ABSTRACT

Title of Dissertation: THE RELATIONSHIP BETWEEN STUDENT

ENGAGEMENT AND INSTITUTIONAL RESOURCES

AT MARYLAND COMMUNITY COLLEGES

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Years of cuts in state support for public two-year and four-year colleges have resulted in rising tuition costs and have damaged the higher educational experience through reductions in faculty, fewer course offerings, and actual campus closings. Funding higher education and using the budget to accommodate competing interests remains a topic of broad concern. Resource allocation is an issue that is at the forefront for most institutions of higher education (Cohen, Brawer, & Kisker, 2014). The delicate balance of allocating shrinking state and local funding along with tuition revenues is especially challenging for community college leaders.

The purpose of this quantitative study was to use Kuh's Theory of Engagement to examine institutional resources and student engagement at Maryland Community Colleges. The explanatory variable, the allocation of institutional resources, was defined as the support budget expenditure categories measured by the 2015 MACC Data Book. These categories are Academic Support, Student Services, and Institutional Support. The outcome variables are the Support for Learners benchmark as defined by the Community College

Survey of Student Engagement (CCSSE), and retention and graduation rates from the National Center for Education Statistics (NCES) and the Integrated Postsecondary Education Data System (IPEDS).

This quantitative study was based on secondary survey research. The research design used was an ex post facto design. The College Community College Student Report (see Appendix) is the survey instrument for the CCSSE and is administered to mostly returning students in the spring academic term. The procedure for this study included the analysis of MACC data to explore the relationship among the three categories of allocations of institutional resources, the Support for Learners benchmark in the CCSSE, and retention and graduation rates.

The researcher found no relationships among the three categories of allocations of institutional resources and the Support for Learners benchmark. However, there was a weak to moderate positive relationship between the institutional resources and retention rates, in particular part-time rates and graduation rates. These findings provide meaningful information regarding the relationship between resource allocations and student engagement.

The results from this study contribute to the existing research on student engagement and resource allocation, and this study presents recommendations to understand institutional practices that help increase student engagement and persist to graduation. Community college leaders need this information, to make informed decisions and focus on the task of addressing roadblocks that hinder efforts to increase student success and engagement through institutional change.

THE RELATIONSHIP BETWEEN STUDENT ENGAGEMENT AND

INSTITUTIONAL RESOURCES AT MARYLAND COMMUNITY COLLEGES

by
Erik L. Fortune

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Morgan State University

December 2019

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October 2019

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DEDICATION

I dedicate this dissertation to my principal educators:

Cynthia and Robert Fortune

My parents, first teachers, and first advocates.

Robbin, Pier-Angelita, and Lisa

My sisters, My protectors.

I wish they had lived to see me achieve this particular milestone, but I hear their

cheers.

ACKNOWLEDGEMENTS

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CHAPTER I: INTRODUCTION

Years of cuts in state support for public two-year and four-year colleges have resulted in rising tuition costs and have damaged the higher educational experience through reductions in faculty, fewer course offerings, and actual campus closings. In Arizona between 2008 and 2016 the percent of change in funding per higher education student (adjusted for inflation) was -55.6%, and in Illinois, it was -54% (Mitchell, Leachman, & Masterson, 2016). In Maryland, the state's share of funding for community colleges was 31% in 1996, in 2004 it was 27%, in 2014; 2015 and 2016 the state covered 26% of the costs for community colleges (Maryland Association of Community Colleges, 2015; Clark & Halbach, 2015).

Funding higher education and using the budget to accommodate competing interests remains a topic of broad concern. Resource allocation is an issue that is at the forefront for most institutions of higher education (Cohen, Brawer, & Kisker, 2014). The delicate balance of allocating shrinking state and local funding along with tuition revenues is especially challenging for community college leaders. Funding for the American community college has evolved from being a combined effort of the state, students, and local governments into a series of formulas that direct the flow of funds to community colleges (Mullin & Honeyman, 2007).

Higher education is the largest discretionary item in the state budget (Katsinas, Tollefson, & Reamey, 2008), and the fund allocations can be highly contested. This atmosphere of contention for funding allows states to use this

discretionary item as a budget balancing mechanism (Mullin, Baime, & Honeyman, 2015). As a policy, the state, in times of retrenchment or shortfalls, will cut the budget allocation for higher education. This discretionary item is cut more often than any other public service funding. One particularly interesting example is that one community college in Maryland saw its budget cut by $700,000 in state funding in February 2015, just four months before the end of the fiscal year, which ran from July 1, 2014 to June 30, 2015 (Yeager, 2015)

At the state level, competition for tax dollars is coming from a variety of sources. The aging population of the baby boomers is causing states to expand their health care programs. In addition, the cost necessary to repair fractured infrastructure often competes for state higher education dollars (Barr & McCellan, 2011). While state resources are shrinking, there is also a call from stakeholders for accountability from community colleges. The taxpayers want to understand where their tax dollars are going and what is being accomplished with them. The current methods of measurement or rubrics used for community colleges are inadequate. An appropriate rubric is needed for community college student outcomes that lead to student success and is acceptable for all stakeholders. The absence of appropriate accountability measures has led to misunderstandings and an underestimation of the effectiveness and contributions of community colleges (Mullin & Phillippe, 2013, January).

For many years, retention and graduation rates have been used as indicators of success. However, using these measures as primary indicators of success has become suspect due to the broad mission of the community college

(Bailey, Jenkins, & Leinbach, 2007; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). In the last 20 years, many community colleges have focused on measuring student engagement, which is a part of the broader idea of student success. "Academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post university performance" are all measures of student success (Kuh, 2013, p. slide 4). Student engagement, on the other hand, is what students do and how institutions allocate resources to support them.

This study focused on the allocation of institutional resources and the relationship to support learners, or services and activities provided by institutions to support student engagement, leading to student success. In addition, the relationship between retention and graduation rates, and the distribution of resources have been explored. Data for this study have come from the Community College Survey of Student Engagement (CCSSE–see Appendix), the Maryland Association of Community Colleges (MACC), the National Center for Educational Statistics (NCES), and the Integrated Postsecondary Education Data System (IPEDS).

Given that the sample in this study was small and the statistics used were non-parametric, the researcher chose alternative terminology for categorizing the variables. The variables were categorized as the explanatory (traditionally termed independent) variables and outcome (traditionally termed dependent) variables. Explanatory variables predict or explain differences in outcome

variables. The outcome variable is the presumed effect in a non-experimental study (Fields, 2018; Pennsylvania State University, 2019).

Theoretical Framework

Kuh's theory of student engagement framed this study (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). The idea of engagement is not new to higher education, and many researchers have written and conducted research about engagement in college settings (Chickering & Gamson, 1987; Pascarella & Terenzini, 2005). Kuh's Theory of Student Engagement (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010) suggests that there are two key components that contribute to student engagement. The first component is that the amount of time and effort students put into their studies and other activities leads to the experiences and outcomes that constitute student success. The second component is that the manner in which the institution allocates resources and organizes learning opportunities influences student engagement (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). For this study, the focus was on the second component of Kuh's theory, the ways in which institutions allocate resources to promote student engagement.

Student success requires much from the institution, its agents, and the students. This idea was expressed in Chickering and Gamson's (1987) original work on the Seven Principles for Good Practice in Undergraduate Education. The seven principles act as guidelines and focus on the interaction between the students, faculty, and administrators to promote student engagement (Chickering & Gamson, 1987). Institutions that are more effective and efficient align their

mission with their educational programs and policies (Bolman & Deal, 2008). By doing so, community college leaders can develop and influence this engagement environment through the allocation of resources. By purposefully planning the allocation of resources around engagement activities, institutions can influence student retention and program completion (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010).

The commitment to improving completion rates in the current fiscal environment is causing college leaders to contemplate the shifting of resources. Resource allocation is important to 21st century community college leaders because of the funding challenges that their institutions face. Through these challenges a paradigm shift emerges on the mission of community colleges: a shift from a mission emphasizing access to one emphasizing completion (Mullin, 2010, September). As institutions evolve, it is important to consider how student success is reflected in the college's mission statement, vision, and strategic plan.

Allocation of Resources. The allocation of resources by the institution and the way it arranges its support services should be reflected in the mission. These decisions can have a powerful effect on student engagement and the margin of educational quality, which is something the institution can directly influence (Kuh, 2009). By investing resources into programs that provide adequate organizational structure for student success, institutions can have a profound influence on student engagement (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010; Chickering & Gamson, 1987). This allows the institution to influence and develop student engagement through organizational structures and

student-friendly campus cultures. Presently, no single ideal process to engage students has emerged. Thus, institutional leaders have to look closely at how student engagement is structured while responding to a universal set of internal and external parameters (Bolman & Deal, 2008). For this study, the variable, institutional resources, is defined as the categories: Academic Support, Student Services, and Institutional Support (Maryland Association of Community Colleges, 2015, p. 63).

Changes in the environment can pressure an organization into restructuring and reallocating. According to Pascarella and Terenzini, the way an institution shapes its academic, interpersonal, and extracurricular offerings will encourage student engagement (2005). Organization and organizational culture dictate the use of resources to enhance the student experience. Institutional support can provide the needed resources and structure to offer support for learners. With the emphasis on accountability, institutions need a way to measure institutional support for learners. For the last 18 years, community colleges across the nation have been able to measure this institutional support by administering the Community College Survey of Student Engagement (CCSSE).

CCSSE Data. Using student engagement theory to undergird this study, the researcher will use data from the CCSSE. Chickering and Gamson's (1987) Seven Principles served as a foundation for Kuh's Theory of Student Engagement and the development of the National Survey of Student Engagement (NSSE; Kuh, 2001). The NSSE was essentially designed for four-

year institutions. Using the NSSE as a guide, the CCSSE was developed

specifically for two-year institutions. Launched in 2001, the CCSSE assists

institutions in their efforts to improve student learning, engagement, and retention

(Center for Community College Student Engagement, 2019). Institutional

membership is required to administer the CCSSE and pricing for access to

CCSSE data is based on total headcount enrollment data reported to the

Integrated Postsecondary Education Data System (IPEDS). The cost for

membership and access range from $3,100 for enrollment size less than 1,500 to

$16,850 for enrollment size 22,000 or more (Center for Community College

Student Engagement, 2019).

The concepts for the CCSSE are referred to as benchmarks. Kuh (2001)

purported that by using data from NSSE, and therefore the CCSSE, institutions

can improve effective educational practice. These benchmarks include

Academic Challenge, Active and Collaborative Learning, Student-Faculty

interaction, Student Effort, and Support for Learners. Only one of the five

benchmarks has been used in this study because it solely focused on the support

provided by the institution through the allocation of resources. Support for

Learners is the benchmark that contains the items in the CCSSE that measure

institutional support.

The five benchmarks of the CCSSE have been validated for predictability

for effective educational practice as they relate to student engagement. For

example, the benchmark, academic challenge, has exhibited strong effects on

academic outcomes, and support for learners has exhibited the strongest effects

on persistence measures (McClenney, Marti, & Adkins, 2006). Described below is the benchmark used in this study: Support for Learners.

Support for Learners. This benchmark measures the students' perceptions of their institutions and the institutions' advising and counseling services. When institutions support students academically and encourage them to take the initiative to invest time and effort in their learning, effective learning occurs (Hayek & Kuh, 2004; Kuh, 2003b). Students are involved in higher order thinking skills of application, analysis, synthesis, and evaluation of the learning materials (Kuh, 2003a). Students' perceptions regarding academic and career planning, skill development, and academic challenge are addressed by the CCSSE.

Student Success and Student Engagement. Matters involving student success have been a topic in the higher education literature for several decades. Many researchers have offered solutions, models, and theories about student success (Astin, 1993; Chickering & Gamson, 1987; Pascarella & Terenzini, 2005; Tinto, 2011). In addition to successful outcomes for students, the idea of student engagement or being engaged in educational activities has been among the principal thoughts of educators in more recent years.

An extraordinary amount of research has been conducted about student engagement in community colleges. This research has shown that student engagement has a positive impact on retention, satisfaction, persistence, learning, and GPA (Kuh, 2003b; Trowler & Trowler, 2010; Yearwood & Jones,

2012). Kuh et al. (2006) developed a comprehensive schema describing the elements of how student engagement impacts student success (see Figure 1).

Figure 1. What Matters to Student Success (Kuh et al., 2006)

When applied to this study, this model suggests that the allocation of institutional resources may affect student engagement. Student engagement can have an effect on and influence student success or outcomes. The explanatory variables, the allocation of institutional resources (Academic Support, Institutional Support, and Student Services), may have an effect on the outcome variables (support for learners or student engagement, and retention and graduation rates). Therefore, the researcher might expect that there is a relationship between institutional resources and student engagement. This outcome is

expected because institutions that engage students and invest in their learning infrastructure have higher student engagement rates (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010).

The CCSSE validation research shows that by using this instrument, the college is measuring institutional practices and student behaviors that matter (McClenney, Marti, & Adkins, 2006). These benchmarks measure the engagement of students, which is related to retention and graduation rates (Pike & Kuh, 2005).

