**$78,496**	**$66,936**	**$102,455**
No state-level coordinating or governing board	**$78,496**	**$66,936**	**$102,455**
Alpena Community College	$3,050	$4,884	$2,210
Bay de Noc Community College	$4,495	$4,086	$3,562
Bay Mills Community College	$717	$0	$0
Delta College	$3,297	$2,259	$3,267
Glen Oaks Community College	$2,861	$3,359	$6,823
Gogebic Community College	$2,703	$5,451	$1,741
Grand Rapids Community College	$3,716	$1,866	$3,256
Henry Ford Community College	$1,671	$2,293	$1,149
Kalamazoo Valley Community College	$2,575	$2,004	$3,363
Kellogg Community College	$3,248	$2,771	$3,331
Keweenaw Bay Ojibwa Community College	$3,582	$0	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Kirtland Community College	$3,422	$3,096	$6,566
Lansing Community College	$2,429	$2,792	$3,123
Macomb Community College	$2,939	$2,287	$2,432
Mid-Michigan Community College	$3,652	$1,488	$669
Monroe County Community College	$2,997	$2,157	$5,217
Montcalm Community College	$2,448	$2,900	$4,858
Mott Community College	$2,870	$2,472	$3,639
Muskegon Community College	$3,440	$3,023	$2,911
North Central Michigan College	$2,616	$2,241	$4,186
Oakland Community College	$1,879	$1,362	$4,279
Saginaw Chippewa Tribal College	$906	$0	$5,451
Schoolcraft College	$2,456	$1,433	$2,252
Southwestern Michigan College	$4,268	$3,496	$2,606
St Clair County Community College	$3,468	$2,551	$3,343
Washtenaw Community College	$3,031	$1,809	$5,565
Wayne County Community College District	$1,818	$2,067	$7,261
West Shore Community College	$1,942	$2,789	$9,395
Minnesota	**$94,833**	**$127,129**	**$0**
Same coordinating/governing board as university	**$94,833**	**$127,129**	**$0**
Alexandria Technical & Community College	$3,727	$4,495	$0
Anoka Technical College	$3,047	$4,939	$0
Anoka-Ramsey Community College	$2,830	$3,125	$0
Central Lakes College-Brainerd	$2,536	$4,131	$0
Century College	$2,739	$3,158	$0
Dakota County Technical College	$3,694	$4,647	$0
Fond du Lac Tribal and Community College	$1,667	$3,784	$0
Hennepin Technical College	$3,230	$4,520	$0
Hibbing Community College	$4,078	$5,231	$0
Inver Hills Community College	$3,249	$3,015	$0
Itasca Community College	$2,596	$4,014	$0
Lake Superior College	$3,346	$3,679	$0
Leech Lake Tribal College	$5,447	$0	$0
Mesabi Range College	$2,464	$5,065	$0
Minneapolis Community and Technical College	$2,162	$3,381	$0
Minnesota State College-Southeast Technical	$3,177	$4,737	$0
Minnesota State Community and Technical College	$2,886	$4,120	$0
Minnesota West Community and Technical College	$3,397	$5,422	$0
Normandale Community College	$3,262	$2,860	$0
North Hennepin Community College	$2,774	$2,942	$0
Northland Community and Technical College	$3,389	$4,867	$0
Northwest Technical College	$3,360	$4,939	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Pine Technical & Community College	$2,024	$4,504	$0
Rainy River Community College	$2,794	$6,603	$0
Ridgewater College	$3,275	$4,656	$0
Riverland Community College	$3,175	$5,006	$0
Rochester Community and Technical College	$3,167	$3,722	$0
Saint Paul College	$2,065	$2,982	$0
South Central College	$3,497	$4,759	$0
St Cloud Technical and Community College	$3,032	$3,421	$0
Vermilion Community College	$2,747	$4,405	$0
Mississippi	**$18,267**	**$59,721**	**$15,744**
Coordinating/governing board for CCs separate from K-12 & university	**$18,267**	**$59,721**	**$15,744**
Coahoma Community College	$1,165	$4,834	$1,498
Copiah-Lincoln Community College	$898	$3,324	$1,568
East Central Community College	$631	$4,314	$935
East Mississippi Community College	$1,834	$2,848	$713
Hinds Community College	$516	$3,170	$1,180
Holmes Community College	$922	$3,680	$542
Itawamba Community College	$2,609	$3,517	$996
Jones County Junior College	$774	$3,139	$588
Meridian Community College	$1,249	$4,810	$765
Mississippi Delta Community College	$834	$6,046	$1,485
Mississippi Gulf Coast Community College	$2,619	$3,199	$1,070
Northeast Mississippi Community College	$918	$4,049	$502
Northwest Mississippi Community College	$1,139	$3,295	$786
Pearl River Community College	$825	$3,790	$1,352
Southwest Mississippi Community College	$1,334	$5,706	$1,764
Missouri	**$39,386**	**$26,400**	**$17,620**
Same coordinating/governing board as university	**$39,386**	**$26,400**	**$17,620**
Cape Girardeau Career and Technology Center	$2,988	$0	$0
Crowder College	$1,420	$1,169	$952
East Central College	$1,733	$1,893	$2,926
Hillyard Technical Center	$6,877	$1,027	$0
Jefferson College	$2,214	$1,915	$2,718
Mineral Area College	$999	$1,519	$1,304
Missouri State University-West Plains	$808	$4,215	$0
Moberly Area Community College	$2,940	$1,237	$154
North Central Missouri College	$1,465	$1,907	$278
Ozarks Technical Community College	$1,531	$1,009	$846
Rolla Technical Institute/Center	$4,044	$0	$0
Saint Louis Community College	$1,681	$2,529	$3,640

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
St Charles Community College	$3,090	$1,456	$3,216
State Fair Community College	$1,794	$1,425	$965
State Technical College of Missouri	$5,461	$3,378	$0
Three Rivers Community College	$341	$1,721	$621
Montana	**$26,001**	**$30,007**	**$13,625**
Coordination for CC governance falls beneath a university coordinating/governing board	**$26,001**	**$30,007**	**$13,625**
Aaniiih Nakoda College	$1,698	$273	$0
Chief Dull Knife College	$1,087	$13	$0
Dawson Community College	$2,949	$6,785	$6,436
Flathead Valley Community College	$4,095	$5,208	$3,528
Fort Peck Community College	$2,325	$0	$0
Great Falls College Montana State University	$3,847	$4,619	$0
Helena College University of Montana	$2,522	$5,102	$0
Little Big Horn College	$670	$0	$0
Miles Community College	$4,191	$7,963	$3,661
Stone Child College	$2,617	$44	$0
Nebraska	**$19,992**	**$33,975**	**$32,546**
Same coordinating/governing board as university	**$19,992**	**$33,975**	**$32,546**
Central Community College	$1,790	$2,089	$9,016
Metropolitan Community College Area	$1,701	$2,210	$3,720
Mid-Plains Community College	$2,281	$4,316	$5,470
Nebraska College of Technical Agriculture	$2,905	$10,212	$0
Nebraska Indian Community College	$5,214	$0	$0
Northeast Community College	$2,044	$3,977	$5,667
Southeast Community College Area	$2,308	$3,109	$3,154
Western Nebraska Community College	$1,749	$8,062	$5,519
Nevada	**$2,194**	**$4,460**	**$0**
Same coordinating/governing board as university	**$2,194**	**$4,460**	**$0**
Truckee Meadows Community College	$2,194	$4,460	$0
New Hampshire	**$52,931**	**$37,542**	**$0**
Coordinating/governing board for CCs separate from K-12 & university	**$52,931**	**$37,542**	**$0**
Great Bay Community College	$8,053	$4,441	$0
Lakes Region Community College	$7,244	$9,659	$0
Manchester Community College	$6,779	$3,364	$0
Nashua Community College	$7,496	$3,611	$0
NHTI-Concord's Community College	$7,819	$2,857	$0
River Valley Community College	$7,943	$6,686	$0
White Mountains Community College	$7,597	$6,924	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
New Jersey	**$66,729**	**$22,922**	**$33,138**
Coordinating/governing board for CCs separate from K-12 & university	**$66,729**	**$22,922**	**$33,138**
Atlantic Cape Community College	$2,651	$1,191	$1,645
Bergen Community College	$4,843	$1,042	$1,510
Brookdale Community College	$2,814	$963	$2,006
Burlington County College	$2,522	$895	$66
Camden County College	$2,931	$1,052	$978
County College of Morris	$4,616	$1,130	$1,876
Cumberland County College	$2,319	$1,148	$2,071
Essex County College	$4,278	$1,216	$1,171
Hudson County Community College	$1,283	$951	$1,499
Mercer County Community College	$4,145	$1,470	$3,439
Middlesex County College	$4,848	$1,107	$1,672
Ocean County College	$3,426	$1,023	$2,027
Passaic County Community College	$1,555	$1,022	$2,138
Raritan Valley Community College	$3,594	$1,008	$2,225
Rowan College at Gloucester County	$3,372	$1,006	$1,442
Salem Community College	$4,529	$2,106	$2,650
Sussex County Community College	$5,848	$1,527	$1,732
Union County College	$3,142	$1,177	$1,546
Warren County Community College	$4,013	$1,888	$1,445
New Mexico	**$28,922**	**$90,586**	**$38,938**
Same coordinating/governing board as university	**$28,922**	**$90,586**	**$38,938**
Central New Mexico Community College	$651	$2,762	$3,069
Clovis Community College	$1,293	$6,012	$832
Eastern New Mexico University-Roswell Campus	$1,274	$5,981	$1,148
Eastern New Mexico University-Ruidoso Campus	$1,422	$4,538	$2,423
Luna Community College	$486	$8,998	$1,932
Mesalands Community College	$594	$11,587	$598
New Mexico Junior College	$2,004	$3,209	$11,564
New Mexico Military Institute	$8,013	$0	$0
New Mexico State University-Alamogordo	$1,908	$5,526	$0
New Mexico State University-Carlsbad	$1,235	$4,878	$0
New Mexico State University-Dona Ana	$1,035	$4,021	$0
New Mexico State University-Grants	$1,355	$6,722	$0
San Juan College	$1,218	$4,837	$3,546
Santa Fe Community College	$1,181	$4,464	$6,957
Southwestern Indian Polytechnic Institute	$829	$0	$0
University of New Mexico-Gallup Campus	$1,233	$5,187	$1,441
University of New Mexico-Los Alamos Campus	$1,323	$4,477	$1,650

