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## **COMMUNITY COLLEGE TO BACCALAUREATE DEGREE: DOES AN ASSOCIATE DEGREE MATTER?**

Molly Phelps Ludmar

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COMMUNITY COLLEGE TO BACCALAUREATE DEGREE:  
DOES AN ASSOCIATE DEGREE MATTER?

A dissertation submitted in partial fulfillment  
of the requirements for the degree of

DOCTOR OF EDUCATION

to the faculty of the

DEPARTMENT OF ADMINISTRATIVE AND INSTRUCTIONAL LEADERSHIP

of

THE SCHOOL OF EDUCATION

at

ST. JOHN'S UNIVERSITY

New York

by

Molly Phelps Ludmar

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Molly Phelps Ludmar

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Dr. James Campbell

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## **ABSTRACT**

### **COMMUNITY COLLEGE TO BACCALAUREATE DEGREE: DOES AN ASSOCIATE DEGREE MATTER?**

Molly Phelps Ludmar

This research aimed to determine if community college students who complete an associate degree before transferring are likelier to complete a baccalaureate degree than those who transfer before completing an associate degree. Additionally, this study examined if the type of institution, public vs. private, that a student transfers to impacts completing a baccalaureate degree. This research was conducted using 4,167 students who attended a community college between 2012 and 2018 and transferred to one of three baccalaureate institutions. Using data from the National Student Clearinghouse, this study showed that students who completed an associate degree prior to transfer were more likely to complete a baccalaureate degree. Additionally, the type of institution a student transferred to had a significant impact on the student's likelihood of completing the baccalaureate degree. In a society that recognizes the importance of a college education concerning lifelong earnings potential, this study's recommendations may help improve both associate and baccalaureate degree completion rates.

*Keywords:* community college, baccalaureate degree, associate degree, transfer

## DEDICATION

To Dr. James Campbell, my advisor: Your patience and kindness was an oasis in the midst of self-doubt. The world needs more educators like you. Thank you.

To my committee members: Thank you for providing invaluable guidance throughout my research.

To the cohort: You said this would be fun. It wasn't, but thank you for inviting me along on the ride!

To my parents: Thank you for your never-ending support and for teaching me to love and appreciate education.

To my children, Louisa and Jacob: This is for you. I quit this process 100 times, and 101 times I kept going because I wanted to make you proud of me and for you to know that you can do anything you put your mind to.

To Dave: Your love, support, partnership, and our life together mean everything to me. Thank you for supporting me and, of course, for the laughs!

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## CHAPTER 1

### **Purpose of the Study**

Hundreds of thousands of students enter community colleges each year. Of those, between 70% and 80% indicate they plan to transfer to pursue a baccalaureate degree. Based on a recent study, about 15% of these students obtain a baccalaureate degree (Shapiro et al., 2018; Velasco et al., 2024). With an increase in the need for educated employees, the United States strives to increase the number of students with baccalaureate degrees entering the workforce. The purpose of this research was to determine if community college students who complete an associate degree prior to transfer are more likely to complete a baccalaureate degree than those who transfer before completing an associate degree. This study also examined the relationship between the type of college a student transfers to and whether transfer students are more likely to complete a baccalaureate degree at a public vs. private institution. The competitiveness of the baccalaureate degree-granting institutions was also examined as it pertains to degree completion.

### **Theoretical Framework**

Three theories are essential to understanding transfer issues. The first is Maslow's (1943) theory of motivation, which proposes that motivation results from a person's attempt at fulfilling five basic needs: physiological, safety, social, esteem, and self-actualization. When a need has been "satisfied," it will go away, and the focus will turn toward the next set of needs we have yet to satisfy. As we grow as individuals, our needs continue to be felt and may even become stronger once they have been engaged. Personal growth needs do not stem from a lack of something but rather from a desire to grow.

Once these growth needs have been reasonably satisfied, one may reach the highest level of accomplishment (McLeod, 2018, p. 1).

Motivation may come from momentum, as Wang (2017) pointed out in the theoretical model of momentum for community college students. This theory draws parallels between the momentum experienced by college students and Newton's laws of motion. As an object is forced into motion, it gains momentum. In the case of college students, once they begin to move forward with coursework, they are more likely to gain momentum and move toward completing a degree. Wang wrote that factors such as credit load and the challenge of courses, paired with summer semesters, are more likely to move students "toward the finish line of degree completion" (Brown, 2020).