Student Behaviors and Institutional Conditions relate to student effort and resource allocation, respectively, in Kuh's Theory of Student Engagement. Research has shown that programs such as first year experience, summer bridge programs, and mandatory orientation are valuable components in student success. These programs stem from resource allocation and campus environment that are within Institutional Conditions as shown in Figure 1 above.

Purpose of the Study

For the current study, the researcher explored the allocation of institutional resources as those resources relate to student engagement, more specifically the Support for Learners benchmark. Community colleges should employ institutional practices that are associated with higher levels of student engagement (Pike & Kuh, 2005). The concept of student engagement was measured by the Community College Survey of Student Engagement (CCSSE).

The purpose of this quantitative study was to use Kuh's Theory of Engagement to examine institutional resources and student engagement at

Maryland community colleges. For this descriptive study, the explanatory variables were the three categories defined as support services budget expenditures measured by the 2015 Maryland Association of Community Colleges (MACC) Databook. These categories are Academic Support, Student Services, and Institutional Support. The outcome variables are the Support for Learners benchmarks as defined by the CCSSE, and retention and graduation rates from the National Center for Educational Statistics (NCES) within the IPEDS.

Research Questions

1) What is the relationship between the allocation of institutional resources and the level of Support for Learners at Maryland community colleges?

2) What is the relationship between the allocation of institutional resources and retention rates at Maryland community colleges?

3) What is the relationship between the allocation of institutional resources and graduation rates at Maryland community colleges?

Significance of the Study

The study adds to the existing research on student engagement and resource allocation by examining CCSSE data from the year 2014. In this era of fiscal restraints and budget shortfalls, community college leaders and state policymakers must invest resources only in the programs, practices, and policies that help the most students complete their degrees (Collins, 2010). The community college stakeholders and society increasingly require more

accountability that documents the effectiveness of college programs and the accountability of institutions (Boggs, 2011). Community college leaders need this information to make informed decisions and focus on the task of addressing roadblocks that hinder efforts to increase student success and engagement through institutional change.

Definition of Key Terms

The following definitions of terms are provided to ensure understanding as they are used throughout the study:

Academic Support: A functional expense category of organized activities that provide support services to the academic functions of the institution (National Center for Educational Statistics, 2019).

Explanatory variable: Explanatory variables predict or explain differences in outcome variables (Pennsylvania State University, 2019).

Institutional Support: A functional expense category of day-to-day activities that provide operational support of the institution (National Center for Educational Statistics, 2019).

Outcome variable: The outcome variable is the presumed effect in a non-experimental study (Fields, 2018).

Student Engagement: Policies, programs, and practices that promote multiple opportunities for high student-faculty contact, active learning, and cooperation among students (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010).

Student Involvement: The quality and quantity of the physical and psychological energy that students invest in the college experience (Astin, 1999).

Student Services: A functional expense category of offices and organized activities that support the development of students outside the context of the formal instructional program (National Center for Educational Statistics, 2019).

Student Success: Persistence to graduation, acceptable GPAs, and achieving the necessary skills to succeed in a career after graduation (Kim, Newton, Downey, & Benton, 2010).

Summary

Community colleges are in the business of preparing students for the workforce, enhancing skills, and transferring to further their education. This means that institutions rely on the community as much as the community relies on them (Cohen & Brawer, 2008). Community colleges can be the foundation for a strong partnership that leads to greater student engagement and success for the colleges, the students, and the communities. Engaging the student is of paramount importance for the institution, and this process is driven by the President.

Student engagement is a campus-wide process that includes every division of the community college organization, and requires a concerted effort to attain. If the institution can successfully engage the students before orientation and maintain engagement, the chances of completion for those students rise. In addition, key to student outcomes is the allocation of institutional resources. This researcher intends to add to the body of knowledge on the allocation of resources by providing data for community college leaders to assist them in

making informed decisions based on the relationship between student success and resource allocation.

CHAPTER II: REVIEW OF THE LITERATURE

Resource Allocation and Community College Student Engagement

A contemporary issue that commands our attention is funding allocations for community colleges and the effect that these allocations have on student engagement. The term *student engagement* has been defined by many educators but can be generally defined as the integration, quality of effort, and involvement in social and academic college experiences. It is significantly associated with student learning and academic attainment (McClenney, Marti, & Adkins, 2006). One way to encourage student engagement is to provide support services, which are initiatives that are designed to encourage academic success and whose purpose is to provide support for students, in an effort to engage them (Karp & Stacey, 2013). Some specific examples of support services are academic advising, career counseling, and financial aid. During the 2011-2012 academic year, community college expenditures totaled $54 billion of which, $14.9 billion was spent on support services (Academic Support, $3,649,257; Student Services, $4,526,015; and Institutional Support, $6,714,618; Mullin, Baime, & Honeyman, 2015).

As a vital part of the postsecondary education delivery system, community colleges educate almost 50% of undergraduates or postsecondary students in the United States (American Association of Community Colleges, 2014; Center for Community College Policy, 2000). Accountability pressures in higher education have contributed to a shift in emphasis as it relates to the community college mission (Seybert & Rossol, 2010; Boerner, 2012). This shift is away from

the original mission of open access to higher education for everyone, to a more

focused ideology of ensuring that access to higher education leads to increased

outcomes and student success. Thus, it behooves community college leaders in

the 21st century to understand the relationship between institutional

characteristics (i.e., fiscal operations) and the student engagement component

(Pike, Kuh, McCormick, Ethington, & Smart, 2010). Kuh's (2009) Student

Engagement Theory provides a framework to explain how student engagement

leads to student success.

In this chapter the researcher has reviewed the body of literature on

funding allocations for Academic Support, Student Services, and Institutional

Support and the connection to student engagement, and student outcomes.

Data gathered for this study include financial information and data from the

Community College Survey of Student Engagement (CCSSE–see Appendix), the

National Center for Education Statistics (NCES), and the Maryland Association of

Community Colleges (MACC). Theoretically, the core of the CCSSE is grounded

in several bodies of literature (Nora, Crisp, & Matthews, 2011). Pace's (1984)

research on student effort and the quality of college students' experiences and

Astin's (1985) studies on student involvement along with Chickering & Gamson's

(1987) principles of good practice in undergraduate education influenced Kuh's

(2001) development of the concepts of student engagement, and hence were key

to the early development of the CCSSE.

Research on the history of student success and the relationship between

community college students and their institutions contributed to the emergence of

student engagement and the factors that influence student behaviors (Gibson &

Slate, 2010). The existing body of literature endorses the importance of student

engagement from the community college student's perspective as it relates to

effort and interaction with faculty. However, there is a paucity of literature and

research on the relationship between the institution, resource allocation, and

community college student engagement. There are considerable gaps in the

literature between the presence of resources and students' engagement

(Mangan, 2013).

Budgets and Community Colleges

For many students, community colleges are the only path or access to

higher education. For many community college students (non-traditional, under-

represented, and disadvantaged populations), these institutions are viewed as

the gateway to middle class America and the American dream (American

Association of Community Colleges, 2012). With state funding for higher

education still not at pre-recession levels, community college leaders have had to

be more strategic with their resource allocation; especially as it relates to student

engagement activities that are successful and lead to greater completion rates

and better outcomes.

With higher education funding from the states continuously being cut and

reallocated for budget balancing purposes, funding for the American community

college has evolved from being a combined effort of the state, students, and local

governments into a series of formulas that direct the flow of funds to community

colleges (Mullin & Honeyman, 2007). Traditionally these funds to community

colleges have been based on enrollments through either government appropriations or revenue from tuition and fees (Mullin, Baime, & Honeyman, 2015).

Many community colleges have budgets that are comprised of three funding sources: the state contribution, the contribution from the local government, and the portion that is funded from tuition and fees. This differs from four-year higher education institutions. Four-year institutions receive substantial non-enrollment resources from endowments, research activities or other auxiliary services. These additional resources make the total revenues for public four-year schools nearly five times the size of community colleges. Combined with the continued decline of state funding since the Great Recession, many community colleges have faced tough decisions related to which programs and activities to invest and which to deactivate. Activities that best engage the students and best serve the mission of the community college are the ones that survive and thrive.

The overall state funding for public two- and four-year colleges in the school year ending in 2018 was more than $7 billion below its 2008 level (Mitchell, Leachman, Masterson, & Waxman, 2018). With this prolonged deficit occurring over the past decade and limited funding options (because of open access), community colleges have been struggling to maintain the all things for all people mission that has been the calling card of the American community college. Community College leaders now think more strategically as it relates to funding sources, resource allocations, and unfortunately, the mission of the

community college itself. Regrettably, these strategies can lead to more community colleges cutting resources and programs instead of striving to become more efficient with resources and investing in institutional student engagement (Mitchell, Leachman, Masterson, & Waxman, 2018). The past several generations have always been able to look back at the previous generations as a harbinger of their success or ability to achieve the American dream. The promise that if you work hard and strive, you will be rewarded with greater economic opportunity and upward mobility is now in peril more than ever (American Association of Community Colleges, 2012; Mitchell, Leachman, Masterson, & Waxman, 2018).

Student engagement as it relates to the institution can occur through the allocation of funds to the following budget categories: Academic Support, Student Services, and Institutional Support. Services housed in these categories and potentially affected by these budget and resource allocations are Institutional Support (capital or operating budget), Student Services (counseling), and Academic Support (technology). The amount of money an institution has to spend is not what matters; what is of major importance is how much is invested in instruction and academic and student support services (Wellman, 2010).

Maryland Community College funding. Funding for the community college at the state level involves allocating appropriated funding. These appropriated funds, which make up 24% of total revenues for community colleges, are allocated by either using a funding formula or through a process of legislative hearings (Dowd & Shieh, 2013). The fact is, most state funding for

community colleges in the United States is determined through a formula process (Center for Community College Policy, 2000).

In Maryland, appropriations are allocated by using a funding formula. This is the prevalent style for funding most community colleges systems and is typically done in either one of two ways: pre-appropriation or post-appropriation. Formulas that are used to determine the total amount appropriated to community colleges are deemed pre-appropriation. Post-appropriation formulas are those that determine the allocation of funds to the individual institutions. Maryland is one of ten states that uses both pre-appropriation and post-appropriation to fund its community college system (Center for Community College Policy, 2000). In Maryland, this funding formula is called The Cade Funding Formula.

The Cade Funding Formula is named after former Senator John A. Cade and was enacted by the Maryland State Legislature in 1996 (Henderson, 2018). The Cade formula was developed as a minimum state funding level for the community colleges. This formula calculates the amount of the State's support for aid to the community colleges and is based on the enrollment generated two years prior.

Student Development, Engagement, and College Impact Theory

A review of traditional student development theories may assist the reader in understanding how these theories address the whole person, including the academic progress and the co-curricular activities. Student development theories provide description, explanation, prediction, and control (Pascarella & Terenzini, 2005) while also attempting to describe the growth processes that are

present during the student experience (Evans, Forney, Guido, Patton, & Renn, 2010). Some of the earlier developmental theories include Erikson's Life Span Model (1959), Chickering's Seven Vectors (1969), and Kohlberg's Theory of Moral Development (1950). Erikson wrote his theory in developmental terms from birth to death and it consists of eight stages. These stages; Infancy, Toddlerhood, Early School Age, Middle School Age, Late Adolescence, Early Adulthood, Middle Adulthood, and Late Adulthood were chronological and comprise the human life span. Chickering specifically addressed identity development and unlike Erikson, he did not include a chronological nor hierarchical schema. Each vector of Chickering's model is qualifying of one another, meaning that they build and act on one another, but a person could work through more than one concurrently.

College impact theories represent an alternate view to student development, focusing on the relationship between the environment and the student. These theories concentrate on the processes and origins of change and not on any particular internal process (Pascarella & Terenzini, 2005). Astin (1977) developed a Theory of Involvement based on three elements or the I-E-O Model; Inputs, Environment, and Outcomes. Simply put this means that what the student puts into the college experience plus the environment, determines the output or results. This theory was based on the notion that learning is achieved by becoming involved. Additionally, Bean's Student Attrition Model (1980) was based on students and their self-belief or self-efficacy, especially for non-traditional students. Both Astin and Bean suggested that external factors or the

environment played a role in student persistence. Conversely, Tinto's Student Integration Model (1975) focused on the institution embracing the student within the academic realm and the social realm. All three works represent a clear shift from individual toward environmental origins of student development (Terenzini, 1987).

Student development and college impact theories help researchers form questions to evaluate the quality of the institution based on several factors, including outcomes and engagement. Student engagement as a whole is based on the premise that what students learn in college is based on how they spend their time and energy. Likewise, Kuh (2005a) postulated institutions need to provide resources and organize learning opportunities and services to induce students to participate in and benefit from such activities. An institution's level of student engagement is increasingly viewed as a valid sign of institutional excellence (Axelson & Flick, 2011; Nora, Crisp, & Matthews, 2011). The effectiveness of any educational policy is directly related to the capacity of said policy to increase student engagement at the institution (Astin, 1999).

