FACTORS IMPACTING THE COMPLETION OF FIRST-TIME, FULL-TIME STUDENTS
AT A SUBURBAN SMALL TWO-YEAR PUBLIC COMMUNITY COLLEGE IN
MICHIGAN

By

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ABSTRACT

Student completion is a critical issue for community colleges across America. First-time, full-time students commonly enter college planning to earn a degree; however, the majority never complete. A review of the literature reveals the complexities with student completion, and the variety of challenges campuses must navigate. The community college focus has shifted from access to success, as leaders continue to implement strategies to remove barriers and address the many challenges to completion.

The purpose of this mixed-methods study was to explore factors impacting the completion of first-time, full-time students at a small suburban two-year public community college in Michigan. This study investigates over 1,100 unique students from three IPEDS cohort years to provide insight into variables that may have a relationship to student completion. The data elements for the study were extracted from the student information system at one community college, and direct student feedback was collected via an e-mail survey. Both were analyzed using quantitative and qualitative methods.

The study revealed a few key findings to assist with improving future community college student completion rates. First, students who achieve academic success during their initial fall semester are more likely to graduate, while those who earn fewer than 12 credit hours during their first semester rarely reach the finish line. Second, the pace at which students earn credits over their first two years of enrollment are both strong indicators of whether they will graduate. Finally, the number of course withdrawals has a direct correlation to completion. Specifically, students with zero withdrawals finish at a high rate, while those with three or more first year

"W" grades rarely graduate. The study concludes with the researcher's recommendations for community college leaders to consider, as well as ideas for future research to improve student completion.

KEY WORDS: Completion, Success, Graduation, Barriers, Withdrawals

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INTRODUCTION TO THE STUDY

Higher education, an industry that the public has traditionally placed the utmost level of trust and confidence in, has come under increased scrutiny in America. Going to college has historically been viewed as the golden ticket to future employability success; however, that is no longer a guarantee. John Thelin notes there is a growing "public concern about rising costs of higher education in the United States" (Thelin, 2015, p. 585), a concern that is commonly shared amongst students seeking to build a better future. As expenses soar, and student debt spirals out of control, a growing number of individuals are questioning the overall value of a higher education. The decision to attend college becomes even more complicated when considering the low percentage of students who actually complete a college degree.

Since 1901, community colleges have been providing access to higher education across the United States. Originally, the "Junior College" was designed as a place to cover the first two years of a four-year degree to help accommodate students who wanted to remain within the community to pursue a college education (*Joliet Junior College History*, 2021). Community colleges fill an important role, often serving the types of students who are studied by scholars and policy makers including a high percentage of minorities, immigrants, first-generation students, and those from low-income backgrounds (Bailey, 2002). Community colleges in America offer opportunities to all students, especially those who are underserved. Providing students of all ages the chance to earn a college degree helps level the playing field and gives citizens a chance to live the American dream.

Over approximately the past decade, the focus for America's community colleges has shifted from access to success, resulting in a significant set of unprecedented challenges as colleges are faced with the reality that classrooms will not be filled by an endless supply of new students. The future success, and in some cases the survival of community colleges will depend upon their ability to retain students and help more of them graduate with a certificate or degree.

This research study is focused on first-time, full-time community college students who enrolled as new students during the fall of 2015, 2016, and 2017 at a suburban small two-year public community college in Michigan, referred to in this document as "The College." The study explores a variety of factors to determine if there is a relationship between the identified criteria and completing a college certificate or degree. The ultimate goal is to use the study findings to develop strategies that will help support student success and increase the completion rate at the community college.

HIGHER EDUCATION'S LOOMING CRISIS

While the United States has long been considered a world leader in providing education opportunities, the gap between other countries has lessened in recent years. Higher education is at a tipping point in America where more than 20 million working-age adults are college dropouts, failed in some way by institutions that collectively receive hundreds of billions of dollars in public funding every year (Carey, 2017, para. 1). That statistic is increasingly a topic of concern as the United States seeks to maintain leading the world in education. Alarmingly, the overall community college enrollment has declined and is expected to continue falling for campuses across the nation. Demographic data indicates the supply of students available in America will remain flat until 2023 and then experience another sharp decline in 2025 (Smith, 2018).

As a result of the changing environment and shift in demographics, several nationwide initiatives have been launched to help develop a unified focus on community college student success. For example, Achieving the Dream (ATD) was started in 2004 as an evidence-based, student-centered approach built on values of equity. ATD was designed to close achievement gaps while boosting student success for the more than 4 million community college students seeking to complete a college certificate or degree (*About Us*, 2021, para. 3).

The topic of student success and completion is of utmost importance to the future of community colleges across America. An alarming National Student Clearinghouse Research Center report notes "as of December 2018, 36 million people from the center's database had attended college since 1993 but failed to earn a credential at any U.S. institution and were no longer enrolled in college" (Fain, 2019, para. 5). College leaders cannot ignore this disturbing data and must continue to investigate why students stop-out before the finish line.

With enrollment struggles expected to continue for at least the next decade, finding strategies to help improve the retention of current students is essential to long-term survival. In addition, the public perceived value of higher education is waning with the increasingly high costs of going to college. The return on investment of a college degree is regularly questioned in the media as well as by many individuals in society who are ridden with significant higher education debt.

Government pressures requiring community colleges to prove performance to receive funding have been implemented in several states and are likely to continue becoming more rigorous in the not-so-distant future. Identifying effective strategies to improve the on-time completion of community college students is of utmost importance to campus leaders and will

likewise have a significant positive impact on the communities served by providing a more qualified and prepared labor supply to attract future employers.

A GREAT PLACE TO START

Community colleges, which traditionally have provided an open-door, more affordable gateway to higher education, have often been viewed as a great place for students to start their college journey. Although community colleges are typically not the first choice for traditional age students, several new campus initiatives nationwide have been launched to provide a collegiate level experience while attracting students to enroll for a fraction of the cost. For example, housing is now available at some community colleges, seamless transfer partnerships with universities have been forged, early college enrollment opportunities for high school students have grown, and athletics and other student activities help bring prospective new students and families to campus. These recent enhancements appear to be helpful in changing the perception of community colleges, driving students to consider them as a viable first option.

To gauge the overall community college student experience, it is helpful to look at comments from actual students such as a first-year housing resident who attended the College and shared positive feedback indicating "it's a nice transition stage to transfer to a university from" (Shrapnell, 2018). A similar survey of student-athletes at the College included comments stating they became "stronger and smarter as a person," made "bonds with everyone from the team," and wished they "could stay for a third year" (Vos, 2019). Community colleges have historically been commuter campuses where students go to class and then back home, rarely engaging outside the classroom. These comments are powerful testaments to the overall expanded college experience available to community college students today.

THE COMPLETION PROBLEM

While new students are seeking a positive college experience, simply starting college is not the eventual goal. New students commonly enter their first year with aspirations of earning a college degree. Sadly, those dreams do not come true for most students. According to the National Student Clearinghouse Research Center, on average, just 58% of students who started college in the fall of 2012 had earned any degree six years later, while the two-year community college completion rate remains below 40% (*College Completion Rates Are Up, but the Numbers Will Still Surprise You*, 2019, paras. 2-3). When even the highest performing community colleges are losing more than half of their students before graduation the problem must be investigated and addressed.

A 2017 Center for Community College Student Engagement (CCCSE) report quotes former Secretary of Education John King in referencing the college completion challenges in America stating, "The most expensive degree remains the one you don't get" (*Even One Semester*, 2017, p. 5). King's words are powerful in highlighting the growing costs of attending college and the dropout issue in America. Community colleges are best prepared to meet the higher education challenge to help more citizens not only start college, but also complete a certificate or degree. Further changing the campus focus from access to success is instrumental in boosting community college student retention and completion rates.

SUCCESS AND COMPLETION

The College opened nearly a century ago as a junior college to provide higher education and lifelong learning opportunities to residents within the local area. As one of the oldest community colleges in Michigan, the College has a long history of providing high quality learning experiences and has consistently been a top higher education choice for area residents.

Enrollment has declined more than 30% in the past decade at the College, falling from a record high of more than 5,200 students in 2010, to approximately 3,300 students in 2021. In general, community college enrollment has fluctuated throughout history, leading some experts to theorize that a dwindling economy helps to stimulate enrollment (Chen, 2019, para. 2). Considering the correlation between the economy and community college enrollment, the historically low U.S. unemployment rate and strong economy prior to the COVID-19 pandemic presents a significant challenge for colleges nationwide. While the enrollment decline has stabilized, the loss of roughly 2,000 students since 2010 is an alarming trend the College must address. The long-term impact of the ongoing pandemic remains unknown; however, like others in higher education, the College has encountered significant new complexities regarding student enrollment that must be navigated for future operations.

An increased focus on student success and completion began with the College participating in Achieving the Dream (ATD). The Lumina Foundation and seven founding partner organizations created ATD in 2004 with the sole focus to assist the more than 4 million community college students to have a better chance of realizing greater economic opportunity and achieving their dreams (*About Us*, 2021, para. 3). The launch of ATD strengthened the College's focus on student success, including the revision of a lengthy college mission statement to indicate mission of the College is "to maximize student success." Over a decade later, that mission statement remains intact and drives the efforts of the campus to focus on helping students.

The College commitment to student success has included several strategies focused on improving student retention and completion. In 2015, the College was awarded a more than two-

million-dollar Title III Strengthening Institutions Program (SIP) federal grant. The main problems the grant was written to address included:

1. A continuous decline in retention and enrollment

2. A service area characterized by low educational attainment and high percentage of first-generation/low-income students

3. Too many students not completing their educational goals

4. Limited and ineffective academic advising

5. Inefficient business processes and systems

6. Fiscal issues as a result of declining retention and enrollment.

Targeted efforts with new first-time, full-time Integrated Postsecondary Education Data System (IPEDS) cohort students have shown significant positive progress can be achieved. For example, the Institutional Research (IR) office reports that fall-to-fall retention grew from 55% to 59.5% between 2016-19, while the graduation rate increased from 16% to 25.5% during that same timeframe (C. Grondin, personal communication, August 26, 2019). The positive increases in both retention and completion are believed to be a result of a variety of campus-wide changes and efforts connected to improved pro-active advising outreach to engage with students early and often, but further investigation is needed.

HELPING STUDENTS COMPLETE REQUIRES COLLABORATION

The future success of improving student completion at the College relies upon having a continuous improvement approach, working together in the best interest of students. For example, the Colleges general education program that was first launched in 1995 and reviewed several times over the past two decades. The requirements continued to be a barrier to graduation, specifically for transfer students who would frequently leave before taking courses that did not transfer to their college or university of choice.

Through the collaborative work of faculty and staff, the general education requirements were updated in 2018 to best fit the needs of students. Transfer degree requirements were aligned with the Michigan Transfer Agreement (MTA) to allow students to finish at the College and continue onto the next institution without spending time or money on unnecessary courses. In addition, the minimum credit hour requirement to earn a degree was reduced in 2018 from 62 to 60 total credits. For more than twenty-five years the additional two credits remained a requirement for the degree even after the two credits of Physical Education were eliminated in the late nineties. These initiatives are examples of collaborative efforts the College has undertaken in the best interest of students and are directly related to improving student completion rates.

The importance of collaboration is reflected in both the College mission statement, to maximize student success, and vision, to create an academic and cultural environment that empowers students to succeed. Campus work is also guided by three main priorities as part of the strategic plan: Growth, Sustainability and Community. All campus stakeholders must be actively engaged in the strategic plan development and execution, specifically to boost student retention and completion rates. Helping students reach the finish line requires an intense focus and commitment from all levels of the organization.

NEW STUDENTS: FIRST-TIME, FULL-TIME

New students commonly enter college without a clear plan regarding their future and may explore several academic pathways before landing on their career passion. While indecisiveness is common, new students who enroll in a full-time credit load generally indicate a strong desire to earn a college degree. However, those desires quickly fade for many when faced with the realities of balancing college and life. A 2010 CCCSE report states "for far too many community

college students, the open door also has been a revolving door" noting only 28% of first-time, full-time, associate degree-seeking community college students graduate with a certificate or an associate degree within three years (*The Heart of Student Success: Teaching, Learning, and College Completion*, 2010, p. 1). To look at that statistic in a different way, across the United States a staggering 72% of new first-time, full-time students fail to reach the finish line within three years of entering a two-year community college program.

Establishing strong relationships and continually engaging students is at the core of the College's strategies to boost completion rates. This work includes initiatives like an online chat and texting feature that allows students to quickly connect with an advisor, satisfaction surveys following advising appointments to help the team continuously improve, as well as regular emails and phone calls made at strategic points of the semester to encourage persistence to certificate or degree completion. Advisors help students keep course and degree completion at the forefront of their minds, assisting them with navigating challenges or connecting them with support resources along the path to graduation.

A further example of the College's commitment to improving completion rates can be found in a collaborative program called Complete Your Degree (CYD), which was launched in 2017 by in partnership with the local Community Foundation. While most scholarship programs provide students awards to enter college, the donor-funded CYD program is an innovative approach that is laser focused on student completion, providing wrap-around support from start to finish and reducing barriers that commonly force students to drop out of college. While costs are indeed a hurdle for many community college students to overcome, providing free tuition helps overcome a barrier to access, but does not by itself solve the completion challenge. Programs like CYD are essential to addressing a variety of other barriers to completion, such as

food, housing, transportation, childcare, technology and more, ultimately helping students reach the finish line.

RESEARCH PLAN AND QUESTIONS TO ANSWER

The research plan for this study focuses on the efforts already underway at the College to improve student retention, success, and completion by directing strategies toward the IPEDS cohorts of first-time, full-time students. The study includes three IPEDS cohort years consisting of a total of new students who enrolled full-time (12 or more credit hours) in the fall of 2015 (i.e., 386 students), 2016 (i.e., 403 students), or 2017 (i.e., 394 students) resulting in a total of 1,180 students for this study.

Ten key variables have been identified for the study. The following variables will be evaluated for each of the IPEDS cohort year students:

1. High school GPA at graduation (4.0-3.0, 2.99-2.0, below 2.0)

2. Prior college credits earned while still in high school via Advanced Placement, CLEP, dual enrollment, early college, etc. (Yes, No)

3. Considered "college ready" based upon placement scores using SAT, ACT, or Accuplacer (Yes, No)

4. Developmental classes (below 100 level) completed at the College (Yes, No)

5. First semester credit hours enrolled at the College (15+ credits, 13-14 credits, 12 credits)

6. First semester success at the College (15+ credits earned, 12-14 credits earned, less than 12 credits earned)

7. Number of year 1 withdrawal "W" grades (0, 1-2, 3 or more)

8. Total year 1 credits completed (32+, 24-31, less than 24)

9. Cumulative credit hours completed by end of year 2 (60+, 48-59, less than 48)

10. Participation in student clubs or athletics at the College (Yes, No)

The main research question will explore "What factors contribute to IPEDS cohort students completing, or not completing, a certificate or degree within the 150% (i.e., three-years) timeframe?"

A mixed methods approach is used for this study of students from the 2015, 2016, and 2017 IPEDS cohorts. A brief survey sent via email using Survey Monkey to the students from each cohort year, as well as a quantitative research component examining the ten key variables for each cohort year are the basis of the research study. The study explores the relationship between the variables and student feedback regarding the completion of a certificate and/or degree at the College.

Hypotheses

This research study was designed to address the following hypotheses related to IPEDS cohort students at the College:

- Null hypothesis: The ten key variables have no relationship to student completion rates.

- Alternative hypothesis: One or more of the ten key variables have a relationship to student completion rates.

Limitations

The study relied on IPEDS data submitted for three prior completed cohort years only capturing students who first enrolled at the College in 2015, 2016, and 2017. The sample was purposely chosen due to the researcher's work experience with advisors engaging IPEDS cohort students to help increase completion. It is possible that not all students who enrolled first-time, full-time intended to complete a certificate or degree at the College. Student participation in the survey was also voluntary and sent to personal student emails on record at the College, which may skew the feedback received as some email addresses may no longer be accurate considering the students have not enrolled at the College for several years.

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The researcher acknowledges the self-reported data gathered from the survey responses is difficult to verify and may contain personal biases or rationale regarding why the students completed or did not complete a certificate or degree at the College. In future research, developing a process that initially engages with IPEDS cohort members while still actively enrolled at the College may improve the connection with the student, increasing the quantity of responses and overall accuracy of information shared by the students.

Definition of Terms

Several of the terms used by the researcher in this study are defined below for the purpose of clarification.

> **First Time in Any College (FTIAC):** A student who has never enrolled in any college or university.

> **Graduation Rate:** The percentage of students who complete either a certificate or degree within the 150% timeframe, or three years, from the fall semester in which they first enrolled full-time following high school graduation.

> **IPEDS Cohort:** Group of first-time, full-time students who enrolled in 12 or more credit hours in the fall semester following high school graduation as reported via the Integrated Postsecondary Education Data System (IPEDS), a system of interrelated surveys conducted annually by the U.S. Department of Education.

> **Retention Rate:** The percentage of students who continue to enroll from one major semester to the next semester (i.e., fall to winter).

> **Withdrawal:** A final grade of "W" that appears on a student transcript when dropping a class at the College beyond the drop/add timeframe when refunds are applicable.

CHAPTER SUMMARY

The mission of community colleges has shifted from access to success in recent years. The completion of a college certificate or degree by students has become the focal point of legislators and funders who have increasingly moved in the direction of performance-based funding in America. The expectation is that students should not simply start at a community college, rather colleges must implement support strategies to help them reach the finish line.

This study focuses on factors that may have a relationship to influence community college completion rates. Specifically, the study reviews data related to enrolled students who are part of three different IPEDS cohort years at two-year public community college in Michigan. The research study explores ten key variables including items such as college readiness, high school GPA, credit hours enrolled, the pace of credit hours successfully completed, and campus engagement to determine if a relationship exists with regard to the completion of a certificate or degree within the 150% timeframe, or three years of enrolling full-time at the College. The researcher also reviewed all email survey responses, collected via Survey Monkey received from students in each IPEDS cohort year to evaluate factors such as their utilization of support services, barriers to success encountered, and key influences that impacted the student ability to complete a certificate or degree at the College.

Chapter Two presents a review of the literature related to student success, retention, and completion, with the majority focusing specifically on community college students. Chapter Three will include the methodology used for the study and provides the research and statistical analysis associated with this study.

The study findings and data analysis will be shared in Chapter Four, providing objective results and outcomes as a foundation for the final analysis. This dissertation will conclude with Chapter Five, which will provide insight about future research opportunities and questions for those who wish to further examine the improvement of community college student completion rates in the United States.

CHAPTER TWO: LITERATURE REVIEW

INTRODUCTION

Student success has continued to evolve as a top priority for all higher education leaders. While access has historically been the focus of community colleges, the importance of student retention and completion are now at the forefront for leaders to address. As the shift from access to success expands, community colleges across America are faced with the reality that helping students reach the finish line is a complex challenge.

Because it is important to understand the reasons community college students stop short of graduation, this research study examines factors that impact completion of new students who entered college with plans to earn a college degree. While this study focuses solely on the completion rate of first-time, full-time students at a suburban small two-year public community college in Michigan, the relationship between specific key student factors may assist other community college leaders with improving completion rates.

Academic experts and researchers have studied student preparation and behavior to learn how colleges can help more students accomplish the goals they set out to achieve. The literature review explores the wide range of research that has been completed and is broken down into the following seven areas: the completion challenge, community college student challenges, the confusion of completion, completion success models, student engagement, creating a culture of student learning and success, and community college leadership of the future.

SECTION 1: THE COMPLETION CHALLENGE

Community colleges are experiencing significant challenges across the United States. Since approximately 2010, enrollments have been declining annually, due in part to an improved economy with extremely low unemployment rates (Smith, 2018). Millions of Americans have benefited from the offerings available at community colleges throughout the past century. While community colleges have served a great purpose to help students enroll in college, the focus nationwide has shifted to college completion. The big question remains as to whether community colleges are prepared to get more students to the finish line? According to a report by the American Association of Community Colleges (AACC) that explores the future of community colleges, the outlook is not promising, noting "as they currently function, community colleges are not up to the task before them" (American Association of Community Colleges [AACC], 2012, p. 5).

The reality is that America needs more citizens with college degrees to remain competitive in a global market. While students enter college with a great desire to earn a degree, "the fact is that community colleges are producing too few graduates to meet workforce needs in several high-demand occupations" (AACC, 2012, p. 11). The degree gap has continued to widen as "recent studies confirm nations such as Norway, Sweden, and Canada now outperform us in educational attainment and intergenerational economic mobility" (AACC, 2012, p. 3). Community colleges are a big part of the solution to move America forward as the most educated country in the world by helping more citizens complete college degrees.

While enrollment numbers are of concern for community colleges, increasing the number of students who complete a college certificate or degree is an even bigger task. Once again, the AACC report captures the magnitude of the completion challenge, noting "The community

college landscape is littered with lost credits that do not add up to student success. Fewer than half (46%) of students who enter community colleges with the goal of earning a degree or certificate have attained that goal, transferred to a baccalaureate institution, or are still enrolled 6 years later" (AACC, 2012, p. 9).

Such statistics are an indicator of the work ahead for community colleges to help more students graduate. Politicians who allocate funding to public colleges and campus leaders alike are tasked with addressing several important questions. Why would so many students enter college and stop short of completion? What can be done to move the needle in a positive direction? How to shift funding from a more traditional model where all campuses receive support to a formula that is based upon performance? Considering the extreme rising costs of tuition and increased scrutiny regarding relatively low levels of student success, especially at community colleges, it's easy to see how higher education is under the microscope in America.

As a result of the changing environment for community colleges, a significant number of nationwide initiatives have begun to help bring a unified focus to student success. For example, ATD was started in 2004 as an evidence-based, student-centered approach built on values of equity and excellence. The ATD work strives to close achievement gaps, increase student success, and support the more than 4 million community college students in America with completing a college certificate or degree (*About Us*, 2021).

The higher education landscape has become increasingly more complex to navigate. Throughout the past decade, several significant new challenges are facing community college leaders, which Bailey summarizes as:

> Community colleges today face a very challenging environment. Changes in pedagogic and production technology; state funding policy; the expectations of students, parents, and policy makers; demographic trends; and the growth of new types of educational institutions and providers are threatening established patterns of community college

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activities and potentially altering the role of the colleges within the wider landscape of higher education. (Bailey, 2002, p. 59)

With the national spotlight on the importance of community colleges, the complex pressures of leading a high performing community college are significant. Leaders must find ways to maintain a sustainable budget, meet enrollment goals in a declining student supply environment and achieve unprecedented high levels of student success. And perhaps most importantly, develop strategies and dedicate resources to improve student completion. Leaders must help better connect community college students to the campus and offer support as they work to complete certificates and degrees.

Another component that adds to the complexity of the completion challenge involves exploring who attends community colleges and the reasons why students choose this route. Across the United States, community college campuses include a wide range of ages from young to old, students who are underprepared to those who are high performing. Campuses also include a mixture of some students taking classes to prepare for transfer to a university, while others intend to complete their studies at the community college.

Unlike a traditional college or university, there are many perceptions of the type of student who chooses to attend a community college. Some believe community colleges are for commuter students who don't want to move away from home. Others think community college students are under prepared for university life. Another popular belief is that students who attend community colleges are simply looking to save money.

Author Isa Adney, a graduate of Seminole Community College in Florida, shares additional insight on the perceptions of community college education. She states, "Community colleges have historically been an incredible gateway for access. Yet, sadly, those who don't understand, think they are schools where anyone can get in, thereby assuming they are colleges

without prestige or high standards" (Adney, 2012, pp. 5–6). Adney continues addressing community college perceptions, noting, "Community colleges are filled with bright, intelligent students, professors who care and enjoy teaching, and staff who are in tune with the community and know how their college can improve lives" (Adney, 2012, p. 6).

Each of these perceptions are reality for some students; however, an equally important conversation in America revolves around the value of higher education. The average yearly tuition and fees cost to attend a public two-year college is $3,440, compared to $9,410 at an in-state public four-year college, $23,890 at an out-state public four-year college, and $32,410 at a private four-year college (College Board, 2021, 1 section). The disparity in costs between community college and university soar even higher when adding in items such as room and board, which is required at most four-year campuses.

Public confidence regarding the value of a higher education degree in the United States has also been fading in recent years as people lose trust in the idea that the cost of a college degree will pay off in providing them a path to career success. As the cost of attendance continues to soar, and student loan debt spirals out of control, many individuals are questioning the overall value of a higher education. In a Yale University interview with Dr. Johnnetta Cole, former president of two historically black colleges and universities — Spelman College and Bennett College — shares how polls commonly show a growing concern that many people believe higher education does not contribute in a positive way to the future of Americans (Cole, 2018).

While the rising costs of higher education in America are a barrier for some students, the cost of attending community college by far remains the most affordable option. An article in the *Princeton Review* encourages students to consider community college referencing four main

advantages: Save on tuition, save on room and board, work while in school, and get an academic boost (The Princeton Review, 2021). Community colleges cannot pride themselves on lower costs alone. Completion matters and leaders must "make sure all those eager, worthy students are walking out with their goals met and a degree in hand" (Adney, 2012, p. 6).

Community colleges are unique to higher education in many ways, including the wide level of preparedness, drastic age range covered, and the part-time enrollment path pursued by students. As reported by researcher Kevin Carey, "the typical community college student isn't a fresh-faced 18-year-old taking a full slate of courses" (Carey, 2017, para. 7). These differences in the wide variety of students who attend community colleges make comparisons in graduation numbers an even greater challenge. Unlike many university counterparts, community college students often find their college experience consists exclusively of classroom work. Additional student activities are either not available, or not possible due to the many competing priorities in the lives of community college students.

The university system in America has traditionally been considered an option for only the most wealthy or gifted individuals, as evidenced by the selective admissions processes and lofty costs associated with attending the four-year route. Community colleges on the other hand pride themselves on open access for students of all backgrounds and often tout their low costs while promoting access to higher education. Over history, this combined message of open access (often interpreted as "easy") and affordability (often interpreted as "cheap") has resulted in many believing that a community college education is somehow inferior to that of a four-year institution. Adding to the completion challenge is the fact that the credibility of two-year colleges has long been questioned, dating back to the first community college in America, Joliet Junior College, more than a century ago (*Joliet Junior College History*, 2021).

The original term "junior college" implied the higher education option was below a "real college." Since many community colleges were formed in connection with a school district or within a high school building, they have often been referred to as an extension of high school. While this connection made opening local higher education institutions possible, it also contributed to the mindset that community colleges are a lesser option than four-year colleges. As other junior colleges opened across America, the focus evolved beyond transfer courses to include a variety of occupational certificates and degrees.

The campus environment is a major influencer of student choice, but also impacts the level of student engagement, which can lead to improved completion. Community colleges have long ignored the branding and imaging focus present at many four-year institutions. While community colleges take the old reliable "we'll be here for you" approach to marketing, the four-year schools have actively pursued students with glossy materials and a relentless "we want you" message. Leadership must recognize the importance of image and dedicate resources to support moving the physical campus facilities forward, while providing the collegiate experience desired by students today. To improve enrollment and completion, community colleges must promote the amazing student success stories and experiences provided, as well as the positive influence made in the communities served.