The third theory of this study is Tinto's model of student retention. In an article written in 2017, Tinto surmised,

While the institution's interest is to increase the proportion of their students who graduate from the institution, the student's interest is to complete a degree often without regard to the college or university in which it is earned. When viewed from the students' perspective, persistence is but one form of motivation. Students must be persistent in pursuing their degrees and willing to expend the effort to do so even when faced with challenges they sometimes encounter. Without motivation and the effort it engenders, persistence is unlikely—institutional action aside. (p. 1)

The final theory that pertains to this study is Bandura's theory of self-efficacy, which looks at one's belief regarding what they believe they are capable of learning or accomplishing. If students believe they can succeed, they are more likely to do so

(Bandura, 1977). Self-efficacy has little to do with actual abilities; rather, it is an individual's perception of his or her abilities and whether or not the individual believes he or she can "produce actions" (Schunk & DiBenedetto, 2016, p. 142). In student decisions to transfer from a community college to a 4-year institution, their perception of whether they can succeed plays a role as it relates to their motivation to succeed and their perceptions of their abilities to succeed.

### **Rationale/Significance**

Most students entering a community college in the United States enroll intending to transfer. Approximately 70% to 80% indicate they plan to pursue a baccalaureate degree after attending the community college. However, only between 25% and 35% actually successfully transfer to a 4-year college (Handel & Williams, 2012; Velasco et al., 2024). Of those who transfer, less than one in seven earn a baccalaureate degree within 6 years (Kolodner, 2016). At SXM, a suburban community college in the State University of New York (SUNY) system, the transfer rate in fall 2019 was 16% (National Center for Education Statistics, 2021). Coupled with the fact that community colleges enroll over 50% of college students (American Association of Community Colleges, 2012), it seems reasonable to examine the issues that prevent students from successfully transferring and obtaining a baccalaureate degree. As Jenkins and Fink (2016) asserted, "Improving degree outcomes for students who transfer from community colleges to universities is critical to achieving national goals for improving upward social mobility and economic vitality" (p. 3).

There is an increased need for a college degree in an ever-changing workforce. It is estimated that 65% of jobs require a degree beyond high school, and nearly 35%

require a baccalaureate (Carnevale et al., 2013, p. 8). Additionally, it is estimated that those who obtain an associate degree will earn 27% more in a lifetime than those with only a high school degree (Baum et al., 2013, p. 6). In 2009, President Obama announced his American Graduation Initiative to graduate 5 million community college graduates by 2019 and increase the number of young people ages 25–34 with a college degree to 60%. It was anticipated that this goal, once achieved, would return the United States to boasting the highest number of college graduates in the world (Marcus, 2019). Unfortunately, this goal was not met. A combination of increasing tuition prices, lack of confidence in higher education, and dwindling state support for higher education has left the goal at a mere 48%, and the United States remains woefully uneducated compared to countries such as South Korea, Japan, and Norway, to name but a few (Organisation for Economic Co-operation and Development, 2024).

### **Research Question and Hypotheses**

In this study, the following research questions are posed:

**RQ1:** Are students from a community college who have completed an associate degree (AA or AS) more likely to complete a baccalaureate degree than transfer students from a community college who have not completed an associate degree?

H<sub>0</sub>: Students who transfer from a community college who have completed an associate degree are as likely to complete a baccalaureate degree as students who transfer from a community college without an associate degree.

H<sub>1</sub>: Students who transfer from a community college who have completed an associate degree are more likely to complete a baccalaureate degree than students who transfer from a community college without an associate degree.

**RQ2:** Does the type of college a community college student transfers to make a difference in the likelihood of completing a baccalaureate degree?

H<sub>0</sub>: The type of college a community college student transfers to does not make a difference in the likelihood of completing a baccalaureate degree.

H<sub>1</sub>: The type of college a community college student transfers to does make a difference in the likelihood of completing a baccalaureate degree.

Based on the literature, it is hypothesized that there will be a difference in baccalaureate degree completion rates for students who obtained an associate degree prior to transfer compared to those who did not obtain an associate degree prior to transfer. A study by Kopko and Crosta (2016) found that students who had completed an Associate of Arts degree (AA) or Associate of Science degree (AS) degree prior to transfer had higher baccalaureate degree completion rates (Kopko & Crosta, 2016). New York State has created a statewide articulation agreement between community colleges and the state's 4-year institutions, including common general education requirements. These pathway agreements tell students at a community college which entry-level courses to take for a particular major. If successfully completed, these courses will be guaranteed to transfer to a 4-year college. Additionally, if the student completes an

associate degree, the student will be guaranteed junior standing once he/she reaches the 4-year college. According to the *Beginning Postsecondary Students Longitudinal Study 2003–2009*, the presence of state articulations and transfer pathways for transfer-oriented majors resulted in significant “upward transfer probability” (as cited in LaSota & Zumeta, 2015).