The Center for Community College Student Engagement (CCCSE) is the umbrella organization that publishes data and reports about effective educational practices in community colleges and technical colleges. Their publications are of particular interest to institutions that want to improve educational quality through strengthened student engagement and student success. The instrument that CCCSE uses to gather data about effective educational practices is the Community College Survey of Student Engagement (Center for Community

College Student Engagement, 2018). The CCSSE measures five elements of the student experience that contribute to and have been positively linked to student learning and persistence. These elements or benchmarks are active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners. The Support for Learners benchmark is the focus of this study. The CCSSE provides important information and insight about effective educational practice or student engagement from the perspective of the student.

Student Engagement and Community College Students

Community colleges serve and educate nearly half of the students attending post-secondary institutions and the largest portion of nontraditional students in higher education (American Association of Community Colleges, 2014). Nontraditional students are comprised of or represent labor force reentrants, such as displaced homemakers, welfare recipients, or former prison inmates (Cohen, Brawer, & Kisker, 2014; Jalomo, 2001). This typical community college student is 28 years old, employed full time, and enrolled part-time (American Association of Community College, 2019). Community college students are also more likely to be first-generation college students, less prepared for college, and tend to commute to campus, which is also a trait of nontraditional students (Bean & Metzner, 1987).

Students start at the community colleges for a myriad of reasons which often change over time (Cohen, Brawer, & Kisker, 2014). Some attend the community college for academic degrees or transfer programs while others

attend for personal growth, continuing education or workforce development opportunities (Kane & Rouse, 1999). Community college students are affected more by their external environments than their academics which contribute to their lower levels of engagement (Bean & Metzner, 1987).

Attrition rates for community college students tend to be substantially higher while their levels of engagement are lower compared to their counterparts at four-year institutions (Cohen, Brawer, & Kisker, 2014). Community colleges continue to face challenges as they relate to first-year students, retention, and academic success. The successful transition from high school or work to college is a complex process that varies according to several important influences. As such, engagement approaches fashioned for traditional students may not produce similar responses from students at community colleges (Gibson & Slate, 2010).

The diversity of the community college student body commands awareness on the part of the institution's leadership in the assessment of student engagement practices (Gibson & Slate, 2010). Providing support services for community college students is especially important given that community college students are likely to be non-traditional students, first-generation college students, and less prepared for college. With this understanding, community colleges have taken a multifaceted approach to increase persistence among these students (Jalomo, 2001).

Support Services for Community College Students

Community colleges owe their success to four enduring values: access, community responsiveness, creativity, and a focus on student learning (Bean & Metzner, 1987). With the focus on student learning, student engagement has become a central focus in higher education over the past 15 years, as institutions seek to construct environments that nurture opportunities for student success and student learning (Boerner, 2012). While student engagement entails individual effort and the willingness of the student to be fully involved in campus activities and academics, it also accounts for the institution to engage the student. Support services in higher education initially started as a function of student affairs (Evans, Forney, Guido, Patton, & Renn, 2010) but evolved over time to be more inclusive of the institution as a whole. This evolution in community colleges continued into what exists today as support services, which are typically defined as academic support, student services, and institutional support.

Academic support. At no time is academic support more important than during the critical first year of college (Tinto, 2011). These academic support programs, working in conjunction with Student Services, assist students in meeting the high expectations set by the faculty. High expectations by the faculty are not enough without the support students need to achieve them. Programs such as transitional bridge programs help students develop strategies to transition from their previous environment to the collegiate environment with a goal of enhancing their academic success (Jalomo, 2001). Many community

college students are non-traditional students, which means they have

complicated lives. Most commute to school, attend part-time, and work or attend

to some other aspect of life. The classroom is often the only place where the

student, faculty, and other students engage in learning activities and educational

practices. This support is very instrumental in the first year where, according to

Tinto, student success is still in question and malleable to institutional

intervention (2011).

     Student services. Student services have predominately been delivered

by the Student Affairs division, essentially to support the students' growth into

viable members of society. These services were initially started as a way for the

institution to help mold and develop the student in a holistic way in conjunction

with academic services. Key programs for college success, such as student

orientation and mandatory or intrusive counseling, are housed in student

services. These programs are important because they introduce and provide

advice to students, especially the non-traditional, the underprepared, and the

first-generation students, about utilizing campus resources and services offered

to students (Jalomo, 2001). Historically, these programs often sit on the margins

of the classroom and by themselves do not substantially improve the students'

classroom experience (Tinto, 2011). These services are housed in Student

Affairs and work in conjunction with Academic Affairs to improve campus-wide

student engagement.

     Institutional support. Institutional support consists of four overlapping

categories: structural and organizational characteristics, programs and practices,

teaching and learning approaches, and student-centered campus cultures (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). Institutional support, the second part of Kuh's theory, suggests that the manner in which the institution allocates resources and organizes learning opportunities influences the level of the student engagement (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). Community college students are influenced not only by their environment but also by the way their institution helps them find their way in a college setting. Institutional support has been found to have a direct influence on persistence and has been linked to completion of degrees (Terkla, 1984).

Institutional support assists students in becoming academically and socially integrated to an institution and influences institutional commitment (Cabrera, Nora, & Castaneda, 1992). Institutions, through their characteristics, engage the students in many ways, i.e., campus landscaping, smart classrooms, first year experience programs, and hiring practices (commitment to diversity). Through the allocation of resources, the institution engages the students from the beginning, often through activities such as summer bridge programs. Mandatory orientation and first year experience activities engage students and help get them acclimated to college life, from their first step on campus throughout freshman year. In addition, through their commitment to diversity, institutions engage both traditional and non-traditional students by hiring a diverse faculty. This diverse faculty can engage the community college demographic in two ways: ensuring that students are being taught by faculty that represent the same ethnicity or ethnic background as themselves and guaranteeing that students benefit from

varied teaching styles or pedagogical approaches that are a benefit of a diverse faculty.

Support for Learners and Student Engagement

The Community College Survey of Student Engagement (CCSSE) was created as an assessment tool for community colleges to measure the frequency and effectiveness of educational practices suitable for its mission and diverse student populations (Nora, Crisp, & Matthews, 2011). Administered annually to students in the spring semester, this survey asks students to evaluate their schools in several areas, including the level of support students feel they are getting from the institution (Cohen, Brawer, & Kisker, 2014). Support for Learners is the benchmark within the CCSSE that assesses support provided through institutional practices and the students' use of certain college services, which include support services (McClenney, 2007). The Support for Learners benchmark incorporates seven items of the CCSSE instrument. These items are measured, via Likert scale, either by the amount of emphasis by college: items 9b, 9c, 9d, 9e, and 9f or frequency of use: items 13a1, and 13b1. The Likert scale has four response levels: Very often, Often, Sometimes, and Never.

Summary

Kuh's model of student engagement is a two-part concept: the student (behaviors) and the institution (conditions), which matter to student success. The existing body of literature endorses student engagement as it relates to student effort and faculty interaction. A review of the literature on the allocation of

institutional resources as they relate to student engagement, retention rates, and graduation rates at community colleges highlights a need for additional research.

Furthermore, community college student engagement is not as well researched as student engagement at four-year institutions (McClenney & Marti, 2006). Relatively little work or examination has been done on the effects of institutional resources on student engagement, involvement, or interaction (Ryan, 2005). The CCSSE benchmark Support for Learners focuses on student utilization and satisfaction with support services which include Academic Support, Student Services, and Institutional Support. The study examines the relationship between the use of support services and student engagement as measured by self-reported scores on the Community College Survey of Student Engagement. The researcher has examined the relationship between the student engagement fostered by the institution through resource allocation, the levels of student satisfaction with the support, and student outcomes.

CHAPTER III: METHODOLOGY

Overview

This study focused on the link between the institution's resource allocation, student engagement, and student outcomes. The researcher used the theory of Student Engagement (Kuh, 2005a) to explore the relationship among support for learners, student outcomes, and institutional support for students enrolled at Maryland community colleges. Maryland community colleges, in FY 2014-15, served 178,995 credit students and 196,948 non-credit students (Maryland Association of Community Colleges, 2015). These institutions are as diverse as the students they serve, consisting of rural, urban, and suburban locations. These diverse populations include students from different racial and cultural backgrounds as well as socio-economic statuses.

The researcher analyzed data from the Maryland Association of Community Colleges (MACC) Data Book, the National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), and the Community College Survey of Student Engagement (CCSSE–see Appendix). Descriptive and inferential statistical techniques were used, including means and regression analyses. The following chapter includes a description of the methodology used to conduct this study. Specifically, an overview of the purpose, research design, research questions, null hypotheses, setting, sample, instrumentation, research procedures, data analysis, and the summary are presented.

Purpose of the Study

The purpose of this quantitative study is to use Kuh's Theory of Engagement to examine institutional resources and student engagement at Maryland Community Colleges. The explanatory variable, the allocation of institutional resources, is defined as the support budget expenditure categories measured by the 2015 MACC Data Book. These three categories are Academic Support, Student Services, and Institutional Support. The outcome variables are the Support for Learners benchmarks as defined by the Community College Survey of Student Engagement (CCSSE), and retention and graduation rates from the National Center for Educational Statistics (NCES) within the IPEDS Data Center.

In this study, student engagement was measured by the CCSSE. According to McClenney & Marti (2006), the survey is designed to measure processes that lead to higher levels of learning and education completion. In the case of this study, two such processes would be institutional practices and student behaviors, both of which have implicit value and impact student outcomes. The researcher used ex-post facto data provided by the Center for Community College Student Engagement (CCCSE) from the community colleges that administered the Community College Survey of Student Engagement (CCSSE) in 2014. The institutional resources were obtained for 2014 but are reported in the 2015 MACC Data Book (Maryland Association of Community Colleges, 2015).

Research Design

Research design is often governed by the fitness for purpose notion or the best-fit approach for the purpose of the study (Creswell, 2012). This quantitative study is based on secondary survey research. The research design used is an ex post facto design. This dissertation study will follow the standard format of the quantitative method. Descriptive measures will describe the benchmarks of success on the CCSSE and the relationship to community colleges across the United States. Ex post facto data obtained through the CCSSE survey instrument was used to reflect the community college population from the institutions chosen for this study. The distribution of institutional resources obtained from the 2015 MACC Data Book served as the explanatory variable for the study. The allocations to each institution were presented along with the amounts allocated to institutional resources (Academic Support, Student Services, and Institutional Support) by each institution. The outcome variables include the CCSSE benchmark, Support for Learners, retention rates, and graduation rates. The findings reflect the Maryland community college populations used in this study.

Research Questions

This study was guided by the following research questions:

1) What is the relationship between the allocation of institutional resources and the level of Support for Learners at Maryland community colleges?

2) What is the relationship between the allocation of institutional
resources and retention rates at Maryland community colleges?

3) What is the relationship between the allocation of institutional
resources and graduation rates at Maryland community colleges?

Null Hypotheses

The following null hypotheses was tested:

1) There is no relationship between the allocation of institutional
resources and Support for Learners at these Maryland community
colleges.

2) There is no relationship between the allocation of institutional
resources and retention rates at these Maryland community colleges.

3) There is no relationship between the allocation of institutional
resources and graduation rates at these Maryland community colleges.

Instrumentation

The Community College Survey of Student Engagement (CCSSE) utilizes
five benchmarks for effective practice. The five benchmarks help to form the
basis of the concept of Student Engagement as it relates to community colleges.
The Community College Student Report (CCSR) is the survey instrument for the
CCSSE and is administered to mostly returning students in the spring academic
term. See Appendix for a sample of the CCSSE. The sum of the five
benchmarks forms the basis of the concept of Student Engagement. Taken
together the benchmarks Active and Collaborative Learning, Student Effort,

Academic Challenge, Student-Faculty Interaction, and Support for Learners

provide rich assessment of student engagement at community colleges.

Each benchmark assesses the extent to which students engage in

behaviors or activities that contribute to their learning process and what they gain

from their experiences (Center for Community College Student Engagement,

2017). The first benchmark, Active and Collaborative Learning, measures the

students' ability to collaborate with others while applying skills and knowledge in

various environments (Center for Community College Student Engagement,

2017). The second benchmark, Student Effort, addresses students' behavior (or

time spent on task) that contributes to them attaining their educational goals

(Center for Community College Student Engagement, 2017). The third

benchmark, Academic Challenge, encompasses the students' perception of the

assigned academic work, the complexity of the cognitive tasks, and the

standards used to evaluate their work (Center for Community College Student

Engagement, 2017). The fourth benchmark, Student-Faculty Interaction,

addresses the interaction between students and their instructors. This interaction

includes strengthening personal and institutional connections, problem solving

skills, and laying the groundwork for lifelong learning. Lastly, the fifth benchmark,

Support for Learners, emphasizes the importance of students' relationships with

the institutional and the perception of services provided (Center for Community

College Student Engagement, 2017).

One of the most consistent predictors of student outcomes, based on the

five benchmarks, is Support for Learners (McClenney & Marti, 2006; Nora, Crisp,

& Matthews, 2011), which is the main focus of this study. Moreover, seven items

(9b, 9c, 9d, 9e, 9f, 13.1a, 13.1b) serve as the basis for the Support for Learners

benchmark calculation. A detailed listing of the items that are related to the

Support for Learners benchmark are presented in Table 1.