The focus on student retention and completion has increased significantly with efforts such as Guided Pathways now in the forefront for community college leaders to implement. The reform movement in higher education aims to improve college completion and student success by redesigning students' journeys through college (St. Amour, 2020, para. 3). A major objective of the pathways work is to help students find their passion and provide a clear map to reach their goal. In her book *Community College Success*, Adney states "If you truly know why you're in

college, where it can lead you, and find interest and joy in almost every subject, you'll be motivated to work harder" (Adney, 2012, p. 51). Community colleges nationwide are actively working to help students select a career path often including the use of metamajors. Metamajors are designed to provide "a broader path of study" allowing students to "explore career options" while providing "intensive advising to help students" (St. Amour, 2020, para. 3).

Completion is a topic that continues to capture the attention of the media as well as lawmakers; however, the conversations on community college campuses is often lacking or incomplete at best. The AACC Commission report notes "The unfortunate truth is that many community colleges have trouble monitoring their own performance" (AACC, 2012, p. 19).

The AACC report was released nearly ten years ago and specifically noted "The expectation of the Commission is that each institution will be able to report on its progress toward meeting student success goals" including things such as "overall successful course completion rates, term-to-term retention rates, credit accumulation benchmarks, transfer, and completion of certificates and degrees" (AACC, 2012, p. 20). However, the student success and completion challenges continue to be a major issue across America. While efforts have been made, establishing completion goals is not enough. If the campus faculty and staff are not continually aware of the progress toward that goal, actively monitoring strategies intended to move the needle, progress is unlikely.

IPEDS has been the standard used by the U.S. government to measure college student success and completion for approximately three decades. The IPEDS survey collection began with the 1993 survey year because of the Higher Education Act of 1992 that "mandated the completion of IPEDS surveys, in a timely and accurate manner, for all institutions that

participate or are applicants for participation in any Federal Title IV student financial assistance program" (Broyles, 1997, p. 14).

Community college leaders have consistently questioned the use of IPEDS to measure their success. The federal IPEDS graduation rate for community colleges is only 25.4% (Whissemore, 2018, p. 4). As a result, the AACC developed the Voluntary Framework of Accountability (VFA) framework for community colleges with "measures defined to encompass the full breadth of the community college mission and the diversity of students' goals and educational experiences" (Voluntary Framework of Accountability [VFA], 2021, 1 section).

According to the AACC, recent VFA data shows success rates are improving for full-time community college students. The nearly 200 community colleges participating in the VFA reported that students who enrolled for the first time, full-time in fall 2010 had a median completion rate of 55% and persistence rate of 59% after six years, a drastic increase over the rates reported using IPEDS (Whissemore, 2018, p. 4). AACC president and CEO, Walter Bumphus stated "We've long known that the VFA metrics are a better measure of student progress and outcomes at community colleges. Now we have the data to back that up" (Whissemore, 2018, p. 4).

The total number of degrees and certificates also increased with more than 833,000 associate degrees and 533,579 certificates awarded in 2016-17 compared to 806,766 associate degrees and 516,820 certificates in 2014-15. Bumphus attributes the improvement to the fact that "Community colleges have been laser-focused on student success," noting that the progress is likely to "continue as colleges strive toward the goals set in the 21st-Century Commission on the Future of Community Colleges report" (Whissemore, 2018, p. 4)

A 2014 AACC report outlined seven recommendations for community colleges to help build a better America. The first recommendation revolved around increasing completion rates of certificates and associate degrees 50% by the year 2020. The report provides six strategies regarding how colleges can focus their work and improve completion rates. Several of the strategies revolve around making the pathway to completion easier for students to understand and follow. The report recommends creating guaranteed seamless transfer options, awarding more prior learning credits, and implementing automatic graduation or reverse transfer processes to ensure students receive the credits earned and help push them to the finish line. In addition, the report recommends colleges "construct coherent, structured pathways to certificate and degree completion, and then ensure that students enter a pathway soon after beginning college" (American Association of Community Colleges [AACC], 2014, p. 8).

SECTION 2: COMMUNITY COLLEGE STUDENT CHALLENGES

While there are a wide variety of students enrolled in community colleges throughout the United States, the range of unique challenges students must navigate is equally diverse. The literature regarding community college students delves into an assortment of challenges that directly influence their success. A key question that researchers seek to answer is why most students enter community college and stop short of completion? One factor to consider is explained by researcher Kevin Carey who reports that most community college students are nontraditional — adults, parents, people with full-time jobs, people returning to school after years away (Carey, 2017, para. 8).

Carey continues noting that community college students often enroll part-time, taking longer to graduate than the three years the Education Department uses to gauge the success of people pursuing two-year degrees. In essence, the normal IPEDS graduation rate timeframes

used by the U.S. Department of Education to measure success do not fit the progress of the typical community college student. Many community college students also transfer to four-year colleges before finishing a degree — a good result, but one that isn't accounted for in calculating community college graduation rates (Carey, 2017, para. 9).

Community colleges are host to a diverse student population including commuter students, non-traditional students, and students with a wide range of career goals and academic preparedness. The research suggests that students need continued support and guidance to successfully navigate college and persist along the road to completion. The diversity of this population alone provides a challenging environment in which to foster student engagement (Nguyen, 2011, p. 1). Due to the large variety and typically non-residential nature of community college students, it is often difficult for colleges to communicate or find ways to make meaningful connections with students.

Considering the classroom is the main campus connection for most community college students, a particular challenge that impacts student engagement is the use of part-time faculty, which is prevalent at community colleges (Nguyen, 2011, p. 60). Part-time faculty account for about two-thirds of the teaching staff at community colleges and students who took courses taught by part-time faculty "were less likely to return for their sophomore years" (Nguyen, 2011, p. 60). Establishing strong connections with faculty is a key aspect of student engagement that promote success. The challenge of connecting students to the classroom becomes increasingly difficult with the part-time nature of many community college instructors.

Another challenge facing community college students is where they live. Throughout America the opportunity to attend college is not the same for all students. A report by the Lumina Foundation investigated what happens to students from rural communities following

high school graduation. While students in rural communities' graduate at a higher rate than the national average, and they score better on the National Assessment of Educational Progress tests than students in America's cities, the reality is that rural graduates "attend college at rates remarkably lower than those in both urban and suburban areas" (Lumina Foundation & Headden, 2019, p. 2).

Part of the reason for the limited rural student enrollment is due to the lack of physical campuses nearby, which according to the Urban Institute is an issue for more than 41 million adults who live more than 25 miles away from any college campus. The lack of broadband internet connectivity is also a challenge that creates a barrier for rural students to enter higher education. Unfortunately, the National Student Clearinghouse reports that even "when rural students do go to college, they are more likely to drop out" (Lumina Foundation & Headden, 2019, p. 2). The report reveals there are unique challenges faced by rural students attending college including things such as transportation, noting that having a car is often lacking in poor communities and access to public transit is not an option (Lumina Foundation & Headden, 2019, p. 2). Community colleges leaders must be aware and understand the issues so strategies can be deployed to assist more students from remote areas with successfully completing college.

The lack of support from family and friends is another challenge students commonly encounter when pursuing higher education. First-generation students specifically have an uphill battle to convince others that college is a worthwhile endeavor. A Pew survey of white men revealed that only 71% of those from rural communities thought "college was worth the investment," compared to 82% from urban and 84% within suburban areas (Lumina Foundation & Headden, 2019, p. 3).

Food and housing insecurities pose another challenge for community college students to navigate. Approximately "half of community college students experience housing insecurity and 14% are homeless" while a 2017 Wisconsin HOPE report found that "67% of community college students across 24 U.S. states are food insecure" (Campbell, 2019, p. 23). When students lack basic needs such as where their next meal will come from or whether they have a safe place to sleep, focusing on college becomes nearly impossible.

Campbell shares an example of a Houston Community College (HCC) initiative that provided food giveaways via an opt-in food scholarship to address basic needs of students. She notes the financial aid department staff on the front line often see students struggle, stating "They see students who register with eagerness and hope later become discouraged by economic challenges" (Campbell, 2019, p. 23). Similar stories ring true on community college campuses throughout America. Upon launching the HCC program in the spring of 2018, 53% of the 500 students offered the scholarship accepted the support. Programs such as HCC's help students overcome challenges and have proven to be effective in moving the needle on retention and completion in a positive direction.

The League for Innovation compiled a list of challenges community college students face in America. A few alarming statistics include the fact that "47% of community college students drop out," "one in three community college students has a family income of less than $20,000" and a staggering "53% of all college student-parents leave college with no degree" (League for Innovation in the Community College, 2019, p. 28). Financial challenges continue to be a major barrier to community college student completion. Students enrolled at community colleges are "nearly twice as likely to use financial aid for books as students at four-year private and public schools" (League for Innovation in the Community College, 2019, p. 29).

While some challenges encountered by community college students are not easily controlled, others can also be attributed to how they think. In the bestselling book *Mindset*, author Dr. Carol Dweck, a Stanford University psychologist, shares many lessons learned from her decades of research to help people improve their lives and the lives of others. The foundation of her work revolves around how people handle challenges in life, which Dweck reveals are a direct result of their mindset, or the way they think of themselves. Dweck shares that everyone has a set of beliefs that often determines what is possible.

Dweck introduces two specific mindsets, fixed and growth, and shares how a person's mindset can set them down the path to success or failure. A fixed mindset is described as "believing your qualities are carved in stone" (Dweck, 2016, p. 6), or essentially a person's abilities are established at birth. Under the fixed mindset, effort is not viewed as necessary, therefore people often settle for less than what they could have become. Conversely, the growth mindset is "based on the belief that your basic qualities are things you can cultivate" (Dweck, 2016, p. 7).

Dweck's research on mindset sheds light on a significant challenge commonly faced by college students, the desire or willingness to commit to effort. Students operating under a growth mindset have endless potential as they continually learn new skills to improve their future. Therefore, according to her research, helping students move toward a growth mindset will ultimately improve success.

Making the shift from a fixed mindset is possible for all people; however, Dweck explains two reasons as to why effort is so terrifying. She shares a story of violinist Nadja Salerno-Sonnenberg, who explained the first reason for the fear of effort is that "great geniuses are not supposed to need it," noting that some may think making effort "casts a shadow on your

ability." A similar phenomenon occurs on college campuses as many students neglect to use support services, such as tutoring, designed to help them succeed. The second reason according to Nadja is that effort "robs you of all your excuses." People who choose not to make effort can always say "I could have been…but once you try, you can't say that anymore" (Dweck, 2016, p. 43). To help more students succeed, colleges must assist them with embracing a growth mindset. Doing so will help students understand how their effort will help lead them to their desired outcome.

Another big challenge for community colleges to overcome revolves around student perceptions about what community colleges are truly like. The credibility and reputation of a college is earned over time based upon the experiences of students and the connections to the communities served. For example, colleges and universities are often labeled as elite institutions due to strict academic standards, or party schools based upon student behavior. Common perceptions of a community college are that they are a place for students who couldn't academically get into an elite school, or for those who don't have enough money to attend a four-year option. To help more students enroll and ultimately complete, community colleges must first be aware and then employ strategies to overcome the perception challenge.

Community colleges have been traditionally criticized for poor retention and graduation rates. The low performance has been targeted by people like Steve Gunderson, the leader of the main for-profit trade association, who publicly blasted community college credibility while defending the high-cost for-profit alternatives. In 2014 he stated "Our institutions have a 63% graduation rate in our two-year programs, while our colleagues at comparable public institutions — community colleges — have a graduation rate of 20%" (Carey, 2017, para. 11).

Despite such criticism, more than 100 for-profit schools have closed in recent years, including the likes of ITT Technical Institute, leaving thousands of students "stuck with worthless credits and mountains of debt" (Moody, 2018, para. 2). In Michigan, career colleges like Baker College have undergone significant restructuring, including the closure of several campuses (Ley & Kelly, 2019), while all but one of the 29 original community colleges in Michigan remain open.

To look at the student perception challenge in a slightly different way, the literature indicates the overall sense of pride in a community college education is often lacking in America. For example, high school students, and their parents, brag about accepting offers to four-year schools, yet rarely do so when opting to attend a community college. Author Michelle Singletary captures the perception challenge community colleges face, stating there is a "stigma when people take the community college route. It's often viewed as a less than desirable choice if there isn't enough money to attend — from the start — a four-year university" (Singletary, 2019, para. 8).

In addition, when asking a college grad where they went to college, they'll often share the university location of their final degree while neglecting to mention the path that they took to get to there. Singletary shares bachelor's degree graduates, even those who earned community college credits, can indeed "without any explanation of your educational path, just include on your resume the degree from university or college" (Singletary, 2019, para. 23).

In general, attending a community college is not the popular choice. Whether students brag or not, more are choosing to attend, as indicated by a recent data report from the Community College Research Center that shows 49% of four-year degree recipients in 2015-16

attended a community college at sometime within the past decade ("Community College FAQs," 2019).

Does this omission of including community college attendance indicate a negative reputation? Not necessarily. A deeper conversation with those who attended a community college often reveals that the best higher education quality and overall learning experience took place at the community college. For example, Tom Hanks stated he owes his success to community college (Ross, 2016, 6 section). Alumni brag about the small class sizes, the personal attention, the opportunity to get involved on campus and the lifelong connections and friendships they developed while at the community college.

Another example of how community colleges have overcome being considered a lesser higher education choice are found in the words of Jim Lehrer, the award-winning American journalist. Lehrer shared that he worked eight hours a day while going to community college and when asked about what mattered most during his time at Victoria College he noted "There were small classes. They cared about me. It helped me later on" (Ross, 2016).

A variety of other highly successful people began their higher education and ultimate lucrative careers via the community college path. For example, famous people like filmmaker George Lucas, actors Tom Hanks and Morgan Freeman, NASA Astronaut Eileen Collins, former California governor Arnold Schwarzenegger, television star Guy Fieri and NFL quarterback Aaron Rodgers all got their start at a community college (Ross, 2016). These stars are a great reminder of the high-quality pathway community colleges offer.

Each of the more than 1,100 community colleges in the nation have been the launching pad for successful individuals now working in the communities they serve and beyond. These success stories contribute greatly to the positive reputation of community colleges and help

influence future student decisions to attend. Singletary again explains that because of her *Washington Post* article in which she indicated that some students "had to" attend a community college, she received a flood of responses from successful community college graduates. She was impressed by the reactions and confirmed, "I am an unapologetic advocate for getting a community college education. I do not see it as a backup plan or an embarrassment you should hide from and leave off your résumé" (Singletary, 2019, para. 9).

Overall, community colleges must continue working to overcome the perception and popularity challenge; however, the conversation appears to be shifting into a positive direction as the costs of higher education rise and community colleges are viewed as a more viable path. Relatively new options like high school dual enrollment or early and middle college programs provide a positive boost to the credibility of community colleges.

A study by the American Institutes for Research (AIR) highlighted the impact of early college programs noting there were significant differences in degree attainment between students who were part of an early college high school (ECHS) program and those who were not. The study findings indicated "ECHS students were significantly more likely to obtain a postsecondary degree than their non-ECHS peers" (American Institutes for Research [AIR], 2019, 3 section). Within six years following high school graduation more than 45% of ECHS students had earned a college degree, compared with about 34% on non-ECHS students (AIR, 2019, 3 section). These students are well prepared for career and/or transfer success, and an example that supports the high-quality experience offered at a community college.

The shift in recent years from access to success has also helped further improve the credibility and reputation of community colleges. The creation of formal transfer partnerships between community colleges and four-year universities have grown resulting in a positive impact

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for students. For example, in Texas students can begin their college career at El Paso Community College (EPCC) and then easily transfer to the University of Texas El Paso (UTEP) to complete a bachelor's degree or beyond, a path in which president Dr. William Serrata indicates an impressive 80% of EPCC students choose (Smith, 2019, para. 11).

The state of Michigan launched the Michigan Transfer Agreement in the fall of 2014 that includes a robust Michigan Transfer Network that allows students to search online and easily view how courses transfer (Michigan Association of Collegiate Registrar's and Admissions Officers [MACRAO], n.d.). Agreements like these show promise of universities working collaboratively to support students and help overcome some of the challenges students express when choosing to enroll at community colleges.

SECTION 3: THE CONFUSION OF COMPLETION

A 2011 report featuring feedback from eleven community college leaders noted a variety of key challenges including the growing emphasis on student retention and completion (Smith, 2018). Efforts such as Guided Pathways are now in the forefront as college leaders strive to grow completion and remove hurdles for students.

Researcher Thomas Bailey explores the extreme challenges for students trying to navigate college web sites, along with internal rules and requirements, to successfully progress toward graduation. He surmises that the overall higher education landscape is very confusing and therefore nearly impossible for students to understand (Bailey, 2017).

Dr. Rob Johnstone, founder and president of the National Center for Inquiry and Improvement (NCII) compares the community college general education process to that of ordering off a menu at the Cheesecake Factory, noting "hundreds of options and never enough time to even read through them before we are asked to order" (Johnstone, 2016, p. 7). Students

are often overwhelmed and confused with so many choices, making it nearly impossible for them to navigate even with the help of others, including college advisors, let alone on their own.

The over complication and lack of clarity regarding program requirements at community colleges has a direct impact on student completion. According to Johnstone, "the path through our institutions is so complex that we need a computer program with the ability to parse through literally millions of options to make sense of an individual's student's progression on their transcripts." He continues noting how the mystification of what the college expects in turn makes it difficult for "anyone to know at a glance where a student is in her/his educational journey and what s/he should take next" (Johnstone, 2016, p. 7).

To help reduce confusion and assist more students, Johnston Community College in North Carolina has moved to a "One College" model. President David Johnson notes "I realized we were structured in a very traditional way that wasn't meeting the needs of our students or employers." He continues sharing that "One College is a comprehensive operational model that focuses on all college instructional and operational divisions to streamline operations" (Finkel, 2021, pp. 18–19).

According to Johnson, "our employees were confused, but our students were really confused. We would send them from one end of campus to the other to get their services…it was limiting their ability to succeed" (Finkel, 2021, p. 19). The One College model provides a centralized location for services and eliminates confusion by ensuring students are no longer being sent all over campus for help.

Mentorship programs are another way to reduce the confusion and mystery of college. Clark University president David Angel notes that higher education should take a more systematic and intentional approach to providing mentors to better connect students. Angel

shares how a new program launched in 2016 called ClarkCONNECT, has engaged nearly 1,000 alumni, 350 undergraduate students, and 135 faculty and staff. Angel describes the program as an effective way to bring together "current students with alumni, parents, and other university supporters who provide mentorship resume review, job shadowing, internships, career and graduate school advice, and placement opportunities" (Angel, 2018, p. 54).

SECTION 4: COMPLETION SUCCESS MODELS

Student success and completion has been a hot topic throughout higher education in recent years. As a result of the increased focus there are several community colleges nationwide that have launched effective strategies to improve student success. The following section provides an overview of some of the models that have made a positive impact in the community college sector.

Dr. Sandy Shugart began his presidency at Florida's Valencia Community College in the year 2000 and brought about many positive changes to the college prior to his retirement in June 2021. Under his leadership, Valencia was selected in 2011 as the winner of the first Aspen Prize for Excellence and continues to be a model for other community colleges in America to follow (Valencia College [Valencia], n.d.). Considering the many challenges community colleges face in America, Valencia has become famous for their high rates of graduation, transfer, and job placement and is commonly sought out by others as an example for best practices in student success.

Overcoming such a wide variety of hurdles and challenges impacting students to move a campus forward takes the work of many. Making significant changes is an extremely difficult task for community college campuses to undertake. Shugart summarizes the vast assortment of challenges facing community colleges today as follows:

Higher Education is being asked to achieve more with less, to serve a broader and more challenged student population with fewer resources, and to achieve dramatically improved outcomes: higher completion rates, more competent graduates in areas of high demand such as the STEM disciplines, reductions in cost and student debt, more diversity in the professions, and greater impact on the intergenerational pattern of poverty. These are not trivial outcomes to achieve and will require significant changes in the institutions themselves. (Shugart, 2013, para. 3)

Valencia is considered one of the best community colleges in the nation, specifically making huge progress in certificate and degree completion. While challenging, Shugart indicates moving the college into a new direction required a variety of "courageous conversations" with all areas of campus as he worked to shift the focus away from an industrial model of productivity to a more "learning centered" approach (Shugart, 2013).

In addition, Dr. Shugart provides insight into the recipe for success as the author of the award-winning book titled *Leadership in the Crucible of Work: Discovering the Interior Life of an Authentic Leader.* In a brief review of Shugart's book, higher education professional Monica Walker shares a summary of the charismatic leadership style that has helped Shugart make positive change happen. Walker states:

Through personal reflections, essays, and poetry, Shugart…explores the substance of work and how communication, collaboration, creativity, connectedness, forgiveness, and hope can abound in the crucible. He holds that leaders, by reflecting on their character, spirit, and heart, are "purified and shaped" by the crucible, fortified to both endure pressure and to bless others. (Walker, 2018, para. 3)

During his first decade as the president, Valencia made significant progress in four key areas: student learning, certificate and degree completion, employment and earnings, and high levels of access and success for minority and low-income students. In reference to culture, Shugart states "Colleges and universities are famously resistant to change" and then goes on to share how strong leadership at all levels is needed to make positive cultural change within a college (Shugart, 2013).

Shugart sheds light on what it takes to lead a campus forward. He provides an overview of the evolution of higher education over the past hundred years and shares that even in the best of institutions, "no single culture dwells alone," rather there is a mix of varying traditions and cultures at work (Shugart, 2013). While challenging, Shugart indicates that culture can indeed be changed, but "change requires a different kind of leadership, a different theory of change, and an intentional effort at making a new culture to displace the old" (Shugart, 2013, Sub-heading 8). Creating a new culture of student success is at the foundation of the model Shugart nurtured during his time at Valencia.

Moving the college into a new direction required Shugart to have a variety of "courageous conversations" with all areas of campus as he worked to shift the focus away from an industrial model of productivity to a more "learning centered" approach (Shugart, 2013). Again, the work involved to change the culture of an organization is not easy, but it is possible. Elements of Shugart's charismatic approach included his ability to share a story and get others involved while working toward the common goal of student-centered learning and success. This approach is evident in his own words as he describes the making of a new culture:

> The emerging culture is expressed and reinforced through stories - the ongoing narrative of the institution that makes clear over time what we value, what we seek, and what we are trying to design and build together. Culture-changing leadership will attend to that narrative through fierce integrity in every decision. (Shugart, 2013, Sub-heading 10)

Overall, Valencia's success is in large part to the leadership of Shugart. His approach ultimately garnered the trust and belief of followers that together they can make Valencia a better place.

Another example of a campus boosting student success is El Paso Community College (EPCC) where Dr. William Serrata became president in 2012 and quickly helped lead the campus to become an Aspen Prize finalist in 2014. A key to the guided pathways movement is to

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give students a clear map to follow, removing unnecessary courses or requirements that often

stand in the way to helping student reach the finish line. Through Serrata's leadership and

pathways work, EPCC reduced its core curriculum from 167 to 97 options, decreased the average

number of credit hours a student completes to earn an associate degree from 96 to 88, launched

proactive advising and now uses predictive analytic tools to identify and better assist at-risk

students with the support services they need (Pierce, 2016).

Dr. Serrata is a strong advocate for students and has committed his career to helping more

succeed. During his previous leadership experience as the vice president of students at South

Texas College, he achieved success in growing enrollment, improving student retention and

graduation rates, developing early colleges, and establishing a college-going culture to encourage

many first-generation and Hispanic students to enroll (El Paso Community College [EPCC],

n.d.). Serrata helped EPCC prosper by involving the entire campus in student success focused

initiatives. As part of the American Association of Community Colleges (AACC) Pathways

Project, Serrata led a team of EPCC faculty and staff to create clear pathways for students to

follow. Evident of his leadership skills and dedication to having others help lead, Serrata

describes a significant part of EPCC's involvement in the AACC project as being that it "allows

me to expand our capacity and have more staff members exposed to experts and training in

creating guided pathways" (Pierce, 2016, pp. 14–15). The success EPCC has achieved is a result

of the campus being committed to making positive change happen in support of students.

All the initiatives are designed to directly address the many challenges facing community

colleges today. Serrata's ability to get the EPCC campus excited to make positive change toward

student success is indicative of his charismatic traits. His leadership is laser focused on student

success and he understands the importance of including internal and external stakeholders to

achieve the outcome desired. For example, Pierce writes about Serrata's collaborative approach to creating pathways, quoting Serrata regarding how the process "involves faculty and instructional decisions…so we must work with faculty in making these decisions. They'll be the ones to map out the best courses to take…" (Pierce, 2016, p. 18).

In addition, Serrata has launched several creative new ideas at EPCC, such as working with elementary schools in the El Paso area to connect future students to the campus. Studies show students who start planning early on are most likely to go to college. Therefore, Serrata adopted three elementary schools to help foster the college-going culture and boost future EPCC enrollment (Morris, 2017, para. 5). His approach is consistently focused on the long-term sustainability of the campus, not simply quick fixes.

The language used by Serrata in a recent editorial posted by the *El Paso Times* further reflects his charismatic leadership style. Serrata conveys a very positive message regarding how EPCC has made strides, shared numerous accomplishments, but also noted that there is work left to do. He remains focused on student success and continually uses the term "we" for all examples of progress, not personally taking credit for any of the success. In speaking of graduation, he notes "The stories of student success and data show me that we are fulfilling our institutional goals, goals that include not just providing our students a high-quality education, but also developing multiple pathways to success and fostering community engagement" (Serrata, 2018, para. 5).

An initiative at the City University of New York (CUNY) is another example that shows enormous promise for improving graduation rates at community colleges. The program, Accelerated Study in Associate Programs (ASAP), groups CUNY students in cohorts by program that include "consolidated schedules in morning, afternoon, or evening time frames,

along with intensive support" (AACC, 2014, p. 10). The early results are impressive as the campus nearly doubled the number of students graduating within three years (to 40% from 22%). ASAP also increased the share of students enrolling in a four-year college (to 25% from 17%), so it may also, in time, increase the share of students who earn a bachelor's degree (Dynarski, 2015, para. 5). Having a strong understanding of the campus data and establishing goals is an important aspect for any community college to boost completion rates.

The ASAP program, a multipronged intervention, experienced growth using many intensive support services that helped to boost student engagement. Students were required to attend full-time, which research has shown tends to speed up progress toward a degree. To support students carrying this full-time load, ASAP provided a wraparound set of services, including intensive advising and tutoring; priority in registering for popular or oversubscribed courses; a free MetroCard; free textbooks; and a waiver that covered any shortfall between schooling costs and financial aid (Dynarski, 2015, para. 8).

Overall, the ASAP students were given a lot of extra attention in comparison to the traditional enrolled student population. They met frequently with advisers: 38 times a year, compared with six times a year for non-ASAP students (Dynarski, 2015, para. 10). Requiring students to meet and maintain regular contact with advisers has proven to help students become an active participant in their college journey, improving overall success and completion.