### **Definition of Terms**

#### *Associate of Arts Degree (AA)*

The degree may pertain to any major with this designation. To earn this degree, students must have a cumulative grade point average (GPA) of at least 2.0.

#### *Associate of Science Degree (AS)*

Degree may pertain to any major with this designation. To earn this degree, students must have a cumulative GPA of at least 2.0.

#### *Associate of Applied Science Degree (AAS)*

Two-year associate college degree focusing on a particular applied science of technical skill. It is not always appropriate for transfer to a baccalaureate degree.

#### *Associate Occupational Studies Degree (AOS)*

Two-year associate college degree focusing on a particular occupational skill and primarily based on vocational-level training. It is not always appropriate for transfer to a baccalaureate degree.

#### *Competitive College*

A college to which the admissions standards for a transfer student from a community college are at least an overall GPA of 2.8.

*Less Competitive College*

A college to which the admissions standards for a transfer student from a community college are an overall GPA of 2.0.

*Moderately Competitive College*

A college to which the admissions standards for a transfer student from a community college are an overall GPA of 2.5.

*Private College*

Baccalaureate-granting institution which does not receive substantial funding from the state. It runs as a non-profit organization.

*Public College*

Baccalaureate-granting institution that is primarily funded by the state government.

*State University of New York (SUNY)*

A college which is part of the SUNY system. Comprised of 64 campuses, 29 of which are community colleges.



## CHAPTER 2

### Relevant Background Literature

Does completing an associate degree before transfer result in a student being more likely to complete a baccalaureate degree? Despite the large number of students who intend to transfer and obtain a 4-year degree, the baccalaureate completion rates for transfer students are meager. According to Fauria and Fuller (2015), “Transfer students are four times less likely to persist after one year than non-transfer students” (p. 40). They went on to state, “Community colleges enroll over 40% of the United States undergraduates” (Fauria & Fuller, 2015, p. 40), but only 11% of those students starting at community college obtain baccalaureate status (U.S. Department of Education, 2011).

Many studies have been done to determine which factors result in the successful completion of a baccalaureate degree for students who began at a community college. Through the years, factors such as associate degree completion, transfer institution type, and degree a student hopes to earn have all been studied.

In 2011, the U.S. Department of Education’s National Center for Education Statistics released data on college graduation rates and employment from 2003–2009. This study, known as the *Beginning Postsecondary Students Longitudinal Study 2003–2009*, contained rich data from over 18,000 students throughout the 50 U.S. states and Puerto Rico who started their postsecondary education during the 2003–2004 academic year. The study followed these students for six years to examine trends and outcomes pertaining to higher education and employment (Wine et al., 2011).

### ***Beginning Postsecondary Students Longitudinal Study 2003–2009***

Using data from the *Beginning Postsecondary Students Longitudinal Study 2003–2009*, LaSota and Zumeta (2015) examined individual and institutional factors that resulted in higher baccalaureate degree completion rates from students who started at a community college. One crucial factor they studied was a student’s intent to transfer. The data showed that for students who began their postsecondary education at a community college, 26% of the entire sample transferred to a 4-year university. However, of those who indicated their intent to transfer when they entered the community college, the transfer rate was 47%. This showed that students who entered a community college with an intent to transfer were 21% more likely to do so than their peers who did not indicate an intent to transfer (LaSota & Zumeta, 2015). Many students may enter a community college with no intent to transfer. They may be attending to pursue an AAS or AOS degree or certificate. They may be attending to improve specific skills for job training. However, the intent to transfer appeared to play a significant role in their propensity to do so.

LaSota and Zumeta (2015) also studied additional factors that affect community college students’ decision to transfer to baccalaureate-granting institutions. For example, they found that students who attended community college full-time were 12% more likely to transfer to a 4-year institution. Students who attended community college part-time were 19% less likely to transfer. Students who attend community college part-time may do so for work, family responsibilities, and financial reasons. Students who work less than 19 hours per week are 59% more likely to transfer than those who work more than 20 hours per week (LaSota & Zumeta, 2015).