Table 1.

Survey Items included in the Support for Learners Benchmark

Item Number	Question
During the current school year, how much does this college:	
9b. Provide the support you need to help you succeed at this college	
9c. Encourage contact among students from different economic, social, and racial or ethnic backgrounds	
9d. Help you cope with your non-academic responsibilities (work, family, etc.)	
9e. Provide the support you need to thrive socially	
9f. Provide the financial support you need to afford your education	
13.1a. Frequency of use: Academic advising/planning	
13.1b. Frequency of use: Career Counseling	

The reliability and validity (psychometric properties) of the CCSSE as a

measure of Student Engagement support its use in this dissertation study.

McClenney and Marti (2006) used CCSSE data and confirmed its reliability as a

tool, which measures student engagement across various groups. Through the

2015 Data Book, the Maryland Association for Community Colleges (MACC) has

provided the total allocation for the year and the three categories of institutional

resources (Academic Support, Student Services, and Institutional Support) for the 12 schools chosen.

Setting and Sample of the Study

The research setting for this study consists of 12 of the 16 community colleges in the state of Maryland. These 12 institutions participated in the Community College Survey of Student Engagement in spring 2014. The institutions included in this cohort differ by size, student population, and geographical location (rural, suburban, or urban). An important consideration for this study was the selection of participants.

The population of community colleges in Maryland consists of 16 institutions; 15 three-tiered schools and one two-tiered institution. Three-tiered schools are institutions that receive their funding via three sources: state funding, local funding, and tuition as well as fees. Two-tiered schools receive their funding via two sources: state funding and tuition as well as fees. Therefore, the one two-tiered funded institution in Maryland has not been included in this study. In addition, not all Maryland community colleges participate in the administration of the CCSSE every year. The 12 institutions chosen for this study had administered the CCSSE in 2014. Successful quantitative research can hinge on the researcher's ability to obtain a sample that is representative of the general population (Creswell, 2012). The CCSSE data for this study were obtained from the Community College Survey of Student Engagement's website prior to it being revamped after 2014. The sample for this study consists of 12 of the 15 three-tiered community colleges in Maryland that participated in CCSSE in 2014.

Procedures and Data Analysis

The procedures for this study required approval from the Institutional Review Board (IRB) at Morgan State University. A request for an approval form was submitted to the IRB at Morgan State University to provide detailed information about this study including the methods, procedures, and participants. Approval was granted by the IRB on April 16, 2019. The procedure for this study also includes the analysis of CCSSE data to explore the relationship among institutional resources, the Support for Learners benchmark in the CCSSE, and retention and graduation rates.

These data were analyzed using the Statistical Package for Social Sciences (SPSS) software. This dissertation study included ex post facto survey data collected at institutions that participated in the Community College Survey of Student Engagement in spring 2014, data from the 2015 MACC Data Book, and data from the IPEDS. Descriptive statistics were employed to assess the institutional resources, retention, and graduation profile of the small sample in this study. The inferential statistics utilized in this study were mostly non-parametric, except for the calculation of the independent samples t-test for unequal variances.

For research question one, the researcher conducted an independent samples t-test to examine the differences between the allocation of institutional resources (Academic Support, Student Services, and Institutional Support) and the Support for Learners benchmark. If the independent samples t-test yielded no significance, follow-up tests, utilizing Mann-Whitney U-test and Spearman

Rho correlation, were performed for significance. Mann-Whitney U-test is a non-parametric test, which compares two samples by their rank and does not assume that the two distributions are similar in shape (Corder & Foreman, 2014). Spearman Rho correlation is a non-parametric test that looks for a relationship between two binary variables or between a binary variable and a continuous variable. According to Evans (1996), the correlation's strength is interpreted by the r value: .0 to .19 (very weak), .20 to .39 (weak), .40 to .59 (moderate), .60 to .79 (strong), and .80 to 1.0 (very strong).

Finally, research questions two and three were assessed by employing Phi Coefficient and Spearman Rho correlation (follow-up test) to see whether any relationships existed between the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) and student outcomes (full-time and part-time retention, and graduation rates).

Because the sample in this study was small (N=12), the researcher grouped the continuous data within the three institutional resources variables into dichotomous categories in order to analyze the data. The Academic Support allocations were categorized as Below $4.7 Million and Above $4.7 Million for Student Services, Below $5 Million and Above $5 Million and for Institutional Support, Below $11 Million and Above $11 Million. The retention (part-time and full-time) and graduation rates were also grouped into dichotomous categories. Full-time retention was categorized as Below 61% and Above 61% for part-time retention, Below 44.5% and Above 44.5% and for graduation, Below 15.5% and Above 15.5%. Using the median for each of the explanatory and outcome

variables allowed this researcher to group them into dichotomous categories. By

classifying these variables into binary categories, the researcher was able to

analyze the data with the appropriate statistical procedures for small sample

populations. Nachar (2008) posited that "even though small samples can be

methodologically questionable (e.g. generalization is difficult) they can be useful

to infer conclusions on the population if the adequate statistical test is applied" (p.

13). From what Nachar noted above, this researcher believed that the statistical

tests, noted in Table 2, which analyzed the data in this study were appropriate

and useful in drawing conclusions on the population from the small sample.

Table 2.

Overview of Data Analysis

Research Question/ Hypothesis	Explanatory Variable	Outcome Variable	Statistical Procedure
RQ 1/H_{01}	Institutional Resources (MACC) • Academic Support (Below $4.7 Million, Above $4.7 Million) • Student Services (Below $5 Million, Above $5 Million) • Institutional Support (Below $11 Million, Above $11 Million)	CCSSE – Support for Learners Benchmark	Independent samples *t*-tests **Follow-Up:** Independent Samples Mann Whitney U Spearman Rho Correlation
RQ 2/H_{02}	Institutional Resources (MACC) • Academic Support (Below $4.7 Million, Above $4.7 Million) • Student Services (Below $5 Million, Above $5 Million) • Institutional Support (Below $11 Million, Above $11 Million)	Retention Rates (IPEDS) – Full-Time • Below 61% • Above 61% Part-Time • Below 44.5% • Above 44.5%	Phi-Coefficient Spearman Rho Correlation
RQ 3/H_{03}	Institutional Resources (MACC) • Academic Support (Below $4.7 Million, Above $4.7 Million) • Student Services (Below $5 Million, Above $5 Million) • Institutional Support (Below $11 Million, Above $11 Million)	Graduation Rates (IPEDS) – • Above 15.5% • Below 15.5%	Phi-Coefficient Spearman Rho Correlation

Summary

In this chapter, the researcher describes the methodology for this study, including the research design, research questions and null hypotheses, instrumentation, setting and sample, and data analysis. The explanatory variable for this study is the distribution of institutional resources as defined in the budget categories measured by the 2015 MACC Data Book. The first outcome variable is Student Engagement, which was measured by a composite score of the Support for Learners benchmark as defined by the Center for Community College Student Engagement (CCCSE). The other two outcome variables are retention (full-time & part-time) and graduation rates, as reported by the National Center for Educational Statistics (NCES) and the IPEDS.

CHAPTER IV: FINDINGS

Introduction

The purpose of this quantitative study was to use Kuh's Theory of Engagement to examine institutional resources and student engagement at Maryland community colleges. For this descriptive study, the explanatory variables, which are the allocation of institutional resources, are defined as the support services budget expenditure categories measured by the 2015 Data Book from the Maryland Association of Community Colleges (MACC). Institutional resources are composed of three variables: Academic Support, Student Services, and Institutional Support. The first outcome variable is the Support for Learners benchmark on the Community College Survey of Student Engagement (CCSSE—see Appendix) which consists of seven items. The second and third outcome variables are graduation rates and retention rates from the National Center for Educational Statistics (NCES) and the Integrated Postsecondary Educational Data System (IPEDS).

In this chapter, the researcher began with descriptive statistics that were used to classify, analyze, and summarize the population profile. The presentation of the findings from the statistics (independent samples *t*-test, Mann Whitney-U-test, phi coefficient, and Spearman Rho correlation) were conducted to answer the three research questions outlined in this study. The chapter ends with the inferential statistical results that were used to answer the three research questions.

Allocation of Institutional Resources Profile

The small sample (*N*=12) for this study consisted of the Maryland community colleges that administered the CCSSE in the 2014 spring semester. These institutions consist of rural, suburban, and urban locations that are as diverse as the populations they serve. The average total expenditure of these institutions was $74.6 million (Maryland Association of Community Colleges, 2015). The average amount of Academic Support resources of these institutions was $9.6 million. Seven and half million dollars was the average amount of the Student Services resources for these institutions, while the average Institutional Support resources amount was $16.2 million. The average of the Support for Learner benchmark of these institutions was 15.62, while the median was 15.63. Finally, the average full-time and part-time retention rates and graduation rates for these institutions were 61%, 45%, and 17%, respectively. Table 3 presents the breakdown of the mean and median of the institutions' total expenditures, and institutional resources amount, the Support for Learners benchmark, and student outcomes (retention and graduation rates).

Table 3.

Mean and Median Descriptive Statistics for the Variables

Description	N	Mean ($\bar{x}$)	Median ($\tilde{x}$)
Total Expenditure ($)	12	74,613,083	49,606,973
Academic Support Amount ($)	12	9,575,784	4,697,943
Student Services Amount ($)	12	7,452,168	4,995,328
Institutional Support Amount ($)	12	16,160,306	11,033,721
Support for Learner	12	15.62	15.63
Full-Time Retention (%)	12	60.5	60.5
Part-Time Retention (%)	12	44.6	44.5
Graduation Rates (%)	12	16.8	15.5

Institutional Retention and Graduation Profile

In using the median amount of the variables, the researcher recoded each of the three explanatory variables that contained continuous data into dichotomous categories. Academic Support resource allocations were categorized as Below $4.7 Million and Above $4.7 Million; Student Services, Below $5 Million and Above $5 Million; and Institutional Support, Below $11 Million and Above $11 Million. The breakdown of the institutional resources is presented by category in Table 4.

Table 4.

Allocation of Institutional Resources Profile

Description	N	%
Academic Support		
Below $4.7 Million	6	50.0
Above $4.7 Million	6	50.0
Student Services		
Below $5 Million	6	50.0
Above $5 Million	6	50.0
Institutional Support		
Below $11 Million	6	50.0
Above $11 Million	6	50.0

Retention (part-time and full-time) and graduation rates were also recoded into dichotomous categories using the median rates as presented in Table 5. Full-time retention rates were categorized as Below 61% and Above 61%; part-time retention rates, Below 44% and Above 44%; and graduation rates, Below 15.5% and Above 15.5%. Using the median, these dichotomous variables were used in the analysis. The Support for Learner benchmark was the only outcome variable that was analyzed as a continuous variable.

Table 5.

Institutional Retention and Graduation Profile

Description	*N*	%
Full-Time Retention		
Below 61%	6	50.0
Above 61%	6	50.0
Part-Time Retention		
Below 44%	6	50.0
Above 44%	6	50.0
Graduation Rates		
Below 15.5%	6	50.0
Above 15.5%	6	50.0

Allocation of Institutional Resources and Support for Learners

RQ1: What is the relationship between the allocation of institutional

resources and the level of Support for Learners at Maryland

community colleges?

With this question, the researcher sought to determine if relationships

exist between the amount of resources allocated and the level of Support for

Learners. Independent samples *t*-tests were performed separately to determine

if the allocation of institutional resources (Academic Support, Student Services,

and Institutional Support) have an effect on the Support for Learner benchmark.

The results from the independent samples *t*-tests indicated no main effect of

Academic Support, $t(10) = -.110$, $p = .914$, Student Services, $t(10) = -.110$, $p =$

.914, and Institutional Support, $t(10) = .700$, $p = .500$ on Support for Learners. A

follow-up with the Mann-Whitney U-test found no significance of an effect

between the institutional resources: Academic Support, $U = 14$, $p = .522$; Student

Services, $U = 16$, $p = .749$; and Institutional Support $U = 17$, $p = .873$ and the

Support for Learners benchmark. Moreover, using a second follow-up test,

Spearman Rho, also showed no significant relationships with Academic Support,

$r_s(12) = .193$, $p = .548$; Student Services, $r_s(12) = .097$, $p = .765$; nor Institutional

Support, $r_s(12) = -.048$, $p = .882$ with the Support for Learners benchmark. Thus,

the null hypothesis was retained. The results suggest that there is no significant

difference in the Support for Learners benchmark for the three categories of

allocations of institutional resources. The correlation results, for all three tests,

suggested that the three categories of allocations of institutional resources did

not have a relationship to the Support for Learners benchmark. Because the

results were not significant, no tables were produced.

Allocation of Institutional Resources and Retention Rates

RQ2: What is the relationship between the allocation of institutional

resources and retention rates at Maryland community colleges?