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
University of New Mexico-Taos Campus	$840	$3,557	$1,950
University of New Mexico-Valencia County Campus	$1,028	$3,830	$1,828
New York	**$93,519**	**$105,388**	**$118,228**
Coordination for CC governance falls beneath a university coordinating/governing board	**$93,519**	**$105,388**	**$118,228**
Adirondack Community College	$2,377	$2,450	$1,793
Cayuga County Community College	$2,886	$2,913	$2,983
Clinton Community College	$2,359	$3,063	$2,739
Columbia-Greene Community College	$520	$2,743	$4,684
Corning Community College	$1,381	$5,765	$2,956
CUNY Borough of Manhattan Community College	$1,855	$3,141	$1,275
CUNY Bronx Community College	$1,204	$3,167	$4,778
CUNY Hostos Community College	$1,771	$3,095	$6,430
CUNY Kingsborough Community College	$1,561	$2,698	$2,951
CUNY LaGuardia Community College	$2,121	$2,965	$2,652
CUNY Queensborough Community College	$2,316	$3,099	$2,678
Dutchess Community College	$3,422	$2,817	$1,671
Erie Community College	$3,277	$2,996	$1,763
Finger Lakes Community College	$1,912	$2,769	$2,271
Fulton-Montgomery Community College	$2,088	$2,538	$1,839
Genesee Community College	$1,742	$2,796	$2,006
Herkimer County Community College	$2,815	$2,803	$1,886
Hudson Valley Community College	$3,424	$3,261	$2,138
Jamestown Community College	$2,764	$3,090	$2,146
Jefferson Community College	$2,434	$2,483	$1,962
Mohawk Valley Community College	$2,737	$2,500	$1,694
Monroe Community College	$2,075	$2,752	$1,663
Nassau Community College	$2,589	$2,740	$3,744
Niagara County Community College	$2,607	$2,629	$1,883
North Country Community College	$2,593	$3,489	$2,484
Onondaga Community College	$2,459	$2,534	$1,410
Orange County Community College	$4,347	$2,748	$3,894
Rockland Community College	$2,712	$2,965	$3,511
Schenectady County Community College	$1,186	$2,617	$572
Stella and Charles Guttman Community College	$906	$3,344	$24,912
Suffolk County Community College	$4,269	$2,632	$2,465
Sullivan County Community College	$2,804	$2,790	$4,703
SUNY Broome Community College	$2,804	$2,584	$2,125
SUNY Westchester Community College	$3,600	$3,256	$3,889
Tompkins Cortland Community College	$3,543	$2,648	$2,453
Ulster County Community College	$3,462	$2,508	$3,225
Western Suffolk BOCES	$4,597	$0	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
North Carolina	**$66,579**	**$345,344**	**$66,768**
Coordinating/governing board for CCs separate from K-12 & university	**$66,579**	**$345,344**	**$66,768**
Alamance Community College	$1,250	$4,565	$849
Asheville-Buncombe Technical Community College	$1,201	$4,033	$1,519
Beaufort County Community College	$701	$5,519	$1,456
Bladen Community College	$740	$6,841	$647
Blue Ridge Community College	$1,121	$5,652	$1,255
Brunswick Community College	$547	$6,372	$2,874
Caldwell Community College and Technical Institute	$1,039	$5,930	$1,325
Cape Fear Community College	$1,308	$3,775	$1,066
Carolinas College of Health Sciences	$10,605	$0	$0
Carteret Community College	$1,024	$6,125	$1,529
Catawba Valley Community College	$1,378	$6,275	$1,212
Central Carolina Community College	$1,214	$5,919	$1,095
Central Piedmont Community College	$1,533	$3,291	$1,924
Cleveland Community College	$575	$5,868	$648
Coastal Carolina Community College	$1,361	$3,631	$536
College of the Albemarle	$1,375	$6,925	$1,332
Craven Community College	$1,454	$4,319	$1,244
Davidson County Community College	$759	$5,002	$1,059
Durham Technical Community College	$1,497	$4,950	$1,814
Edgecombe Community College	$613	$5,740	$656
Fayetteville Technical Community College	$1,403	$3,882	$948
Forsyth Technical Community College	$1,131	$4,893	$1,235
Gaston College	$1,154	$5,430	$1,129
Guilford Technical Community College	$685	$4,168	$1,247
Halifax Community College	$522	$6,877	$1,136
Haywood Community College	$669	$5,023	$1,217
Isothermal Community College	$518	$5,878	$1,133
James Sprunt Community College	$624	$7,111	$1,487
Johnston Community College	$757	$4,734	$1,002
Lenoir Community College	$880	$7,150	$1,013
Martin Community College	$667	$6,724	$1,515
Mayland Community College	$790	$9,744	$1,078
McDowell Technical Community College	$771	$7,736	$874
Mitchell Community College	$1,359	$6,538	$1,522
Montgomery Community College	$1,032	$7,682	$1,127
Nash Community College	$1,036	$5,016	$642
Pamlico Community College	$998	$10,510	$1,320
Piedmont Community College	$1,168	$10,082	$1,068