LaSota and Zumeta (2015) also examined institutional factors that resulted in higher baccalaureate degree completion rates for transfer students. According to the *Beginning Postsecondary Students Longitudinal Study 2003–2009*, the presence of state articulations and transfer pathways for transfer-oriented majors resulted in a significant likelihood of transfer (LaSota & Zumeta, 2015). Many states, including the SUNY system in New York, have created a statewide articulation agreement between community colleges and the state's 4-year institutions. In addition to the articulation agreements, which include common general education requirements, some states have created transfer pathways for transfer students (LaSota & Zumeta, 2015). As in the case of SUNY, these pathways tell students at a community college which entry-level courses to take for a particular major. If taken and successfully completed, these courses will be guaranteed to transfer to a 4-year college. In addition, if the student completes an associate degree, the student will be guaranteed junior standing once he/she reaches the 4-year college (LaSota & Zumeta, 2015).

Crook et al. (2012) examined the relationship between community college associate degree completion rates and how likely the students were to earn a baccalaureate degree. Their study, conducted using data from the City University of New York (CUNY), looked at students who had earned the AA or AS degree and compared them to transfer students who had yet to earn the degree before transfer. Their study showed that those who had earned the AA or AS were more likely to complete a baccalaureate degree. The authors pointed out that the CUNY system has a strong articulation agreement between the CUNY community colleges and the CUNY 4-year colleges. This system may account for the increase in baccalaureate attainment. The

CUNY system is similar to the SUNY system studied herein, except that the CUNY schools are all located in the same general geographic vicinity (the New York boroughs). All of the boroughs can be accessed via public transportation. There are 25 CUNY campuses throughout the boroughs, thus giving each student a variety of choices. This research study also looked at colleges in the same general geographic vicinity (Long Island and Queens), with two from the SUNY system and one private institution.

Research conducted in 2016 through a partnership between the Aspen Institute’s College Excellence Program; the Community College Research Center at Teachers College, Columbia University; and the National Student Clearinghouse Research Center looked at a cohort of 700,000 students who enrolled in community colleges in the fall of 2007 (Jenkins & Fink, 2016). The research examined three measures for the community colleges: transfer out rate, transfer with degree or certificate rate, and transfer out bachelor’s completion rate (Jenkins & Fink, 2016). This report’s data showed that “Institutional practices—not just institutional characteristics—matter” (Jenkins & Fink, 2016, p. 38). How community colleges serve transfer students matters more than the type of community college the students are coming from. This indicates that the information shared with students prior to transfer is essential. This information can best be obtained by ensuring that community college employees are given the information they need to inform students of their choices before transfer. Community college employees working closely with transfer students and 4-year partners is vital to positive student outcomes.

Additionally, the data showed that student outcomes vary drastically from state to state (Jenkins & Fink, 2016). While it may be assumed that states with solid articulation agreements between their 2-year and 4-year institutions would see higher baccalaureate

degree completions, that is only sometimes the case. Because state agreements and policies are so different, it is challenging to compare them (Jenkins & Fink, 2016).

In a study in 2009, Horn summarized that student factors appear to play a role in a student's successful transfer from a community college to a 4-year institution. These factors include intent to transfer, degree program the student is enrolled in (AA vs. AS), completion of degree prior to transfer, number of credits taken each semester, age, socioeconomic status, working, and high school achievement (Horn, 2009).

In a study from 2016, Kopko and Crosta explained that completion rates at baccalaureate institutions were higher for students who had completed an AA or AS degree before transferring. However, completion rates did not vary for students who earned an AAS degree before transfer. They noted, "This is an important distinction, as all associate degrees are not equal in their potential impacts on future baccalaureate completion" (Kopko & Crosta, 2016, p. 190). While much of the study points to a collection of best practices related to successful transfer, it is evident that various factors play a part in a student's success. The type of degree earned is most certainly one of those factors (Kopko & Crosta, 2016). One characteristic of students that is difficult to quantify is their motivation to complete a degree; also difficult to quantify are other personal factors that may affect their chances of transfer. According to Kopko and Crosta (2016), "unobservable characteristics that may determine whether or not a student selects to obtain the degree before transferring may arrive through differences in motivation, organization, ability, intelligence, and social and cultural capital" (p. 215).