The challenging question regarding whether student involvement in the learning process really matters is explored in a report by Karen Webber, Rebecca Bauer and Qin Zhang, educators at Georgia and Delaware universities. The notion of student engagement in collegiate activities has received considerable attention, and we are now amassing a substantial amount of literature that confirms the benefits accrued by students when they put forth effort on collegiate tasks

(Webber et al., 2013, p. 591). Webber et al. present historical research from two leading scholars, Alexander Astin and C. Robert Pace, which suggests students will get more out of college if they put more into it.

If students become involved in things like class discussions, student activities, and residence hall programs, and more, they will become engaged with and learn from other students and faculty. Results show that activities such as spending time preparing for class, working with classmates on projects outside of class, and engaging in discussions with faculty and peers are related to improved student success as measured by cumulative GPA and satisfaction with the college experience (Webber et al., 2013, p. 607). The report provides insight into how curricular and co-curricular activities work together to impact cumulative GPA and overall student satisfaction.

To move the needle on student success, an AACC report explains that the reimagined community college must look different than the "community college of the 1970s" in order to best "serve the students of today and tomorrow" (AACC, 2012, p. 25). To make this change happen, the AACC Commission report established a set of imperatives for community colleges to follow as they develop a new success model that it called the "Three Rs":

- **Redesign** students' educational experiences.
- **Reinvent** institutional roles.
- **Reset** the system to create incentives for student and institutional success. (AACC, 2012, p. 25)

Another model community colleges can follow to boost success is a two-year completion focused Promise Program that was implemented at California's Citrus College. The program focused on supporting students with earning an associate degree before transferring. Not only did more students earn a degree under the Promise Program, but the Citrus College transfer success

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rate also increased by 38% from 2014-2107 (American Association of Community Colleges [AACC Staff], 2019, p. 5).

Helping students plan for completion immediately upon entry to the college is another important strategy that has proven to be effective for some campuses. Citrus College in California developed a program for new students called I Will Complete College (IWCC), which is laser-focused from day one on getting students to the finish line. The IWCC students receive priority registration and ongoing intrusive advising to help them persist to completion. The early results of the program are promising as the first three cohorts of IWCC students achieved an 8% higher graduation rate in comparison to students who were not part of the IWCC (AACC Staff, 2019, p. 5).

Another completion strategy launched by the leadership at William Rainey Harper College in Illinois simply asks the question "What's your number?" that helps the campus focus on the additional number of graduates the campus is working to achieve, with specific targets set for each year (AACC, 2014, p. 9). The strategy is to help all employees understand they have a role in helping the college improve completion rates. The campaign is a constant reminder of the most important work to be done each day, to help students succeed and earn a college degree.

A new model focused on completion was launched at Texarkana College in Texas during 2015 as part of their Quality Enhancement Plan for accreditation. The *Connect: Start smart; Finish strong* program helps students navigate challenges and barriers to their success by working directly with faculty advisors who are experts within their program of study. Students in the program are required to complete a Learning Frameworks Class that mirrors a college success course offered by other colleges. In addition, Texarkana launched an Early Alert system to monitor both the attendance and grades of students, quickly identifying those at risk of failing

so that faculty and staff can assist by creating a formal plan for improvement with the student (Texarkana College, 2021).

The Connect program has been effective, boosting Texarkana College to the number one position as having the highest graduation rate in Texas with 49.7% of fulltime, first-time college students completing a certificate or degree within three years. The Texarkana College rates achieved were impressive, doubling the statewide community college completion rate of 24.2% (TC Has State's Highest Rate of Graduations, 2020, p. 1A).

Additional student success and completion models are suggested by the leading higher education experts in America who authored the AACC report to help community colleges build the nation's future. According to the report experts, they recommend community colleges focus on some "low hanging fruit for college efforts to increase completion" such as automatically awarding credentials to students upon completion rather than waiting for them to apply for graduation, as well as developing targeted programs to bring students back to campus who stopped just short of completion (AACC, 2014, p. 40). Taking a more proactive approach to help guide students toward completion, rather than simply waiting for them to take action, has proven to be effective with moving the needle on community college graduation rates.

The COVID-19 pandemic that began in early 2020 has provided another great opportunity for community colleges to review all processes and determine a new way forward. According to Jeff Pittman, chancellor at St. Louis Community College, the pandemic "has exposed the weak spots of our institutions as it relates to addressing the barriers that keep students from completing" (Pittman, 2021, p. 14). He continues, noting that colleges must focus on "wrap around services, such as better alignment with social service agencies, providing or

assisting with transportation and childcare, technology support and mental health counseling," which are all "critical components to student success" (Pittman, 2021, p. 14).

SECTION 5: STUDENT ENGAGEMENT

Considering the commuter nature of most community colleges, they have historically faced a more significant challenge with getting students to engage with the campus and remain engaged throughout their academic journey. A review of the student success literature makes it clear that engagement matters. The Center for Community College Student Engagement (CCCSE) was established in 2001 as part of the University of Texas at Austin. CCCSE serves as the umbrella organization for survey research, focus group work, and related services for community and technical colleges interested in improving educational quality through strengthened student engagement and student success (Center for Community College Student Engagement [CCCSE], 2021b). Twenty years later, CCCSE has "surveyed more than three million community college students from over 900 institutions" (Center for Community College Student Engagement [CCCSE], 2021a, para. 4) and continues to be a leader in community college student success research.

CCSSE provides a wealth of research on factors that have been proven to make a difference with students persisting in college. Former director Kay McClenney and her team studied student engagement best practices across the United States, including a 2013 study that shows student engagement is an important predictor, making a positive difference in student success and completion (Center for Community College Student Engagement [CCCSE], 2013, p. 3). Although community colleges have made strides focusing on the 13 high impact practices, there is more work to do. Having an organized campus plan for things like first-year experience and requiring a success course has been shown to make a positive impact on student engagement

(CCCSE, 2013). Establishing intentional strategies to improve engagement is critical to the future of all community colleges.

The literature provides a great reminder of the important work regarding equity, diversity, and student engagement that community college leaders must help campuses navigate. Leaders of student services must continually remind team members to treat all students with care and all of us must look past our unconscious bias (Abdel-Magied, 2014). It is essential that higher education professionals understand that every question takes courage for a student to ask and if the delivery is rude, or includes responses based upon unconscious bias, the campus may lose a student forever.

Saginaw Valley State University professor of international business studies, Dr. Joseph Ofari-Dankwa, has conducted a significant amount of research on the Diversimilarity Paradox, which promotes focusing on our similar traits rather than our differences (Rush Lecturer to Examine Human Differences and Similarities, 2004). Both in the workforce and when working with students on a college campus, it's clear that better understanding others ultimately helps people work together more effectively and support each other. Abdel-Magied states "Diversity is magic! Look past our initial perceptions because you are probably wrong" (Abdel-Magied, 2014, Video time 13:45).

The overall persistence of a student often revolves around how connected, or engaged, they are to a college or university campus. As the student success conversation intensifies, new data suggests that some community colleges are doing a much better job of preparing students for future success than they have gotten credit for (Carey, 2017, para. 4). Finding ways to improve student engagement, both in and outside the classroom environment, can pay huge

dividends in boosting enrollment, retention, success and completion numbers for colleges and universities.

Author Isa Adney provides an interesting perspective on the engagement challenge community colleges face in her book *Community College Success: How to Finish with Friends, Scholarships, Internships and the Career of Your Dreams*. Adney's book is geared toward helping new students avoid the mistakes she made at the start of her college journey. Her message pinpoints the engagement challenges faced by community colleges nationwide. She states, "I just attended class and went home. I didn't know there was anything more" (Adney, 2012, p. 12). In a review of Adney's book, writer Joanne Jacobs further accentuates that point noting that "a drive through education doesn't work. Loners become quitters" (Jacobs, 2012, para. 5). Those words highlight the difficulty of getting many community college students to engage and the importance of campus leaders to offer activities and other out of class options to better connect students to the college.

Adney shares the importance of student engagement via a variety of tips she learned along her community college journey. She points out the complexities the diverse age range of the student body presents with engagement, sharing that "Ironically, I think the 'community' is lacking in community colleges because everyone is so busy" (Adney, 2012, p. 14). She further explains that the "average student just goes to class and returns home" reminding the reader that "the average student doesn't make it through college" (Adney, 2012, p. 12). Bottom line is that successful students engage with the campus and rely upon others to help them to the finish line.

Students need continued support and guidance to successfully navigate college. A critical aspect of engagement is that community colleges must create a classroom environment that fosters regular communication between students and faculty. In addition, providing activities

outside the classroom, which students are interested in and find valuable, is equally as important. Doing so helps connect the students to the campus in many ways, developing an expanded support system of sorts that will assist them on the road to completion. Jacobs concludes with an important reminder to leaders indicating "many agree with Adney that the secret to success is helping students engage with classmates and instructors, putting the 'community' back in community college" (Jacobs, 2012, para. 18).

Co-curricular Activities

Research has shown the positive impact co-curricular activities, which are commonly found on university campuses, can make. Community college campuses have begun to expand co-curricular activities offered in recent years to positively impact the student experience. According to Professor Marilyn Andrews, "We should not just provide the opportunities for students to achieve good academic results but actively promote the benefits of a wider curriculum to students" (Andrews, 2013, para. 2). The intentional strategy to make co-curricular a required part of degree programs, not something extra for students to consider, has shown early signs of being effective at Keele University, which is in the United Kingdom. Engagement with non-academic pursuits is not only beneficial to student development but is known to be highly valued by employers (Andrews, 2013, para. 8).

A major outcome of higher education is to provide students with valuable skills and lessons as they prepare for a career. Adney shares her frustration regarding how so few students take advantages of out of class opportunities. She encourages students to join a club noting it "will build your confidence, expand your college resume, and provide you with unforgettable experiences" (Adney, 2012, p. 28). Often co-curricular activities are instrumental in helping students gain the soft skills employers seek.

The impact of co-curricular has also been studied by Camille Hazeur in her writing about the Building Engagement and Attainment for Minority Students (BEAMS) project. The study, supported by the Lumina Foundation for Education, explores campus change initiatives at more than 100 four-year Historically Black, Hispanic-Serving, and Tribal colleges and universities to increase student engagement and learning. One discovery is that "students' "sense of belonging" during their postsecondary careers is an important component in increasing their persistence and success (Hazeur, 2008, p. 1). To boost success and completion campuses must find ways to help students feel connected to the college.

California State University – Monterey Bay set as a goal for its BEAMS project to increase first-year students' participation in co-curricular activities. The foundation of the program revolves around providing opportunities for students to get involved outside the classroom. Under the BEAMS project, "Co-curricular activities cover a broad range of out-of-classroom programs and services sponsored by the college that are designed to promote leadership, life skills, and personal development for students while enhancing campus life" (Hazeur, 2008, p. 1).

The university set out to develop a variety of new opportunities focused on improving the first-year experience and building awareness for students. In structuring the BEAMS project, "the team identified activities that would increase participation and enable first-year students to make a clear connection between participation in co-curricular activities and campus engagement" (Hazeur, 2008, p. 2). Overall, the project has been a success with positive feedback and buy-in from campus faculty, staff, and students noting "there is a shift in thinking about co-curricular activities and what is offered on and off campus" (Hazeur, 2008, p. 2).

Purposive co-curricular participation involves creating the most effective conditions for learning, by linking the students' experiences in the co-curricular activity to intended learning outcomes and balancing all four learning modes of experience, reflection, conceptualization, and experimentation (Stirling & Kerr, 2015, p. 3). Having the ability for colleges to capture student experiences and important lessons learned via co-curricular activities promotes a culture of student success and is of significant value to both students and future employers.

Engaging students in the classroom and providing additional out-of-class experiences are important connections to help boost student success. Documenting student experiences is a major challenge faced by community colleges, or in essence recording how and when learning has taken place. Recognizing the importance of student's co-curricular engagement and the potential benefits gleaned from these experiences, several colleges and universities have implemented a co-curricular record (CCR) — also known as a co-curricular transcript — as a method of formally recording the activities in which a student participates outside the classroom (Stirling & Kerr, 2015, p. 2). Despite a growing recognition of the value of students' co-curricular engagement and the merits of the CCR, recent research indicates that the actual benefits of student learning and development derived from engagement in co-curricular programming are limited (Stirling & Kerr, 2015, p. 2). Further research and investigation are needed to evaluate the overall impact of co-curricular activities.

Colleges have learned that efforts to engage students can be difficult. Intrusive student support does not necessarily correspond to utilization (Hatch, 2017, para. 44) as students often fail to take advantage of the support services available. Strategies must be continually revised and strong communication channels with students established to be most effective. It is important to remember that engagement is not something a student does or experiences, but rather is the

result of a lived reality that is co-constructed by students along with their peers, faculty members, and others, who all interact within colleges in a simultaneous specific and broad context (Hatch, 2017, para. 23). Ultimately, just offering clubs and activities is not enough. Students must be active participants for engagement strategies to make a positive difference in success and completion.

Findings agree with the observation that engagement is not a unitary construct, more engagement is not always necessarily better, and types of engagement may be just as important as levels of engagement in relation to college experiences (Hatch, 2017, para. 39). It is advised that colleges develop focused student success efforts that are led by a combination of both academic affairs and student services personnel. The research suggests that collaboration between these two departments is critical to give the college the best chance at improving overall student success.

Connecting with Students

Choosing a college is a complex process that involves students and often parents, considering many factors before deciding where to attend. Author Erika Bynon reports that cost and college readiness are two of the top three reasons students choose community colleges. She provides a very enlightening third reason that community college leaders should pay attention to, stating that community college is "the new first choice" (Bynon, 2015, para. 15).

It's true that community colleges haven't always had the best reputation. The good news is that a lot of that bad reputation is based on myth and misperceptions. In fact, there's been a boom in community college acceptances and transfers to 4-year universities, changing the game entirely (Bynon, 2015, paras. 16-17). It is vital to the long-term survival of community colleges

that they level the playing field by offering similar engaging collegiate experiences to those available at four-year institutions.

While money and readiness are factors, leaders can capitalize on this new momentum by providing students with additional engagement opportunities, including expanded co-curricular and extra-curricular activities, which are valuable parts of the college experience. Doing so can benefit the overall success of students and the sustainability of the entire community college campus.

A study using CCSSE data shows that student engagement — in particular, the CCSSE benchmarks of active and collaborative learning and support for learners — is an important predictor of college completion (CCCSE, 2013, p. 3). The CCCSE research shows that active engagement does make a positive difference in student success.

For example, Zane State College introduced a core philosophy, Personal Touch— Respect, Responsibility, and Responsiveness, which is built into every initiative, undergirding everything the college does (CCCSE, 2013, p. 9). Zane State introduced a variety of mandatory requirements for the nearly 1,000 new students who enter each year such as assessment testing, orientation, welcome week, a student success course, and intrusive advising activities that include personal phone calls, mandatory meetings, e-mails, and Facebook postings. Fall-to-fall retention of those students deemed most at risk (n=598 for cohorts 2006 to 2011) increased by an average of 11 percentage points during this period over the baseline data, and these at-risk students perform as well as or better overall than their less at-risk peers (CCCSE, 2013, p. 9).

Another example indicates student participation in experiential learning beyond the classroom has a notably positive relationship with three CCSSE benchmarks: active and collaborative learning, academic challenge, and student-faculty interaction (CCCSE, 2013, p.

20). Finding ways to get students engaged on campus has proven to make a positive difference in success and completion.

In 1995, Kapi'olani Community College, located in Hawaii, launched an initiative to integrate service learning into its course curricula. Since then, service learning has become increasingly institutionalized and recognized as a strong student engagement strategy. The data on students participating in service learning is promising. In spring 2011, the 280 students who participated in service learning had a course completion rate (grade of C or better) of 89%, compared to a 71% completion rate for students not involved in service learning. Developmental education students involved in service learning had a course completion rate of 76%, compared to a 56% completion rate for developmental education students not involved in service learning (CCCSE, 2013, p. 21). These improvements are a strong indicator of the positive impact engagement activities can have on student success.

In the increasingly competitive enrollment market across higher education institutions, community colleges are regularly seeking ways to attract new students. In addition to retention efforts, another strategy to combat the declining numbers revolves around community colleges adding new opportunities to engage students. For example, a *University Business* article from March 2018 discusses how athletics was recently added at Florida SouthWestern State College. President Jeffrey Allbritten states "The bottom line for us: It's all about students. Keeping them on campus, keeping them engaged" (Durso, 2018, p. 49). Sports are one way in which community colleges have attempted to engage with student-athletes, but also with the entire campus.

The more any institution can use athletics to provide a fuller collegiate experience, as opposed to just a classroom education, the greater the appeal. Thomas W. Durso, associate vice

president for marketing and communications at Delaware Valley University in Pennsylvania, notes "Athletics at the community college level bring far less pomp, circumstance, attention and money than their NCAA Division I counterparts. But that doesn't mean they don't play a significant role" (Durso, 2018, p. 47).

Community college athletics programs have continued to expand across America and offer a great opportunity to engage students to the campus. The growth in offerings provides three major advantages to a campus that NJCAA executive director Dr. Chris Parker describes as enrollment, public relations, and fundraising (Durso, 2018, p. 48). While those advantages may motivate campuses to add athletics, campus leaders also note to positive impact on student success. Hutchinson Community College president Carter File points to the positive impact of college athletics on helping more students graduate and transfer. Likewise, Florida SouthWestern president Jeffrey Allbritten captures the power of collegiate athletics as a way to help a campus move the needle on student success, stating "It's all about students. Keeping them on campus keeping them engaged" (Durso, 2018, p. 49).

Community colleges are finding new ways to increase enrollment by offering new opportunities that attract more students as well as focusing efforts on student retention. Hutchinson Community College President Carter File also believes in the value of community college athletics and says "our athletic programs enable us to build our student population and add to diversity on campus" (Durso, 2018, p. 47). File continues sharing the positive impact sports can make on a community college campus by stating "Because community college represents a great value proposition — high quality at a low cost — student-athletes can begin their college education with a need for only modest debt" (Durso, 2018, p. 48). File points out that sports are not just about attracting athletes, rather he proclaims that often "student-athletes

encourage, either directly or indirectly, other students — such as friends, family or significant others — to attend the college as well" (Durso, 2018, p. 48).

Why then should community colleges consider further expanding engagement opportunities for students? The answer revolves around the fact that education is a broad concept that stretches beyond the four walls of a classroom. All around development essentially means intellectual, physical, moral, sensible, and social development. There is a prime need of striking a balance between classroom learning and participation in things such as art, music, theater, sports, debate, newspaper, and more. Co-curricular activities "participation helps students in emotional development, social skill development, and overall personality development" (iDreamCareer [IDC], 2020, para. 2).

Students need opportunities for all around development that extend beyond the classroom. Co-curricular activities are credited with things like helping to build character, develop spiritual and moral values, enhance physical growth, personality development, self-confidence, and creativity. Students who participate in co-curricular activities show "better academic results, stronger relationships in schools and are more likely to lead a healthy and active lifestyle" (IDC, 2020, Sub-heading 16). The bottom line for community colleges is that involved students are more likely to persist toward their completion goals.

Community colleges seeking to grow retention and completion should also consider implementing several high impact practices as defined by the Center for Community College Student Engagement (CCCSE). The Center has been evaluating 13 educational practices, and the relationship between students' participating in each practice and being more highly engaged in their overall college experience.

The CCCSE research has focused on identifying notable differences in engagement among students who participated in each of the 13 practices versus students who did no participate. When these notable differences exist, a practice can reasonably be labeled high impact (CCCSE, 2013, p. 3). A complete list of the 13 high impact practices includes the following:

- academic goal setting and planning

- orientation

- accelerated or fast-track developmental education

- first-year experience

- student success course

- learning community

- experiential learning beyond the classroom

- tutoring

- supplemental instruction

- assessment and placement

- registration before classes begin

- class attendance

- alert and intervention (CCCSE, 2013, p. 6).

Community colleges must understand the reasons behind a student's decision to attend, as well as the high impact engagement practices that help keep students enrolled. Research indicates there is a positive relationship between the number of high-impact practices students experience and students' level of engagement. Given this synergy, colleges may be most

effective by intentionally weaving multiple high-impact practices into inescapably engaging experiences for students (CCCSE, 2013, p. 35).

A 2018 national report completed by CCCSE titled *Show Me the Way*, shares a variety of enlightening information regarding the impact of advising on student engagement. The report indicates that "Students who report meeting with an advisor are more engaged across all CCSSE benchmarks than their peers who have not met with an advisor" noting that 62% of first-term students and 78% of returning students reported they had met with an advisor (Center for Community College Student Engagement [CCCSE], 2018, p. 4). In addition, the importance of advising on student engagement is captured by the fact that students called meeting with an advisor "very important" more often than any other student service (CCCSE, 2018, p. 4).

The length of time meeting with advisors also matters with student engagement and ultimate success. The CCCSE report revealed that students who met with an advisor for more than 30 minutes received higher student engagement scores, concluding that those "who spend more time with their advisors, in either longer or more frequent sessions, are more engaged" (CCCSE, 2018, p. 13). While advising is a labor-intensive service, community colleges must find ways to provide students with the opportunity to engage with a professional advisor on a regular basis.

The types of conversations students have with advisors also varies widely. A 2017 CCCSE report indicates that 84% of students report advisors explain the classes they need to reach their academic goals, only 65% indicate the advisor helped develop an academic plan and just 53% of students said their advisor discussed commitments outside of college such as work and children with the student (CCCSE, 2018, p. 11). The advising relationship often lacks the depth needed to fully engage with students and help them succeed in college. The literature

overwhelmingly reveals the value of an ongoing advisor connection with regular intentional outreach to students that extends beyond simply a first meeting to help the student enroll. Consistent outreach to students is a key factor to improving success and completion; however, only 35% of students report their advisor discussed with them when their next advising session should take place (CCCSE, 2018, p. 11).

Student engagement is a critical issue for all institutions of higher education, and specifically community colleges, to consider. Students are seeking a complete collegiate experience, which involves having structured engagement opportunities both inside and outside the classroom. In the report *A Matter of Degrees: Engaging Practices, Engaging Student. High-impact Practices for Community College Student Engagement*, researcher Kay McClenney states the connection between student engagement and student success is well documented. Learning, persistence, and attainment in college are consistently associated with students' being actively engaged with college faculty and staff, with other students, and with the subject matter they are studying (CCCSE, 2013, p. 3).

After reviewing the literature and analyzing several college strategies or programs, the research suggests engagement makes a positive impact in keeping students enrolled and helping them reach the finish line. Colleges and universities with efforts focused on engaging students, such as those previously noted at Zane State College, University of California at Monterey Bay, Keele University and Florida SouthWestern State College, for example, help demonstrate that student engagement makes a difference.

SECTION 6: CREATING A CULTURE OF STUDENT LEARNING AND SUCCESS

In the community college landscape today, creating a culture of learning and success requires a leadership commitment to collecting, analyzing, and sharing data. Joe Schaffer,

President of Laramie Community College in Wyoming, captured this important leadership aspect noting, "We live in an era of accountability and a deepening need for continuous improvement and increased student success" (Schaffer, 2018, p. 11). Such approaches have long been the standard for successful businesses; however, the trend to focus on data is now becoming the norm in higher education too.

Schaffer continues stating that "many leaders in higher education still make decisions and give direction based on emotion and anecdote," noting that in order for a campus leader to build a culture of evidence they "must have a basic understanding of institutional research, and more importantly, know how to access your data" (Schaffer, 2018, p. 11)

A 2019 CCCSE report explores the impact of having an academic mindset and the role it plays regarding student success. Academic mindset consists of a student's "beliefs about the ways learning and intelligence work" (Center for Community College Student Engagement [CCCSE], 2019, p. 2). Students inherently arrive on campus with a set of beliefs that influence how they think and learn. Students with a productive academic mindset believe they are in charge of their learning, and they have confidence that they can tackle complex topics and difficult tasks. To the contrary, those with a nonproductive academic mindset more commonly will stop even trying when challenges arise as they firmly believe they are not good at a specific skill or task (CCCSE, 2019, p. 2).

The college journey is filled with many hurdles that are often presented at unexpected times. Students frequently find themselves alone trying to navigate college; therefore, their mindset plays a huge role in determining whether they can overcome hard times. Based upon the research findings regarding how mindset can influence student success, colleges and universities

have begun to incorporate mindset into their strategies for helping students remain in college and finish what they started.

As colleges continue "exploring ways to help students move toward a more productive academic mindset" (CCCSE, 2019, p. 2) the following four key components are explored by the 2019 CCCSE study to help colleges grow student success:

1. Growth vs. fixed mindset: students' perceptions of the potential for change in their intelligence.

2. Self-efficacy: students' confidence in their ability to be successful in their coursework.

3. Relevance of academic experience: students' views of whether their college work is preparing them for future success.

4. Sense of belonging: students' perceptions of whether they are accepted members of their college community. (CCCSE, 2019, p. 3)

Colleges can support students in moving toward a growth mindset through intentional strategies to help them learn and grow. For example, providing faculty and staff with professional development regarding mindset can help them incorporate this strategy into the work they do with students during courses, advising appointments, and other activities.

A 2019 CCCSE national report suggests there are five main ways in which colleges can help students understand the relevance of their academic experiences. First, the report suggests that advising should be required with the creation of an academic plan for all students. Second, all new students should be introduced to first-year experiences that provide an opportunity to explore career fields so they can make informed choices regarding a chosen major. Third, colleges should ensure that applied learning experiences are part of every major to again connect students to their future career. Fourth, requirements should be aligned with the program of study such as taking an appropriate level of math that is also relevant for the intended major. Finally,

faculty must help students understand why each course matters to the program of study, noting that students should not simply be told "because it is a core requirement" (CCCSE, 2019, p. 13).

A strategy to encourage academic goal setting and planning begins with requiring all new students to meet with a trained professional advisor. The CCCSSE report indicates students who have an advisor help them establish a plan early, experience increased levels of success (CCCSE, 2013, pp. 8–9). The length of time also matters for the advising appointment. For example. a one-hour meeting allows time to focus on goals and introduce items such as career interest inventory tools to assist undecided students. In addition, advisors help students with the many unique aspects of college, assist with course selection, and provide transfer resources. The first appointment is focused on advisors making personal connections to help students succeed (CCCSE, 2013, p. 9) and helps establish the advisor as a resource to assist the student with future "college" navigation questions or concerns.

Colleges are encouraged to include ongoing advising contacts beyond the initial meeting. A strategy for each advisor to schedule periodic contacts with the student via a variety of different communication channels such as phone, email, handwritten postcards, texts, etc. will help form a solid relationship the student can rely upon. Such outreach activities demonstrate advisors care and are a reminder to students that they are available to help.

As the student/advisor relationship strengthens, the student gains trust in the advisor and begins to feel a sense of accountability or desire to make them proud. An example highlighting the power of this practice is apparent in the following student response to an advisor who reached out to offer support during an Early Alert grade outreach campaign:

> Thank you for your concern! I've noticed that I'm having trouble with a class as well. I've signed up for study groups and I've made it my first priority to visit the achievement center. I am not pleased with my grade, and I assure you that I will do everything

humanly possible to bring that grade up. (J. Flann, personal communication, October 12, 2018)

Colleges are also encouraged to require a follow-up advising contact with students, such as when they have earned 24 credits, to confirm they are still committed to the selected career and ensure they are on track to reach their intended goal. Having a mandatory "checkpoint" helps further develop the advisor/student relationship and keep the student on the path to success.