The second research question was posed to assess whether there was a

relationship between the allocation of resources and retention rates. A two-way

contingency table analysis, employing Phi coefficient, evaluated whether an

association existed between the three categories of allocations of institutional

resources (Academic Support [Below $4.7 Million, Above $4.7 Million]; Student

Services [Below $5 Million, Above $5 Million]; and Institutional Support [Below

$11 Million, Above $11 Million]) and retention (Full-Time [Below 61%, Above

61%]; Part-Time [Below 44.5%, Above 44.5%]). Follow up tests utilizing

Spearman Rho correlation were also conducted to determine relationships

between the three categories of allocations of institutional resources and

retention rates.

Full-time Retention Rates. Phi coefficient found no relationship with the

three categories of allocations of institutional resources, Academic Support [φ =

.000, p = 1.000]; Student Services [φ = .333, p = .248]; and Institutional Support

[φ = .333, p = .248] and full-time retention rates. In addition, when conducting

the follow-up test using Spearman Rho, the researcher also did not find any

significant relationships with Academic Support, $r_s(12)$ = .000, p = 1.000; Student

Services, $r_s(12)$ = .333, p = .290; nor Institutional Support, $r_s(12)$ = .333, p = .290

with full-time retention rates. Thus, the null hypothesis was retained. Because

the results were not significant, no tables were produced.

Part-time Retention Rates. Phi coefficient found a strong relationship

between Student Services resources and part-time retention rates: φ = .667 p <

.05. In essence, Student Services resource allocations above $5 million are

more likely to be related to part-time retention rates above 44.5% (4, 67%), while

Student Services resource allocations below $5 million are more likely to be

related to part-time retention rates below 44.5% (4, 67%).

Overall, the results suggest that the more Student Services resources are

allocated, the more likely part-time retention rates will be higher. Thus, the null

hypothesis was rejected. Conversely, there were no relationships found for

Academic Support (φ = .333, p = .248) nor Institutional Support (φ = .333, p =

.248) with part-time retention rates. Thus, the null hypothesis was retained.

The Phi Coefficient significant results are presented in Table 6.

Table 6.

Phi Coefficient Results on Student Services and Part-time Retention Rates

	Student Services	
Part-Time Retention Rates	Below $5 Million	Above $5 Million
Below 44.5%	**4** **(67%)**	2 (33%)
Above 44.5%	2 (33%)	**4** **(67%)**

Note. Results for *Part-time Retention, φ* = .667, *p* = .021. Column percentages in parentheses.

The Spearman Rho correlation two-tailed test of significance also found a positive correlation between Student Services resources allocated and part-time retention rates, $r_s(12)$ = .146, *p* < .01. Overall, there was a very strong positive correlation between Student Services resources allocated and part-time retention rates (.146). This result suggests that increases in Student Services resource allocations were correlated with increases in part-time retention rates. However, the results also suggest that as Student Services resource allocations are lowered, the more likely part-time retention rates will be lower. Conversely, there were no relationships found for Academic Support, $r_s(12)$ = .333, *p* = .290 or Institutional Support, $r_s(12)$ = .333, *p* = .290 with part-time retention rates. Correlation significant results are presented in Table 7.

Table 7.

Spearman Rho Correlation Between the Three Allocation of Institutional Resources and Part-Time Retention

	Part-Time Retention	Academic Support	Student Services	Institutional Support
Part-Time Retention	-			
Academic Support	.333	-		
Student Services	.667*	.667*	-	
Institutional Support	.333	.667*	.667*	-

Note *. Correlation is significant at the 0.05 level (2-tailed). r_s = .667, p = .018.

Allocation of Institutional Resources and Graduation Rates

RQ3: What is the relationship between the allocation of institutional

resources and graduation rates at Maryland community colleges?

For this research question, the researcher aimed to determine if there was a relationship between the allocation of resources and graduation rates. The researcher conducted a two-way contingency table analysis, employing Phi coefficient, to evaluate whether an association exists between the allocation of institutional resources (Academic Support [Below $4.5 Million, Above $4.5 Million]; Student Services [Below $5 Million, Above $5 Million]; and Institutional Support [Below $11 Million, Above $11 Million]) and graduation rates (Below 15.5%, Above 15.5%). Follow up tests utilizing Spearman Rho correlation were also conducted to determine relationships between the three categories of allocations of institutional resources and graduation rates.

Phi coefficient found a strong relationship between Institutional Support and graduation rates φ = -.667, p < .05. In essence, Institutional Support resource allocations above $11 million are more likely to be related to graduation rates below 15.5% (5, 83%), while Institutional Support resource allocations below $11 million are more likely to be related to graduation rates above 15.5% (5, 83%).

Overall, the results suggest that the more Institutional Support resources are allocated, the more likely graduation rates will be lower. However, the less Institutional Support resources are allocated, the more likely graduation rates will be higher. Thus, the null hypothesis was rejected. Conversely, there were no relationships found for Academic Support allocations (φ = -.333, p = .248) nor for Student Services allocations (φ = -.333, p = .248) with graduation rates. Thus, the null hypothesis was retained. Table 8 presents the Phi coefficient results.

Table 8.

Phi Coefficient Results on Institutional Support and Graduation Rates

Graduation Rates	Institutional Support	
	Below $11 Million	Above $11 Million
Below 15.5%	1 (17%)	**5 (83%)**
Above 15.5%	**5 (83%)**	1 (17%)

Note. Results for *Graduation Rates, φ* = - .667, p = .021. Column percentages in parentheses.

The Spearman Rho correlation two-tailed test of significance also found a negative correlation between Institutional Support resource allocations and graduation rates, (r_s(12) = -.667, p < .05). Overall, there was a very strong inverse correlation between Institutional Support resource allocations and

graduation rates (.146). The results suggest that increases in Institutional

Support resources were correlated with decreases in graduation rates.

Conversely, there were no relationships found for Academic Support resource

allocations (r_s(12) = -.333, p = .290) and Student Services resource allocations

(r_s(12) = -.333, p = .290) with graduation rates. Correlation significant results are

presented in Table 9.

Table 9.

*Spearman Rho Correlation Between the Three Categories of Allocations of
Institutional Resources and Graduation Rates*

	Graduation Rates	Academic Support	Student Services	Institutional Support
Graduation Rates	-			
Academic Support	-.333	-		
Student Services	-.333	.667*	-	
Institutional Support	-.667*	-.667*	.667*	-

Note *. Correlation is significant at the 0.05 level (2-tailed). r_s = -.667, p = .018.

Summary

In this chapter, the researcher analyzed the findings from the tests

(independent samples *t*-test, Mann Whitney-U-test, phi coefficient, and

Spearman Rho correlation) that were conducted to answer the three research

questions outlined in this study. Descriptive statistics were used to analyze the

institutional resources categories allocated (Academic Support, Student

Services, and Institutional Support), the retention rates (full-time and part-time),

and graduation rates of the sample in this study. Independent samples *t*-test and

Mann Whitney-U-test were performed to examine the relationship between the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) and the Support for Learners benchmark. Spearman Rho correlation were conducted to see whether any relationships existed between the allocation of institutional resources (Academic Support, Student Services, and Institutional Support) and the Support for Learners benchmark. Phi Coefficient and Spearman Rho correlation were conducted to see whether any relationships existed between the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) and student outcomes (full-time and part-time retention, and graduation rates).

For research question one, Independent samples *t*-test and Mann Whitney-U-test found that there were no significant differences in the Support for Learners benchmark for the three categories of allocations of institutional resources. Spearman Rho correlation also did not find a correlation with the three categories of allocations of institutional resources and the Support for Learners benchmark.

For research question two, phi coefficient results indicated a strong relationship between Student Services and part-time retention rates. Overall, the results suggested that the more Student Services resources are allocated, the more likely part-time retention rates will be higher. However, the less Student Services resources are allocated, the more likely part-time retention rates will be lower. Spearman Rho correlation results found a strong positive correlation

between Student Services and part-time retention rates. The results suggested that increases in Student Services resources are correlated with increases in part-time retention rates. Conversely, there were no relationships found for Academic Support resources or Institutional Support resources with part-time retention rates.

Finally, phi coefficient results for research question three found a strong relationship between Institutional Support resources and graduation rates. Overall, the results suggested that the more Institutional Support resources are allocated, the more likely graduation rates will be lower. However, the less Institutional Support resources are allocated, the more likely graduation rates will be higher. Spearman Rho correlation results found a strong inverse correlation between Institutional Support resources and graduation rates. The results suggested that increases in Institutional Support resources are correlated with decreases in graduation rates. Conversely, there was no relationship found for Academic Support resources nor Student Service resources with graduation rates. Chapter V presents the summary, discussions, and recommendations.

CHAPTER V:

DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

In Chapter V, a summary of the research is provided. It further explains the data analysis and results in greater detail than in Chapter IV. This chapter has five sections: Introduction, Summary of the Study, Discussion of the Results, Limitations and Recommendations. This chapter also offers an understanding of the findings discussed and how they relate to the literature review and theoretical framework in Chapter II. The boundaries of this study and recommendations for future research are given in the limitations and recommendations section. Practice of how to engage students at community colleges through institutional resources as well as reflection on the impact and outcomes that are generated from these allocations are also discussed.

Introduction

Most student engagement literature focuses on the efforts of the student by endorsing the importance of time and effort they put into their studies and other activities that lead to the students' success. This view is contingent on the student and does not address the institutions' commitment to the experiences and outcomes that constitute student engagement and success. Kuh's Theory, which undergirds this study, suggests another component, Institutional Conditions, contributes to student engagement. Engagement from this perspective implies that institutions can affect the environment by creating conditions and encouraging certain kinds of student behavior (Saenz et al., 2011). This theory was a result of earlier research done by student development

theorists (Chickering & Ehrmann, 1996) and research done by college impact theorists (Astin, 1999; Bean & Metzner, 1987; Tinto, 1975). The college impact theories represented an alternative view to student development by focusing on the relationship between the environment and the student.

The purpose of this quantitative study was to use Kuh's Theory of Engagement to examine institutional resources and student engagement at Maryland Community Colleges. By analyzing the data from the 2015 Maryland Association of Community Colleges' (MACC) Data Book the researcher was able to determine levels of student engagement among community college students. The researcher focused specifically on the three categories of allocations of institutional resources that comprise support services (Academic Support, Institutional Support, and Student Services). The literature endorses the importance of student engagement as it relates to the student's effort and interaction with faculty. There is, however, a lack of literature and research on the relationship between the institution, resource allocation, and community college student engagement.

This researcher attempted to offer additional insight into support services as they relate to student engagement at the community college level. Support for Learners is the benchmark within the CCSSE that assesses support provided through institutional practices and the students' use of certain college services which includes support services (McClenney, 2007). Studying self-reported student engagement behaviors is an important step in measuring the quality of undergraduate education (Umbach & Wawrzynski, 2005). This study is

supported by research that suggested institutional resources and environment are essential to success in college (Astin, 1999; Axelson & Flick, 2011; Bean & Metzner, 1987; Chickering & Ehrmann, 1996; Chickering & Gamson, 1987; Kuh, 2003b; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007).

The researcher focused on institutional resource allocations from the 2015 MACC Data Book as they relate to services and supporting activities that undergird student engagement. Student engagement was measured by the Center for Community College Student Engagement (CCCSE). The researcher used ex-post facto data provided by the CCCSE from the community colleges that administered the CCSSE in 2014. The institutional resources were obtained for 2014 but are reported in the 2015 MACC Data Book (Maryland Association of Community Colleges, 2015). Consequently, three research questions were addressed:

1. What is the relationship between the allocation of institutional resources and the level of Support for Learners at Maryland community colleges?

2. What is the relationship between the allocation of institutional resources and retention rates at Maryland community colleges?

3. What is the relationship between the allocation of institutional resources and graduation rates at Maryland community colleges?

This researcher addressed a concern that institutional resources is an issue as it relates to institutions engaging students. There is relatively little research on community college student engagement, in large part due to the deficiency in national data (Saenz et al., 2011). There are considerable gaps in the literature between the presence of resources and students' engagement (Mangan, 2013). As for the critical outcome of student engagement, students who show the least amount of engagement are at greater risk of dropping out (Saenz et al., 2011).

Summary of the Study

This study includes 12 of the 16, community colleges in the state of Maryland that administered the CCSSE in 2014. There were a total of 8,572 total students who participated in the survey. Only the scores for one of the five CCSSE benchmarks, Support for Learners, were used for this study. The explanatory variable, the three categories of allocations of institutional resources, was defined as the support budget expenditure categories measured by the 2015 Maryland Association of Community Colleges (MACC) Data Book. These categories are Academic Support, Student Services, and Institutional Support. The outcome variables were the Support for Learners benchmarks as defined by the Community College Survey of Student Engagement (CCSSE-see Appendix), and retention and graduation rates from the National Center for Educational Statistics (NCES) and the Integrated Postsecondary Educational Data System (IPEDS).