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Pitt Community College	$1,069	$3,671	$729
Randolph Community College	$869	$4,276	$878
Richmond Community College	$495	$5,700	$975
Roanoke-Chowan Community College	$606	$8,714	$1,445
Robeson Community College	$567	$8,698	$1,195
Rockingham Community College	$1,030	$6,473	$1,509
Rowan-Cabarrus Community College	$720	$4,943	$620
Sampson Community College	$1,065	$9,083	$1,293
Sandhills Community College	$1,257	$4,763	$1,316
South Piedmont Community College	$1,226	$7,172	$983
Southeastern Community College	$1,015	$9,162	$1,060
Southwestern Community College	$1,039	$6,145	$1,176
Stanly Community College	$971	$5,823	$578
Surry Community College	$913	$5,226	$914
Tri-County Community College	$638	$4,921	$849
Vance-Granville Community College	$956	$6,108	$746
Wake Technical Community College	$1,607	$3,325	$966
Wayne Community College	$853	$4,136	$977
Western Piedmont Community College	$714	$6,473	$1,059
Wilkes Community College	$816	$5,521	$1,606
Wilson Community College	$694	$5,101	$1,161
North Dakota	**$14,596**	**$44,544**	**$0**
Same coordinating/governing board as university	**$14,596**	**$44,544**	**$0**
Cankdeska Cikana Community College	$2,966	$0	$0
Dakota College at Bottineau	$2,637	$7,923	$0
Lake Region State College	$3,325	$5,679	$0
North Dakota State College of Science	$3,554	$8,392	$0
Williston State College	$2,114	$22,550	$0
Ohio	**$155,215**	**$88,597**	**$18,179**
Same coordinating/governing board as university	**$155,215**	**$88,597**	**$18,179**
Belmont College	$2,679	$4,994	$0
Career and Technology Education Centers of Licking County	$7,295	$0	$0
Central Ohio Technical College	$3,245	$3,746	$0
Cincinnati State Technical and Community College	$3,261	$3,521	$0
Clark State Community College	$2,435	$3,162	$0
Columbus State Community College	$2,698	$2,699	$0
Cuyahoga Community College District	$2,614	$3,165	$4,970
Eastern Gateway Community College	$1,858	$2,446	$379
Edison State Community College	$2,138	$3,731	$0
EHOVE Career Center	$11,043	$0	$2,758
Great Oaks Institute of Technology and Career Development	$12,658	$0	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Hocking College	$5,124	$3,700	$0
James A Rhodes State College	$3,944	$3,976	$0
Lakeland Community College	$1,826	$3,038	$3,053
Lorain County Community College	$2,260	$3,460	$3,379
Lorain County Joint Vocational School District	$12,157	$3,312	$1,644
Madison Adult Career Center	$6,685	$214	$0
Marion Technical College	$3,340	$3,629	$0
North Central State College	$3,594	$3,730	$0
Northwest State Community College	$3,981	$4,392	$0
O C Collins Career Center	$7,231	$0	$0
Ohio State University Agricultural Technical Institute	$7,750	$5,973	$0
Owens Community College	$2,981	$4,185	$0
Sinclair Community College	$1,935	$2,997	$1,996
Southern State Community College	$4,035	$4,460	$0
Stark State College	$3,688	$3,563	$0
Terra State Community College	$2,390	$3,684	$0
Toledo Public Schools Adult and Continuing Education	$1,266	$0	$0
Tri-County Adult Career Center	$4,730	$0	$0
Warren County Career Center	$4,786	$0	$0
Washington County Career Center-Adult Technical Training	$12,493	$0	$0
Washington State Community College	$3,055	$3,798	$0
Zane State College	$4,040	$3,022	$0
Oklahoma	**$40,741**	**$145,736**	**$147,160**
Same coordinating/governing board as university	**$40,741**	**$145,736**	**$147,160**
Autry Technology Center	$1,770	$7,076	$16,015
Caddo Kiowa Technology Center	$2,247	$21,111	$12,551
Carl Albert State College	$1,230	$3,422	$0
College of the Muscogee Nation	$2,299	$24,310	$0
Comanche Nation College	$1,103	$0	$0
Connors State College	$1,195	$4,161	$0
Eastern Oklahoma State College	$1,846	$5,196	$0
Gordon Cooper Technology Center	$627	$3,201	$8,053
Great Plains Technology Center	$4,507	$6,284	$11,663
Indian Capital Technology Center-Muskogee	$732	$0	$0
Indian Capital Technology Center-Tahlequah	$956	$0	$0
Meridian Technology Center	$1,460	$5,167	$17,603
Metro Technology Centers	$2,152	$5,075	$27,741
Moore Norman Technology Center	$1,153	$2,020	$17,510
Murray State College	$1,730	$3,808	$0
Northeastern Oklahoma A&M College	$1,229	$4,577	$0
Northern Oklahoma College	$2,799	$3,245	$302

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Oklahoma City Community College	$2,095	$3,325	$861
Redlands Community College	$1,807	$4,170	$0
Rose State College	$995	$4,758	$2,214
Seminole State College	$1,096	$4,929	$0
Southwest Technology Center	$818	$18,981	$12,294
Tulsa Community College	$564	$3,183	$3,131
Tulsa Technology Center-Lemley Campus	$2,186	$1,634	$17,222
Western Oklahoma State College	$2,145	$6,103	$0
Oregon	**$64,287**	**$75,074**	**$64,404**
Same coordinating/governing board as university	**$64,287**	**$75,074**	**$64,404**
Blue Mountain Community College	$3,627	$2,943	$3,681
Central Oregon Community College	$2,327	$1,346	$2,609
Chemeketa Community College	$3,773	$2,846	$2,664
Clackamas Community College	$4,408	$3,943	$4,820
Clatsop Community College	$4,446	$2,098	$7,076
Columbia Gorge Community College	$3,338	$6,846	$3,481
Klamath Community College	$3,658	$4,816	$1,710
Lane Community College	$7,898	$6,528	$4,043
Linn-Benton Community College	$3,751	$5,073	$2,106
Mt Hood Community College	$3,390	$4,286	$1,559
Oregon Coast Community College	$5,813	$5,194	$7,927
Portland Community College	$2,852	$3,499	$3,320
Rogue Community College	$5,292	$2,507	$3,802
Southwestern Oregon Community College	$1,742	$4,977	$3,683
Tillamook Bay Community College	$1,988	$4,743	$8,692
Treasure Valley Community College	$3,935	$4,124	$1,029
Umpqua Community College	$2,049	$9,305	$2,202
Pennsylvania	**$80,132**	**$46,880**	**$16,656**
No state-level coordinating or governing board	**$80,132**	**$46,880**	**$16,656**
Bucks County Community College	$5,105	$2,880	$1,990
Butler County Community College	$5,753	$3,315	$1,376
Community College of Allegheny County	$2,424	$2,871	$1,949
Community College of Beaver County	$6,993	$2,528	$2,143
Community College of Philadelphia	$2,348	$1,872	$1,219
Delaware County Community College	$3,386	$2,161	$748
Harrisburg Area Community College-Harrisburg	$4,939	$2,564	$633
Lancaster County Career and Technology Center	$4,933	$1,627	$0
Lehigh Carbon Community College	$4,232	$3,053	$962
Luzerne County Community College	$5,432	$2,461	$1,312
Montgomery County Community College	$4,526	$2,072	$1,545
Northampton County Area Community College	$4,225	$2,016	$804