### *State and Federal Programs*

Various programs funded by the state and federal governments work to improve student graduation rates. Programs such as TRiO, Pell Grant, Educational Opportunity Program (EOP), and others strive to improve graduation outcomes for groups of students who traditionally have lower graduation rates. These groups may be students of color, students with disabilities, and students from low-income backgrounds. Additionally, these students often attend colleges that are “concentrated in lower-quality, less prestigious, and less costly postsecondary educational institutions” (Perna & Thomas, 2008, p. 8). Perna and Thomas (2008) explained that while these support programs are helpful, they only sometimes identify the other factors that result in students failing to complete their degrees. While federal financial aid may assist students with paying tuition bills, it does not affect the fact that these students may not be academically prepared for the rigors of college. As Shapiro et al. (2013) noted, “For many students, 2-year colleges serve not only a key provider of postsecondary education in general but also represent the entry point through which to pursue bachelor’s and postgraduate degrees” (p. 5). While many factors are standing in the way of students successfully pursuing and completing a baccalaureate degree, much progress is also being made at the national and local levels. One thing is certain: “transfer students are incredibly diverse, thereby dooming even the most well-intentioned of one-size-fits-all policies” (Tobolowsky & Cox, 2012, p. 405).

Perna and Thomas (2008) identified four disciplinary perspectives to understand student success: college readiness, college enrollment, college attainment, and post-college achievement. College readiness looks at whether or not students are academically

prepared for college and the students' goals as they pertain to college enrollment. College enrollment explores college access and college choice. College attainment looks at academic performance, affordability, and transfer. Post-college achievement explores post-baccalaureate enrollment and income. All or some of these factors may play a role for individual students. For community college students, common factors relating to success tend to focus on academic preparation, affordability, and college access. It is reasonable to think these factors also play a role as students transfer from a community college to a 4-year institution. (Perna & Thomas, 2008, p. 8).

In a study published in 2021, researchers in Texas examined how 58 community college students made transfer decisions. The researchers pointed out that students making college choices from high school typically do so linearly. They gather information and decide which college to attend (Jabbar et al., 2021, p. 5). While many of these students choose to begin their post-secondary career at a community college, transferring from a community college to a baccalaureate institution is not similarly linear. Transferring to another institution may not be seen as the next step toward academic success. Instead, it may be seen as an entirely new set of challenges and decisions to be made. As shown in the Jabbar et al. (2021) study, students may enroll in community college with no intention to transfer; however, upon achieving success, they may be motivated to pursue a baccalaureate degree. Likewise, students who enroll in the community college with the intent to transfer may find their plans diverted due to financial or family obligations (Jabbar et al., 2021, p. 6). Their study showed that students from lower-income backgrounds had more difficulty navigating the process, as they needed the generational experience to guide them through the process. Qualitative

data from the study showed that students need guidance to make transfer decisions. For some students, it may be a matter of too many options, so students fail to make any decision. The study found that factors such as a friend enrolling at a particular institution could influence the decision regarding where to transfer. This may result in decision-making that may not be in the best interest of student success. However, community college transfer students may choose a college based on ease of attendance (location, cost, resources, etc.) instead of factors such as majors and outcomes (Jabbar et al., 2021, p. 7).

### **Conclusion**

Many studies have been done to further understand why and how students transfer from a community college to a baccalaureate degree-granting institution. Issues such as academic preparation, cost, and articulation agreements are often observed. This study focused on the transfer outcomes from one specific community college to three distinct local baccalaureate degree-granting institutions. Identifying how and where students are most likely to complete a baccalaureate degree after transfer from this community college can provide valuable information for colleges and students.



## CHAPTER 3

### Research Questions

In this study, the following research questions were posed:

**Research Question 1:** Are students from a community college who have completed an associate degree (AA or AS) more likely to complete a baccalaureate degree than transfer students from a community college who have not completed an associate degree?

H<sub>0</sub>: Students who transfer from a community college who have completed an associate degree are as likely to complete a baccalaureate degree as students who transfer from a community college without an associate degree.

H<sub>1</sub>: Students who transfer from a community college who have completed an associate degree are more likely to complete a baccalaureate degree than students who transfer from a community college without an associate degree.

**Research Question 2:** Does the type of college a community college student transfers to make a difference in the likelihood of completing a baccalaureate degree?

H<sub>0</sub>: The type of college a community college student transfers to does not make a difference in the likelihood of completing a baccalaureate degree.

H<sub>1</sub>: The type of college a community college student transfers to does make a difference in the likelihood of completing baccalaureate degree.