These data were analyzed using the Statistical Package for Social Sciences (SPSS) software. This dissertation study included ex post facto survey data collected at institutions that participated in the Community College Survey of Student Engagement in spring 2014, data from the 2015 MACC Data Book, and data from the IPEDS. Three research questions were addressed using inferential and descriptive statistics. Descriptive statistics were employed to assess the institutional resources, retention, and graduation profile of the small sample in this study. The inferential statistics utilized in this study were mostly non-parametric, except for the calculation of the independent samples t-test for unequal variances. The following section presents a summary of the findings and related discussion for each of the three research questions.

Discussion of the Results

Allocation of Institutional Resources and Support for Learners

RQ1: What is the relationship between the allocation of institutional resources and the level of Support for Learners at Maryland community colleges?

This question was answered using ex post facto data from the Maryland Association of Community Colleges' 2015 Data Book for the explanatory variable, institutional resources, and self-reported data from the CCSSE from 2014. Self-reported data are widely used in research on college effects (Pike & Kuh, 2005). Independent samples t-tests were performed separately to determine if the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) had an effect on

the Support for Learners benchmark. The results from the independent samples

t-tests indicted no main effect of Academic Support, Student Services, and

Institutional Support on Support for Learners*.* This analysis does not support the

literature (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Chickering & Gamson,

1987; Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). The model that Kuh et al.

(2006) developed stresses that support services affects engagement.

Subsequently, the answer of this question conflicts with the assertion of Kuh et

al. (2006) that support services affect student engagement. The follow-up test,

conducted by the researcher, with the Mann-Whitney U-test, also found no

significant effect from the resource allocations of Academic Support, Student

Services, and Institutional Support on the Support for Learners benchmark.

Moreover, a second follow-up test using Spearman Rho also did not find any

significant relationship between the allocations for Academic Support, Student

Services, or Institutional Support with the Support for Learners benchmark as

well. The results suggest that there is no significant difference in the Support for

Learners benchmark for the three categories of allocations of institutional

resources. The correlation results, for all three tests, suggested that the three

categories of allocations of institutional resources were not related to the Support

for Learners benchmark.

Allocation of Institutional Resources and Retention Rates

RQ2: What is the relationship between the allocation of institutional

resources and retention rates at Maryland community colleges?

The second research question concentrated on whether a link could be established between the allocation of resources and retention rates. A two-way contingency table analysis, employing Phi coefficient, evaluated whether an association existed between the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) and retention rates (Full-Time and Part-Time). The researcher also conducted follow-up tests utilizing Spearman Rho correlation to determine relationships between the three categories of allocations of institutional resources and retention rates.

Full-time Retention Rates. Phi coefficient found no relationship with the three categories of allocations of institutional resources (Academic Support, Student Services, and Institutional Support) and full-time retention rates. In addition, when conducting the follow-up test using Spearman Rho, the researcher also did not find any significant relationships between the three categories of allocations for Academic Support, Student Services, or Institutional Support with full-time retention rates. The analysis does not support the literature (Cohen, Brawer, & Kisker, 2014; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Attrition and retention rates for community college students tend to be substantially higher compared to their counterparts at four-year institutions (Cohen, Brawer, & Kisker, 2014). Information about student services tend to be scattered around community college campuses and not well publicized, which means students are often unaware of the role these services can contribute to persistence (Dougherty, Lahr, & Morest, 2017). According to the Kuh's model, student services are embedded within the campus environment, and these

services affect or influence student success or outcomes (2006). Student success, in theory, cannot manifest without retention.

Part-time Retention Rates. The researcher found a strong relationship between Student Services resources and part-time retention rates. In essence, allocations for Student Services above $5 million are more likely to be related to part-time retention rates above 44.5%. However, allocations for Student Services below $5 million are more likely to be related to part-time retention rates below 44.5%. Though there is little solid empirical analysis of the effect of student services (advising, tutoring, and skill labs), students have reported higher grades and high satisfaction with tutoring services (Saenz et al., 2011). Satisfaction in student services, particularly in tutoring, can lead to increased persistence and retention (Saenz et al., 2011; Tinto, 2011).

Overall, the results suggest that the more Student Services resources are allocated, the more likely part-time retention rates will be higher. The Spearman Rho correlation two-tailed test of significance also found a positive correlation between Student Services resources allocated and part-time retention rates. There was a very strong positive correlation between Student Services resources allocated and part-time retention rates. This result suggests that increases in Student Services resource allocations were correlated with increases in part-time retention rates. This analysis does support the literature (Astin, 1999; Bean & Metzner, 1987). Astin's Theory of Involvement states that what the student puts into the college experience plus the environment, determines the outputs or results. Additionally, Bean's Student Attrition Model was based on students and

their self-efficacy. However, the results also suggest that as Student Services resource allocations are lowered, the more likely part-time retention rates will be lower. Conversely, there were no relationships found for Academic Support nor Institutional Support with part-time retention rates.

Allocation of Institutional Resources and Graduation Rates

RQ3: What is the relationship between the allocation of institutional

resources and graduation rates at Maryland community colleges?

For this research question, the researcher aimed to determine if there was a relationship between graduation rates and the allocation of institutional resources. A two-way contingency table analysis, employing Phi coefficient, evaluated whether an association exist between the allocation of institutional resources (Academic Support, Student Services, and Institutional Support) and graduation rates. Follow up tests utilizing Spearman Rho correlation were also conducted to determine relationships between the three allocation of institutional resources and graduation rates.

Phi coefficient found a strong relationship between Institutional Support and graduation rates. In essence, Institutional Support resources above $11 million are more likely to be related to graduation rates below 15.5%, while Institutional Support resources below $11 million are more likely to be related to graduation rates above 15.5%.

Overall, the results suggest that the more Institutional Support resources are allocated, the more likely graduation rates will be lower. However, the less Institutional Support resources are allocated, the more likely graduation rates will

be higher. Thus, the null hypothesis was rejected. Conversely, there were no relationships found for Academic Support nor for Student Services with graduation rates. Thus, the null hypothesis was retained.

The Spearman Rho correlation two-tailed test of significance also found a negative correlation between Institutional Support resources and graduation rates. Overall, there was a very strong inverse correlation between Institutional Support resources and graduation rates. The results suggest that increases in Institutional Support resources were correlated with decreases in graduation rates. Conversely, there were no relationships found for Academic Support and Student Services with graduation rates. The analysis does not support the literature. The model that Kuh et al. (2006) developed stresses engagement at the intersection of Student Behaviors and Institutional Conditions. Which postulates increased graduation and college outcomes with increased engagement. Table 10 summarizes the results for the three research questions.

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Table 10.

Summary of Results

	Support for Learner	Full-Time Retention	Part-Time Retention	Graduation Rates
Research Question 1				
Phi-Coefficient Results				
Academic Support	Not Associated			
Student Services	Not Associated			
Institutional Support	Not Associate			
Spearman Rho Correlation Results				
Academic Support	Not Correlated			
Research Question 2				
Phi-Coefficient Results				
Academic Support		Not Associated	Not Associated	Not Associated
Student Services		Not Associated	Associated	Not Associated
Above $5 Million			More likely to be higher	
Below $ Million			More Likely to be lower	
Institutional Support		Not Associate	Not Associated	Not Associated
Spearman Rho Correlation Results				
Student Services		Not Correlated	Positively Correlated	Not Correlated
Research Question 3				
Multiple Regression Results				
Academic Support		Not Associated	Not Associated	Not Associated
Student Services		Not Associated	Not Associated	Not Associated
Institutional Support		Not Associated	Not Associated	Associated
Above $11 Million				More likely to be lower
Below $11 Million				More likely to be higher
Spearman Rho Correlation Results				
Institutional Support				Negatively Correlated

The findings in this study noted several implications in terms of the institution, resource allocation, and community college student engagement:

- The more Student Services resources are allocated, the more likely part-time retention rates will be higher. However, the less Student Services resources are allocated, the more likely part-time retention rates will be lower.

- Increases in Student Service resources are correlated with increases in part-time retention rates.

- The more Institutional Support resources are allocated, the more likely graduation rates will be lower. However, the less Institutional Support resources are allocated, the more likely graduation rates will be higher.

- Increases in Institutional Support resources are correlated with decreases in graduation rates.

Limitations

Several limitations were identified in this study. First, the analysis was limited to the community colleges in the state of Maryland. While the population size of community colleges in Maryland is 16, the sample size was reduced to 12 based on the funding model of the institutions (three tiered) and the number of institutions administering the survey in the chosen year (2014). If a similar analysis was done using a broader population, different factors may have resulted. Second, this study was limited to only one year of data analysis. While the researcher was able to capture the responses for more than 8,500 students, having only one year of CCSSE data to evaluate may not be generalized to the

levels of student engagement at other community colleges over a greater span of time. If more institutions participating in other years were included, the results might differ in unknown ways. Third, this study was limited to one CCSSE benchmark, Support for Learners. While Support for Learners has exhibited the strongest effects on persistence measures (McClenney, Marti, & Adkins, 2006), there are four additional CCSSE benchmarks that may also give insight into student engagement. The additional benchmarks are Student Effort, Academic Challenge, Student-Faculty Interaction, and Active and Collaborative Learning. Fourth, the researcher only used quantitative data to understand levels of student engagement. Conducting a qualitative or mixed methods study may have provided additional insight into the reasons why students may or may not feel engaged at community colleges.

Recommendations

The results from this study contribute to the existing research on student engagement and resource allocation by examining CCSSE data from the year 2014. In this era of fiscal constraints and budget shortfalls, community college leaders and state policymakers must invest resources only in the programs, practices, and policies that help the most students complete their degrees (Collins, 2010). The community college stakeholders and society increasingly require more accountability that documents the effectiveness of college programs and the accountability of institutions (Boggs, 2011).

Community college leaders need this information to make informed decisions and focus on the task of addressing roadblocks that hinder efforts to increase student success and engagement through institutional change.

Professional Practice. Below are recommendations for professional practice:

- Community colleges might develop classroom-based studies to provide further information about the instructional techniques used to engage students (traditional and non-traditional) in the learning process. Students should be part of the discussion not just an audience. Recruitment and training of faculty committed to these activities will have an immediate impact on student learning (Umbach & Wawrzynski, 2005).

- Leadership could give special attention to how different subgroups of students respond to engagement opportunities. The literature suggests that students' socio-economic status, age, and full or part-time status may dictate how engaged they are in their education; special consideration should be given to creating a culture that encourages student learning.

- Community colleges might develop hiring practices that focus on the intersection of diversity and student demographics. Literature suggests that students have higher levels of engagement if the faculty reflects the campus demographics.

Future Research. Below are recommendations for further research for community colleges:

- More scholarly research should be conducted on the relationship between institutional resources and student engagement at the community college level. In particular, the role that these resources (support services) play in student success. This specific focus of research would greatly add to the limited research that is currently available. While there is a plethora of research on student engagement at four-year institutions, community college research is disproportionately represented. This additional data would provide community college leaders with more tools to combat drop-outs and stop-outs.

- Future research could also benefit from focusing more on the part-time population as it relates to retention and graduation. Little attention has been afforded part-time students and their retention and matriculation rates. Research has shown that the higher the proportion of part-time students, the lower the graduation rate (Bailey, Jenkins, & Leinbach, 2007). Increased research into how resources are allocated to support services could build upon the findings in this study. Research that could probe potential paths of support services as it relates to the part-time student demographic.

- Future research could also benefit from focusing on nontraditional-aged students. This group tends to have a higher quality of

engagement in their relationship with the institution (Gibson & Slate, 2010). Is this a maturity level phenomenon, or is it something that could be transferable to traditional-aged students?

In many ways, this study raised more questions than it answered. By providing a descriptive profile of student engagement at community colleges in the state of Maryland, it is the hope of this researcher that this study will encourage others to add to the constrained research on student engagement at community colleges.

References

American Association of Community College. (2019). *Fast Facts 2018*. Retrieved

from AACC Web site: https://www.aacc.nche.edu/research-trends/fast-

facts/

American Association of Community Colleges. (2011, November). *Voluntary*

Framework of Accountability Metrics Manual Version 1.0. Retrieved from

American Association of Community Colleges Web site:

http://www.aacc.nche.edu/Resources/aaccprograms/VFAWeb/Documents

/VFA%20Metrics%20Manual%20v.1.0.pdf

American Association of Community Colleges. (2012). *Reclaiming the American*

Dream: A report from the 21st-Century Commission on the Future of

Community Colleges. Washington,DC. Retrieved from

http:/www.aacc.nche.edu/21stCenturyReport

American Association of Community Colleges. (2014). *Community college fact*

sheet. Retrieved from American Association of Community Colleges Web

site: http://www.aacc.nche.edu/ABOUTCC/Pages/fastfactsheet.aspx

Arkansas Community Colleges. (2017). *About us: Arkansas Community*

Colleges. Retrieved from Arkansas Community Colleges:

https://static1.squarespace.com/static/5718f21001dbae63bf3315d0/t/5894

aee117bffc9aea9cad44/1486139122988/ACC_Work%24.pdf

Astin, A. (1999). Student Involvement: A Developmental Theory for Higher

Education. *Journal of College Student Development*, 518-529.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco: Jossey-Bass.

Axelson, R., & Flick, A. (2011). Defining student engagement. *Change: The Magazine of Higher Learning*, pp. 38-43.