To create a culture of learning and success on campus there must be a high level of student involvement to make the practice work. Sadly, students are not always actively engaged in their college journey. For example, it's concerning to read that less than 50% of first term students develop an academic plan even though about 66% of colleges have a process for helping entering students do so (CCCSE, 2013, p. 9). Campus-wide commitment for success strategies, and strategies to help more students engage, are necessary to boost overall student completion.

SECTION 7: COMMUNITY COLLEGE LEADERSHIP OF THE FUTURE

The challenges for community colleges have become increasingly complex since their inception and now require a different kind of leadership to succeed in the future. According to nearly 40 higher education experts who were part of the Commission that created the AACC report on the future of community colleges, they concluded that "Community college leaders need to address a world in flux, demanding dramatic institutional responses" (AACC, 2012, p. 14). The Commission also laid out a framework to help guide community college leaders into the future, detailing things such as moving from a focus on student "access" to "success," as well as a shift in "focus on teaching" to a more "learning" centered approach. The leaders noted "the future demands reimagination of what community colleges can be and how they can better serve their students, their communities, and their nation" (AACC, 2012, p. 14).

The words of the Commission experts capture the dire need to reinvent the community college model and the challenges that exist, especially considering "the pool of current leaders is graying and approaching retirement" along with the fact that "the pool of potential presidents is shrinking" (AACC, 2012, p. 17). Joe Schaffer, president of Laramie County Community College, describes the situation as being a legitimate "crisis in the leadership of our community colleges" indicating "there have been approximately 1,200 CEO transitions in the nation's two-year institutions over the past five years, about a quarter of those because of retirements" (Schaffer, 2018, p. 10).

The projected outlook is that significant college leadership turnover will continue. Nearly 25% of the more than 1,100 community colleges experienced a change in leadership in 2015 (Smith, 2016). According to Terry O'Banion of the National American University, 75% of current presidents and senior level administrators have indicated they plan to retire within in the next decade (Smith, 2016).

To achieve higher community college completion rates, the Commission indicates it is clear that "Change cannot be achieved without committed and courageous leaders" noting specifically that the AACC is working to "develop leaders to transform the design" of community colleges today (AACC, 2012, p. 17). Leaders must also consider the long-term impacts of the COVID-19 pandemic as they navigate the future. A *Community College Journal* article by Jeff Pittman, chancellor of St. Louis Community College, suggests moving forward requires a "re-emphasis of student completion" noting that "Sharing institutional data about student completion, as well as proven best practices, is critical" (Pittman, 2021, p. 14).

Community college leaders are faced with the realities daily of making difficult decisions to change the course of the future. The AACC Commission shares that these "hard choices"

include things such as looking at the "priorities" at each college, determining "how broad the curriculum should be," and perhaps most challenging to decide "to whom and to what missions will they say "No" to, or "what academic programs or student services will be eliminated" (AACC, 2012, p. 21). Strong leadership is required to implement such necessary change and make it a positive experience for community college campuses.

A 2011 report featuring feedback from eleven community college presidents exploring issues and trends facing community colleges noted key challenges like student readiness, expanded technology needs, workforce development relationships, increased needs for support services and the growing emphasis on student retention and completion (The Source, 2011). Additionally, decreased state funding and declining enrollment are major concerns for community college leaders who now must manage current enrollment decreases and prepare to handle projected declines for decades to come (Smith, 2018).

To make the significant change needed in community colleges, the literature suggests that charismatic transformational leaders are needed, especially during times of crisis. Campus leaders can learn from former president Barrack Obama who delivered authentic speeches during the economic crisis of the 2008 presidential election using simple key phrases such as "change we can believe in" and "together we can" to connect with voters and gain support (Bligh & Kohles, 2009, p. 485). Future community college leaders are in a similar position, challenged with preparing the campus stakeholders for change to move the culture in a positive direction.

Ultimately, a leader who displays charisma, such as Obama did, can influence others to follow and garners buy-in from a wide range of stakeholders. The presidential campaign example correlates with Riggio's assessment of charismatic leaders:

> Charismatic leaders are essentially very skilled communicators – individuals who are both verbally eloquent, but also able to communicate to followers on a deep, emotional

level. They are able to articulate a compelling or captivating vision and can arouse strong emotions in followers. (Riggio, 2012, para. 3)

The literature on leadership traits also includes a significant amount of research on the connection between charismatic and transformational leadership. Some leadership traits are learned, while others appear to be attributes people are born with. According to Riggio, who cites a study by Richard Arvey and colleagues, leadership is about two-thirds made and one-third born (Riggio, 2012, para. 13).

Another famous leadership example is Nelson Mandela, who was elected in 1994 as the leader of South Africa, receiving more than 60% of the vote. After this historic moment, serious threats of violence and mass chaos could have erupted in the country. However, Mandela was quickly able to use his charismatic leadership skills to unify the country behind the nation's rugby team, encouraging followers to get on board through "his credibility, persuasive skills, and a mantra of 'one team, one nation'" (Bolman & Deal, 2017, pp. 304–305). Again, the team approach used by Mandela is consistent with the leadership needed to move community colleges forward in the future.

Future community college leaders must effectively communicate a strong sense of excitement about change, spearheading the continual review and adjustment of academic programs and support services offered to fit the current needs of students. In addition, the leader must be able to adapt to the overall declining support received from local, state, and federal government sources, instilling confidence in the campus while making sure the college remains financially viable. An effective community college president must remain focused on the future.

CONCLUSION

As indicated throughout the literature review, community colleges are facing more new challenges today than ever before. As the community college landscape continues to rapidly change, strong leadership is required to build a culture of innovation. To make positive change with student success and completion, employees must understand the vision and work together to achieve college goals. According to Randy Weber, vice president of student success and engagement at Johnson County Community College, "When a vision is not clearly defined, even the best and brightest team members can second guess how they contribute to the college's goals" (Weber, 2019, p. 15). Weber indicates leaders can drive change but warns that being too ambitious may be a recipe for failure, noting that "the success of our students depends on effective leadership and improved outcomes" (Weber, 2019, p. 15).

According to a 2014 AACC report, community college leaders must work differently to improve completion rates. The report suggests campuses should invest in developing leaders at all levels of the organization and ultimately "make the CEO accountable for student success outcomes, particularly college completion and equity" (AACC, 2014, p. 37). Engaging with both full and part-time faculty in "open and frank discussions about why improving learning outcomes, student success, and certificate/degree completion matters to the college, community, state, and nation" (AACC, 2014, p. 38) is an important part to move the student completion needle forward. In the end, all campus stakeholders must understand the importance and commit to helping improve student completion.

The American dream consists of "opportunity, community, and intergenerational upward mobility" with community colleges being at the forefront of "creating opportunity, supporting students, and building communities" (AACC, 2012, p. 31). As community college leaders

navigate an unpredictable future, the words of President John F. Kennedy serve as a reminder to help guide their work. In a 1962 speech to Congress Kennedy stated: "For every apparent blessing contains the seeds of danger — every area of trouble gives out a ray of hope — and the one unchangeable certainty is that nothing is unchangeable or certain" (Infoplease staff, 2017, IV section). Future community college leaders must take note of an ever-changing environment and understand the value of building strong relationships and continually communicating to the campus with open and honest dialog to thrive in the future.

CHAPTER THREE: METHODOLOGY

INTRODUCTION

The purpose of this research study was to investigate the completion of first-time, full-time students at a suburban small two-year public community college in Michigan to determine factors that may have a relationship with student completion. The study follows a mixed methods approach focused on new students who enrolled in a minimum of 12 credit hours during the fall semesters of 2015, 2016, and 2017, otherwise known as the IPEDS cohorts for the College. The quantitative data elements were provided to the researcher from the College student information system. The qualitative data was collected by the researcher via a survey completed by the students.

RESEARCH DESIGN

This study used statistical techniques to determine the relationship between the following ten key variables and student completion:

1. High school GPA at graduation (4.0-3.0, 2.99-2.0, below 2.0)

2. Prior college credits earned while still in high school via Advanced Placement, CLEP, dual enrollment, early college, etc. (Yes, No)

3. Considered "college ready" based upon placement scores using SAT, ACT, or Accuplacer assessment test results (Yes, No)

4. Developmental classes (below 100 level) completed at the College (Yes, No)

5. First semester credit hours enrolled at the College (15+ credits, 13-14 credits, 12 credits)

6. First semester completed credit hours at the College (15+ credits earned, 12-14 credits earned, less than 12 credits earned)

7. Number of first year withdrawal "W" grades (0, 1-2, 3 or more)

8. Total first year credit hours completed (32+, 24-31, less than 24)

9. Cumulative credit hours completed by end of the second year (60+, 48-59, less than 48)

10. Participation in student clubs and/or athletics at the College (Yes, No)

The student population selected for this study includes three IPEDS cohorts of first-time, full-time students who enrolled at the College during the fall of 2015, 2016, or 2017. All data elements were extracted from the student information system and provided by the Director of Institutional Research at the College. No student names were included in the data set in order to maintain anonymity for the study. The researcher was granted IRB approval from the College to gain access to student data on April 7, 2021, and from Ferris State University on May 18, 2021, to conduct the study (Appendix A).

As noted throughout the literature review in Chapter Two, improving community college student success and completion rates is a topic of interest for leaders throughout America. The research study explores a variety of elements and the possible impact on student completion. The information from the study may be helpful for future college faculty, staff, and other researchers to improve community college student completion rates.

Research Questions

This research study was designed to address the following main research questions:

1. What factors contribute to first-time, full-time IPEDS cohort students completing, or not completing, a certificate or degree within the 150% (i.e., three-years) timeframe?

2. Could key variables be used as indicators to help predict or improve future student completion rates?

To address these questions a survey was conducted to gather insight from students regarding their college journey along the path to completion. In addition, statistical analysis was run on the key data elements identified for the study to determine if a connection with college completion existed. The researcher provided descriptive statistics for each of the data elements included in the study. The researcher analyzed the data using Power BI Desktop by Microsoft. The business intelligence solution included a functionality called Key Influencers, which allowed the researcher to analyze the independent variables and the relationship with student completion. Finally, the data analysis plug-in tool via Microsoft Excel was utilized to conduct a correlation analysis to help determine whether a relationship existed, as well as the strength of any connection between the variables and student completion.

Study Population

Data for this study included new students who were enrolled full-time (12 or more credit hours) during the fall semesters of 2015, 2016, or 2017. A combined total of 1,180 unique students were contained within these three IPEDS cohort years (Table 1). The personal email addresses were provided to the researcher from the student information system at the College, resulting in contact information for 1,146 students. For the qualitative portion of the study, a brief survey was sent to these personal email addresses via Survey Monkey (Table 2).

Table 1: Number of Students by IPEDS Cohort Year

IPEDS COHORT YEAR	NUMBER OF STUDENTS
2015	385
2016	402
2017	393

Table 2: Number of Personal Email Addresses by IPEDS Cohort Year

IPEDS COHORT YEAR	NUMBER OF PERSONAL EMAIL ADDRESSES
2015	375
2016	386
2017	385

Unfortunately, approximately 3% of the IPEDS cohort students did not have a personal email address on file at the College so they were not able to be contacted. However, having contact information for over 97% of the students provided the researcher with a significant population to gather insight on student completion for this study.

For the quantitative research component of the study, the dependent variable was whether the student completed, meaning they graduated from the College with a certificate or associate degree within three years of entering. The independent variable data included key items from each cohort year that were available within the student information system at the College. The researcher received permission from the College to conduct the study and worked with the Director of Institutional Research who provided a password protected Excel file with the data elements included. The Excel file was kept on a computer owned by the College that is secured by password and can only be accessed by the researcher. A backup copy of the data file was also maintained on the network at the College and only accessible by the Director of Institutional Research.

The data file provided to the researcher did not contain any student identifiers, such as name or student ID number, to ensure anonymity of the study. However, because neither the student information system or the data warehouse contained record of student participation in campus activities like student clubs, theater, music, or athletics, the Director of Institutional Research had to work with other personnel at the College to review the names of students and

compile a list of those who were actively engaged. The researcher understands this data element was a more complex item to gather as student engagement activities are informal and often not consistently recorded within the student information system database. Therefore, the information may not accurately capture all students within the IPEDS cohort years who participated in campus activities.

The study provided the researcher the opportunity to explore the potential relationship between the ten key independent variables, as well as the student feedback received from the online survey, and the completion of a certificate and/or degree from the College within three years.

Independent Variables

There are a wide number of variables that may impact community college student completion. As noted in Chapter Two of this study, a review of the literature related to student success and completion suggests that student demographics, academic preparedness, financial or other personal life challenges encountered, the pace at which student earn credits, and more have all been identified as factors that may play a role in whether a student reach the finish line.

For this study, the independent variables included a variety of academic preparation and success data elements as the inputs, or possible indicators of the dependent variable, which was student completion. The data file analyzed for the study included ten key variables (Table 3) to explore whether a relationship exists, and if so, how strong the relationship is between the variables and student completion.

Table 3: Independent Variables Included for the Study

VARIABLE DESCRIPTION	MEASUREMENT CATEGORIES
Graduated with a certificate or degree from the College within three years after entry	Yes or No

Variable Description	Measurement Categories
High school GPA earned	Less than 2.0
	2.0 to 2.99
	3.0 or higher
	Missing (no GPA reported)
College credits earned while in high school	Yes or No
Considered "College Ready" (i.e., no developmental courses required) upon entry to the College	Yes or No
Completed developmental course(s)	Yes or No
Number of credit hours enrolled in the first semester	12 to 12.99
	13 to 14.99
	15 or more
Number of credit hour completed in the first semester	Less than 12
	12 to 14.99
	15 or more
Number of course withdrawals (i.e., "W" grades) within the first year	0
	1 or 2
	3 or more
Credit hours completed at the end of the first year	Less than 24
	24 to 31.99
	32 or more
Credit hours completed at the end of the second year	Less than 48
	48 to 59.99
	60 or more

Community college students often attend with a diverse range of reasons and commonly have varying goals when they first enroll. For example, some students plan on earning a two-year associate degree, while others desire a one-year certificate, and yet others are only seeking specific classes to help them with career advancement or to prepare for transfer to another college or university. This study focuses on the IPEDS cohort of first-time, full-time population of students who enter college indicating they are pursuing a certificate or associate degree program.

The student survey portion of the study provides insight into the student intent regarding whether they wanted to earn a certificate or degree when they first enrolled at the College. The survey also captures self-reported student feedback on whether they graduated from the College.

In addition, the data elements utilized for this study specifies whether students included in the three IPEDS cohorts officially graduated from the College. Both the student survey responses and official completion data are incorporated into the overall analysis on completion.

Part of the data set captured from the student information system included the high school GPA earned by the IPEDS students in the study. Since the College is open entry and does not require final high school transcripts before enrolling, the reliability of this data element may be lacking; however, the researcher chose to keep the high school GPA as a variable to consider whether a relationship exists with reported high school GPA and completion of a college degree.

Earning college credits while still enrolled in high school was another data element considered by the researcher for this study. The College enrolls more than 1,000 high school guest students each fall semester, the majority of whom are part-time, taking limited courses to help get a head start on college. The term dual enrollment was used for this study to capture the students within the IPEDS cohorts who completed classes before graduating high school.

While dual enrollment credits earned is a factor being explored by the researcher, it must be noted that high school students who earn college credits typically do not become part of the IPEDS cohort. This is because Federal Government guidelines require high school graduation to be included in the IPEDS cohort. As a result of this rule, such students are commonly not represented in the IPEDS cohort.

Additionally, the College offers several structured early or middle college programs that help students earn significant college credits, or even an entire degree before high school graduation. In the state of Michigan, an early middle college is a five-year program of study offered to secondary school students, which requires approval of the Michigan Department of Education (MDE). According to the MDE, students enrolled in such programs may earn "a high

school diploma and one of the following: 60 transferable college credits, an associate degree, a professional certification, the Michigan Early Middle College Association (MEMCA) technical certificate, or participation in a registered apprenticeship" (Michigan Department of Education [MDE], 2021a, para. 1). In the programs available at the College, upon completion of a fifth year of high school, students may satisfy requirements for both a college degree and their high school diploma at the same time. However, students traditionally take a less than full-time load in these programs and often graduate from college before completing high school requirements, therefore being excluded from the IPEDS cohort. The researcher examined the relationship between earning college credits while still enrolled in high school and the completion of a college degree.

Preparedness for college level courses is another element included in the study. All new students are required to complete placement testing prior to enrolling at the College. Students may take the Accuplacer test or submit either their ACT or SAT scores. The state of Michigan requires all students to complete the Michigan Merit Examination (MME) in grade 11 and eligible students in grade 12. The MME consists of three components that include the SAT, ACT WorkKeys, and M-STEP (Michigan Department of Education [MDE], 2021b). Some students may choose to repeat the SAT or ACT test during their senior year to improve their score. The faculty at the College have established minimum scores for each of the placement tests to determine the level necessary to be considered "college ready." Students who fall below the minimum levels are required to complete developmental English or math courses before they can enroll into higher level courses.

Lastly, the study includes an analysis of the number of credits the IPEDS cohort students enrolled in, as well as the number of credits they completed during their first full-time semester at the College. The total number of course withdrawals, or "W" grades, during the first year is

also part of the data set. In addition, the data includes the total number of credits earned by students at the end of both year one and year two. The researcher investigated relationships between all the variables in connection to college completion, noting it is possible some of the variables may interact with each other.

Dependent Variable

College completion is not the only measure of success; however, it is an important measurement for community colleges and has increasingly become a hot topic in America as noted in the Chapter Two literature review. For this study, the researcher has identified the dependent variable as earning a college certificate or associate degree within the IPEDS 150% timeframe, equivalent to three years after first enrolling at the College.

Qualitative Research Design

The qualitative research for this study includes a survey that was emailed to a total of 1,146 students in the data set who had a personal email address on file with the College. The researcher purchased a subscription to Survey Monkey and utilized the service to develop and electronically send the survey. A total of ten questions were included in the survey that was split into two different sections. The first six questions allowed respondents the opportunity to provide background on their completion status, their engagement on campus, the factors that influenced completion, and their transfer status. The next section contained four questions that asked about their support structure, barriers they experienced, and provided respondents the opportunity to share any additional information they believed may assist with improving the completion rates of future community college students.

The first survey was emailed on June 19, 2021. The invitation messages (Appendix B) asked students to participate in a brief survey regarding graduation at the College. An identical

letter of invitation and online survey link was sent via email using Survey Monkey in three batches split out by cohort year. The 2015 cohort contained 375 students, 2016 had 386 students, and 2017 included 387 students.

A reminder notice was emailed to non-respondents on the morning of June 25, 2021, asking the students once again to please complete the brief survey. Like the initial invitation, the emails were sent in three batches by cohort year to only those students who did not respond to the initial invitation. For this reminder message, the 2015 cohort contained 334 students, 2016 had 344 students, and 2017 included 339 students.

A message titled as a final reminder was emailed on the afternoon of July 6, 2021, to students who had not yet responded to the survey. Similar to the other invitations, this reminder was sent in three batches by cohort year with the 2015 cohort consisting of 331 students, 2016 had 337 students, and 2017 included 333 students.

Following the final reminder, the low response rate prompted an additional, last attempt on July 31, 2021, sending a final notice email to all students who had not yet responded to the prior survey invitations. The last attempt notice was again sent in three batches via cohort years to 324 students from 2015, 329 students from 2016, and 328 students who were part of the 2017 cohort.

Quantitative Research Design

The quantitative research design of the study included two main goals. First, the researcher desired to review each individual factor to determine if a relationship existed with completion. Second, the combination of factors was explored to consider whether there was a possible connection between multiple key elements and completion. The researcher utilized two software applications to assist with the statistical analysis of the data.

Microsoft Excel provided the researcher the ability to compile descriptive statistics on the IPEDS cohort students. All cohort data was broken down into two categories to capture the students who completed and those who did not complete. The data was then analyzed by each element to determine the number and percentage of students in each category. The data analysis plug-in feature in Excel was then utilized to execute a correlation analysis of the data in an effort to determine the strength of any relationship with completion. The correlation data allowed the researcher to see what elements had the highest positive or negative impact on completion.

Additionally, the free version of the Microsoft Power BI Desktop solution provided the researcher with the ability to utilize the Key Indicators functionality to explore factors that may influence community college completion rates. The Power BI solution utilizes statistical analysis focused on determining the relationship between the factors and completion, providing visualizations and data output to demonstrate relationships. Power BI also provides a Key Segments functionality that enabled the researcher to consider combinations of factors that may influence completion.

Reliability and Validity

The reliability and validity of data used for this research study were controlled as the researcher solely focused on students who enrolled at the College in the fall semester for the first-time, full-time following high school graduation. The use of all students, rather than a sample size, increased the reliability and validity of the study. Analyzing the data elements of three different IPEDS cohorts improved reliability, providing consistency to the study as the same demographics were used. The validity of the student completion data was controlled as it was extracted from the student information system at the College, which includes a high level of accuracy and integrity of academic records.

For the student survey portion of the study, the validity and reliability could be impacted based on the interpretation and understanding of questions that may vary by respondents. Additionally, the researcher did not have all data elements for every student as some were missing things such as high school transcripts, or personal email addresses. Such missing elements could impact the reliability of the study.

The researcher chose not to use a random sample, rather including all available students from each of the three IPEDS cohort years for the study, to make the predictive model as robust as possible. Considering the students enrolled at each college may differ, the researcher understands and accepts that external validity to the study may be lost when attempting to apply the results to community colleges other than the College.

Limitations

This research study on community college completion focused specifically on three IPEDS cohort years of students who enrolled in the fall of 2015, 2016 or 2017 at one community college. The findings could provide a framework for other community colleges to consider; however, the factors that influence completion may not be the same at other institutions.

Considering only 87 students, or about 7.5%, responded to the survey, the findings may not be representative of all students in the IPEDS cohorts. Also, while the personal email addresses were included in the data set for 1,146 students, it is possible some email addresses are no longer valid considering the students provided upon initial entry to the College and may have changed without notifying the campus. Sending survey invitations to email addresses that may not be actively monitored was a potential limitation of the study.

The historical nature of the study timeframe may also be a limitation as the information may not accurately capture relationships to completion for current and/or future populations of

students, especially considering the impact of the COVID-19 pandemic that began in March of 2020. However, the primary goal was to explore factors that may have a relationship with completion with the understanding the information unveiled may help future studies to improve community college student completion.

CHAPTER FOUR: STUDY FINDINGS AND DATA ANALYSIS

INTRODUCTION

Chapter Four shares the results of the research questions used for this study regarding community college student completion. The study findings and data analysis are detailed, providing objective results and outcomes as a foundation for the final analysis, which is contained in Chapter Five. This study was designed to address the following two main research questions:

1. What factors contribute to first-time, full-time IPEDS cohort students completing, or not completing, a certificate or degree within the 150% (i.e., three-years) timeframe?

2. Could key variables be used as indicators to help predict or improve future student completion rates?

QUALITATIVE RESULTS

The researcher initially sent email surveys to 1,146 students via Survey Monkey. Three additional reminder messages were emailed seeking student feedback. Overall, a total of 87 students responded to the survey for a 7.6% response rate. However, five students stopped short of completion, so a total of 82 respondents, or 7.2% completed all ten survey questions.

While the same survey was sent to the collective population of all three IPEDS cohort years, the researcher chose to breakout the invitations by cohort years as detailed below. The three cohorts were similar in size ranging between 375 and 386 students.

The 2015 cohort survey response details (Figure 1) indicate that nearly half of the respondents opened the survey email; however, only 25 students clicked the "begin survey" button. Two students opted out of receiving future survey invitations from the researcher. This

cohort had the least number of respondents with 24 students, 22 of which completed all questions while two students completed just the first section.

The 2016 cohort email invitations (Figure 2) resulted in 33 students completing the survey, the most out of the three cohorts. Unlike the other two cohorts, zero students submitted a partial survey. This cohort had 34 messages, or 8.8%, which bounced back as undeliverable, the highest occurrence of the three cohorts. A total of 35 students hit the "begin survey" button and six students opted out of receiving future emails from the researcher.