### **Research Design and Data Analysis**

This *ex post facto* study used data from one community college (SXM) in the SUNY system and compared it to two public colleges and one private college in the SUNY system. Data collected from students who attended SXM between 2012 and 2018 were used to observe if students who completed an associate degree prior to transfer were more likely to complete a baccalaureate degree than students who did not complete an associate degree prior to transfer. An ANOVA was used to determine if the type of college a student transferred to impacted the completion of a baccalaureate degree. The types of colleges studied include a more competitive SUNY public college, a less competitive SUNY public college, and a moderately competitive private college. All three colleges are located within 45 miles of each other in the same general geographic location.

The independent variables include students who attended a SUNY community college (SXM) and transferred to a SUNY college or a private college. These variables will have two levels: those who earned an associate degree prior to transfer and those who did not earn an associate degree prior to transfer.

The dependent variable is whether the student graduated with a baccalaureate degree. There are two levels: those who completed a baccalaureate degree and those who did not. The other dependent variable is the type of college a student transferred to: a

more competitive SUNY public college, a less competitive SUNY public college, or a moderately competitive private college.

### **Reliability and Validity of the Research Design**

The validity of the information is supported by the accreditation of all schools from which data were collected. In order to be accredited by the Middle States Association, which all schools in the study are, colleges must prove that their academic programs are effective. The grading scale for SXM was compared to the grading school to which the students transferred (see Tables 1, 2, 3, and 4). For students to graduate from SXM with an AA or AS degree, they must earn a 2.0 GPA and a minimum of 64 credits. Students graduating from the less competitive SUNY public institution with a BA or BS degree must earn a minimum of a 2.0 GPA and 120 credits. Students graduating from the more competitive SUNY public institution with a BA or BS must earn a minimum of a 2.0 GPA and 120 credits. Students graduating from the moderately competitive public institution with a BA or BS must earn a minimum of a 2.0 GPA and 120 credits.

**Table 1**

*Grading Scale for SXM*

Percent Equivalent	Grade	Quality of Achievement	Quality Points
90–100%	A	Excellent	4.0
85–89%	B+		3.5
80–84%	B	Very Good	3.0
75–79%	C+		2.5
70–74%	C	Average	2.0
65–69%	D+		1.5
60–64%	D	Minimum Passing	1.0
	F	Failure	0

**Table 2**

*Grading Scale for Institution #1 (Less Competitive SUNY Public Institution)*

Grade	Quality Points
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1
D-	0.7
F	0

**Table 3***Grading Scale for Institution #2 (More Competitive SUNY Public Institution)*

Grade	Quality of Achievement	Quality Points
A	Superior Work	4.0
A-		3.67
B+		3.33
B	Good Work	3.0
B-		2.67
C+		2.33
C	Satisfactory Work	2.0
C-		1.67
D+		1.33
D	Minimum Passing Credit	1.0
F	Failing	0

**Table 4**

*Grading Scale for Institution #3 (Moderately Competitive Private Institution)*

Grade	Quality Points
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
F	0.0

Other factors that could result in errors include grading errors as well as data entry errors. At SXM, grades are entered manually by faculty members. It is not unheard of for a grade to be entered in error. The Registrar's Office at each school is responsible for verifying grades; as a result, transcripts are legally binding. Although the researcher did not have access to test scores for the students in the study, the accreditation of each school, combined with the above-cited grading scales, results in verification that the grades are correct.

Determining reliability when referring to grades can be challenging, provided teacher, class, and assignment differences. Again, we must rely on the standards put forth

by the Middle States Association. The databases of each school maintain information about majors and graduation dates.

### **Sample and Population**

The sample consisted of students who attended SXM for at least one semester between fall 2012 and summer 2018 and transferred to one of three baccalaureate degree-granting institutions. Institution #1 is a less competitive SUNY public institution. Institution #2 is a more competitive SUNY public institution. Institution #3 is a moderately competitive private institution. The data were collected from SXM Office of Institutional Research (OIESP) via the National Student Clearinghouse. The data include graduation date at SXM if applicable and graduation date at the baccalaureate institution if applicable. Students still enrolled at the three institutions in the spring of 2023 were removed from the sample.

### ***Population***

Population of Interest: Transfer students from a community college.

Target Population: Students who transfer from a suburban community college to a baccalaureate degree-granting college.

Accessible Population: Students who transfer from SXM to a baccalaureate degree-granting SUNY college and a local private college.