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Pennsylvania Highlands Community College	$5,227	$1,864	$573
Reading Area Community College	$5,654	$2,910	$1,096
Somerset County Technology Center	$7,089	$0	$0
Thaddeus Stevens College of Technology	$4,996	$10,575	$0
Westmoreland County Community College	$2,870	$2,111	$306
Rhode Island	**$2,947**	**$4,342**	**$0**
Same coordinating/governing board as university	**$2,947**	**$4,342**	**$0**
Community College of Rhode Island	$2,947	$4,342	$0
South Carolina	**$49,884**	**$37,724**	**$15,022**
Coordinating/governing board for CCs separate from K-12 & university	**$49,884**	**$37,724**	**$15,022**
Aiken Technical College	$3,082	$2,042	$1,039
Central Carolina Technical College	$2,435	$1,527	$774
Denmark Technical College	$1,084	$1,167	$1
Florence-Darlington Technical College	$2,573	$1,660	$1,143
Greenville Technical College	$3,086	$1,810	$1,204
Horry-Georgetown Technical College	$3,352	$1,313	$709
Midlands Technical College	$3,938	$1,768	$1,115
Northeastern Technical College	$675	$2,182	$834
Orangeburg Calhoun Technical College	$2,243	$2,052	$684
Piedmont Technical College	$2,150	$1,433	$465
Spartanburg Community College	$3,040	$1,553	$1,296
Technical College of the Lowcountry	$2,720	$2,003	$1,288
Tri-County Technical College	$3,239	$1,299	$577
Trident Technical College	$3,603	$1,215	$805
University of South Carolina-Lancaster	$2,431	$1,893	$0
University of South Carolina-Salkehatchie	$2,067	$2,173	$0
University of South Carolina-Sumter	$2,435	$4,066	$0
University of South Carolina-Union	$2,227	$2,142	$0
Williamsburg Technical College	$846	$2,855	$2,065
York Technical College	$2,658	$1,571	$1,023
South Dakota	**$22,469**	**$10,367**	**$0**
No state-level coordinating or governing board	**$22,469**	**$10,367**	**$0**
Lake Area Technical Institute	$2,528	$3,222	$0
Mitchell Technical Institute	$5,632	$3,119	$0
Sisseton Wahpeton College	$3,358	$0	$0
Southeast Technical Institute	$5,103	$0	$0
Western Dakota Technical Institute	$5,848	$4,026	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Tennessee	**$63,737**	**$188,937**	**$0**
Same coordinating/governing board as university	**$63,737**	**$188,937**	**$0**
Chattanooga State Community College	$3,598	$4,245	$0
Cleveland State Community College	$2,469	$3,780	$0
Columbia State Community College	$2,921	$3,730	$0
Dyersburg State Community College	$2,342	$3,917	$0
Jackson State Community College	$2,664	$4,173	$0
Motlow State Community College	$3,210	$3,784	$0
Nashville State Community College	$2,855	$2,560	$0
Northeast State Community College	$2,044	$3,432	$0
Pellissippi State Community College	$3,107	$3,244	$0
Roane State Community College	$2,790	$4,466	$0
Southwest Tennessee Community College	$2,851	$3,884	$0
Tennessee College of Applied Technology-Athens	$746	$5,163	$0
Tennessee College of Applied Technology-Covington	$1,468	$6,135	$0
Tennessee College of Applied Technology-Crossville	$629	$5,919	$0
Tennessee College of Applied Technology-Crump	$796	$5,878	$0
Tennessee College of Applied Technology-Dickson	$2,569	$4,203	$0
Tennessee College of Applied Technology-Elizabethton	$749	$3,557	$0
Tennessee College of Applied Technology-Harriman	$432	$5,542	$0
Tennessee College of Applied Technology-Hartsville	$421	$4,704	$0
Tennessee College of Applied Technology-Hohenwald	$655	$4,736	$0
Tennessee College of Applied Technology-Jacksboro	$400	$6,721	$0
Tennessee College of Applied Technology-Jackson	$814	$6,228	$0
Tennessee College of Applied Technology-Knoxville	$765	$4,283	$0
Tennessee College of Applied Technology-Livingston	$866	$4,969	$0
Tennessee College of Applied Technology-McKenzie	$936	$6,719	$0
Tennessee College of Applied Technology-McMinnville	$723	$6,588	$0
Tennessee College of Applied Technology-Memphis	$2,547	$4,399	$0
Tennessee College of Applied Technology-Morristown	$804	$6,524	$0
Tennessee College of Applied Technology-Murfreesboro	$823	$4,190	$0
Tennessee College of Applied Technology-Nashville	$2,513	$3,837	$0
Tennessee College of Applied Technology-Newbern	$725	$5,249	$0
Tennessee College of Applied Technology-Oneida-Huntsville	$2,617	$6,516	$0
Tennessee College of Applied Technology-Paris	$808	$5,580	$0
Tennessee College of Applied Technology-Pulaski	$914	$4,492	$0
Tennessee College of Applied Technology-Ripley	$206	$6,271	$0
Tennessee College of Applied Technology-Shelbyville	$996	$4,305	$0
Tennessee College of Applied Technology-Whiteville	$976	$6,945	$0
Volunteer State Community College	$3,197	$3,134	$0
Walters State Community College	$2,791	$4,935	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Texas	**$123,642**	**$211,132**	**$175,217**
Same coordinating/governing board as university	**$123,642**	**$211,132**	**$175,217**
Alvin Community College	$2,556	$2,295	$3,268
Amarillo College	$2,391	$3,047	$3,374
Angelina College	$1,487	$2,648	$1,984
Austin Community College District	$2,362	$2,410	$4,767
Blinn College	$3,113	$1,856	$113
Brookhaven College	$1,529	$2,107	$3,918
Cedar Valley College	$860	$2,108	$5,209
Central Texas College	$3,072	$1,810	$869
Cisco College	$702	$2,669	$259
Clarendon College	$1,911	$4,192	$607
Coastal Bend College	$1,769	$3,321	$1,008
College of the Mainland	$1,471	$3,077	$7,440
Collin County Community College District	$1,471	$2,023	$3,523
Del Mar College	$2,161	$3,951	$9,944
Eastfield College	$824	$1,885	$2,780
El Centro College	$844	$2,970	$5,621
El Paso Community College	$1,095	$2,221	$2,534
Frank Phillips College	$1,343	$3,626	$1,999
Galveston College	$1,698	$3,142	$7,083
Grayson College	$1,385	$2,713	$3,754
Hill College	$1,232	$3,096	$1,659
Houston Community College	$1,882	$2,174	$3,817
Howard College	$1,568	$4,313	$2,646
Kilgore College	$2,600	$4,272	$2,084
Lamar Institute of Technology	$4,068	$5,189	$0
Lamar State College-Orange	$3,104	$5,339	$0
Lamar State College-Port Arthur	$4,251	$9,885	$0
Laredo Community College	$949	$1,629	$3,152
Lee College	$1,565	$2,735	$5,785
Lone Star College System	$1,356	$1,876	$3,342
McLennan Community College	$2,754	$2,787	$3,124
Mountain View College	$933	$1,897	$4,236
Navarro College	$1,892	$2,466	$453
North Central Texas College	$2,102	$2,029	$346
North Lake College	$1,436	$2,175	$3,687
Northeast Texas Community College	$1,453	$2,600	$1,798
Northwest Vista College	$1,499	$1,948	$1,637
Odessa College	$2,265	$3,169	$7,874
Palo Alto College	$1,525	$2,075	$4,202

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Panola College	$2,058	$2,810	$4,773
Paris Junior College	$1,539	$2,586	$762
Ranger College	$1,970	$2,782	$185
Richland College	$1,331	$2,302	$2,221
San Antonio College	$1,892	$2,218	$3,608
San Jacinto Community College	$2,732	$3,422	$5,834
South Plains College	$2,298	$2,311	$1,702
Southwest Texas Junior College	$1,679	$2,686	$941
St Philip's College	$1,690	$2,404	$4,545
Tarrant County College District	$1,473	$2,063	$5,364
Temple College	$3,091	$2,597	$2,066
Texarkana College	$1,619	$2,956	$1,939
Texas State Technical College-Harlingen	$1,028	$5,984	$0
Texas State Technical College-Marshall	$3,048	$16,071	$0
Texas State Technical College-Waco	$3,198	$8,777	$0
Texas State Technical College-West Texas	$3,808	$13,180	$0
Trinity Valley Community College	$1,299	$2,617	$1,791
Tyler Junior College	$1,532	$2,686	$2,697
Vernon College	$2,058	$2,828	$1,127
Victoria College	$3,547	$2,964	$4,229
Weatherford College	$1,838	$2,449	$2,608
Western Texas College	$2,651	$4,384	$7,841
Wharton County Junior College	$3,785	$2,330	$1,088
Utah	**$12,735**	**$53,010**	**$0**
Same coordinating/governing board as university	**$12,735**	**$53,010**	**$0**
Bridgerland Applied Technology College	$2,325	$7,011	$0
Davis Applied Technology College	$1,615	$7,463	$0
Mountainland Applied Technology College	$2,050	$5,974	$0
Ogden-Weber Applied Technology College	$1,498	$10,357	$0
Salt Lake Community College	$3,341	$3,750	$0
Tooele Applied Technology College	$1,906	$18,455	$0
Vermont	**$5,346**	**$1,637**	**$0**
Same coordinating/governing board as university	**$5,346**	**$1,637**	**$0**
Community College of Vermont	$5,346	$1,637	$0
Virginia	**$59,797**	**$95,535**	**$981**
Coordinating/governing board for CCs separate from K-12 & university	**$59,797**	**$95,535**	**$981**
Blue Ridge Community College	$2,986	$3,523	$9
Central Virginia Community College	$2,677	$3,233	$3
Dabney S Lancaster Community College	$2,450	$6,006	$164
Danville Community College	$1,902	$3,795	$10