The survey invitations sent to the 2017 cohort (Figure 3) had 29 student responses, with all but three of the students completing every question. Like the other two cohorts, approximately 8% of the email messages sent bounced back as undeliverable. A total of 33 students hit the "begin survey" button, and three students from this cohort opted out of receiving future emails from the researcher.
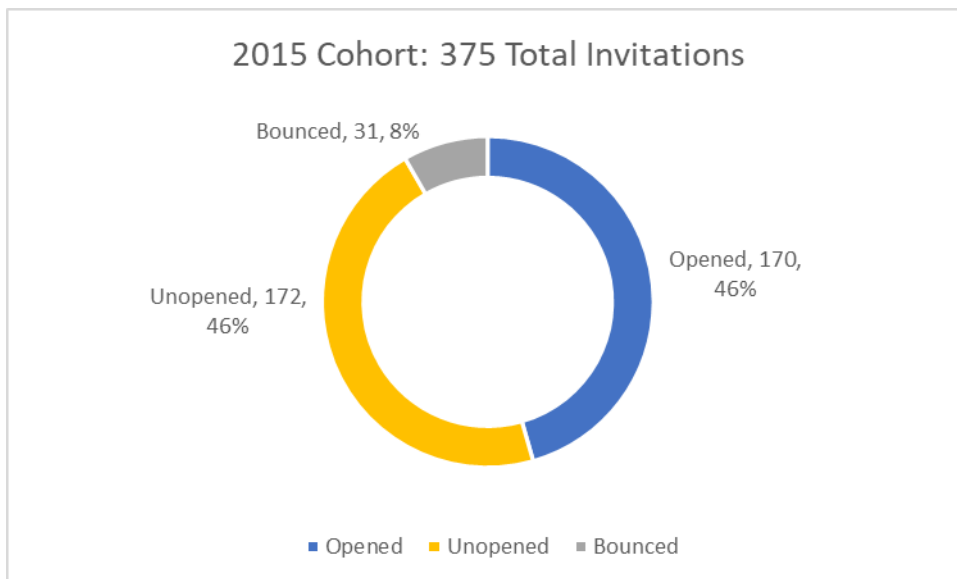
Figure 1: Survey Overview 2015 IPEDS Cohort
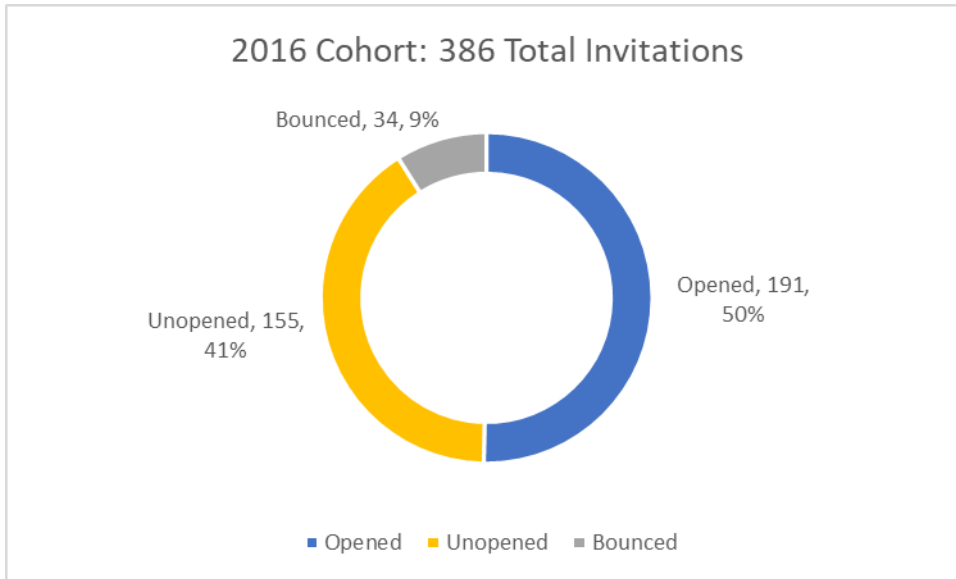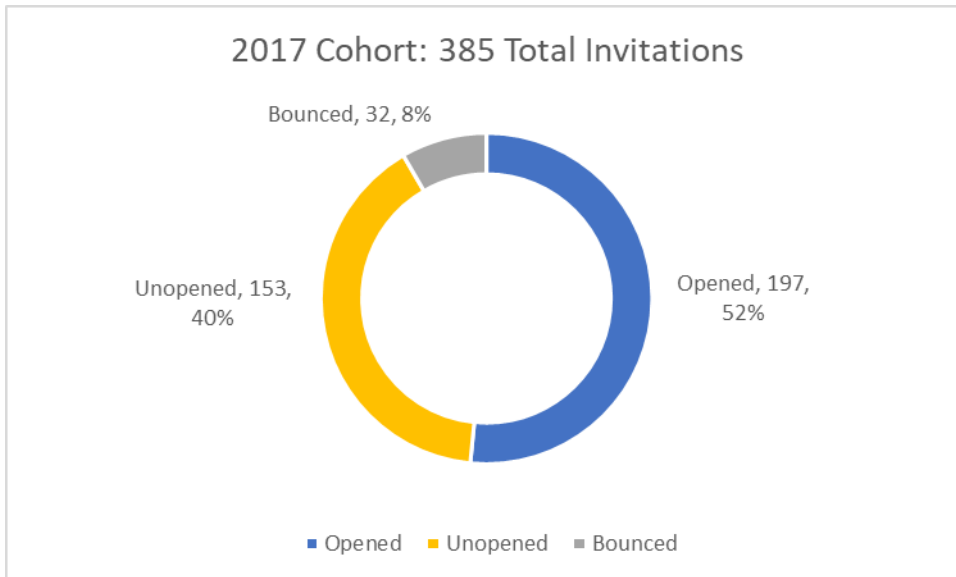
Figure 2: Survey Overview 2016 IPEDS Cohort

2016 Cohort: 386 Total Invitations

Bounced, 34, 9%

Opened, 191, 50%

Unopened, 155, 41%

■ Opened ■ Unopened ■ Bounced

Figure 3: Survey Overview 2017 IPEDS Cohort

2017 Cohort: 385 Total Invitations

Bounced, 32, 8%

Opened, 197, 52%

Unopened, 153, 40%

■ Opened ■ Unopened ■ Bounced

The first section of the survey consisted of six questions designed to gather background information regarding student intentions and motivation during their time at the College. All 87 students completed this section of the survey.

Summary: Survey Question 1

Survey question one (Figure 4) asked students to share their intentions regarding completing a certificate or degree when they first enrolled at the College. Over 80% of all respondents indicated they desired to graduate from the College upon entry.
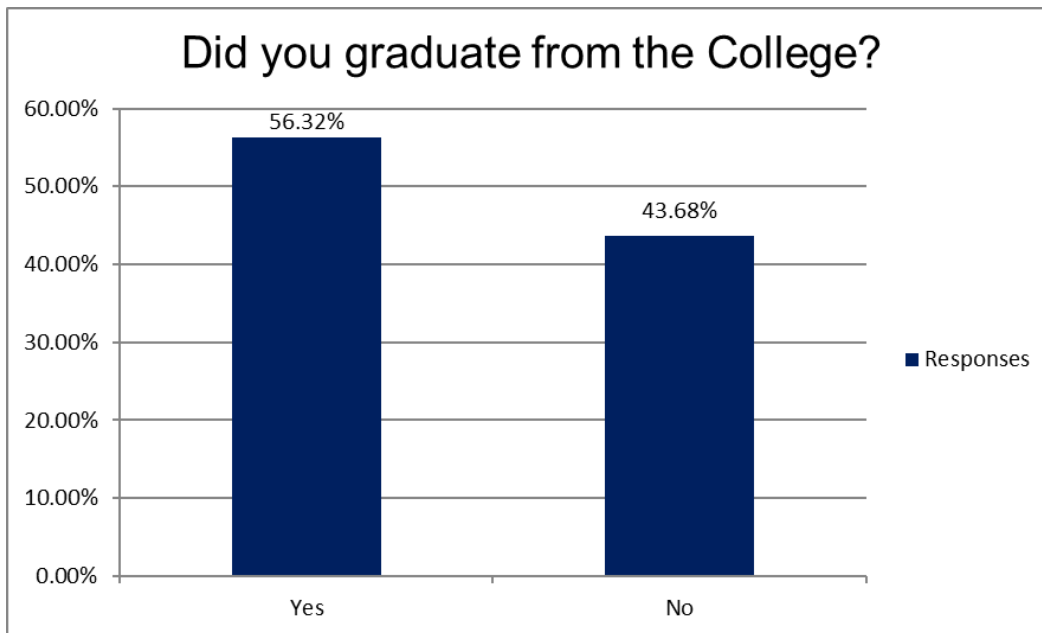
Figure 4: Survey Question 1
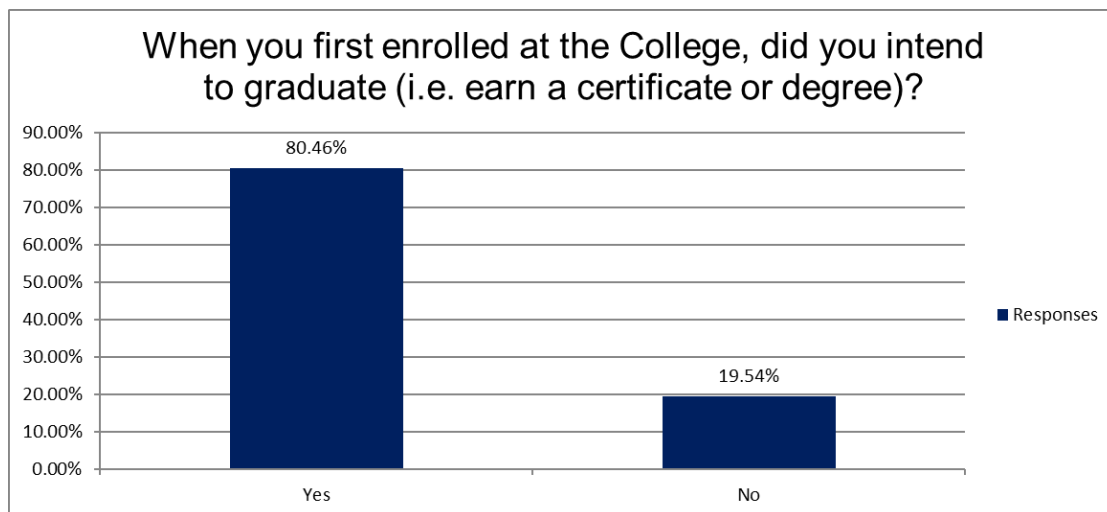
Summary: Survey Question 2

Survey question two (Figure 5) asked respondents whether they graduated from the College. Approximately 56% of the respondents indicated they had completed a certificate or degree, while nearly 44% responded that they had not graduated. It shall be noted that the data was self-reported by students and not verified by the researcher considering the student list for this study was anonymous.
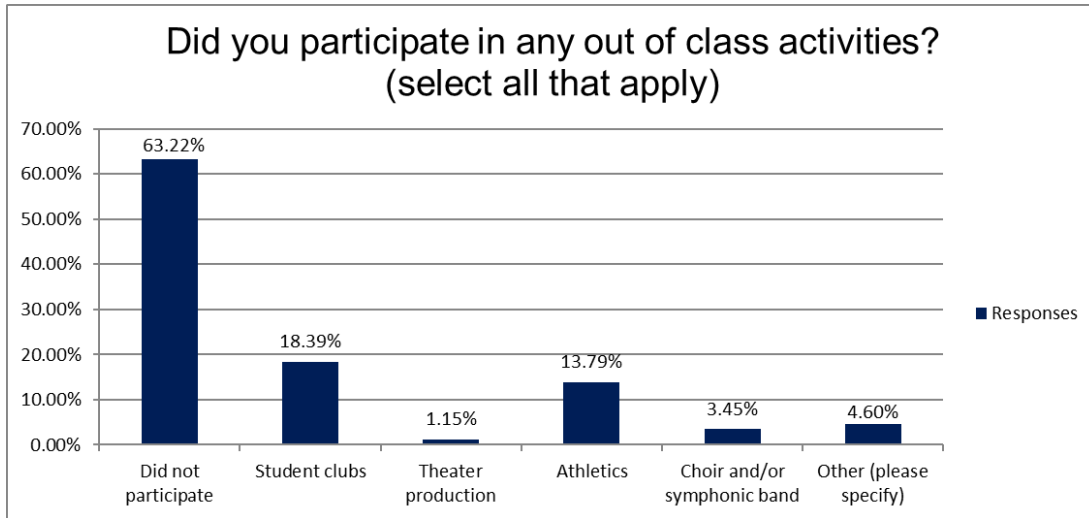
Figure 5: Survey Question 2

Summary: Survey Question 3

Survey question three (Figure 6) asked students whether they participated in any activities outside of their class schedule while attending the College. Over 63% of the respondents answered "no" indicating that they had not engaged with the campus outside of classes. Over 18% of respondents indicated they participated in student clubs while nearly 14% participated in college athletics.

The next highest category students reported being engaged with outside of class was "other." Nearly 5% of respondents listed things like the "radiologic technology program," which is not an official campus club, as well as "DECA Distributed Education Club of America and Honor Society," which interestingly has not been an active club at the College for more than two decades. Just over 3% of students responded that they were part of choir or band, while 1% reported they were involved with a theater production.

Figure 6: Survey Question 3

Did you participate in any out of class activities? (select all that apply)

Did not participate: 63.22%
Student clubs: 18.39%
Theater production: 1.15%
Athletics: 13.79%
Choir and/or symphonic band: 3.45%
Other (please specify): 4.60%

■ Responses

Summary: Survey Question 4

Question four (Figure 7) asked students to share the biggest single factor that helped them reach the finish line. More than 33% of students reported their own personal drive or motivation was the factor to help them complete. The second highest reason was the desire to earn more money, which was reported by nearly 10% of the students. Over 8% reported it was the support from family and friends that made the difference, compared to 5.75% who indicated their success was due to the support of college faculty and staff. Work requirements lagged as the least important factor, with approximately 2% reporting it was a driver to completion.

Once again students were provided the opportunity to provide other factors that helped them complete. Students shared an assortment of other reasons that impacted their completion such as one student who noted: "I had financial aid and felt like I should use it since I might never have that opportunity again." Another student expressed frustration with the completion process, noting:

> I couldn't achieve my degree because you kept canceling my classes every time I registered. I would no sooner walk out of the bookstore, and I would get an email stating the classes I signed up for my degree were canceled. It seems to be a problem with a lot of the students. So I transferred to Macomb Community College where I did not

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experience the problem. Earned my associates through there, went on to complete my bachelors through Macomb, transferred to a university, and I'm now working on my masters while working in my field. You were of no help to me whatsoever.

While this response was an outlier in the survey, the researcher chose to include it in the study as the information on course cancellation was noted to negatively impact student completion.

Figure 7: Survey Question 4
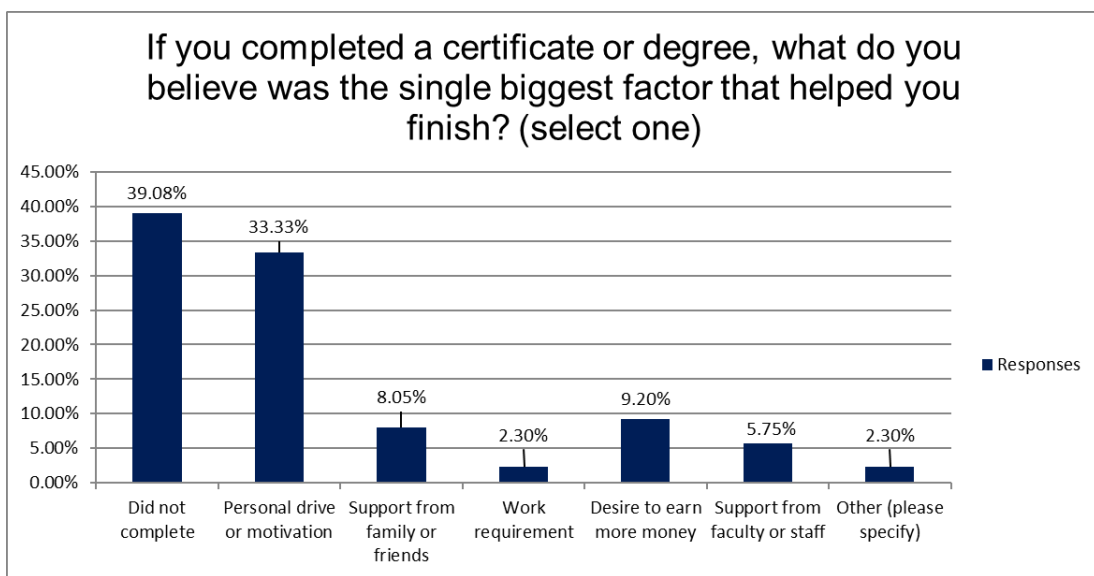
Summary: Survey Question 5

Survey question five (Figure 8) asked students to share their biggest single factor that prevented them from completing a certificate or degree at the College. Nearly 14% of the students reported that the alignment of required courses with their transfer college or university was the most significant factor that prevented them from graduating.

The next highest category was "other," where nearly 10% of respondents shared reasons that impacted their completion. The majority of responses revolved around the fact that they were seeking the Michigan Transfer Agreement, often transferring before graduation; however, a

couple students provided more in-depth answers related to the reason they did not complete. One

student stated:

> Your college could not follow through on classes that I registered for. I was not the only
> student that had this experience. Perhaps the college can follow through with their classes
> that students register for every semester.

Another student noted dissatisfaction with the College stating:

> I believe the nursing program uses a "point" grading system that is designed to allow
> them to fail students by 2 or 3 "points" so that the student has to pay for the entire year of
> schooling again. Effectively "double dipping" in community and federal education funds.

Figure 8: Survey Question 5
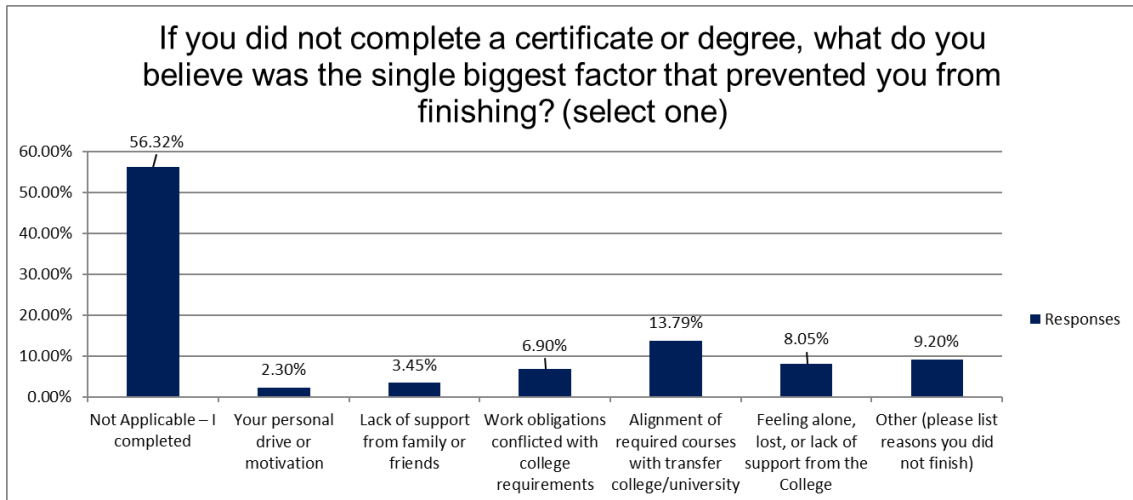
Summary: Survey Question 6

Question six (Figure 9) asked students to share whether they transferred to another

college or university following their time at the College. Over 65% of respondents indicated they

had transferred while approximately 34% indicated they did not transfer. Students reported

transferring to a variety of colleges or univeristies, including continuing on at a few other

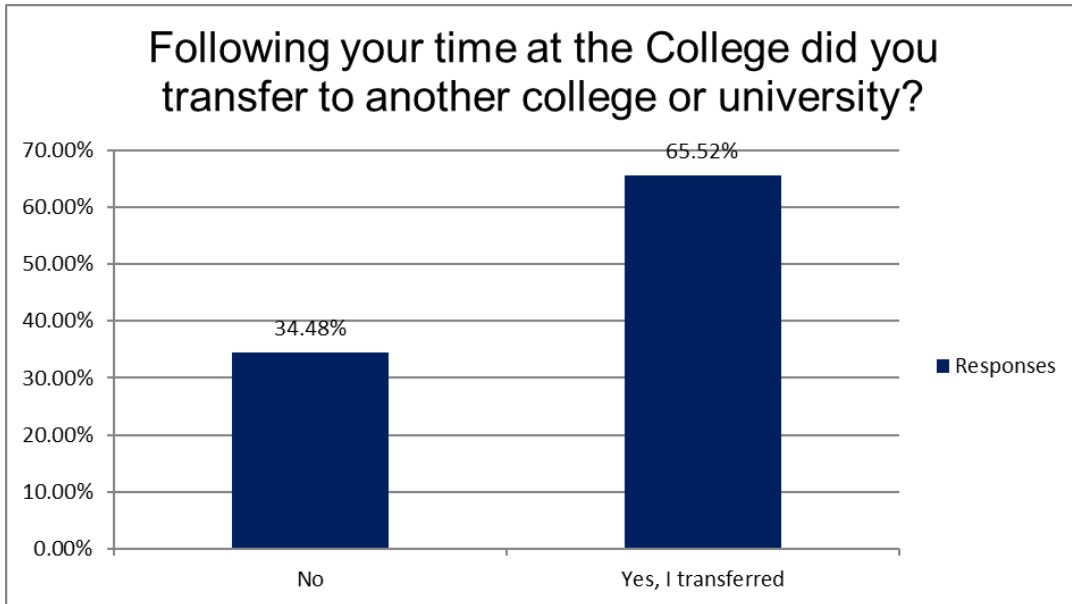community colleges too (Table 4).

Figure 9: Survey Question 6

Table 4: Survey Question 6 Transfer College or University

TRANSFER COLLEGE OR UNIVERSITY	NUMBER OF STUDENTS
Oakland University	15
Ferris State University	6
Michigan State University	6
Macomb Community College	5
University of Michigan-Flint	4
Eastern Michigan University	3
Grand Valley State University	3
Wayne State University	3
Walsh College	2
Cedarville University	1
Central Michigan University	1
Kendall College of Art and Design	1
Lansing Community College	1
Mid-Michigan Community College	1
Midwest College of Oriental Medicine	1
Northwood University	1
Paul Mitchell Great Lakes	1
Western Michigan University	1

SURVEY SECTION TWO

The second section of the survey contained four questions that aimed to capture insight into both the support systems utilized, as well as barriers encountered throughout the student's journey at the College. Only 82 students completed this section of the survey.

Summary: Survey Question 7

Question seven (Figure 10) provided students the opportunity to share how often they utilized a vareity of support options while at the College. Two particluar items, particpating in campus activities and using tutoring services, were reported as "never" by more than half of the students. Nearly 66% of respondents reported they met with an advisor "sometimes" with 20.73% indicating they met "often" and 12.2% noting they "frequently" met with an advisor. Meeting with professors during office hours was reported as "sometimes" by 51.22% of students, while nearly 20% indicated they "never" visited office hours. Studying with other students was reported as "never" or "sometimes" by more than 60% of respondents, while 15.85% noted "often" and 17.07% shared they "frequently" studied with other students. The overall frequency of utilization is summarized in table 5.
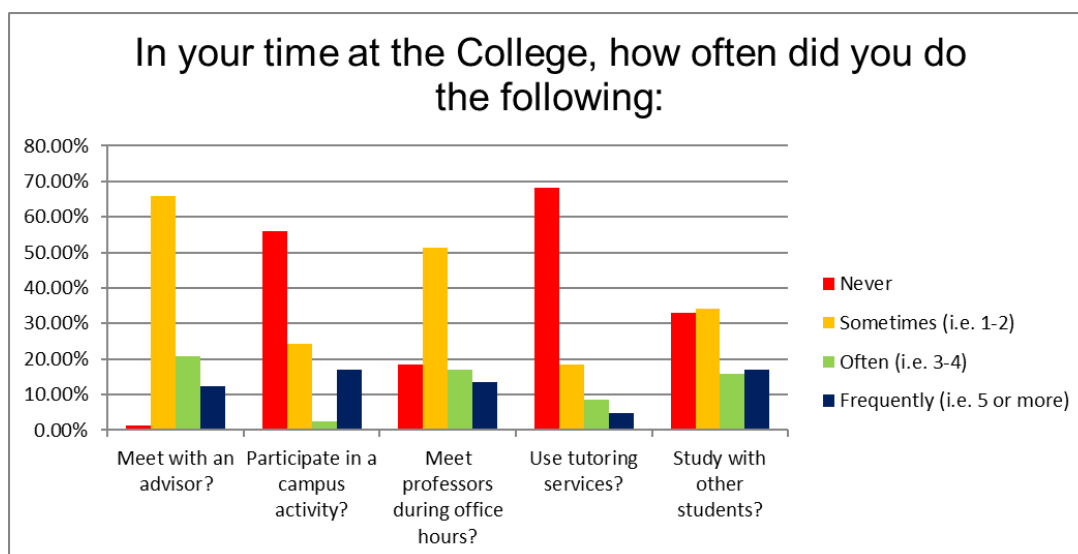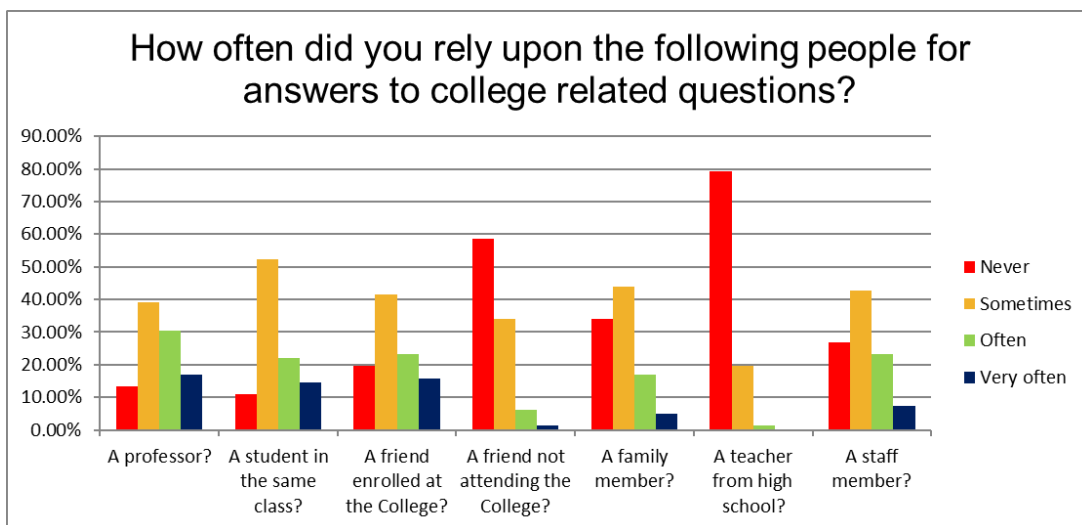
Figure 10: Survey Question 7

Table 5: Frequency of Utilization

	NEVER	SOMETIMES (I.E. 1-2)	OFTEN (I.E. 3-4)	FREQUENTLY (I.E. 5+)
Meet with an advisor?	1.22%	65.85%	20.73%	12.20%
Participate in a campus activity?	56.10%	24.39%	2.44%	17.07%
Meet professors during office hours?	18.29%	51.22%	17.07%	13.41%
Use tutoring services?	68.29%	18.29%	8.54%	4.88%
Study with other students?	32.93%	34.15%	15.85%	17.07%

Summary: Survey Question 8

Question eight asked students how often they relied upon others for answers to their college related questions (Figure 11). The highest categories students reported they "never" asked for help from were a high school teacher (79.27%), a friend not attending the College (58.54%), and a family member (34.15%). Respondents reported the top three options they "sometimes" ask for help are students in the same class (52.44%), a family member (43.9%), and college staff (42.68%). Professors were reported as the most common outlet students go to for help "often" (30.49%) and "very often" (17.07%). With regard to "other" outlets for help with questions, one student responded, "online resources" and another indicated "myself."

Figure 11: Survey Question 8

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Summary: Survey Question 9

Question nine asked students how often they experienced various barriers in their pursuit to complete a certificate or degree at the College (Figure 12). Based upon weighted average of the student responses for each area revealed the top three barriers as personal life challenges (2.13), having enough money (1.85), and work (1.69).

The top three individual reasons cited by respondents as "often" being a barrier to completion were personal life challenges (17.07%), having enough money (15.85%), and work (13.58%). Respondents noted personal life challenges (15.85%), having enough money (8.54%), and required course(s) not being available (6.10%) as the top items that were "very often" a barrier to successful completion.

A summary of the key highlights for each category of barriers to completion, as reported by survey respondents included the following:

- Books: 67% of students indicated they never lacked textbooks, while 28.05% said they sometimes were missing books.

- Unreliable Technology: 31.7% said having reliable technology was sometimes an issue, with nearly 10% indicating technology was often an issue for them.

- Grades: 63.41% of students indicated poor grades were never a barrier to their completion, while only 2.44% of respondents reported poor grades impacted their completion.

- Transportation: 86.59% of respondents indicated transportation was "never" an issue, while another 9.76% of students noted transportation was "sometimes" a barrier to completion.

- Work: Conflicts between work and college were noted as a barrier to completion as "sometimes" by 30.86% of respondents and as often by13.58%.

- Money: Nearly half of the students (47.56%) indicated money was "never" an issue, with less than ten% (8.54%) reporting money as "very often" being a barrier.