The population for this study consisted of students who enrolled at SXM, a large suburban community college in New York State, who transferred to a 4-year/baccalaureate-granting institution in the SUNY system and a local private college. The sample was taken from reports generated by the National Student Clearinghouse. These reports track students from entry to graduation.



## **Setting/Context**

The sample for this study consisted of students who enrolled at SXM, a large suburban community college in New York State, who transferred to two specific 4-year baccalaureate-granting institutions in the SUNY system and one local private college between the fall of 2012 and the summer of 2018. This period was chosen to avoid the disruption to education caused by the COVID-19 pandemic. Additionally, stopping data collection at the end of the summer of 2018 allowed sufficient time for students to transfer and work toward completing a baccalaureate degree. The sample was identified, and data were collected from reports generated each year by SXM and the National Student Clearinghouse, which tracks all SXM transfer students from entry at the community college to transfer to another institution.

SXM has an enrollment of approximately 12,000 students. Approximately 70% of students wish to transfer and earn a baccalaureate degree. According to the National Center for Educational Statistics (2017), only about 16% transfer to a 4-year institution. The most popular major among transfer students is humanities and social sciences liberal arts (AA). There is cause to reason that the results of this study will generalize to students from suburban community colleges in New York who transfer to baccalaureate degree-granting colleges in New York.

## **Procedures for Collecting Data**

This study was conducted with secondary data from students who transferred from SXM to one of two SUNY colleges and a local private college between fall 2012 and summer 2018. Data were collected from SXM and the National Student Clearinghouse. The information in these reports includes the student's major as well as an

indication of whether the student is continuing or has graduated with a baccalaureate degree. The individual data were compared, as needed, with the data for the corresponding students from the SXM Banner system (administrative records). The data from SXM revealed whether the student obtained an associate degree at SXM before transfer.

This study looked at the completion of baccalaureate degrees. Academic progress (enrollment vs. non-enrollment) indicated movement toward the degree. According to the database, the student either completed the degree or did not complete the degree.

Each student's data were collected from two separate databases: the SXM Banner system and the National Student Clearinghouse. The data were collected from the SXM OIESP and entered into the spreadsheet by the researcher using the numerical student identifier provided by SXM OIESP. Information collected included whether the student graduated from SXM, the name of the transfer institution, and if the student completed a baccalaureate degree.

## CHAPTER 4

This study used an ex post facto design involving quantitative data to explore the relationship between students who attended SXM and transferred to three distinct 4-year institutions. The study examined the relationships between graduation from a large, suburban community college and completing a baccalaureate degree. A summary of the sample demographics can be found in Table 5.

**Table 5**

*Demographics of Student Population*

Demographic Characteristic	<i>N</i>	%
All	4,167	100%
SXM Student		
Graduated	1,956	47%
Did Not Graduate	2,210	53%
Baccalaureate Degree		
Graduated	2,282	55%
Did Not Graduate	1,884	45%

### **Research Question 1**

This research question asks if students from a community college who have completed an associate degree (AA or AS) are more likely to complete a baccalaureate degree than transfer students from a community college who have not completed an associate degree. These data were collected from SXM and the National Student Clearinghouse for Student Outcomes. Data were collected for SXM students who attended SXM between 2012 and 2018 and transferred to one of three baccalaureate degree-granting institutions.

**Table 6***SXM Graduates Who Completed a Baccalaureate Degree*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 (NO)	722	36.9	36.9	36.9
	1 (YES)	1,234	63.1	63.1	100
	Total	1,956	99.1	100	
Total		1,957	100		

Students who completed an associate degree prior to transfer completed a baccalaureate degree at one of three institutions at a rate of 63%. Those who completed an associate degree before transfer did not complete a baccalaureate degree at one of three institutions at a rate of 36%.

**Table 7***SXM Graduates Who Did Not Complete a Baccalaureate Degree*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 (NO)	1,162	52.6	52.6	52.6
	1 (YES)	1,048	47.4	47.4	100
	Total	2,210	100	100	

Students who did not complete an associate degree before transferring to one of three institutions completed a baccalaureate degree at a rate (47.4%). Students who did not complete an associate degree prior to transfer to one of three institutions did not complete a baccalaureate degree at one of three institutions at a rate of (52.6%).

Students who graduated with an associate degree prior to transfer were more likely to graduate with a baccalaureate degree than students who transferred before completing an associate degree.

## Research Question 2

Does the type of college a community college student transfers to make a difference in the likelihood of completing a baccalaureate degree?