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Eastern Shore Community College	$1,989	$6,917	$52
Germanna Community College	$2,807	$2,639	$67
J Sargeant Reynolds Community College	$2,933	$3,157	$25
John Tyler Community College	$2,586	$3,281	$9
Lord Fairfax Community College	$3,191	$3,088	$68
Mountain Empire Community College	$1,501	$4,240	$71
New River Community College	$3,254	$3,609	$26
Northern Virginia Community College	$4,089	$2,477	$5
Patrick Henry Community College	$1,871	$4,308	$45
Paul D Camp Community College	$1,848	$7,421	$68
Piedmont Virginia Community College	$2,981	$2,960	$18
Rappahannock Community College	$2,863	$4,055	$49
Richard Bland College of the College of William and Mary	$1,999	$5,987	$0
Southside Virginia Community College	$2,100	$3,810	$15
Southwest Virginia Community College	$1,714	$4,353	$114
Thomas Nelson Community College	$2,952	$2,756	$31
Tidewater Community College	$2,423	$3,108	$4
Virginia Highlands Community College	$1,751	$3,771	$55
Virginia Western Community College	$2,752	$3,034	$4
Wytheville Community College	$2,178	$4,007	$69
Washington	**$47,259**	**$85,476**	**$0**
Coordinating/governing board for CCs separate from K-12 & university	**$47,259**	**$85,476**	**$0**
Bates Technical College	$1,915	$5,175	$0
Bellingham Technical College	$1,941	$5,660	$0
Big Bend Community College	$2,825	$5,421	$0
Cascadia College	$3,108	$3,866	$0
Clark College	$3,243	$3,163	$0
Edmonds Community College	$3,664	$3,678	$0
Everett Community College	$3,224	$3,860	$0
Grays Harbor College	$500	$5,253	$0
Lower Columbia College	$801	$4,679	$0
Pierce College-Fort Steilacoom	$3,062	$3,302	$0
Pierce College-Puyallup	$3,096	$3,339	$0
Renton Technical College	$1,841	$6,345	$0
Shoreline Community College	$4,298	$4,125	$0
South Puget Sound Community College	$3,554	$3,859	$0
Spokane Community College	$1,486	$4,944	$0
Spokane Falls Community College	$1,568	$4,143	$0
Tacoma Community College	$1,781	$2,996	$0
Walla Walla Community College	$1,253	$3,726	$0

Appendix B (continued)

State & State-Level CC Governance System	Revenues from tuition and fees per FTE	Revenues from state appropriations per FTE	Revenues from local support per FTE
Wenatchee Valley College	$1,198	$4,182	$0
Whatcom Community College	$2,901	$3,760	$0
West Virginia	**$16,851**	**$31,408**	**$2,878**
Coordinating/governing board for CCs separate from K-12 & university	**$16,851**	**$31,408**	**$2,878**
Blue Ridge Community and Technical College	$2,246	$2,351	$0
BridgeValley Community & Technical College			
Carver Career Center	$3,309	$3,725	$2,878
Eastern West Virginia Community and Technical College	$1,866	$3,848	$0
Mountwest Community and Technical College	$2,135	$3,354	$0
New River Community and Technical College	$2,142	$2,865	$0
Pierpont Community and Technical College	$2,683	$4,520	$0
Southern West Virginia Community and Technical College	$771	$5,830	$0
West Virginia Northern Community College	$1,699	$4,915	$0
Wisconsin	**$47,332**	**$24,961**	**$189,750**
Coordinating/governing board for CCs separate from K-12 & university	**$47,332**	**$24,961**	**$189,750**
Blackhawk Technical College	$2,301	$1,706	$11,932
Chippewa Valley Technical College	$3,061	$1,346	$8,820
Fox Valley Technical College	$2,441	$1,697	$11,811
Gateway Technical College	$3,100	$1,169	$12,787
Lac Courte Oreilles Ojibwa Community College	$3,554	$0	$0
Lakeshore Technical College	$3,487	$1,644	$12,479
Mid-State Technical College	$2,919	$1,254	$9,855
Milwaukee Area Technical College	$2,548	$1,806	$13,006
Moraine Park Technical College	$2,318	$1,027	$12,000
Nicolet Area Technical College	$2,504	$1,814	$22,470
Northcentral Technical College	$1,623	$1,586	$9,524
Northeast Wisconsin Technical College	$3,438	$1,321	$9,732
Southwest Wisconsin Technical College	$3,332	$1,621	$10,437
University of Wisconsin Colleges	$4,082	$3,362	$0
Waukesha County Technical College	$2,419	$933	$14,628
Western Technical College	$2,748	$1,798	$13,626
Wisconsin Indianhead Technical College	$1,457	$877	$16,643
Wyoming	**$15,832**	**$55,915**	**$23,536**
Coordinating/governing board for CCs separate from K-12 & university	**$15,832**	**$55,915**	**$23,536**
Casper College	$2,134	$8,963	$3,830
Central Wyoming College	$2,128	$6,581	$3,907
Eastern Wyoming College	$2,009	$8,446	$1,129
Laramie County Community College	$3,267	$8,077	$2,155
Northwest College	$1,665	$10,224	$3,550
Sheridan College	$2,748	$7,828	$1,223
Western Wyoming Community College	$1,881	$5,796	$7,742

APPENDIX C. 2016 NCSDCC SURVEY DATA SET

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
AL*	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	YES
AK	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board	No Formula	N/A	N/A	No
AZ	No state-level coordinating/governing board	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	No
AR	Same coordinating/governing board as University	Association of CC presidents	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	Yes
CA	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	Yes
CO	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
CT	Same coordinating/governing board as University	State governing board	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	No
DE	Coordinating/governing board for CCs separate from K-12 & Universities	Association of CC trustees	No Formula	N/A	N/A	No
FL*	Same coordinating/governing board as K-12, but separate from Universities	Other, please specify	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	N/A
GA	No state-level coordinating/governing board	No State-Level governing/coordinating body	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	No
HI	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	No
ID	Coordination for CC governance falls beneath a Univ. coordinating/governing board	No State-Level governing/coordinating body	No Formula	N/A	N/A	No
IL	Coordinating/governing board for CCs separate from K-12 & Universities	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component).	N/A	No

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
IN*	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	NO
IA	Same coordinating/governing board as K-12, but separate from Universities	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component).	N/A	No
KS	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	Yes
KY	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	No Formula	N/A	N/A	No
LA	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component).	N/A	No
ME	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	No Formula	N/A	N/A	No
MD	No state-level coordinating/governing board	Association of CC presidents	No Formula	N/A	N/A	No

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
MA	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	No
MI	No state-level coordinating/governing board	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	No
MN*	Same coordinating/governing board as University	Other, please specify	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	YES
MS	Coordinating/governing board for CCs separate from K-12 & Universities	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	Yes
MO	Same coordinating/governing board as University	Association of CC presidents	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No
MT	Coordination for CC governance falls beneath a Univ. coordinating/governing board	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	Yes

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
NE	Same coordinating/governing board as University	Association of CC trustees	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component).	N/A	No
NV*	Same coordinating/governing board as University	State governing board	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	YES
NH	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	No Formula	N/A	N/A	No
NJ	Coordinating/governing board for CCs separate from K-12 & Universities	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	Yes
NM	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	No

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
NY*	Coordination for CC governance falls beneath a Univ. coordinating/governing board	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Option Funding Formula: Funding formulae that allow either state leaders or economic conditions to determine which formula will be utilized. (E.g., a base funding allocation, a marginal cost adjustment, and/or an enrollment growth component).	N/A	N/A
NC	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	Yes
ND	Same coordinating/governing board as University	State governing board	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Generalized Funding Formula: Utilizes the same functional components within formulae for justifying funding, but doing so in a different way year-to-year.	Yes

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
OH*	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	Functional Component Funding Formula (e.g., generalized funding, tiered funding)	N/A	Tiered Funding Formula: Tiered-funding calculations refine the functional components found in generalized funding formulae to specific program areas or levels of study as a means of explaining and justifying costs.	N/A
OK	Same coordinating/governing board as University	State governing board	No Formula	N/A	N/A	No
OR	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No
PA	No state-level coordinating/governing board	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	No
RI	Same coordinating/governing board as University	Combination of any of the above (or other), please specify	No Formula	N/A	N/A	No
SC	Coordinating/governing board for CCs separate from K-12 & Universities	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	No
SD	Same coordinating/governing board as K-12, but separate from Universities	Combination of any of the above (or other), please specify	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	No

Appendix C (continued)

Abbr.	State-level CC governance structure/system	CC governing/coordinating body the coordinates collective action	State Funding Distribution Formula	Responsive Funding SUB-CATEGORIES	Functional Component SUB-CATEGORIES	LEGISLATIVE REQUEST(S)
TN	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No
TX	Same coordinating/governing board as University	Association of CC presidents	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	Yes
UT	Same coordinating/governing board as University	State governing board	No Formula	N/A	N/A	No
VT	Coordinating/governing board for CCs separate from K-12 & Universities	No State-Level governing/coordinating body	No Formula	N/A	N/A	No
VA	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Cost of Education Funding Formula: The primary formula components include student enrollment and a cost of education factor, or a base amount.	N/A	No
WA	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No
WV	Coordinating/governing board for CCs separate from K-12 & Universities	State coordinating council	No Formula	N/A	N/A	No
WI	Coordinating/governing board for CCs separate from K-12 & Universities	State governing board	Responsive Funding Formula (e.g., cost of education funding, equalized funding, option funding)	Equalized Funding Formula: Achieved through various mechanisms; generally, allocations are based upon a threshold - specified level or benchmark - that is deemed appropriate for determining equitable funding..	N/A	No
WY	Coordinating/governing board for CCs separate from K-12 & Universities	Association of CC trustees	No Formula	N/A	N/A	Yes