- Personal Challenges: Students noted the personal life challenges as the most consistent barrier to completion with 15.85% noting as "very often" and 17.07% as "often."

- Required Courses: The availability of required program courses was cited as a barrier by students "sometimes" (30.49%), "often" (4.88%), and "very often" (6.10%).

- Childcare: Respondents did not indicate the availability of childcare as a barrier to completion with 97.56% choosing "never."

- Food: The lack of food was reported as "very often" by one student, while 91.46% selected having enough food was "never" a barrier to completion.

- Other: One student indicated "Issues with faculty at times not being the best" as a barrier to their completion.

Figure 12: Survey Question 9
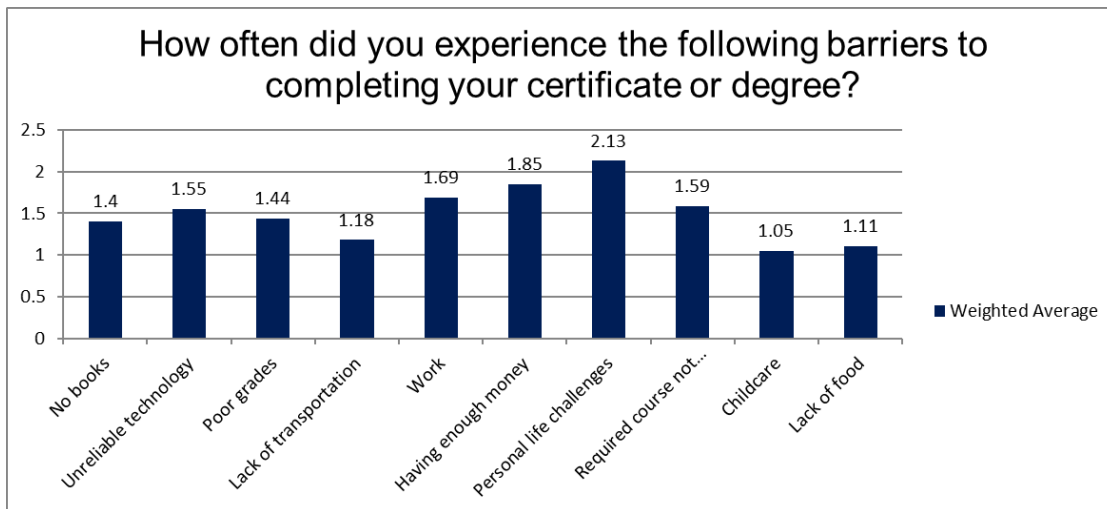
Summary: Survey Question 10

Question ten was an optional question that simply thanked students for their participation and provided an opportunity to share any additional information they believe may be helpful for future students to graduate. Over 20% of the respondents chose to answer this question. The following is a list of actual comments from respondents regarding what they believe may be helpful for future community college students to complete a certificate or degree:

- "Make sure you have your priorities straight before going into college."

- "I would tell a new student to use the professors/advisors as much as you can. Most of them are great and very helpful. I went on to University of Michigan Flint and I missed the College and how caring and helpful the faculty was."

- "For healthcare programs, I believe the GPA requirements should be based off of prerequisite/co requisite courses only and not your overall GPA over the course of all the years. I will never be able to become an RN through the College because I had bad grades my very first year in general classes due to family dysfunction. Now my GPA is forever ruined & I cannot get into certain programs based on those grades from 5 years ago."

- "Honestly, the College really isn't the best. Every time I was close to graduating, I would get informed that the required classes had changed. Any new classes I needed I wasn't allowed to take. They ended up taking a lot of my money for nothing to come from it."

- "Go for the Michigan Transfer Agreement!"

- "The College offers affordable education and ,in some instances, better than a university class."

- "I worked as a tutor at the College for 2 years and was able to help countless students and make many friends who helped support me through my degree. I would highly recommend students go see the tutors. Also (sic) the advisors at the College weren't particularly helpful with classes. They didn't have much of any knowledge on programs and what you could do with them. It's maybe still worth talking with one once, but it's important to do your own research in programs yourself online."

- "Taking advantage of office hours with professors and advisors was the best thing I ever did."

- "Introducing the staff to help students."

- "Socialize with people!"

- "If you plan to transfer out of the College to go to a 4-year university, make sure to complete the MTA and keep your GPA high!"

- "Don't give up. Join groups and talk to peers!!"

- "Community college may not always be the most attractive choice, but it is well worth it! You're taking the same courses and paying a much better rate. I actually really enjoyed my time at the College. My biggest piece of advice is, WORK WITH YOUR PROFESSORS! Never be afraid to ask questions or even express any concerns you may have. Always take advantage of small class sizes. Professors love to see students taking initiative to work side by side with them. Speaking with my professors always helped put me at ease whether it be answering questions regarding

class assignments or even helping with resumes. Overall, don't be afraid of your professors…they're there to help!!!"

- "Highly recommend any community college to save money. It may take a semester or 2 longer, but the amount of money you save in the future is so rewarding."

- "Don't get your hopes up on having a graduation, because all these other big schools will have one and you just worked your butt off for 2 years and get NOTHING. Makes 0 sense and the College sucks for that."

- "Don't go to college. It's a waste of time and money. If your (sic) going for a trade it's helpful but other than that it's not worth it."

QUANTITATIVE DATA OVERVIEW

As part of this study, the researcher analyzed actual student data extracted from the Student Information System to explore if a relationship exists between key independent variables and completion. This section provides an overview of the descriptive statistics of the entire IPEDS cohort data set utilized for the study. The total population size included 1,180 unique student records. The combined overall completion rate for students within the three IPEDS cohort years was 24.15% (n = 285). A total of 75.85% (n = 895) of students in the study did not complete a college certificate or degree at the College within three years from their first full-time fall semester. The completion rates varied between the three cohort years (Table 6) but were similar, with 2015 having the highest rate at 26.23%.

Table 6: Cohort Year Comparisons

COHORT YEAR	STUDENTS	PERCENT	GRAD YES	PERCENT
2015	385	32.63%	101	26.23%
2016	402	34.07%	89	22.14%
2017	393	33.31%	95	24.17%

There were ten independent variables identified by the researcher for this study; however, one variable related to participation in student activities contained incomplete data and was

therefore omitted from the quantitative portion analysis. The participation in student clubs or activities question remained a focus of the qualitative survey sent to all cohort students. An overview of the data elements for each of the independent variables is captured in the tables below.

The review of high school GPA (Table 7) uncovered that nearly half (45.25%) of the cohort students were missing final GPA data on their student record at the College. However, the missing high school GPA population was also the highest completion rate with 48.07% of all cohort graduates fitting this category. Students with a 3.0 or higher final high school GPA comprised the second highest category of students (32.54%) in the cohorts as well as graduates (42.11%) from the College.

Table 7: High School GPA

HS GPA	NUMBER	PERCENT	GRAD YES	PERCENT
Missing HS GPA	534	45.25	137	48.07
Less than 2.0	42	3.56	1	0.35
2.0-2.99	220	18.64	27	9.47
3.0 or higher	384	32.54	120	42.11

A review of credits earned while still enrolled in high school (Table 8) revealed that the vast majority of cohort students (75.76%) had not completed any college credits while in high school. The same held true when looking at those who graduated from the College, as approximately two-thirds (67.37%) had not earned credits prior to enrolling.

Table 8: Credit Earned while in High School

CREDIT EARNED WHILE IN HS	NUMBER	PERCENT	GRAD YES	PERCENT
No	894	75.76	192	67.37
Yes	286	24.24	93	32.63

The College has established standards via the use of placement testing to designate whether a student is "college ready" upon entry. The review of data related to those considered college ready (Table 9) indicated a near split of the total cohort with 52.2% considered ready and 47.8% not ready. However, when looking specifically at the completer data, the researcher discovered a significant difference with approximately two-thirds (63.86%) of students who were considered college ready completing a certificate or degree from the College, while the other 36.14% of actual graduates from the three cohorts were considered not college ready.

Table 9: Considered College Ready upon Entry

COLLEGE READY	NUMBER	PERCENT	GRAD YES	PERCENT
No	564	47.80	103	36.14
Yes	616	52.20	182	63.86

As referenced in Chapter Two, the success of community college students who begin college by enrolling in remedial or below 100-level college classes is lacking. A review of the cohort data related to those who completed developmental education (DE) credits (Table 10) indicated nearly three-quarters of the students (70.85%) had not completed developmental credits. The same held true when looking at the graduates, as 78.25% of all completers had not earned DE credits. Students who completed below 100-level credits accounted for 21.75% of all cohort graduates.

Table 10: Completed Developmental Education Credits

COMPLETED DEV ED CREDITS	NUMBER	PERCENT	GRAD YES	PERCENT
No	836	70.85	223	78.25
Yes	344	29.15	62	21.75

The researcher reviewed first semester credit hours enrolled (Table 11) regarding student completion. The Complete College America movement encourages students to enroll in a

minimum of 15 credit hours each semester to stay on track to finishing a college degree (*15 to Finish*, n.d.). The data revealed that the smallest portion of all cohort students (27.97%) enrolled in 15 or more credits upon entry to the College. However, 34.74% of cohort graduates took at least 15 credits their first semester. The largest group of students who completed (43.16%) enrolled in 13-14.99 credits their first semester.

Table 11: First Semester Credit Hours Enrolled

FIRST SEM ENROLLED CREDITS	NUMBER	PERCENT	GRAD YES	PERCENT
12-12.99	357	30.25	63	22.11
13-14.99	493	41.78	123	43.16
15 or more	330	27.97	99	34.74

Student completion of credit hours in their first semester (Table 12) was explored as another data element for this study. Nearly one-third (30.51%) of all cohort students earned less than 12 credit hours their first semester, resulting in just 7.37% of those students reaching the finish line. The number of completed credits in the entry semester again revealed the highest graduation rate was for those who earned between 12-14.99 credits (61.05%), followed by those who completed 15 or more credit hours (31.58%).

Table 12: First Semester Credit Hours Completed

FIRST SEM CR COMPLETED	NUMBER	PERCENT	GRAD YES	PERCENT
Less than 12	360	30.51	21	7.37
12-14.99	578	48.98	174	61.05
15 or more	242	20.51	90	31.58

The number of courses a student withdrew from in the first year (Table 13) was another variable the researcher explored to see if there may be a connection with completion. The data indicated that students with zero "W" grades during their first-year graduate (84.56%), while

those with three or more withdrawals in year one rarely reach the finish line (1.05%). Nearly a

quarter (22.29%) of all cohort students had one or two "W" grades in their first year with 14.39%

of that population ultimately graduating.

Table 13: First Year Number of Withdrawal "W" Grades

FIRST YEAR NUMBER OF W	NUMBER	PERCENT	GRAD YES	PERCENT
0	843	71.44	241	84.56
1 or 2	263	22.29	41	14.39
3 or more	74	6.27	3	1.05

The review of the literature regarding student success and completion data shared in the

Chapter Two of this study noted that the pace in which students earned credits impacted

completion. The researcher looked at the cohort data related to total credit hours completed in the

first year (Table 14), which revealed that the lowest number of completers (14.74%) comprised

of the group of students who earned less than 24 credit hours in year one. In comparison,

students who completed between 24-31.99 credit hours in their first year graduated at a rate of

65.61%. The smallest population of the cohort (8.39%) earned 32 or more credit hours, but that

same population accounted for 19.65% of all cohort graduates.

Table 14: Credit Hours Completed Year One

CREDITS COMPLETED YR 1	NUMBER	PERCENT	GRAD YES	PERCENT
Less than 24	561	47.54	42	14.74
24-31.99	520	44.07	187	65.61
32 or more	99	8.39	56	19.65

Although the completion data for this study is measured via the IPEDS 150% timeframe,

or three years, the researcher checked the cohort data with regard to the cumulative credit hours

completed by the end of year two (Table 15). Similar to the year one data analysis, students who

failed to complete at least 48 hours by the end of their second year at the College accounted for

just 15.44% of all graduates. The largest number of completers for all cohorts where those who

earned 60 or more (48.07%) credit hours by the end of their second year at the College. The data

also captures that nearly two-thirds of all cohort students (63.05%) fall below 48 credit hours

earned after two years.

Table 15: Cumulative Credit Hours Completed by the End of Year Two

CUM CREDITS AT YEAR 2 END	NUMBER	PERCENT	GRAD YES	PERCENT
Less than 48	744	63.05%	44	15.44%
48-59.99	259	21.95%	104	36.49%
60 or more	177	15.00%	137	48.07%

KEY INFLUENCERS TO COMPLETION

The researcher utilized Microsoft Power BI Desktop, a technology tool that conducts

statistical analysis of data. This business intelligence solution provided the ability to review Key

Influencers within the data set. Using this analysis, the researcher ran various scenarios to

compare each of the independent variables to determine if any relationship existed with the

dependent variable of completing a certificate or degree.

High School GPA and Credits Earned in High School

The Key Influencer statistical analysis via Microsoft Power BI Desktop was run for both

the high school GPA (Figure 13) and credits earned by students while still in high school (Figure

14). The results indicated the likelihood of graduating increases by 1.51 times when the high

school GPA of students in the cohort was 3.0 or higher, or the students have actually earned

college credits while in high school. The bar charts visually capture the percentage of graduates

for each high school GPA category as well as for students who earned college credits while in

high school.
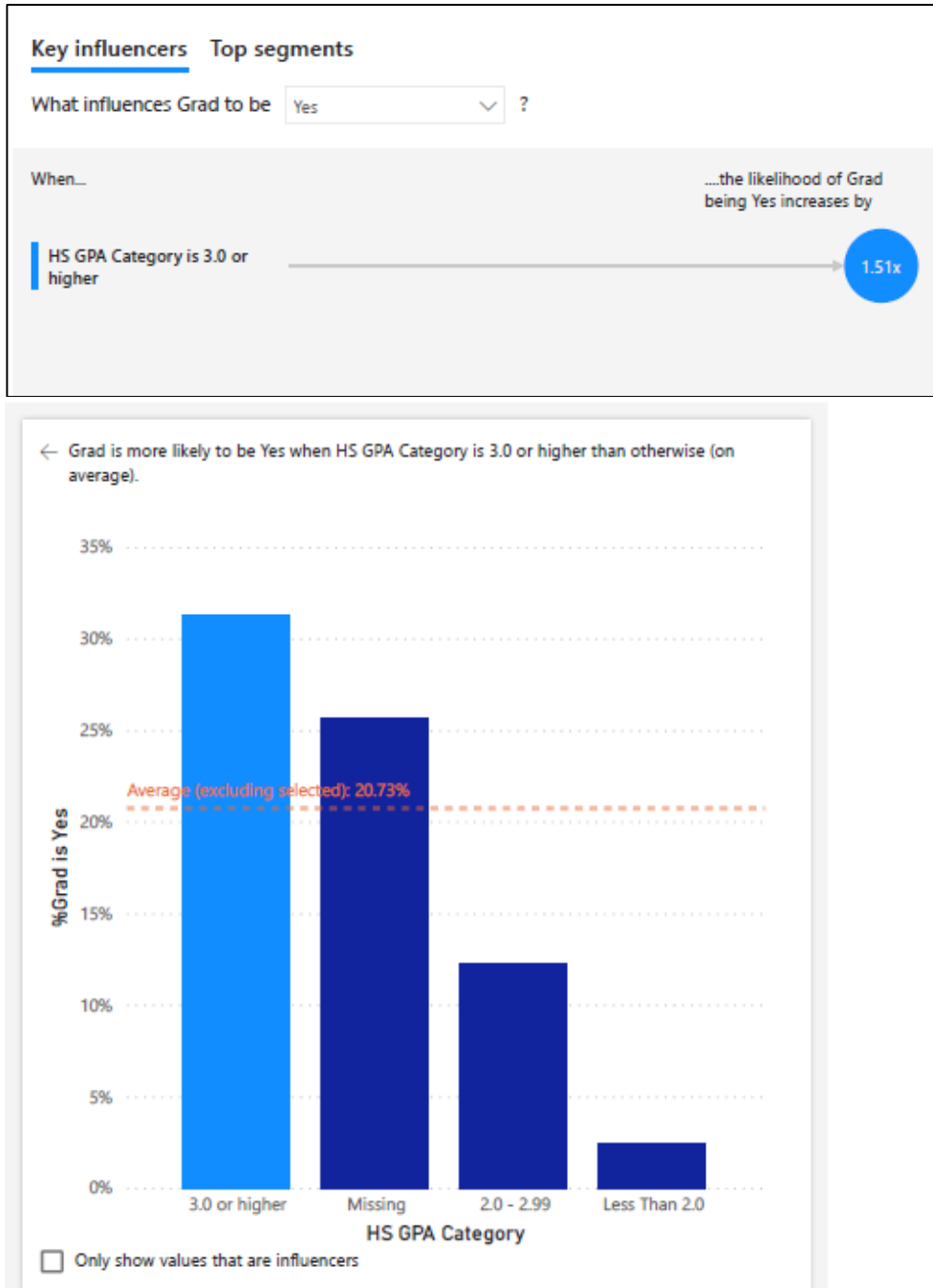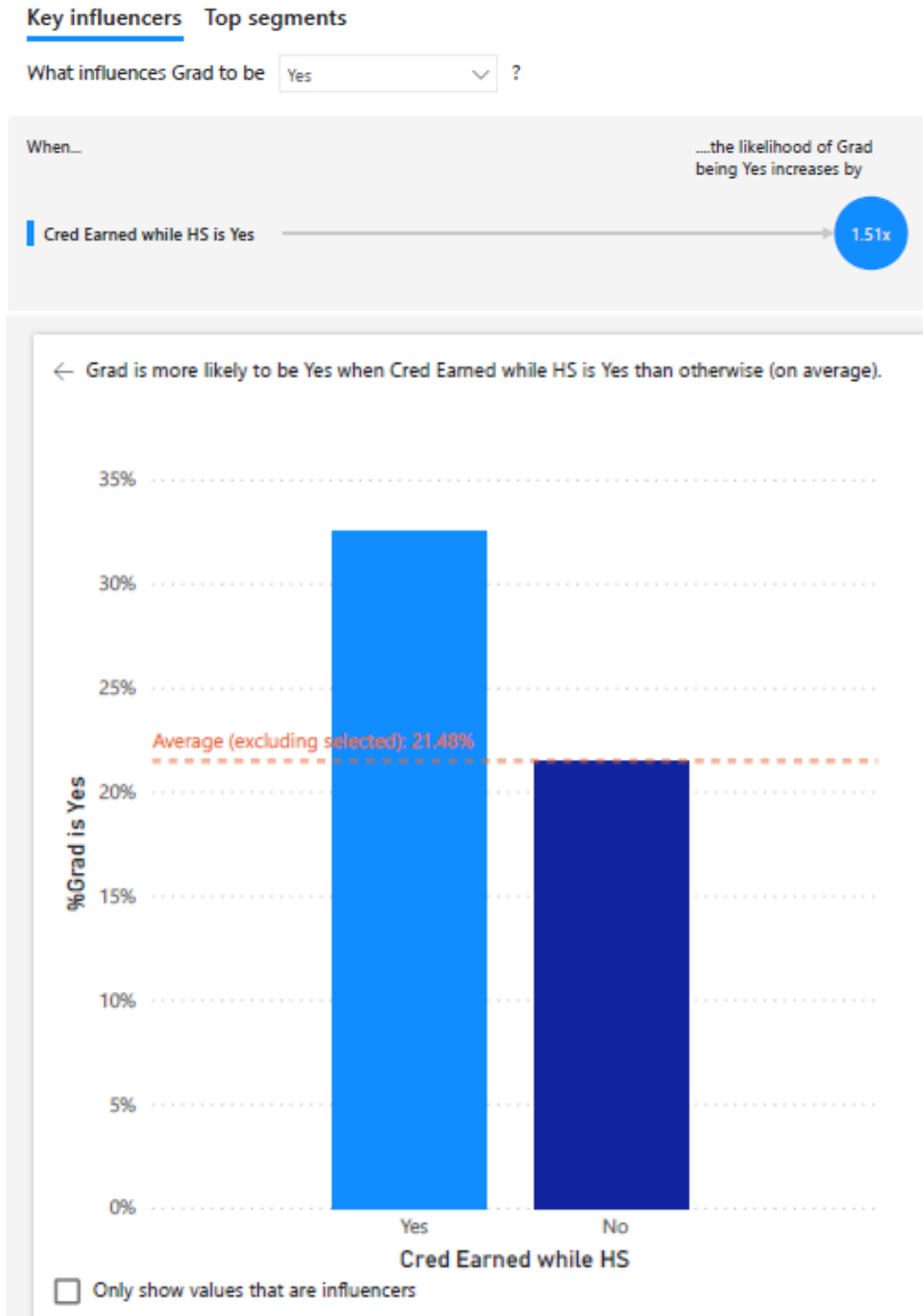
Figure 13: Key Influencer: High School GPA

Figure 14: Key Influencer: Credits Earned While in High School


College Ready

Power BI Desktop was also used to look at whether a relationship existed with graduation

based upon the college ready status of cohort members (Figure 15) upon entrance to the College.

The Key Influencer report showed that the likelihood of graduating increases by 1.62 times when

students in the cohort were considered college ready. Again, the bar graph demonstrates those

who were college ready completed at a nearly 30% rate while those not considered college ready

graduated less than 20% of the time.

Figure 15: Key Influencer: College Ready Status

← Grad is more likely to be Yes when College Ready is Yes than otherwise (on average).
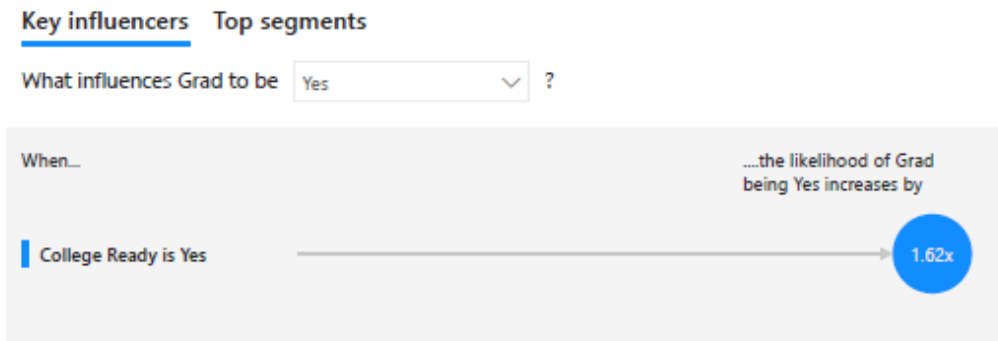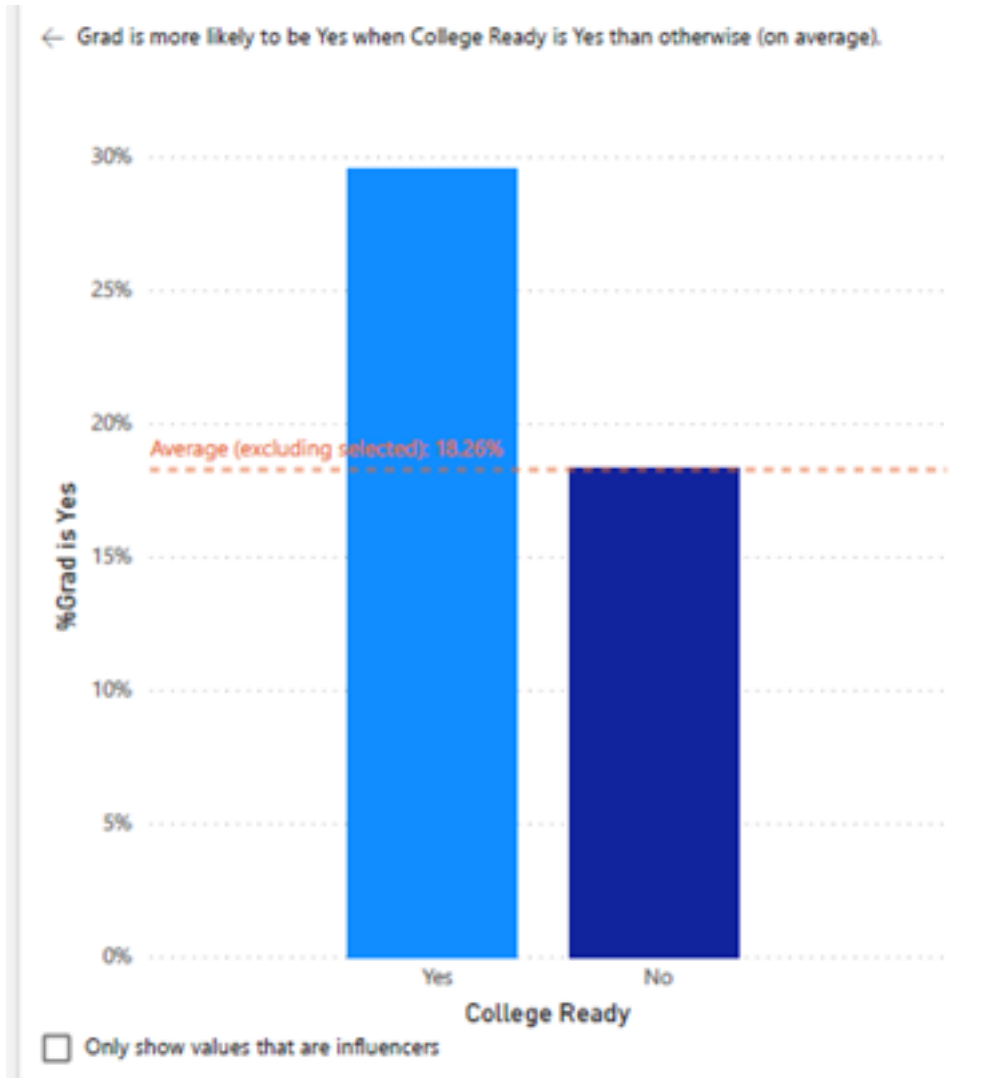
Completed Developmental Education Credits

The researcher looked at how the completion of developmental education credits may impact student completion. The Key Influencer process in Power BI Desktop revealed the likelihood of students graduating who did not complete developmental education credits (Figure 16) increased by 1.48 times. The bar graph visually displays that those students who did not complete developmental education credits graduated at a higher rate than those who earned below 100-level credits.
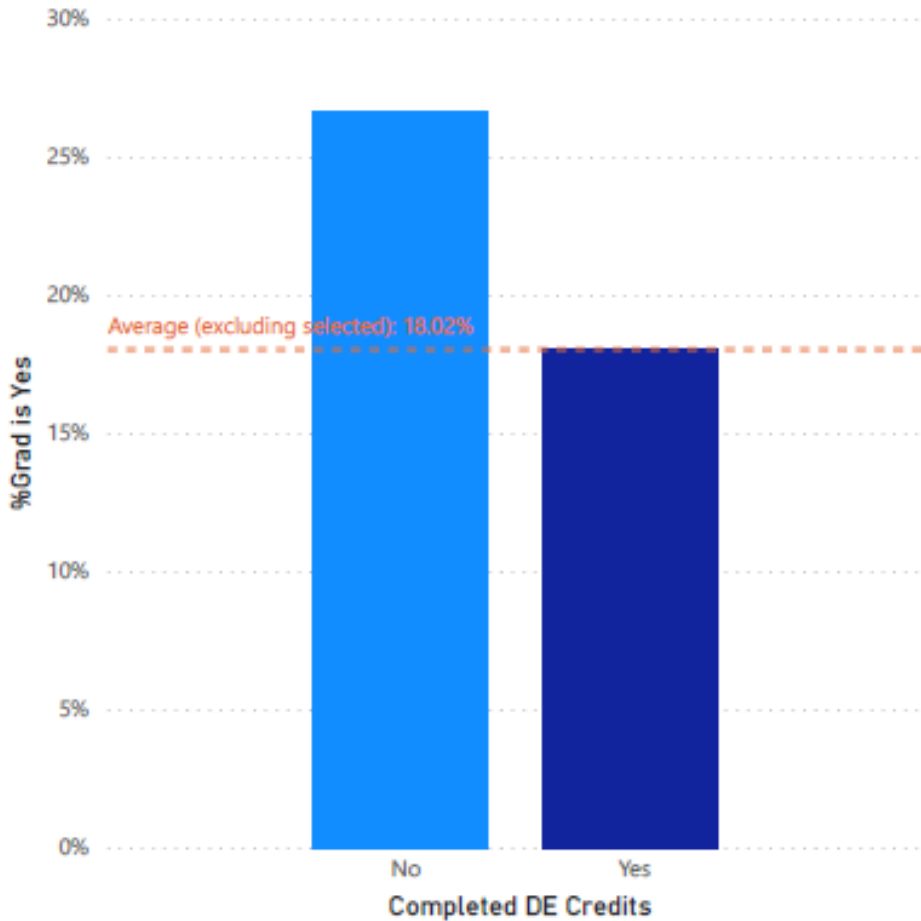
Figure 16: Key Influencer: Completed Developmental Education Credits


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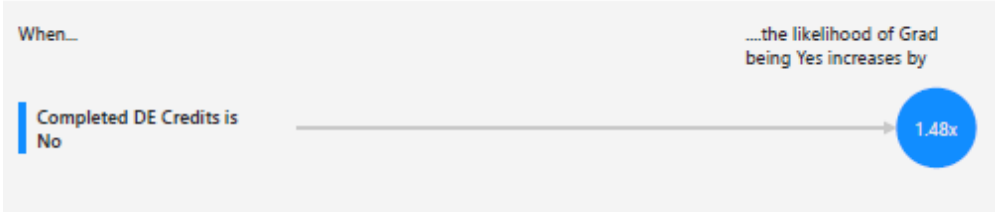
First Semester Enrolled Credit Hours

The number of first semester credit hours enrolled (Figure 17) was explored to determine if a relationship existed with completion. Per the Key Influencer statistical analysis via Power BI Desktop, cohort students who enrolled in 15 or more credits their first fall semester increased their likelihood of graduating by 1.37 times. As demonstrated by the bar graph, students who enrolled in the minimum 12 credit hours their first semester graduated at a rate slightly above 15% compared to 30% for those who enrolled in at least 15 credit hours.