Bailey, T., Jenkins, D., & Leinbach, D. T. (2007, March). The effect of student goals on community college performance measures. *CCRC Brief*, 1-4.

Barr, M., & McCellan, G. (2011). *Budgets and financial management in higher education.* San Francisco: Jossey-Bass.

Bean, J. P., & Metzner, B. S. (1987). The estimation of a conceptual model of nontraditional undergraduate student attrition. *Research in Higher Education, 27*(1), 15-38. doi:10.1007/bf00992303

Birnbaum, R. (1991, May-June). How to Improve Campus Productivity. *AGB Reports, 33*(3), pp. 6-11.

Boerner, B. (2012, August/September). Beyond Capacity. *Community College Times, 83*(1), pp. 20-25. Retrieved from Community College Times.

Boggs, G. (2011). Community colleges in the spotlight and under the microscope. *New Directions for Community Colleges, 156*, pp. 3-22.

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Center for Community College Policy. (2000). *State Funding for Community Colleges: A 50-State Survey.* Denver: Education Commission of the States.

Center for Community College Student Engagement. (2017). *CCSSE*

    Benchmarks. Retrieved from

    http://www.ccsse.org/tools/docs/working_with_results/CCSSE_Benchmark

    s_2005-2016.pdf

Center for Community College Student Engagement. (2017). *Understanding*

    Survey Results. Retrieved from

    http://www.ccsse.org/survey/reports/2017/understanding.cfm#benchmark

Center for Community College Student Engagement. (2018). *Why CCSSE?*

    Retrieved from http://www.ccsse.org

Center for Community College Student Engagement. (2019). *About the*

    Community College Survey of Student Engagement (CCSSE). Retrieved

    from www.ccsse.org: https://www.ccsse.org/aboutccsse/aboutccsse.cfm

Center for Community College Student Engagement. (2019). *CCSSE - Options*

    and rates. Retrieved from www.ccsse.org:

    http://www.ccsse.org/join/options.cfm

Chickering, A. W., & Ehrmann, S. C. (1996). Implementing the Seven Principles:

    Technology as a lever. *AAHE Bulletin, 49*(2), pp. 3-6.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in

    undergraduate education. *AAHE Bulletin, 39(7),* pp. 3-7.

Clark, T. J., & Halbach, G. T. (2015). *College Affordability and Completion.*

    Deptartment of Legislative Services. Annapolis: Office of Policy Analysis.

Cohen, A. M., & Brawer, F. B. (2008). *The American community college* (5th ed.).

    San Francisco, CA: Jossey-Bass.

Cohen, A. M., Brawer, F. B., & Kisker, C. B. (2014). *The American community college* (6th ed.). San Francisco, CA: Jossey-Bass.

Collins, M. L. (2010). Bridge the evidence gap in developmental education. *Journal of Developmental Education, 34(1)*, 2-4,6,8,25.

Complete College America. (2011). *College Completion Data.* Retrieved from Complete College America Web site: http://www.completecollege.org/pdfs/Maryland.pdf

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston: Pearson.

Dougherty, K. J., Lahr, H., & Morest, V. S. (2017). *Reforming the American Community College: Promising Changes and Their Challenges.* Columbia University, Teachers College. Community College Research Center.

Dowd, A. C., & Shieh, L. T. (2013). Community College Financing: Equity, Efficiency, and Accountability. *The NEA 2013 Almanac of Higher Education*, pp. 37-65.

Economic Modeling Specialists International. (2015). *Demonstrating the value of Arizona Community Colleges: Analysis of the economic impact and return on investment of education.* Moscow.

Evans, J. (1996). *Straightforward Statistics for the Behavioral Sciences.* Pacific Grove: Brooks/Cole Publishing.

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). *Student Development in College: Theory, Research, and Practice* (2nd ed.). San Francisco, CA: Jossey-Bass.

Fields, A. (2018). *Discovering statistics using IBM SPSS statistics.* Thousands Oaks, CA: Sage.

Gibson, A. M., & Slate, J. R. (2010). Student Engagement at Two-Year Institutions: Age and Generational Status Differences. *Community College Journal of Research and Practice, 34*(5), 371-385. doi:10.1080/10668920802466384

Hayek, J., & Kuh, G. (2004). Principles for assessing student engagement in the first year college student. *Assessment Update, 16(2)*, pp. 11-22.

Henderson, B. (2018, January 19). *Cade Aid: Follow the Formula*. Retrieved from Maryland Association of Community Colleges: https:///cade-aid-follow-formula/

Jalomo Jr., R. (2001). Institutional Policies that Promote Persistence among First-Year Community College Students. In B. K. Townsend, & S. B. Twombly, *Community College: Policy in the Future Context* (pp. 261-281). Westport: Ablex Publishing.

Kane, T. J., & Rouse, C. E. (1999). Labor market returns to two- and four-year college. *American Economic Review, 85*, pp. 600-614.

Karp, M. M., & Stacey, G. W. (2013). *What We Know About Nonacademic Student Supports.* Columbia University. New York: Community College Research Center.

Katsinas, S. G., & Tollefson, T. A. (2008). *Funding issues in U.S. community colleges: Findings from a 2007 survey of the National State Directors of Community Colleges.* Washington, DC: American Association of Community Colleges. Retrieved from http://www.aacc.nche.edu/fundingissues

Kearsley, G., & Schneiderman, B. (1999). *Engagement theory: A framework for technology-based learning and teaching.* Retrieved from http://home.sprynet.com/~gkearsley/engage.htm

Kim, E., Newton, F. B., Downey, R. G., & Benton, S. L. (2010, March). Personal factors impacting college student success: Constructing College Learning Effectiveness Inventory (CLEI). *College Student Journal, 44*(1), 112-125.

Kuh, G. (2001). Assessing what really matters to student learning: Inside the national survey of student engagement. *Change, 33*(3), 10-17,66.

Kuh, G. (2003a). *The national survey of student engagement: Conceptual framework and overview of psychometric properties.* Indiana University Center for Postsecondary Research and Planning., Bloomington.

Kuh, G. (2008a, Fall). Why integration and engagement are essential to effective educational practice in the twenty-first century. *Peer Review, 3*, 27-28.

Kuh, G. (2009). The National Survey of Student Engagement: Conceptual and empirical foundations. *New Directions For Institutional Research, 141*, pp. 5-20.

Kuh, G. D. (2003b). What we're learning about student engagement from NSSE. *Change, 35*(2), 24-32.

Kuh, G. D. (2005a). Student Engagement in the first year of college. In M. L. Upcraft, J. N. Gardner, & B. O. Barefoot (Eds.), *Challenging and supporting the first-year student: A handbook for improving the first year of college* (pp. 86-107). San Francisco, CA: Jossey-Bass.

Kuh, G. D. (2005b). *Student success in college: Creating conditions that matter.* San Francisco: Jossey-Bass.

Kuh, G. D. (2008b). *High-impact educational practices: What they are, who has access to them, and why they matter.* Washington, DC: Association of American Colleges and Universities.

Kuh, G. D. (2009, Nov/Dec). What Student Affairs Professionals Need to Know About Student Engagement. *Journal of College Student Development, 59*(6), 683-706.

Kuh, G. D. (2013). What Matters to Student Success: The Promise of High-Impact Practices. *NMHEAR Conference*, (p. Slide 4). New Mexico. Retrieved from http://www.learningoutcomeassessment.org/Presentations/Kuh%202013%20New%20Mexico%20Assessment%20Conf%20HIPs%20afternoon%20session.pdf

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2010). *Student success in college: Creating conditions that matter.* San Francisco: Jossey-Bass.

Kuh, G., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). *What matters to students success: A review of the literature.* Retrieved from http://nces.ed.gov/npec/pdf/kuh_team_report.pdf

Kuh, Kinzie, Buckley, Bridges, & Hayek. (2007). Institutional Conditions Associated with Student Succes. *ASHE Higher Education Report, 32*(5), pp. 69-103.

Lang, D. J. (2007). The impact of a first-year experience course on the academic performance, persistence, and graduation rates of first-semester college students at a public research university. *Journal of the First-Year Experience & Students in Transition, 19*(1), 9-25.

Luskin, B. J. (2011). *Legacy of leadership: Profiles of the Presidents of the American Association of Community Colleges, 1958-2010.* Washington, DC: W. K. Kellogg Foundation and American Association of Community Colleges.

Mangan, K. (2013, October 25). Tactics That Engage Community-College Students Get Few Takers, Study Finds. *The Chronicle of Higher Education, 60*(08), pp. 1-6.

Maryland Association of Community Colleges. (2015). Revenues & Expenditures. In *2015 Databook* (p. 63). Annapolis.

McClenney, K. (2007, October). Research Update: The Community College Survey of Student Engagement. *Community College Review, 35*(2), pp. 137-146.

McClenney, K. M., & Marti, C. N. (2006). *Exploring Relationships Between Student Engagement And Student Outcomes In Community Colleges: Report On Validation Research.* Austin: The Community College Survey of Student Engagement.

McClenney, K., Marti, C. N., & Adkins, C. (2006). *Student Engagement and Student Outcomes: Key Findings from CCSSE Validation Research.* Retrieved from http://www.ccsse.org/aboutsurvey/docs/CCSSE%20Validation%20Summary.pdf

Mitchell, M., Leachman, M., & Masterson, K. (2016). *Funding Down, Tuition Up: State Cuts to Higher Education Threaten Quality and Affordability at Public Colleges.* Washington, DC: Center on Budget and Policy Priorities.

Mitchell, M., Leachman, M., Masterson, K., & Waxman, S. (2018). *Unkept Promises: State Cuts to Higher Education Threaten Access and Equity.* Washington, DC: Center on Budget and Policy Priorities.

Mullin, C. M. (2010, September). *Doing more with less: The inequitable funding of community colleges (Policy Brief 2010-03PBL).* Washington, DC: American Association of Community Colleges.

Mullin, C. M., & Honeyman, D. S. (2007, October). The funding of community colleges: A typology of state funding formulas. *Community College Review, 35*(2), 113-127.

Mullin, C. M., & Phillippe, K. (2013, January). *Community college contributions (Policy Brief 2013-01PB).* Washington, DC: American Association of Community Colleges.

Mullin, C. M., Baime, D. S., & Honeyman, D. S. (2015). *Community College Finance: A Guide for Institutional Leaders.* San Francisco: Jossey-Bass.

Nachar, N. (2008). The Mann-Whitney U: A test for assessing whether two independent samples come from the same distribution. *Tutorials in Quantitative Methods for Psychology, 4*(1), 13-20.

National Center for Educational Statistics. (2019). *IPEDS Data collection system: 2018-19 Survey materials.*

Nora, A., Crisp, G., & Matthews, C. (2011, Fall). A Reconceptualization of CCSSE's Benchmarks of Student Engagement. *The Review of Higher Education, 35*(1), 105-130.

Pascarella, E. T., & Terenzini, P. (2005). *How college affects students: A third decade of research.* San Francisco, CA: Jossey-Bass.

Pennsylvania State University. (2019). *Stat 200 Elementary Statistics.* Retrieved from Penn State Eberly College of Science: https://newonlinecourses.science.psu.edu/stat200/lesson/1/1.1/1.1.2

Pike, G. R., Kuh, G. D., McCormick, A. C., Ethington, C. A., & Smart, J. C. (2010, September 18). If and When Money Matters: The Relationships Among Educational Expenditures, Student Engagement and Students' Learning Outcomes . *Research in Higher Education, 52*, 81-106.

Pike, G., & Kuh, G. (2005). A typology of student engagement for American colleges and universities. *Research in Higher Education, 46*(2), 185-209.

Ryan, J. F. (2005, March). Institutional Expenditures and Student Engagement: A Role for Financial Resources in Enhancing Student Learning and Development? *Research in Higher Education, 46*(2), 235-249.

Saenz, V. B., Hatch, D., Bukoski, B. E., Kim, S., Lee, K.-h., & Valdez, P. (2011). Community College Student Engagement: A Typology Revealed Through Exploratory Cluster Analysis. *Community College Review*, 235-266.

Seybert, J. A., & Rossol, P. M. (2010, April/June). What Drives Instructional Costs in Two-Year Colleges. *Planning for Higher Education, 38*(3), pp. 38-44.

Terenzini, P. T. (1987). A Review of Selected Theoretical Models of Student Development and Collegiate Impact. *Association for the Study of Higher Education.* Baltimore.

Terkla, D. G. (1984). Does Financial Aid Enhance Undergraduate Persistence. *Shaping the Future of American Higher Education*, (p. 17). San Francisco.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.

Tinto, V. (2011, November 11). *Essay: Focus student success efforts on what happens in the classroom.* Retrieved from Inside Higher Ed: http://www.insidehighered.com/views/2011/11/03/essay-focus-student-success-efforts-what-happens-classroom?width=775&height=500&iframe=true

Tinto, V. (2011). *Taking student success seriously in the college classroom.*

    Retrieved from http://wwwsjsu.edu/advising/docs/Tinto Student Success

    College Classroom.pdf

Trowler, P., & Trowler, V. (2010). *Student engagement: executive summary.*

    York: Higher Education Academy.