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
*AL**	N/A	Establish policies and approves actions related to faculty and personnel, Hire, evaluate, and terminate ceo, ensure fiscal integrity, academic program review and approval, state-wide planning (i.e., strategic plan, facilities, technology plans), formulates legislative agenda	N/A	N/A	N/A	N/A	None specified
AK	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, State-wide planning (i.e., strategic plan, facilities, technology plans),Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, Hire, evaluate, and terminate CEO, Formulates legislative agenda, State-wide policy leadership	N/A	Funding is incremental based on underlying costs, or a proportional decrement.	N/A	N/A	N/A
AZ	Voluntary and dues paying, not statutorily recognized	State-wide planning (i.e., strategic plan, facilities, technology plans),Formulates legislative agenda, State-wide policy leadership	N/A	However two of ten CC districts in Arizona have been completely defended by the state; while funding formulae are present in State statutes, those formulae are no longer applied.	N/A	N/A	N/A
AR	N/A	Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system	N/A	N/A	N/A	N/A	Currently we have a "needs based" funding formula which categorizes cost of educational delivery into three categories and is enrollment driven based on FTE's. Allied Health General and Basic Education Career and Technical Education

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
CA	N/A	Ensure fiscal integrity, State-wide planning (i.e., strategic plan, facilities, technology plans),Defines mission for the state's higher education system, Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	None specified
CO	N/A	Other decision-making authority (please specify):,Ensure fiscal integrity, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	Defines CC system colleges' goals/mission, providing linkage to Colorado Commission on Higher Education goals/mission and the individual strategic plans of the CCs that are in the system	N/A	N/A	N/A	N/A
CT	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	Student Services, Plant Operations, Scholarships and Fellowships, Institutional Support, Instruction, Academic Support	N/A	N/A
DE	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", State-wide policy leadership	N/A	The CC system in Delaware receives the same percentage increase in funding as the two state funded 4 year institutions.	N/A	N/A	N/A
*FL**	State Association and State Board of Education both engage in these activities	Establish policies and approves actions related to faculty and personnel, ensure fiscal integrity, academic program review and approval, state-wide planning (i.e., strategic plan, facilities, technology plans), state-wide policy leadership, formulates legislative agenda	N/A	N/A	Instruction, Academic Support, Student Services, Institutional Support, Plant Operations	N/A	N/A
GA	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", formulates legislative agenda, State-wide policy leadership	N/A	N/A	Student Services, Plant Operations, Institutional Support, Instruction, Academic Support	None specified	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
HI	CCs are integrated within the single University of Hawaii System of higher education. The seven CCs are then organized as a system within that larger higher education system.	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	Public funding is appropriated on a base budget plus additions, subject to legislative appropriations. Legislative biennium budget considerations approve the add-on items, some of which are very specific (a new extension agent), others are broadly defined such as an initiative to improve Native Hawaiian graduation. Legislative action also approves the funding associated with the settlement of all collective bargaining agreements as an addition to the base budget. Colleges retain tuition as a component of the operating budget	N/A	N/A	N/A
ID	N/A	Other decision-making authority (please specify):	N/A	Base plus maintenance of operations for personnel costs, benefits, compensation, and replacement capital. Funding for new initiatives on a case-by-case basis.	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
IL	The state governing board, The association of CC presidents, The association of CC trustees	Academic program review and approval, Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
*IN**	N/A	Establish policies and approves actions related to faculty and personnel, hire, evaluate, and terminate ceo, ensure fiscal integrity, academic program review and approval, state-wide planning (i.e., strategic plan, facilities, technology plans), state-wide policy leadership	N/A	N/A	N/A	N/A	N/A
IA	The trustees association provides staff support and coordinates this work and conducts lobbying efforts but the presidents' association appears to drive the agenda setting.	Other decision-making authority (please specify):,State-wide policy leadership	Accredits the CCs (oversight mechanism)	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
KS	Association of CC Trustees (KACCT) in collaboration with the Board of Regents, who by state law coordinates but does not govern the 19 CCs in Kansas	Other decision-making authority (please specify):,Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system, Formulates legislative agenda, State-wide policy leadership	Distributes state funding; establishes appropriate funding formulae	N/A	Student Services, Plant Operations, Institutional Support, Instruction, Academic Support	None specified	(K.S.A. 74-3202c (b) (2)). Provides the foundation for a budgeting model that reflects the recurring theme of maintaining a system wide focus on requesting and advocating for increases in State General Fund appropriations for public postsecondary education. By Oct. 1 of each year, the Board of Regents submits the unified budget request which includes the base state grants and other specific appropriations to the coordinated institutions (19 CCs, six technical colleges, Washburn University), programs administered by the Board of Regents (student aid, adult education, GED, etc.), and any increase in funds requested by the Board for the postsecondary education system.

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
KY	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	KCTCS's funding distribution funding formula has elements for the cost of programs using the Classification of Programs with variation in funding, contains an element for high demand - high wage programs, includes elements for maintenance and operations, libraries, academic and institution support as well as the ability to redistribute funding for equity. In recent years with continuous state appropriation cuts, declining enrollment and no local funding, it has been extremely hard to use the model to redistribute funding.	N/A	N/A	N/A
LA	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
ME	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
MD	N/A	Other decision-making authority (please specify):,Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Formulates legislative agenda, State-wide policy leadership	Administer State funding to CCs.	Funding is linked by formula to funding levels at the public four-year colleges and universities	N/A	N/A	N/A
MA	Association of CC presidents; Association of CC trustees	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
MI	Michigan CC Association which represents both presidents and trustees	Other decision-making authority (please specify):	No board	Funding formula applies to new money only each year that distributes new money: 30% across the board; 30% weighted contact hours (health, technology weighted 2x); 30% performance (10% number of completions, 10% rate of completions, 10% improvement in completions); 5% admin costs; 5% local strategic value	N/A	N/A	N/A
*MN**	The system administration, in concert with the Board of Trustees and the college and university presidents	Establish policies and approves actions related to faculty and personnel, hire, evaluate, and terminate ceo, ensure fiscal integrity, formulates legislative agenda, other decisions making authority	NOTE: All public 2-year colleges and 4-year universities in Minnesota, with the exception of the University of Minnesota and its campuses, are part of a single system governed by the Board of Trustees of the MnSCU system	N/A	Instruction, Research, Public Service, Academic Support, Plant Operations	N/A	Formulates legislative agenda