Figure 17: Key Influencers Number of First Semester Enrolled Credits

← Grad is more likely to be Yes when First Semester Enrolled Credits Level is 15 or more credits than otherwise (on average).
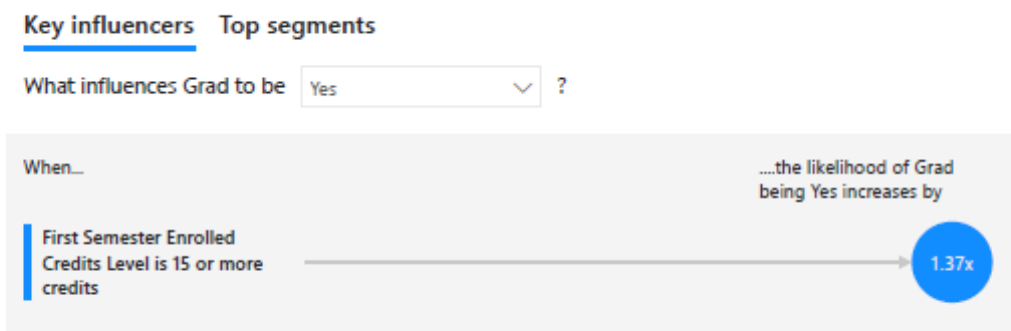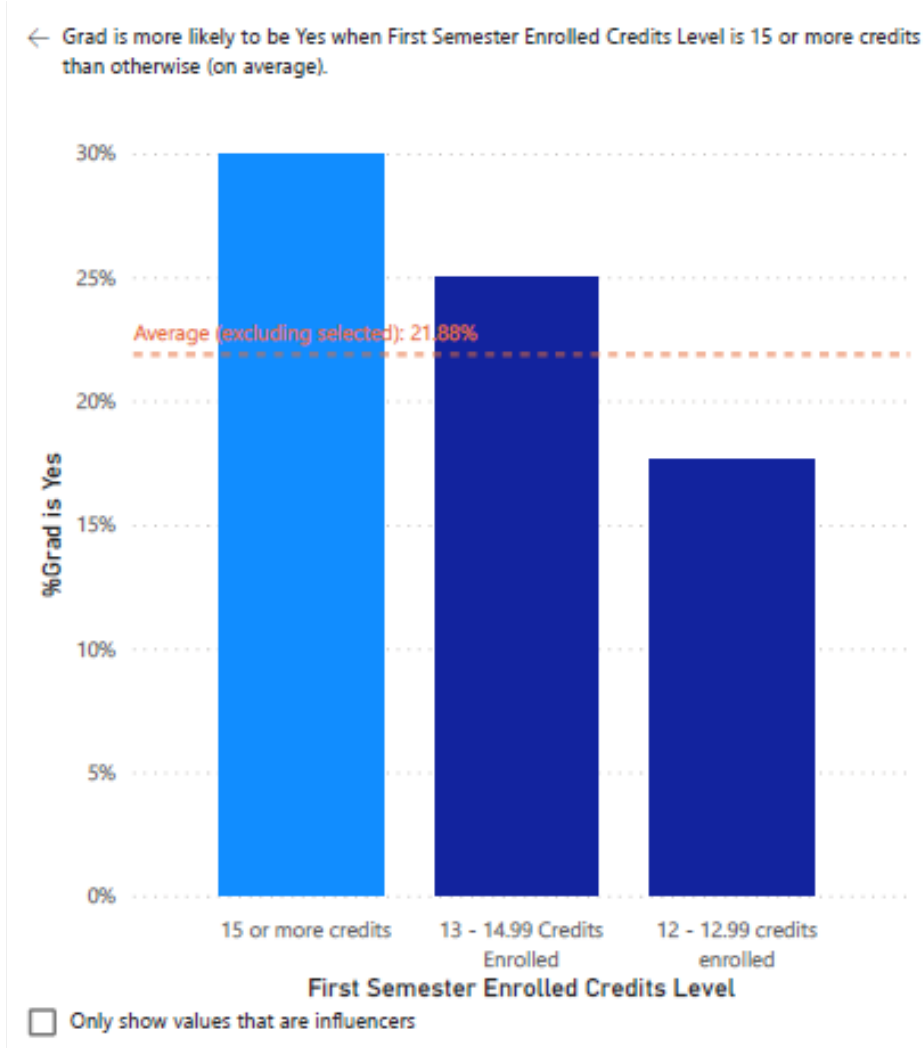
First Semester Completed Credit Hours

The number of credit hours completed the first semester (Figure 18) was also run through the Key Influencer analysis to determine the impact on graduation. The Power BI Desktop statistical analysis revealed that those who completed at least 15 credit hours their first fall semester increased their likelihood of graduating by 1.79 times. Those students who completed less than 12 credit hours in their first semester rarely reached the finish line. The bar graph displays a significant difference in graduation rate, approximately 30%, between those who earn 15 or more credits and those who complete less than 12 credit hours.

Figure 18: Key Influencer: First Semester Credits Completed

First Year "W" Grades

The researcher analyzed the impact of students withdrawing from classes during the first year. Again, the Key Influencer process in Power BI showed the number of withdrawals in year one (Figure 19) had a strong impact on graduation. Students who did not drop any classes with a "W" grade in their first full year of college increased the likelihood of graduating by 2.19 times. In comparison, students who dropped three or more courses with "W" grades in year one reached the finish line less than 5% of the time, which is visually demonstrated in the Figure 19 bar graph.

Figure 19: Key Influencer: First Year "W" Grades
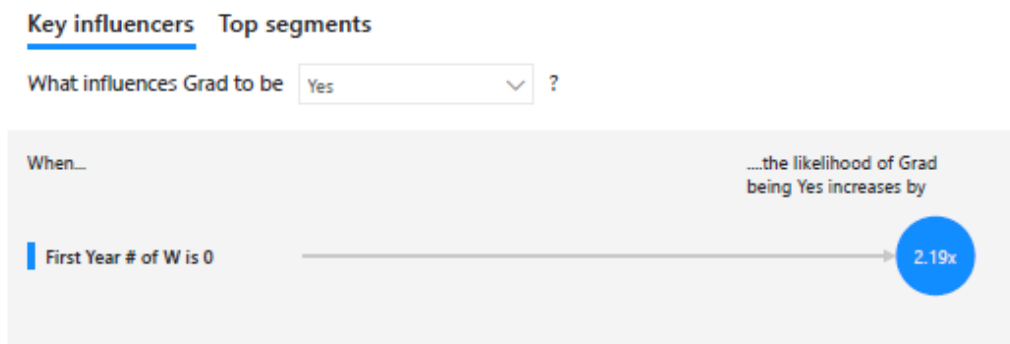
← Grad is more likely to be Yes when First Year # of W is 0 than otherwise (on average).
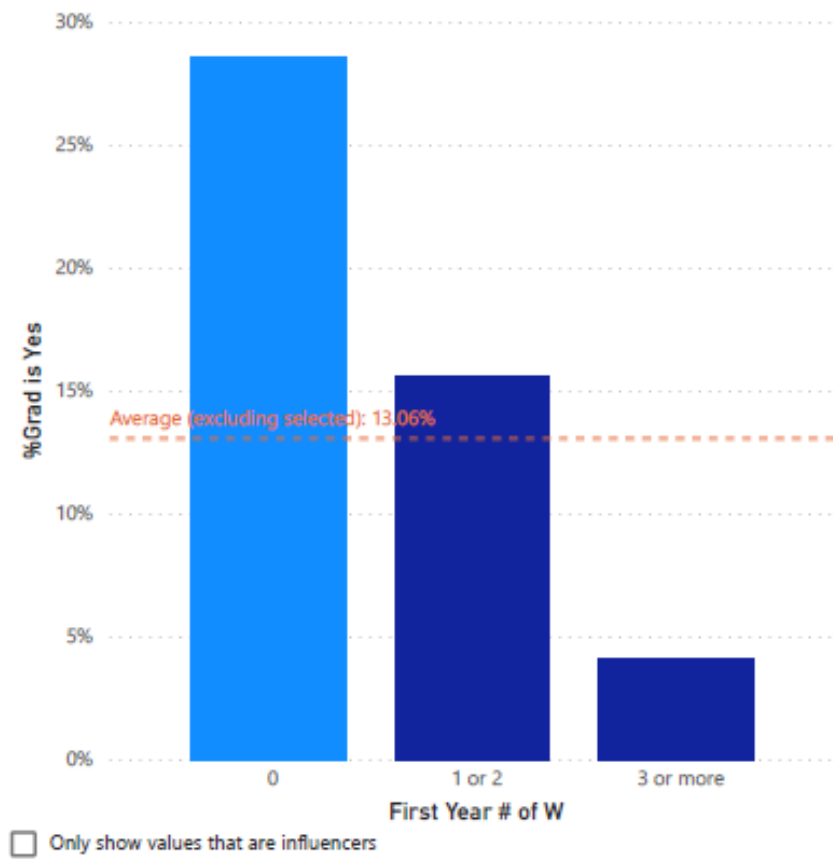
First Year Total Completed Credits

The pace at which students completed credits was considered by the researcher to determine if a relationship existed with completion. The total credits completed in year one (Figure 20) was reviewed via the Key Influencer statistical analysis, which indicated students with 32 or more completed credits earned the first year increased the likelihood of graduating by 2.67 times. Students who earned less than 24 credit hours in year one had a significantly lower completion rate. Less than 10% of all IPEDS cohort students in this category graduated within the three-year timeframe.

Figure 20: Key Influencer: First Year Completed Credit Hours
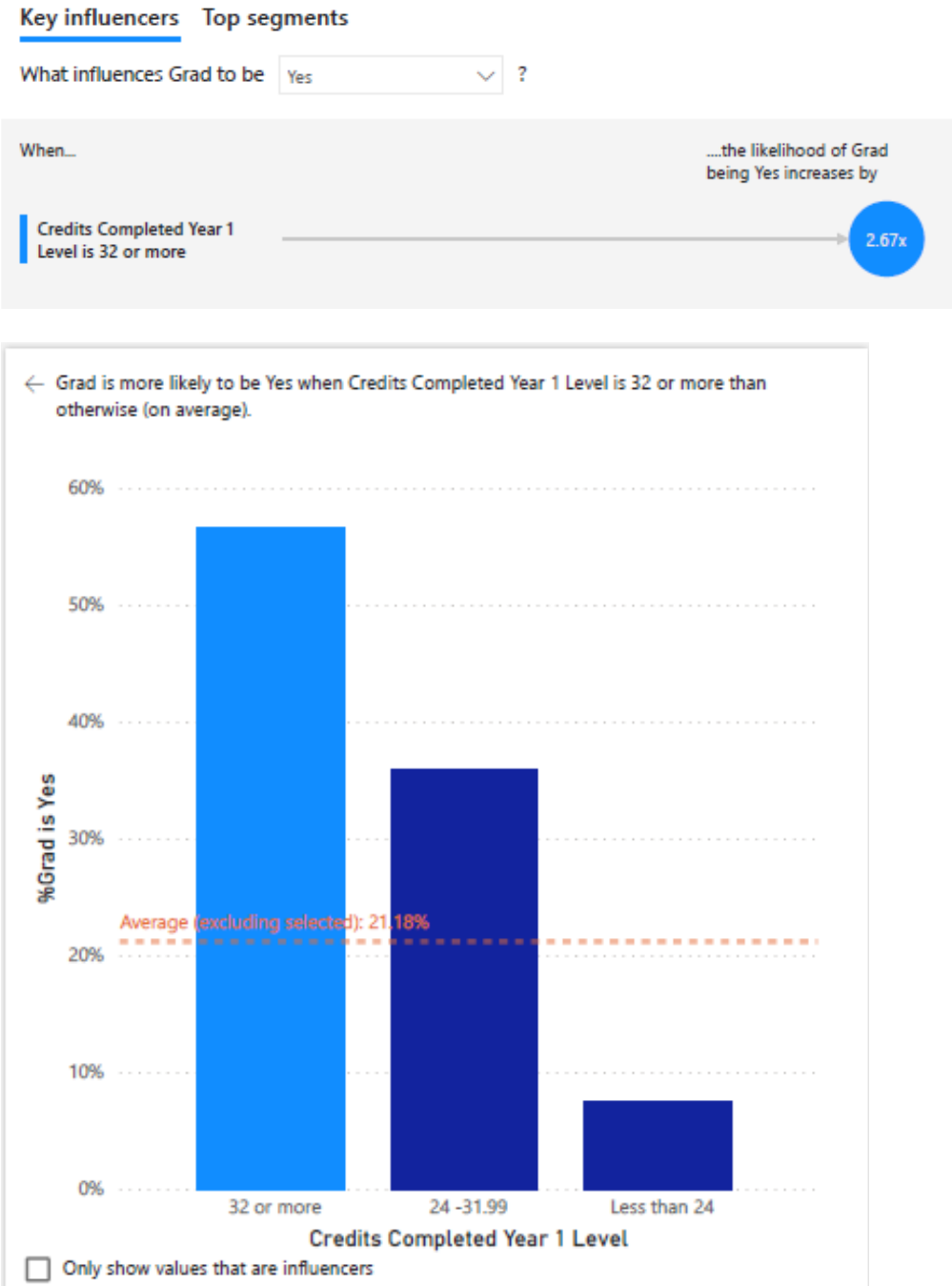
Second Year Total Completed Credits

Similar to the year one completion data, the researcher analyzed the total credits earned by the end of year two (Figure 21) for all cohort students. The Key Influencer process showed this independent variable to have the highest impact on completion, indicating that students with 60 or more completed credits by the end of year two increased the likelihood of earning a certificate or degree by 5.25 times. The population of students who fall short of earning a minimum of 48 total hours by the end of year two rarely graduate, which is shown in the Figure 21 bar chart.

Figure 21: Key Influencer: Second Year Cumulative Completed Credit Hours

← Grad is more likely to be Yes when Cum Cred Year 2 is 60 or more than otherwise (on average).
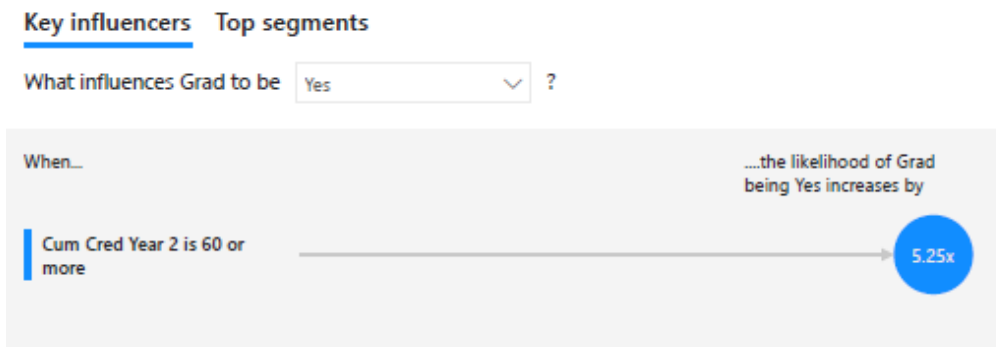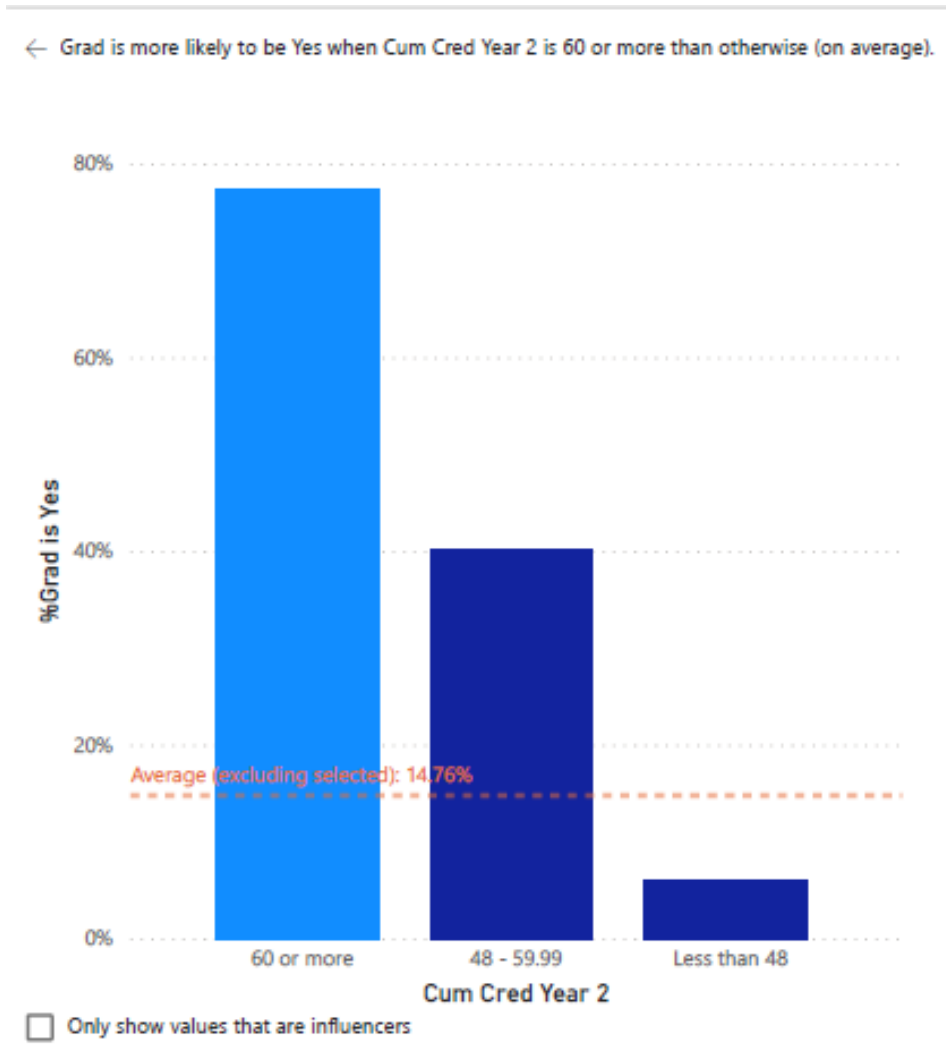
OVERVIEW INFLUENCE OF ALL VARIABLES ON GRADUATION

Microsoft Power BI Desktop was used to run an analysis of all variables to review the influence they have on students who officially graduated from the College (Figure 22). When looking at all students, the top three influencers were the cumulative credits completed at the end of year two (5.25 times more likely to graduate if 60 or more), the number of credits earned during year one (2.67 times more likely to graduate if 32 or higher), and the number of withdrawal grades in year one (2.19 times more likely to graduate if 0 "W" grades).

Conversely, the researcher ran the Power BI Key Influencer report to determine the impact of variables for students who did not graduate (Figure 23). For those with a graduation status of No, the data analysis again points to the pace of completion as a big influencer. Those who failed to complete at least 48 credit hours by the end of year two were 2.10 times more likely not to graduate. IPEDS cohort students who failed to reach at least the 24-credit hour threshold by the end of their first year were 1.52 times more likely to not graduate. Two additional influencers that increased the likelihood that students did not graduate included those who completed less than 12 credits their first semester (1.39 times more likely to not graduate) and students who had three or more "W" grades in their first year (1.29 times more likely not to graduate).

Figure 22: Key Influencers: Summary of all Variables with Graduation Yes

← Grad is more likely to be Yes when Cum Cred Year 2 is 60 or more than otherwise (on average).

Bar chart with y-axis labeled "%Grad is Yes" (0% to 80%) and x-axis labeled "Cum Cred Year 2" with categories "60 or more", "48 - 59.99", and "Less than 48".

Average (excluding selected): 14.76%

☐ Only show values that are influencers

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Figure 23: Key Influencers: Summary of all Variables with Graduation No

Key influencers   Top segments

What influences Grad to be [No   ⌄] ?

When...   ....the likelihood of Grad
                                                 being No increases by

Cum Cred Year 2 is Less   ───────────────────────────── 2.10x
than 48

Credits Completed Year 1   ───────────────────── 1.52x
Level is Less than 24

First Semester Credits   ─────────────── 1.39x
Completed Level is Less
than 12 credits

First Year # of W is 3 or   ────────── 1.29x
more

Cred Earned while HS is No ─────── 1.16x

College Ready is No   ─────── 1.16x

First Year # of W is 1 or 2 ─────── 1.15x

First Semester Enrolled   ─────── 1.13x
Credits Level is 12 - 12.99
credits enrolled

Completed DE Credits is Yes ────── 1.12x

← Grad is more likely to be No when Cum Cred Year 2 is Less than 48 than otherwise (on average).

Average (excluding selected): 44.72%

%Grad is No

Cum Cred Year 2

Less than 48   48 - 59.99   60 or more

☐ Only show values that are influencers

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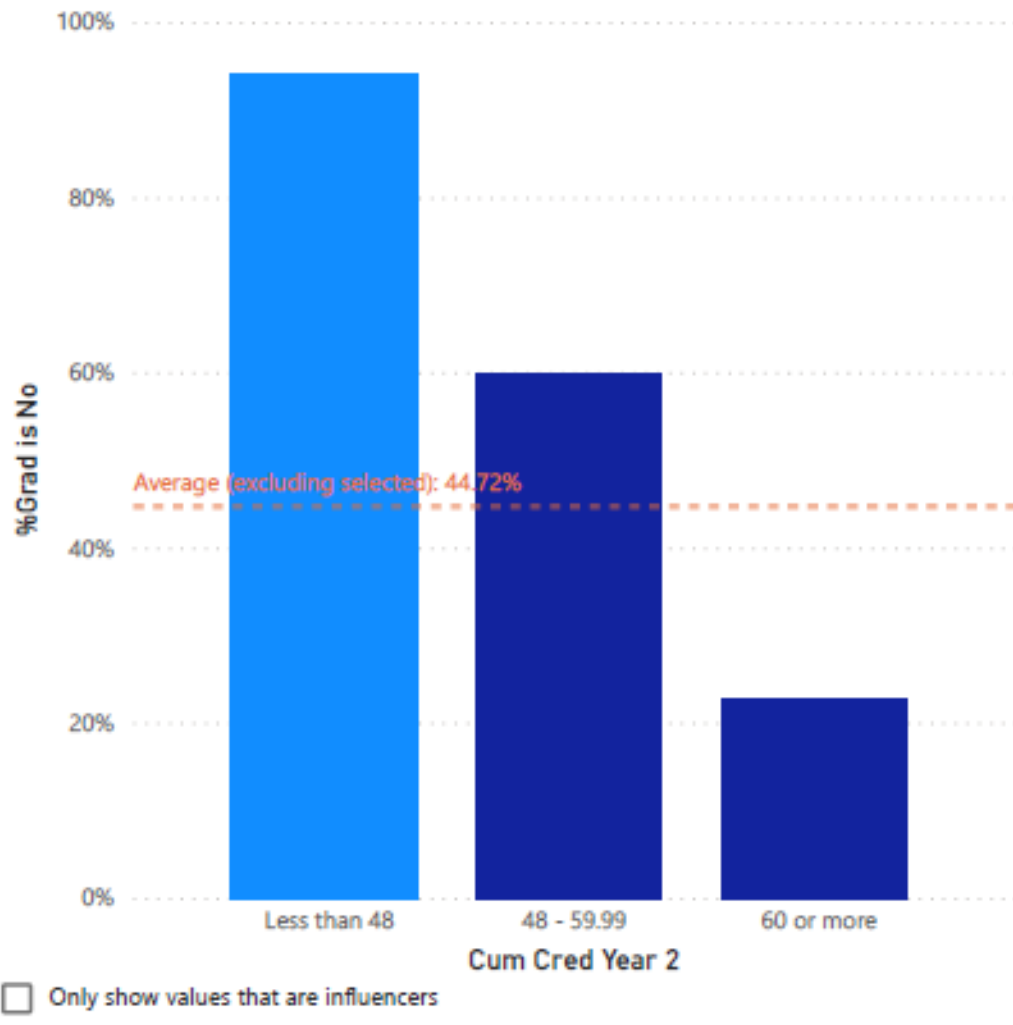
DATA ANALYSIS

The researcher also reviewed the IPEDS cohort data via a statistical correlation using the

data analysis plug in Microsoft Excel. The results (Table 16) indicated the strongest positive

correlation between the independent variables and graduation are as follows:

- The cumulative credit hours earned by the end of year two results in a strong positive correlation of .590993401

- Total credit hours earned by the end of the first-year results in a positive correlation of .391135837

- The number of first semester completed credit hours results in a positive correlation of .28405127

Additionally, the correlation analysis indicated a strong positive correlation with

graduation between the number of first semester credits completed and the number of first year

credits completed (.865111332), as well as the credits completed year one and cumulative credits

earned by the end of year two (.802580837). A positive correlation with graduation was also

found between the first semester credits completed and the cumulative credits at the end of year

two (.667897117). Likewise, the data regarding whether students earned credit while in high

school had a positive correlation with the cumulative credit hours earned at the end of the second

year (.403418826).