Umbach, P. D., & Wawrzynski, M. R. (2005, March). Faculty Do Matter: The Role

    of College Faculty in Student Learning and Engagement. *Research in*

    Higher Education, pp. 153-184.

Wellman, J. V. (2010). *Connecting the dots between learning and resources.*

    (NILOA Occasional Paper No. 3). University of Illinois and Indiana

    University. Urbana: National Institute for Learning Outcomes Assessment.

Yeager, A. (2015, February 12). Kittleman approves FY15 budget cuts to meet

    $15.8M shortfall. *Columbia Flier*.

Yearwood, T., & Jones, E. A. (2012). Understanding what influences successful

    black commuter students' engagement in college. *JGE: The Journal of*

    General Education, 61(2), 97-125.

Appendix

The Community College Student Report

Instructions: It is essential that you use a No. 2 pencil to complete this survey. Mark your answers as shown in the following example: ● Correct Mark   ⊘ⓞ⊜ⓒ Incorrect Marks

1. Did you begin college at this college or elsewhere?   ○ Started here   ○ Started elsewhere

2. Thinking about this current academic term, how would you characterize your enrollment at this college?   ○ Full-time   ○ Less than full-time

3. Have you taken this survey in another class this term?   ○ Yes   ○ No

4. In your experiences at this college during the current school year, about how often have you done each of the following?

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	○	○	○	○
b. Made a class presentation	○	○	○	○
c. Prepared two or more drafts of a paper or assignment before turning it in	○	○	○	○
d. Worked on a paper or project that required integrating ideas or information from various sources	○	○	○	○
e. Come to class without completing readings or assignments	○	○	○	○
f. Worked with other students on projects during class	○	○	○	○
g. Worked with classmates outside of class to prepare class assignments	○	○	○	○
h. Tutored or taught other students (paid or voluntary)	○	○	○	○
i. Participated in a community-based project as a part of a regular course	○	○	○	○
j. Used the Internet or instant messaging to work on an assignment	○	○	○	○
k. Used e-mail to communicate with an instructor	○	○	○	○
l. Discussed grades or assignments with an instructor	○	○	○	○
m. Talked about career plans with an instructor or advisor	○	○	○	○
n. Discussed ideas from your readings or classes with instructors outside of class	○	○	○	○
o. Received prompt feedback (written or oral) from instructors on your performance	○	○	○	○
p. Worked harder than you thought you could to meet an instructor's standards or expectations	○	○	○	○
q. Worked with instructors on activities other than coursework	○	○	○	○
r. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	○	○	○	○
s. Had serious conversations with students of a different race or ethnicity other than your own	○	○	○	○
t. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	○	○	○	○
u. Skipped class	○	○	○	○

5. During the current school year, how much has your coursework at this college emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	○	○	○	○
b. Analyzing the basic elements of an idea, experience, or theory	○	○	○	○
c. Synthesizing and organizing ideas, information, or experiences in new ways	○	○	○	○
d. Making judgments about the value or soundness of information, arguments, or methods	○	○	○	○
e. Applying theories or concepts to practical problems or in new situations	○	○	○	○
f. Using information you have read or heard to perform a new skill	○	○	○	○

PLEASE DO NOT MARK IN THIS AREA
◻○○○○○○○○○○○○○○○○○○○○○○○○○○   **SERIAL #**

6. During the current school year, about how much reading and writing have you done <u>at this college</u>?

	None	1 to 4	5 to 10	11 to 20	More than 20
a. Number of assigned textbooks, manuals, books, or book-length packs of course readings	○	○	○	○	○
b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	○	○	○	○	○
c. Number of written papers or reports of any length	○	○	○	○	○

7. Mark the response that best represents the extent to which your examinations during the current school year have challenged you to do your best work <u>at this college</u>.

Extremely challenging ⑦ ⑥ ⑤ ④ ③ ② ① Extremely easy

8. Which of the following have you done, are you doing, or do you plan to do while attending <u>this college</u>?

	I have done	I plan to do	I have not done nor plan to do
a. Internship, field experience, co-op experience, or clinical assignment	○	○	○
b. English as a second language course	○	○	○
c. Developmental/remedial reading course	○	○	○
d. Developmental/remedial writing course	○	○	○
e. Developmental/remedial math course	○	○	○
f. Study skills course	○	○	○
g. Honors course	○	○	○
h. College orientation program or course	○	○	○
i. Organized learning communities (linked courses/study groups led by faculty or counselors)	○	○	○

9. How much does <u>this college</u> emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Encouraging you to spend significant amounts of time studying	○	○	○	○
b. Providing the support you need to help you succeed at this college	○	○	○	○
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	○	○	○	○
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	○	○	○	○
e. Providing the support you need to thrive socially	○	○	○	○
f. Providing the financial support you need to afford your education	○	○	○	○
g. Using computers in academic work	○	○	○	○

10. About how many hours do you spend in a typical 7-day week doing each of the following?

	None	1 – 5	6 – 10	11 – 20	21 – 30	More than 30
a. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	○	○	○	○	○	○
b. Working for pay	○	○	○	○	○	○
c. Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	○	○	○	○	○	○
d. Providing care for dependents living with you (parents, children, spouse, etc.)	○	○	○	○	○	○
e. Commuting to and from classes	○	○	○	○	○	○

11. Mark the number that best represents the quality of your relationships with people <u>at this college</u>.

Your relationship with:

a. Other Students

Friendly, supportive, sense of belonging ⑦ ⑥ ⑤ ④ ③ ② ① Unfriendly, unsupportive, sense of alienation

b. Instructors

Available, helpful, sympathetic ⑦ ⑥ ⑤ ④ ③ ② ① Unavailable, unhelpful, unsympathetic

c. Administrative Personnel & Offices

Helpful, considerate, flexible ⑦ ⑥ ⑤ ④ ③ ② ① Unhelpful, inconsiderate, rigid

12. How much has YOUR EXPERIENCE AT THIS COLLEGE contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	○	○	○	○
b. Acquiring job or work-related knowledge and skills	○	○	○	○
c. Writing clearly and effectively	○	○	○	○
d. Speaking clearly and effectively	○	○	○	○
e. Thinking critically and analytically	○	○	○	○
f. Solving numerical problems	○	○	○	○
g. Using computing and information technology	○	○	○	○
h. Working effectively with others	○	○	○	○
i. Learning effectively on your own	○	○	○	○
j. Understanding yourself	○	○	○	○
k. Understanding people of other racial and ethnic backgrounds	○	○	○	○
l. Developing a personal code of values and ethics	○	○	○	○
m. Contributing to the welfare of your community	○	○	○	○
n. Developing clearer career goals	○	○	○	○
o. Gaining information about career opportunities	○	○	○	○

SERIAL # ○○○○○○○○○○○○○○○○○○○○○○○○○○▣

13. This section has three parts. Please answer all three sections, indicating (1) HOW OFTEN you use the following services, (2) HOW SATISFIED you are with the services, and (3) HOW IMPORTANT the services are to you AT THIS COLLEGE.

	(1) Frequency of Use				(2) Satisfaction				(3) Importance		
	Often	Some-times	Rarely/ Never	Don't know/ N.A.	Very	Some-what	Not at all	N.A.	Very	Some-what	Not at all
a. Academic advising/planning	○	○	○	○	○	○	○	○	○	○	○
b. Career counseling	○	○	○	○	○	○	○	○	○	○	○
c. Job placement assistance	○	○	○	○	○	○	○	○	○	○	○
d. Peer or other tutoring	○	○	○	○	○	○	○	○	○	○	○
e. Skill labs (writing, math, etc.)	○	○	○	○	○	○	○	○	○	○	○
f. Child care	○	○	○	○	○	○	○	○	○	○	○
g. Financial aid advising	○	○	○	○	○	○	○	○	○	○	○
h. Computer lab	○	○	○	○	○	○	○	○	○	○	○
i. Student organizations	○	○	○	○	○	○	○	○	○	○	○
j. Transfer credit assistance	○	○	○	○	○	○	○	○	○	○	○
k. Services to students with disabilities	○	○	○	○	○	○	○	○	○	○	○

14. How likely is it that the following issues would cause you to withdraw from class or from this college? (Please respond to each item)

	Very likely	Likely	Some-what likely	Not likely
a. Working full-time	○	○	○	○
b. Caring for dependents	○	○	○	○
c. Academically unprepared	○	○	○	○
d. Lack of finances	○	○	○	○
e. Transfer to a 4-year college or university	○	○	○	○

15. How supportive are your friends of your attending this college?
○ Extremely   ○ Somewhat
○ Quite a bit   ○ Not very

16. How supportive is your immediate family of your attending this college?
○ Extremely   ○ Somewhat
○ Quite a bit   ○ Not very

17. Indicate which of the following are your reasons/goals for attending this college. (Please respond to each item)

	Primary goal	Secondary goal	Not a goal
a. Complete a certificate program	○	○	○
b. Obtain an associate degree	○	○	○
c. Transfer to a 4-year college or university	○	○	○
d. Obtain or update job-related skills	○	○	○
e. Self-improvement/personal enjoyment	○	○	○
f. Change careers	○	○	○

SERIAL # ○○○○○○○○○○○○○○○○○○○○○○○

18. Indicate which of the following are <u>sources</u> you use to pay your tuition at this college? *(Please respond to each item)*	Major source	Minor source	Not a source
a. My own income/savings	○	○	○
b. Parent or spouse/significant other's income/savings	○	○	○
c. Employer contributions	○	○	○
d. Grants and scholarships	○	○	○
e. Student loans (bank, etc.)	○	○	○
f. Public assistance	○	○	○

19. Since high school, which of the following types of schools have you attended other **than the one you are now** attending? *(Please mark all that apply)*

○ Proprietary (private) school or training program
○ Public vocational-technical school
○ Another community or technical college
○ 4-year college or university
○ None

20. **When do you plan** to take classes <u>at this college</u> again?

○ I will accomplish my goal(s) during this term and will not be returning
○ I have no current plan to return
○ Within the next 12 months
○ Uncertain

21. <u>At this college</u>, in what range is your overall college grade average?

○ A
○ A- to B+
○ B
○ B- to C+
○ C
○ C- or lower
○ Do not have a GPA at this school
○ Pass/fail classes only

22. **When do you** most frequently take classes <u>at this college</u>? *(Mark one only)*

○ Day classes (morning or afternoon)
○ Evening classes
○ Weekend classes

23. How many TOTAL credit hours have you earned <u>at this college</u>, not counting the courses you are currently taking this term?

○ None
○ 1-14 credits
○ 15-29 credits
○ 30-44 credits
○ 45-60 credits
○ Over 60 credits

24. At what other types of institutions are you taking classes this term? *(Please mark all that apply)*

○ None
○ High school
○ Vocational/technical school
○ Another community or technical college
○ 4-year college/university
○ Other

25. How many classes are you *presently* taking at OTHER institutions?

○ None
○ 1 class
○ 2 classes
○ 3 classes
○ 4 classes or more

26. Would you recommend this college to a friend or family member?

○ Yes   ○ No

27. How would you evaluate your entire educational experience at this college?

○ Excellent
○ Good
○ Fair
○ Poor

28. Do you have children who live with you?

○ Yes   ○ No

29. Mark your age group.

○ Under 18
○ 18 to 19
○ 20 to 21
○ 22 to 24
○ 25 to 29
○ 30 to 39
○ 40 to 49
○ 50 to 64
○ 65+

30. Your sex:

○ Male   ○ Female

31. Are you married?

○ Yes   ○ No

32. Is English your native (first) language?

○ Yes   ○ No

33. Are you an International student or foreign national?

○ Yes   ○ No

34. What Is your racial Identification? *(Mark only one)*

○ American Indian or other Native American
○ Asian, Asian American or Pacific Islander
○ Native Hawaiian
○ Black or African American, Non-Hispanic
○ White, Non-Hispanic
○ Hispanic, Latino, Spanish
○ Other

35. What Is the highest academic credential you have earned?

○ None
○ High school diploma or GED
○ Vocational/technical certificate
○ Associate degree
○ Bachelor's degree
○ Master's/doctoral/professional degree

36. What Is the highest level of education obtained by your:

	Father	Mother
a. Not a high school graduate	○	○
b. High school diploma or GED	○	○
c. Some college, did not complete degree	○	○
d. Associate degree	○	○
e. Bachelor's degree	○	○
f. Master's degree/1st professional	○	○
g. Doctorate degree	○	○
h. Unknown	○	○

37. Using the list provided, please fill in the bubbles that correspond to the code Indicating your program or major. Using the first column, indicate the first number in the program code, using the second column, indicate the second number in the program code.

38. Please provide your student identification number by filling in the corresponding bubbles. For example, in the first column, indicate the first number or letter in your student ID number, and so forth. (OPTIONAL)

(Please begin here)

Your responses will remain confidential and individual responses will not be reported.

Thank you for sharing your views.

Additional Items (Please respond to these items if requested)

1. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
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SERIAL #