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
MS	It is a combination of the state coordinating board, MCCB, and the association of the CC presidents, MACJC. All work together.	Other decision-making authority (please specify):,"State-wide planning, i.e., strategic plan, facilities, technology plans", State-wide policy leadership	The MCCB receives and distributes state funds appropriated by the Legislature to the colleges. The MCCB has statutory authority to "fix standards for CCs to qualify for appropriations, and qualifications for CC teachers". The coordinating board approves all career and technical programs.	MS CJC funding formula provides a base amount of 15% of the prior year formula appropriation, which is shared equally among the 15 colleges. The remaining formula funds are distributed using FTE enrollment in Academic, Career, and Technical with additional weights for high cost programs. An incentive is also provided for hosting and providing eLearning (online)courses	N/A	N/A	A state law was passed in 2007 that says the CCs shall receive Mid-Level Funding, which is the midpoint between K-12 funding and IHL funding in the state. This calculation is performed each year. However, the Legislature has never fully funded Mid-Level Funding for CCs.
MO	N/A	Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
MT	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, State-wide policy leadership	N/A	N/A	N/A	N/A	Colleges submit budget reports and recommendations are to the coordinating/governing body, they are prioritized, and every other year the coordinating/governing creates legislative requests.
NE	N/A	Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system	N/A	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
*NV**	N/A	Establish policies and approves actions related to faculty personnel, hire, evaluate, and terminate ceo, ensure fiscal integrity, academic program review and approval, state-wide planning (i.e., strategic plan, facilities, technology plans), state-wide policy and leadership, defines mission for the state's higher education system, defines its mission of each higher education sector, formulates legislative agenda	The Nevada Board of Regents governs the Nevada System of Higher Education	N/A	Instruction, research, academic support, student services, institutional support, plant operations	N/A	None specified
NH	N/A	Other decision-making authority (please specify):,Ensure fiscal integrity, Defines mission of each higher education sector, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	Defines mission of CC system	N/A	N/A	N/A	N/A
NJ	NJ Council of County Colleges is a 501(c)3 organization created by state statutes - but has assigned to it many of the responsibilities more typically found in state government agencies. Its board of directors consists of both trustees and presidents - the chair and vice chair are, by law, trustees.	Other decision-making authority (please specify):,"State-wide planning, i.e., strategic plan, facilities, technology plans", Formulates legislative agenda, State-wide policy leadership	Advancement/Advocacy - governmental relations, public relations, member services (trustee orientation and training, presidents' academy, professional development activities. Statutory Responsibilities - funding formula (state aid), capital funding distribution, credit course review for state aid eligibility, general education course review, placement test cuts scores. Statewide Consortia - Student Success Center (Kresge funded), joint purchasing consortium.	N/A	N/A	N/A	If by legislative requests, you mean state budget requests, we in part frame our request with the 1/3-1/3-1/3 approach typically found in the Northeast - i.e., state should provide one third of the funds needed to operate CCs, with the counties and students (through tuition/fees) providing the other two thirds. Of course, we long ago have strayed from this "formula" - but we still like to promote this model in framing our state budget requests.

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
NM	The NM Independent CC Association coordinates the collective action of the independent CCs, while the "NM Association of CCs" coordinates the collective action of the CCs that are branch campuses of four-year universities. The two associations are separate entities.	Formulates legislative agenda	N/A	N/A	Instruction	N/A	N/A
*NY**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NC	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	Student Services, Institutional Support, Instruction, Academic Support	N/A	We use a formula to determine the amount of enrollment growth and salary increase funds we request from the State legislature. We use a collaborative process that involves the college presidents' association, trustees' association, and our State Board to identify other legislative requests. These amounts may or may not use a formula to determine the amount of the request.

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
ND	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", State-wide policy leadership	N/A	N/A	Student Services, Plant Operations, Institutional Support, Research, Public Service, Instruction, Academic Support, Other (please describe)	All operational costs are included.	1) Actual completed student credit hours are weighted by discipline cluster and level of instruction. 2) The result is multiplied by a credit completion factor and institutional size factor. 3) The product is multiplied by a statutory funding rate to determine the biennial budget.
*OH**	N/A	Ensure fiscal integrity, academic program review and approval, state-wide policy leadership	N/A	N/A	None specified	N/A	N/A
OK	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system, Formulates legislative agenda, State-wide policy leadership	N/A	Performance Funding Formula using measurable performance standards (graduation rate, retention, etc.)	N/A	N/A	N/A
OR	CC Association (representing CC trustees, but also presidents) for lobbying and advocacy beyond what is approved in the Governor's budget. Legislative agenda and advocacy for state support is handled by the state's coordinating board/agency. The two groups are in regular communication and collaborate on vast majority of issues.	Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system, Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
PA	The Commission is a state-level association of both presidents and trustees.	Other decision-making authority (please specify):	N/A	Pennsylvania's CCs receive operating and capital funding from the State. Operational funding is distributed as a base amount plus an allocation based on FTE. So for FY 16-17, the total operating appropriation was $232.111M. Of that amount, $226.45M was distributed as it was in the previous Fiscal Year, and $5.661M was distributed based on FTEs. Capital funding is distributed based on project.	N/A	N/A	N/A
RI	As the sole public CC, lobbying falls greatly to the institution itself with some level of support from the governing council	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system	N/A	Formula funding has been a legislative agenda item for several years but not yet implemented. General Assembly largely determines the level of state support to each of the three public institutions. Governor's Office controls whether the Board/Council permits tuition and fee changes.	N/A	N/A	N/A
SC	Council of Presidents in coordination with State Board	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", "Hire, evaluate, and terminate CEO", State-wide policy leadership	N/A	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
SD	State Department of Education. South Dakota does not have CCs; my responses are in reference to the state's four technical institutes.	Other decision-making authority (please specify):,Academic program review and approval	Reviews and approves facility bonding initiatives.	N/A	N/A	N/A	N/A
TN	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
TX	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, Defines mission for the state's higher education system, State-wide policy leadership	N/A	N/A	N/A	N/A	Formula funding, based on the cost on instruction, is recommended to the Commissioner of Higher Education. The total amount and the criteria for the formula are recommended. The Commissioner then makes a recommendation to the legislature. 90% of funding is based on the formula, primarily based on enrollment. 10% is performance based
UT	N/A	Ensure fiscal integrity, Defines mission of each higher education sector, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	Coordinated approach based on system priorities. Funding is categorized by compensation increases, market demand, performance outcomes, and capital development	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
VT	N/A	Other decision-making authority (please specify):	Vermont does not have a governing board.	The CC of Vermont is a member of the Vermont State College System. There are 5 colleges in the system. The other four colleges are residential and offer Associate and Bachelor's Degrees. CCV is the only CC in Vermont. The legislative appropriation is given to the system and then divided equally. Each college gets 20% of the appropriation. The state appropriation represents about 12-14 % of our operating budget.	N/A	N/A	N/A
VA	N/A	Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, "Hire, evaluate, and terminate CEO", State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
WA	N/A	Other decision-making authority (please specify):,Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Defines mission for the state's higher education system, "Hire, evaluate, and terminate CEO", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A

Appendix C (continued)

Abbr.	CC body Combination of any of the above (or other), please specify	Primary responsibilities of state's CC governing/coordinating board	Other decision-making authority (please specify):	No Formula (please describe how CCs are funded):	Components part of state's CC functional component funding formula	Other Functional Component (please describe)	Explain legislative request process
WV	N/A	Other decision-making authority (please specify):,Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Establish policies and approves actions related to faculty and personnel, Defines mission for the state's higher education system, Formulates legislative agenda, State-wide policy leadership	approve tuition and fees and operating budgets. approve presidential contracts.	The colleges were originally given line item appropriations based on their FTE in 2004. No change has been made to that original formula. Thus, our largest CC (which has grown significantly)has the second lowest appropriation in the State.	N/A	N/A	N/A
WI	N/A	Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", Formulates legislative agenda, State-wide policy leadership	N/A	N/A	N/A	N/A	N/A
WY	N/A	Other decision-making authority (please specify):,Ensure fiscal integrity, Academic program review and approval, "State-wide planning, i.e., strategic plan, facilities, technology plans", "Hire, evaluate, and terminate CEO", State-wide policy leadership	Capital construction. Ancillary program administration (adult education, programs supported by state financial aid (state merit scholarships, nursing loan & faculty funding, veterans tuition assistance, etc.)	We utilize a two-part funding allocation model to distribute state and local appropriations based on 1) fixed operational costs and 2) variable costs driven by instruction-related functions, with a component based on performance (completion, granting of diplomas/certificates)	N/A	N/A	Described previously

APPENDIX D. IRB APPROVAL FORM

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 7/8/2016

To: Jeffrey Fletcher
220 MacKay Hall

CC: Dr. Janice Friedel
N247F Lagomarcino Hall
Dr. Larry Ebbers
N256 Lagomarcino Hall

From: Office for Responsible Research

Project Title: Typology ofFunding and State-Level Community College Governance Structures

The Co-Chair of the ISU Institutional Review Board (IRB) has reviewed the project noted above and determined that the project:

☐ Does not meet the definition of research according to federal regulations.

☒ Is research that does not involve human subjects according to federal regulations.

Accordingly, this project does not need IRB approval and you may proceed at any time. We do, however, urge you to protect the rights of your participants in the same ways you would if IRB approval were required. For example, best practices include informing participants that involvement in the project is voluntary and maintaining confidentiality as appropriate.

If you modify the project, we recommend communicating with the IRB staff to ensure that the modifications do not change this determination such that IRB approval is required.

APPENDIX E. SURVEY INFORMED CONSENT FORM

Title of Study: A study on the impact of funding on state-level community college governance systems

Investigators: Jeffrey Alan Fletcher, MPA

This form relates to a research project. It has information to help you decide whether or not you wish to participate. Research studies include only people who choose to take part - your participation is completely voluntary. Please discuss any questions you have about the study, or about this form, with project staff before deciding to participate.