Two areas revealed a negative correlation with graduation. The number of withdrawal

grades in the students' first year resulted in a correlation of -.177383064. Likewise, students who

completed developmental education credits had a negative correlation of -.095640383. In

addition, some other variables had negative correlations such as whether a student was

considered college ready and if they completed developmental education credits (-.535119487).

Similarly, the number of first year withdrawal grades and the credits completed in the first year

(-.38885304) or by the end of the second year (-.344317047) had a negative correlation with

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graduation. Finally, the number of first year withdrawals and the first semester credit hours

completed (-.309721586) were also found to have a negative correlation with completion.

Table 16: Correlation Analysis in Excel

	Grad	Cred in HS	Coll Ready	DE Cred	Enroll Sem 1	Cmplt Sem 1	First Yr W	Compl Yr1	Compl Yr2
Grad	1.00								
Credits Earned while HS	0.20	1.00							
College Ready	0.13	0.16	1.00						
DE Credits	-0.10	-0.07	-0.54	1.00					
First Semester Enrolled Cred	0.12	0.04	0.11	-0.06	1.00				
First semester completed cred	0.28	0.09	0.19	0.08	0.39	1.00			
First Year W	-0.18	-0.08	-0.09	0.01	-0.02	-0.31	1.00		
Credit Completed Year 1	0.39	0.06	0.21	0.04	0.32	0.87	-0.39	1.00	
Cum Cred Year 2	0.59	0.40	0.24	0.01	0.22	0.67	-0.34	0.80	1.00

CHAPTER SUMMARY

Chapter Four provided an overview of the mixed methods approach the researcher

utilized to analyze the data available for the study. This study was designed to address the

following two main research questions:

1. What factors contribute to first-time, full-time IPEDS cohort students completing, or
   not completing, a certificate or degree within the 150% (i.e., three-years) timeframe?

2. Could key variables be used as indicators to help predict or improve future student
   completion rates?

An electronic survey was sent to all IPEDS cohort students via Survey Monkey. The

results of the ten survey questions were shared along with individual comments submitted by the

respondents. The researcher then provided an overview of the key variables from all cohort

students using descriptive statistics, the Key Influencer functionality of Power BI Desktop, and

through a correlation analysis via Microsoft Excel. The results and brief description of each

analysis was provided by the researcher.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

The purpose of this study was to explore factors that impact community college student completion to determine if there was a relationship. In total, data variables from 1,180 unique student members of three different IPEDS cohort years were analyzed with relation to the completion of a certificate or degree. In addition, electronic survey responses from 87 students were collected for this research study on community college student completion.

Community colleges nationwide spent the majority of the past century being proud that they provided access and opportunity to higher education for many students who otherwise may not have a chance to earn a college degree. However, the shift away from simply providing access, to a more student success focused model has taken the lead in America and is at the forefront of community college leaders. As societal expectations have evolved, now more than ever completion matters. It is imperative that students are not only able to enroll in college, but that they have an equal chance to reach the finish line. While this research study focuses on a variety of variables from one community college, the goal is that the lessons learned from the study may be applicable to other campuses as well and help boost overall completion rates.

CONCLUSIONS

This study was designed to research the relationship between several variables and the completion of a community college degree and address the following two main research questions:

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1. What factors contribute to first-time, full-time IPEDS cohort students completing, or not completing, a certificate or degree within the 150% (i.e., three-years) timeframe?

2. Could key variables be used as indicators to help predict or improve future student completion rates?

The study revealed that the pace of earning credit hours has a significant impact on completion. The fact that all students included enrolled full-time should result in students earning at least 24 credits after their fist year and a minimum of 48 credits after year two. However, nearly half of all cohort students (47.54%) completed less than 24 credit hours after year one, and over 63% had completed less than 48 credit hours at the conclusion of year two. Students who fell into these two categories accounted for approximately 15% of all cohort graduates, reinforcing the findings that the pace of completing credits has a strong impact on graduation.

Another interesting finding was the realization that students who complete less than 12 credit hours their first semester are immediately on a path to non-completion. The study revealed nearly one-third (30.51%) of all students fell into this category, with only 7.37% of that population reaching the finish line within the three-year timeframe. The findings support the critical importance of the first year and suggest the College must help create a strong start for students to ultimately finish.

Withdrawing from classes also has a significant impact on student completion. The study revealed that 84.56% of all graduates had zero "W" grades in their first year. Conversely, students with 3 or more "W" grades in year one resulted in just three student completers, or 1.05% of all graduates. Based upon this data, to improve completion rates colleges must engage with students throughout their first year, establishing strategies to prevent students from withdrawing whenever possible. The study data indicates that a reduction in "W" grades during the first year would result in a higher completion rate for IPEDS cohort students.

The survey data related to student participation in out of class activities indicated that most (63.22%) did not engage in anything beyond the classroom. The largest categories of participation were in student clubs (18.39%) and athletics (13.79%). Additionally, the researcher was surprised to read the other connections students listed as getting involved on campus. For example, one student listed being part of an academic program (i.e., radiologic technology) as engagement outside of the classroom, which may be an indicator the positive connections made possible within learning communities of students with similar interests. Another student noted being involved in a business club (i.e., DECA) that has been inactive on the college campus for more than twenty years, leading the researcher to believe that perhaps the student has remained active in such a club from high school. While the study research was incomplete to determine the significance of any relationship between clubs and activities with student completion at the College, the literature suggests student engagement matters. The researcher believes this topic should be investigated further.

Students responding to the survey most commonly indicated that their own personal drive or motivation helped them finish a certificate or degree, with more than one-third of respondents noting that was the number one factor. The low percentage of students who noted support from college faculty and staff (5.75%) was the single biggest reason for their completion surprised the researcher.

The decision of the College to cancel classes, often due to things such as low enrollment or lack of an instructor, was mentioned by multiple survey respondents as a barrier to their completion. The survey data suggests that students who are not able to enroll in the classes needed for their desired program of study may choose to transfer short of completion. However,

the overall impact of cancelled or unavailable courses was not a key focus of this study and therefore is unknown.

The study findings suggest to the researcher that transferability plays a key role in student completion. More than 65% of survey respondents indicated they transferred following their time at the College, which exceeds the 56.32% who self-reported that they graduated. The survey also revelated one of the biggest factors for not completing at the College was the alignment of required courses with their transfer college or university of choice. The researcher was surprised to learn that survey respondents listed transferring to multiple other community colleges. Further research into the reasons students chose to move between community colleges may be helpful; however, the researcher believes availability of programs and course offerings are likely the reasons for students making such a choice. The study data suggests that students transferring may have a negative impact on completion rates.

Another key data finding from this study is that students who start by taking developmental education credits rarely reach the finish line, which is consistent with the literature on community college student completion. Only 21.75% of all students in the study with below 100-level credits earned graduated over the three cohort years, compared to 78.25% of graduates who did not take developmental education credits. While it is possible for a developmental education student to complete, the data suggests it is not likely. Further analysis should be completed and strategies developed by the College to assist in getting students to college level classes as quickly as possible in order to improve completion rates.

Advising appeared to have a positive influence on student completion as more than two-thirds of survey respondents indicated they met with advisors "sometimes," meaning at least once or twice during their time at the College. However, only 20% of students shared that they

met with advisors "often," meaning at least three to four times while enrolled at the College. While this area requires additional investigation, the researcher believes a consistent connection with advising is an important aspect of helping more students reach the finish line.

Finally, the Key Influencer data analysis via Power BI Desktop revealed several interesting results regarding the strength of influence the independent variables had on graduation for students within the three IPEDS cohort years. The analysis noted the likelihood of students graduating increases by 5.25 times if they have earned at least 60 credit hours by the end of year two, by 2.67 times if they have at least 32 credits in their first year, and by 2.19 times if the student does not withdraw from any classes during their first year.

Conversely, the analysis revealed that students are 2.10 times more likely not to gradate if they have completed less than 48 credit hours after year two, 1.52 times less likely to graduate if they have earned less than 24 credits after their first year, and 1.39 times less likely to graduate if they completed fewer than 12 credits at the conclusion of their first semester. Each of these findings is consistent with the other analysis completed by the researcher for this study and once again supports that the pace of completion has a significant impact on students graduating.

SUMMARY OF STUDY STRENGTHS

The researcher having access to a complete data set from three unique IPEDS cohort years, all of which were beyond the 150%- or three-year timeframe, added strength to the study. A comparison of the data within the cohorts revealed that the sizes and performance was consistent, also adding strength to the study. In addition, rather than using a sampling method to select students, the researcher included data elements from all 1,180 students and sent email survey invitations to a total of 1,146 students, both of which were strong aspects of the study.

Focusing on IPEDS cohorts that consisted of students who enrolled full-time reduced the complexities community colleges often encounter with supporting part-time enrollees to complete. Although the IPEDS graduation rate measurement is often criticized in America as not meeting the needs of all community college students, the researcher believes focusing the study on this select population of students provided strength to the findings.

Another strength to this study on community college completion rates was the fact that survey data revealed over 80% of respondents intended to earn a certificate or degree from the College. The researcher was intrigued by this data as a common perception with community colleges is that a majority of students are only enrolled to "finish the basics or gen ed" courses before moving on. The survey data suggests that at least the population of first-time, full-time students who responded indeed did desire to complete a certificate or degree while enrolled at the College. Having a mix of students who finished and those who did not strengthened the survey and assisted with exploring factors that have a relationship with completion.

However, the researcher noted that the combined completion rates across all cohorts (24.15%) falls far below the 80.46% of students who reported that they wanted to graduate. This wide discrepancy warrants further investigation and indicates an opportunity to improve future student completion.

SUMMARY OF STUDY LIMITATIONS

A limitation of the study was that the overall survey response rate (7.6%) was lower than the researcher desired. Four attempts were made to encourage students to complete the brief online survey; however, the fact that the IPEDS cohort students had not been engaged with the College for between four to six years may have been a factor in the low response. Additionally, it is possible the personal emails provided while attending the College may no longer be actively

monitored by the students. The timing of the survey with data being gathered in the summer months of June and July may have been another limitation to the study as it is possible students were not as engaged during those months.

The survey design presented another limitation to the results as the researcher chose to split the ten survey questions into two sections. An analysis of results indicated that this design element may have either confused students, or frustrated them as five respondents, or 5.7%, stopped answering questions after they competed section one.

A total of 56.32% of the survey respondents self-reported that they had graduated from the College, which exceeds the actual overall graduation rate of the combined IPEDS cohorts (24.15%) by more than 32%. Therefore, a limitation of the study is that it may be possible survey responses were more heavily weighted toward students who completed and therefore findings may not represent others in the cohorts.

RECOMMENDATIONS FOR ACTION

Based upon the study findings, the researcher developed several recommendations to help move the community college completion needle in a positive direction. These recommendations can be used as a guide for all faculty and staff at the College and may be applicable to other community college leaders as they work to increase student success and completion.

1. Incentivize students to take more credit hours.

   The College should develop a strategy that encourages IPEDS cohort students to enroll in more than 12 credit hours each semester. This recommendation is based upon study data that revealed students taking the minimum 12 credit hours their first semester are the least likely to graduate. Only 22.11% of this population graduated over all three cohort years, compared to 34.74% of graduates who took 15 or more credit hours, and 43.16% of graduates who took between 13 to 14.99 credit hours their first term. Ideally, the researcher recommends that the Federal Title IV aid awarding guidelines also be revised to align the literature, such as Complete College America, and support students with enrolling in more than 12 credit hours.

2. Institute a withdrawal rule in year one.

   The addition of a withdrawal hold for first year students should be explored to prevent students from making rash decisions with dropping classes, or worse yet from walking away from the College. The current process allows students to "W" at their leisure without any college interaction. The hold would require first year full-time IPEDS cohort students to connect with the faculty member and/or an advisor before withdrawing. This recommendation is based upon the study data, which indicates a significant impact on the chance of completion for every "W" grade a student receives in the first year. A change to this process for first year students may result in higher completion rates.

3. Advising check-up requirements.

   Just as the health of humans or even automobiles, require periodic maintenance check-ups to avoid future issues, the College should develop strategies to require students to consistently engage with advising throughout their time at the College. In addition to an initial appointment, the researcher recommends adding a required check-up with advising at two key timeframes. First, when a student has completed at least 24 credit hours, and again when the student has earned 48 credit hours. Each maintenance check-up may be completed via in-person, phone, or electronic communication, with the main goal to ensure the student is on the path to completion. The process will also connect the student with the advisor to address any questions or barriers that may hinder their success. The contacts must be clearly documented within the student information system to allow the new variable of repeated check-up's to be analyzed in future studies.

4. Tracking student participation in clubs and activities.

   The College should develop a system to consistently record student participation in all campus clubs and activities. The details must be recorded in the student information system providing future researchers the ability explore the impact of student participation on completion of a certificate or degree.

5. Requiring a final high school transcript.

   For this study nearly half of the students were missing a high school GPA, which made the analysis of that independent variable difficult. The research findings suggest a relationship between the academic performance in high school and the completion of a certificate or degree. The recommendation is for the College to develop a system requiring all enrolled students submit a final high school transcript, recording a final high school GPA within the student information system. The inclusion of this data for all students would also assist the College with adopting a multiple measures approach to student placement in college credit courses, which has been a movement at other community colleges throughout the nation.

6. Scholarship incentive for 3.0 or higher high school GPA.

The available data suggested a positive relationship with completion for students with higher high school GPA's. The researcher recommends the College create a scholarship program to incentivize students with high school GPA's above 3.0 to enroll. This population of students may not have significant scholarship opportunities to other colleges or universities; however, the data indicates they are often successful at the College. Findings indicate students with a 3.0 GPA or higher comprised of 42.11% of all graduates, a rate that is nearly 20 percentage points higher than the overall graduation rate of 24.15%. The researcher believes the College could positively impact both enrollment and completion rates if additional students with a 3.0 or higher high school GPA were targeted in the future.

7. Availability of required courses.

   Student feedback indicates they stop short of the finish line because the course(s) needed are not available. The recommendation is for the College to review the course cancellation process, as well as the offering of courses in alignment with transfer partners, with a focus on improving student completion. Campus leaders should also consider guaranteeing students that required program courses will be offered a minimum of once per year, or that approved substitution courses will be made available to assist with program completion.

8. Support for students outside the classroom.

   Students reported the three largest items that were barriers to their completion as personal life challenges, having enough money, and work responsibilities. Colleges must continue to develop solutions to help students navigate barriers outside the classroom. The study data confirmed that student success reaches far beyond the classroom.

RECOMMENDATIONS FOR FUTURE STUDY

The researcher suggests that future studies on community college completion include the actual certificates or degrees earned by the IPEDS cohort students as one of the data elements. Considering more than 65% of survey respondents for this study indicated they had transferred, the mix of students pursuing applied arts and science programs versus transfer degrees may provide valuable insight for future studies. In addition, communication with all IPEDS cohort students should be completed in a timely fashion, reaching out to students for feedback while they are still connected to the college instead of years later as was done with this study. The

timing of the outreach may improve the response rate for the survey portion of a future study and as a result produce more valuable information.

The researcher also suggests including the National Student Clearinghouse (NSC) transfer student information in the data set. With the extra data element will provide the opportunity to explore the percentage of students in the IPEDS cohort who transferred, and more importantly provide an understanding of the point at which they chose to transfer from the College. For example, it would be interesting to see how many of the 285 graduates from the three IPEDS cohort years in this study transferred following their time at the College. Perhaps more importantly, exploring the 895 students from this study who did not graduate to learn how many credits they had earned may be enlightening to help gain an understanding of why they transferred before completion. A future study could focus on the number of credits students completed at the College before transferring and provide valuable insight into the reasons students stop short of the finish line to earning a certificate or degree. The NSC data would also be helpful to further investigate what happened to the nearly two-thirds (63.05%) of all cohort students who were below 48 credit hours earned at the end of their second year?

To improve student success and completion, further investigation could be conducted regarding how often students used various college support services to help them succeed. For example, the study survey results revealed that nearly 20% of students reported they "never" met with professors during office hours and only 13% of respondents reported they met "frequently," which was defined as 5 or more times during their time at the College. Additionally, nearly 70% of respondents reported "never" using tutoring support services to help them succeed.

Finally, the impact of financial aid awards could be explored to see if there is a relationship between completion and the amount, or type of aid received per student. Likewise,

since the survey data revealed student challenges with the college offering required courses, or cancelling them when needed by students, future researchers could focus on the course schedule to determine its impact on student completion. Overall, further research would be necessary to determine the relationship between such factors and student completion.

FINAL THOUGHTS

Based upon the results of this data study, the researcher anticipates the College, as well as other community colleges, can use the data to improve future student completion; however, intentional strategies directed at IPEDS cohort students must be created, consistently applied, and actively monitored over several years to make a positive impact. Regularly engaging with IPEDS cohort students both during their time at the College and after they have left, is critical to boost graduation rates. Efforts must remain focused on getting students to the finish line.

Community colleges traditionally spend significant resources to recruit students, yet often lack a focused effort to keep students enrolled or remain connected with them once they have moved on. Strong relationships are necessary to help students navigate barriers to completion, but college faculty and staff must also work to promote the value of a community college certificate or degree. As noted in this studies survey results, it cannot be acceptable for more than 80% of students to enter seeking a certificate or degree while less than 25% earn one within three years. Community colleges can do better, but not if a campus keeps doing the same things expecting different results. Leaders must create a new plan to make positive change happen.

As an important sector of higher education, community colleges have relied upon their history of providing access to area residents but ignored the branding and imaging focus present at many four-year institutions. While community colleges tend to take the old reliable "we'll be here for you" approach, the four-year schools have actively pursued students with a relentless

"we want you" message. Community colleges must shift their focus to let students know they are wanted and more importantly that the community college will help them reach their goals.

Community colleges should not be afraid to brag about the amazing experiences provided and the long-standing positive influence the campus has made in their communities. The future success of community colleges is a complex puzzle where leaders must balance competing priorities while providing the collegiate experience desired by students today; however, it is critical that they recognize the importance of improving student completion rates to compete moving forward.

In other words, a community college is like an old reliable truck that starts every time, is versatile, and while it may not be fun to drive, it can get you where you want to go. On the flip side, a university could be viewed as a sports car that looks fancy, is expensive and cool to drive, but not always a practical way to get results. As student debt for higher education in America soars, now is the time for community colleges to truly take advantage of their positive reputation for providing high quality experiences at an affordable price. In essence, community college leaders need to add some glitz to the old truck to make it more appealing to students, while bragging about the flexibility, affordability, and reliability of this great higher education option.

Leaders must look to the future as they position community colleges to best serve the students of tomorrow. While community colleges can remain proud of the past, they must continue to improve the overall reputation and credibility, demonstrating community college is not a lesser option. Improving completion rates will go a long way in boosting the high quality, life changing experiences provided by community colleges.

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APPENDIX A – IRB APPROVAL LETTERS
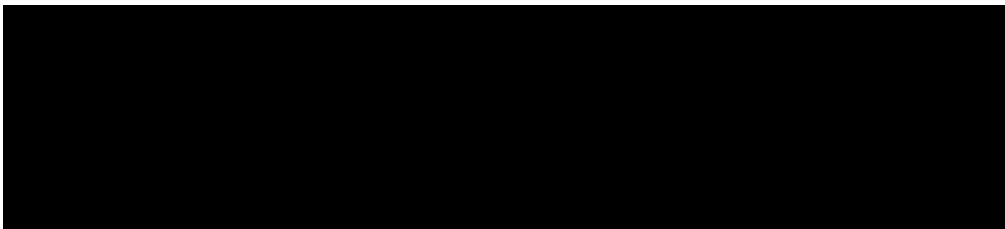
April 7, 2021

Institutional Review Board
Ferris State University
1010 Campus Drive, FLITE 410
Big Rapids, Mich. 49307

Dear IRB Members,

After reviewing the proposed study, "Factors impacting the completion of first time, full time community college students", presented by Pete Lacey, Doctoral Student at Ferris State University, I am granting permission for the study to be conducted at ██████████████████████ College.

I understand the purpose of the project is to determine the factors that impact the completion rates of students enrolled in a community college. The primary activity at ██████████████████████ College will be to survey all first time, full time students from 2015, 2016 and 2017 IPEDS cohort. I understand that the survey period will open in April 2021 and I expect that this project will end not later than June 30, 2021.

I understand that Pete Lacey will obtain consent for all ██████████████████████ College students participating in the study. Pete Lacey has agreed to provide to my office a copy of all Ferris State University approved study protocol materials including the approved consent documents before he surveys students. Any data collected by Pete Lacey will be kept confidential and will be stored in a secure location per the approved protocol.

If the Ferris State Institutional Review Board has any concerns about the permission being granted by this letter, please contact me at the email or phone listed below.

Sincerely,

████████████████

████████████████
Director of Institutional Research
██████████████████████ College
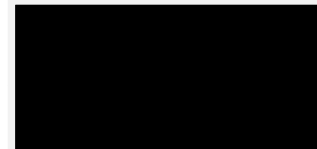
FERRIS STATE UNIVERSITY

INSTITUTIONAL REVIEW BOARD
1010 Campus Drive FLITE 410 Big Rapids, MI 49307
www.ferris.edu/irb

Date: May 18, 2021

To: Susan DeCamillis, EdD and Pete Lacey
From: Gregory Wellman, R.Ph., Ph.D, IRB Chair
Re: IRB Application *IRB-FY20-21-169 Factors impacting the completion of first time, full time students at* ████████████████ *College*

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, *Factors impacting the completion of first time, full time students at* ████ ████████ *College(IRB-FY20-21-169)* and approved this project under Federal Regulations Exempt Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your protocol has been assigned project number IRB-FY20-21-169. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

This project has been granted a waiver of consent documentation; signatures of participants need not be collected. Although not documented, informed consent is a process beginning with a description of the study and participant rights, with the assurance of participant understanding. Informed consent must be provided, even when documentation is waived, and continue throughout the study. As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual status reports during the life of the research project and a Final Report Form upon study completion. Thank you for your compliance with these guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.

Regards,

Gregory Wellman, R.Ph, Ph.D, IRB Chair
Ferris State University Institutional Review Board

APPENDIX B: EMAIL SURVEY INVITATIONS

Email invitation sent June 19, 2021

Subject: Take a short survey to help future ▮ graduates

Message:

Dear ▮ Alumni:

I'd greatly appreciate your help completing a brief survey about student graduation at ▮▮▮ ▮▮▮▮▮▮▮. You are invited to participate because you were enrolled full-time as a new student during the fall 2015, 2016, or 2017 semester.

I am doing research as part of my doctoral program at Ferris State University (FSU) to learn about factors impacting your completion of an ▮ certificate or degree. Your participation in this online survey is voluntary, extremely low risk, and all responses are anonymous. The survey is only ten (10) questions, which I estimate will take approximately five (5) minutes to complete.

Information collected will assist community college leadership with improving student graduation rates in the future. Answers you provide will be maintained and secured by the study team for 3 years. You may refuse to answer any question, or you may exit the survey at any time. Participation or nonparticipation in this study will not impact your relationship with FSU or ▮ in any way.

If you have questions about this FSU approved study, please contact me (laceyp@ferris.edu or 810-300-0170) or the Principal Investigator, Susan DeCamillis (decamis@ferris.edu or 231-591-2710). Any questions or concerns about your rights as a participant should be directed to the FSU Institutional Review Board (IRB) for Human Participants at: 1010 Campus Drive, FLITE 410G, Big Rapids, MI 49307 (231) 591-2553 or IRB@ferris.edu.

Thank you in advance for providing this important feedback.

Go ▮▮▮

Pete Lacey
Ferris State University
Doctoral Candidate

By clicking the "Begin Survey" button below you acknowledge your agreement to participate in the survey.

Email invitation sent June 25, 2021

Subject: Reminder: Still time to share your ▮▮ Alumni feedback

Dear ▮▮ Alumni:

I recently contacted you about a brief survey regarding student graduation at ▮▮▮▮▮▮▮ ▮▮▮▮▮▮▮▮▮▮▮▮, which is part of my doctoral program research at Ferris State University (FSU). I am seeking to learn about factors impacting student completion of an ▮▮ certificate or degree. The survey is only ten (10) questions and should take about five (5) minutes of your time to complete. I value your feedback and would greatly appreciate your participation with this study.

Thank you in advance for your assistance. If you have questions about this FSU approved study, please contact me (laceyp@ferris.edu or 810-300-0170) or the Principal Investigator, Susan DeCamillis (decamis@ferris.edu or 231-591-2710).

Have a great weekend!

Pete Lacey
Ferris State University
Doctoral Candidate

By clicking the "Begin Survey" button below you acknowledge your agreement to participate in the survey.

Email invitation sent July 6, 2021

Final Reminder: ▉ graduation survey

Dear ▉ Alumni:

I'm writing with a final reminder to complete a survey on student graduation at ▉▉▉▉. The survey is part of my doctoral program research at Ferris State University (FSU) and will only take a few minutes of your time to answer the 10 questions.

Thank you in advance for your participation. If you have questions about this FSU approved study, please contact me (laceyp@ferris.edu or 810-300-0170) or the Principal Investigator, Susan DeCamillis (decamis@ferris.edu or 231-591-2710).

Sincerely,

Pete Lacey
Ferris State University
Doctoral Candidate

By clicking the "Begin Survey" button below you acknowledge your agreement to participate in the survey.

Email invitation sent July 31, 2021

Subject: ██ graduation survey: I only need 20 more responses!

Dear ██ Alumni:

On this final day of July, I'm reaching out one more time as I only need 20 more responses to assist with finishing up my doctoral program requirements at Ferris State University (FSU). The **typical time spent by students who've answered the 10 questions is only 3 minutes!**

Your insight would be greatly appreciated for my research on student graduation at ██████
████████████████████. If you have questions about this FSU approved study, please contact me (laceyp@ferris.edu or 810-300-0170) or the Principal Investigator, Susan DeCamillis (decamis@ferris.edu or 231-591-2710).

Have a great weekend!

Pete Lacey
Ferris State University
Doctoral Candidate

By clicking the "Begin Survey" button below you acknowledge your agreement to participate in the survey.