Introduction:
The purpose of this study is to determine if there are any correlational relationships between state funding distribution formulae and state-level community college governance structures. Despite having a 2015 national landscape of state-level community college governance systems utilizing the Katsinas taxonomy (1996) from prior research (Fletcher and Friedel, 2016), it is not well known if there is a correlational relationship between funding and state-level community college governance structure. Many states have experienced change since 2000, and as a result, it is important to research whether or not funding has been an influence and driver of such changes. Moreover, 2007 was the most recent typology of state funding structure(s)/mechanisms. As a result, there is a current void in the literature and an up-to-date typology of state funding structure(s)/mechanism(s) is needed.

Description of Procedures:
This survey takes place online and should take 10 minutes or less to complete. The survey is comprised of questions related to state-level community college governance and funding mechanism(s). You can stop participating at any point. This questionnaire will be conducted with an online Qualtrics-created survey, and if needed, follow-up contact will occur by email.

Risks/Discomforts:
We do not anticipate any risks from participating in this study other than those encountered in day-to-day life. The focus of this study is to capture the current national landscape; information will be matter-of-fact and not about personal feelings or views on the topics.

Benefits:
It is hoped that the information gained in this study will benefit practitioners, policymakers, and researchers and, more specifically, the National Council of State Community College Directors (NCSDCC) through the increased awareness of, and knowledge about, state-level community college governance and funding mechanism(s). It is expected that the study will make at least three contributions to the areas of state-level community college governance. First, the study will contribute to the expanding knowledge base about state-level community college governance systems and funding. As more is known about the relationship of funding to state-level community college governance, it will be possible to more clearly understand the national landscape. The proposed research study can be viewed as a piece of this puzzle. Second, this study is the first attempt to utilize the National Center for Educational Statistics Database to

investigate correlational relationships between funding and state-level community college governance structures across the national landscape. Finally, the ultimate issue underlying the proposed study is money (i.e., funding). It is anticipated that the study will identify ways by which state funding structures/mechanisms have driven change, and may continue to do so, for state-level community college governance systems across the national landscape. While this is a huge undertaking, this study could prove to be a small step in this direction. Findings from this research have potential implications for practitioners, policymakers, and researchers across the U.S. who are involved with state-level governance of community colleges.

Confidentiality:

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy study records for quality assurance and data analysis. The records may contain private information (i.e., name and email address). No personal-identifiable information will be published from this research.

To ensure confidentiality to the extent permitted by law, the following measures will be taken:

> Collected data will be stored in a secure space: electronic data will be accessible only by password and hard copies of data will be stored in a locked file cabinet, in a secure office space. Access to the secure hard copies will be permitted by the principle investigator only, by key to the locked file cabinet. Electronic data will be stored on a password-protected portable drive, to be kept in the locked file cabinet with hard copy data. A backup of the electronic data will be stored on the university controlled system - CyBox, on a password-protected account, accessible only by the principle investigator. Both the portable drive and the university-controlled system (CyBox) will be password-protected and accessible only by the principle investigator.

Costs & Compensation:

You **will not** have any costs from participating in this survey and you **will not** be compensated for participating in this survey.

Participant Rights:

Your participation in this survey is completely voluntary, and you may refuse to participate or leave the survey at any time. If you decide to not participate in the survey or leave the survey early, please close your internet browser and notify the principle investigator at this email: jfletchr@iastate.edu.

If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Deductive Disclosure:
Pseudonyms and the use of professional roles (ex: president, chancellor, etc.) will replace any names of participant individuals that appear in the data, with a key of pseudonyms and professional roles stored separately from the actual data sets published. However, it is important to the study to declare the states across the U.S., thus allowing for a comparative analysis and deeper understanding gained from the resulting report. As the focus of this study is primarily on state-level community college governance and funding mechanism(s), deductive disclosure within the final report is a risk.

Questions:
You are encouraged to ask questions at any time during this study. For further information **about the study,** contact:

Principle Investigator:
Jeffrey Alan Fletcher, MPA
Doctoral Candidate
Iowa State University
(952) 240-5674
jfletchr@iastate.edu

Co-Major Professor/Supervising Faculty:
Janice Nahra Friedel, PhD
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Larry H. Ebbers, PhD
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(515) 294-8067
lebbers@iastate.edu

Please print this page if you would like to retain a copy of the consent form for your records

APPENDIX F. 2015 NCSDCC SURVEY DATA SET

State	State-level CC governance structure/system	CC Governing/Coordinating Body that coordinates collective action	Level of Authority
*AL**	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
AR	Same "coordinating/governing" board as Universities	Association of CC presidents	A little
CA	"Coordinating/governing board" for CCs separate from K-12 & Universities	Combination of any of the above	Some
CT	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
CT	Same "coordinating/governing" board as Universities	State governing board	A great deal
DE	"Coordinating/governing board" for CCs separate from K-12 & Universities	Other, please specify	A great deal
*FL**	Same "coordinating/governing board" as K-12, but separate from Universities	Other, please specify	Some
GA	"Coordinating/governing board" for CCs separate from K-12 & Universities	Combination of any of the above	A great deal
HI	Same "coordinating/governing" board as Universities	State governing board	A great deal
IA	Same "coordinating/governing board" as K-12, but separate from Universities	Other, please specify	Some
ID	Coordination for CC governance falls beneath a University "coordinating/governing" board	Association of CC presidents	A great deal
IL	"Coordinating/governing board" for CCs separate from K-12 & Universities	Other, please specify	A great deal
*IN**	Coordination for CC governance falls beneath a University "coordinating/governing" board	State governing board	A great deal
KS	Same "coordinating/governing" board as Universities	Other, please specify	A great deal
KY	"Coordinating/governing board" for CCs separate from K-12 & Universities	Combination of any of the above	A great deal
LA	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
MA	Same "coordinating/governing" board as Universities	Association of CC presidents	Some
MD	No state-level "coordinating or governing" board	Association of CC presidents	None
ME	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
MI	No state-level "coordinating or governing" board	Other, please specify	None
*MN**	Same "coordinating/governing" board as Universities	Other, please specify	A great deal
MO	Same "coordinating/governing" board as Universities	Association of CC presidents	A little

Appendix F (continued)

State	State-level CC governance structure/system	CC Governing/Coordinating Body that coordinates collective action	Level of Authority
MS	"Coordinating/governing board" for CCs separate from K-12 & Universities	Other, please specify	Some
MT	Coordination for CC governance falls beneath a University "coordinating/governing" board	Other, please specify	A great deal
NC	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
NE	Same "coordinating/governing" board as Universities	Association of CC trustees	A little
NH	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
NJ	"Coordinating/governing board" for CCs separate from K-12 & Universities	Other, please specify	Some
NM	Same "coordinating/governing" board as Universities	Other, please specify	Some
*NV**	Same "coordinating/governing" board as Universities	State governing board	A great deal
*NY**	Coordination for CC governance falls beneath a University "coordinating/governing" board	State governing board	Some
*OH**	Same "coordinating/governing" board as Universities	Combination of any of the above	Some
OK	Same "coordinating/governing" board as Universities	Other, please specify	A great deal
OR	Same "coordinating/governing" board as Universities	Combination of any of the above	Some
PA	No state-level "coordinating or governing" board	Association of CC presidents	None

Appendix F (continued)

State	State-level CC governance structure/system	CC Governing/Coordinating Body that coordinates collective action	Level of Authority
RI	Same "coordinating/governing" board as Universities	State governing board	A great deal
SC	"Coordinating/governing board" for CCs separate from K-12 & Universities	Combination of any of the above	Some
SD	No state-level "coordinating or governing" board	Other, please specify	None
TN	Same "coordinating/governing" board as Universities	Association of CC trustees	A great deal
TX	Same "coordinating/governing" board as Universities	Other, please specify	A little
UT	Same "coordinating/governing" board as Universities	State governing board	A great deal
VA	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
WA	"Coordinating/governing board" for CCs separate from K-12 & Universities	State governing board	A great deal
WI	"Coordinating/governing board" for CCs separate from K-12 & Universities	Other, please specify	A great deal
WV	"Coordinating/governing board" for CCs separate from K-12 & Universities	State coordinating council	Some
WY	"Coordinating/governing board" for CCs separate from K-12 & Universities	Association of CC trustees	A great deal