An ANOVA was run to determine differences between students who graduated from SXM prior to transfer and attended one of three institutions. Institution 1 was a public, less competitive institution, Institution 2 was a public, more competitive institution, and Institution 3 was a private, moderately competitive institution.

A total of 1,956 SXM students obtained an associate degree prior to transfer. Of those students, 1,171 transferred to Institution 1 (mean .62, SD .486), 630 students transferred to Institution 2 (mean .63 SD .484), and 155 students transferred to Institution 3 (mean .75 SD .435).

**Table 8**

*Means and Standard Deviations of Students Who Graduated From SXM and Attended One of Three Institutions*

Variable	n	M	SD
Institution #1	1,171	.62	.486
Institution #2	630	.63	.484
Institution #3	155	.75	.435

**Table 9**

*One-Way ANOVA Results Comparing Colleges and Baccalaureate Completion for Students Who Graduated With an Associate Degree*

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2.362	1	1.181	5.090	.006
Within Groups	453.133	1,953	.232		
Total	455.495	1,953			

There was not a significant difference between institutions,  $F(2, 1953)=5.09$ ,  $p=.006$ . However, the large  $F$  value does indicate a large difference in the group means.

Tukey's test for multiple comparisons found a significant difference between the graduation rates between Institutions 1 and 3 ( $p=0.04$ , 95%CI = [-.23, -.03]). There was also a significant difference between the graduation rates of Institutions 2 and 3 ( $p=.014$ , 95%CI = [-.22, -.02]). The mean difference is significant at the 0.05 level.

**Table 10**

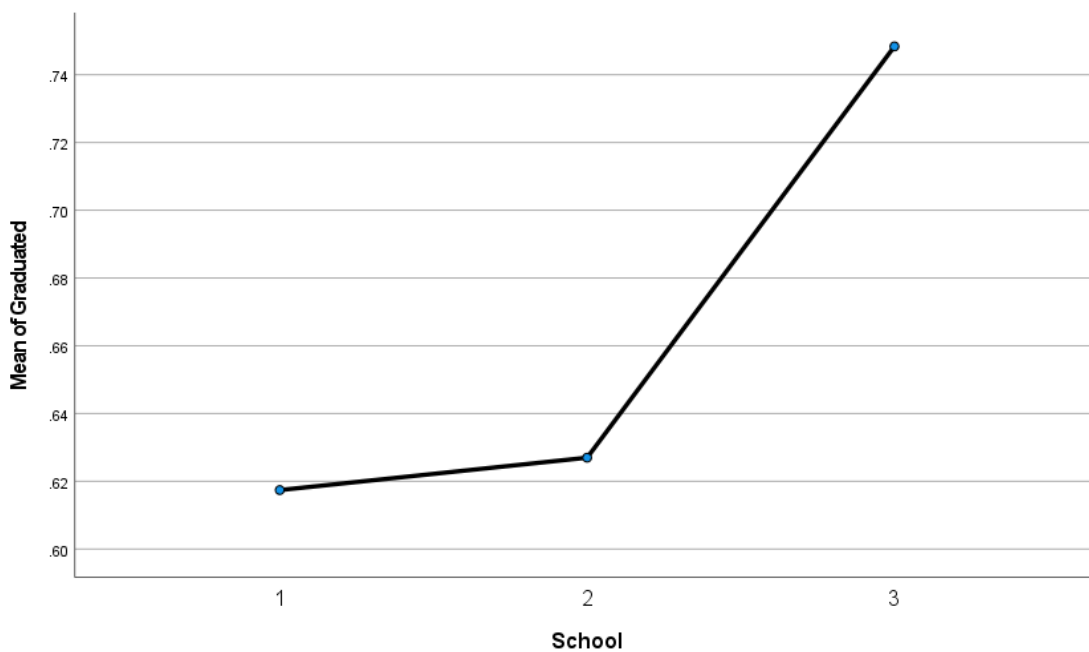
*Multiple Comparisons for Students Who Graduated From SXM and Graduated From One of Three Institutions*

		<i>M</i>	<i>SE</i>	<i>Sig</i>
Inst #1	Inst #2	-.010	.024	.915
	Inst #3	-.131	.041	.004
Inst #2	Inst #1	-.010	.024	.915
	Inst #3	-.121	.043	.014
Inst #3	Inst #1	-.131	.041	.004
	Inst #2	-.121	.043	.014

Figure 1 shows that there was a significant difference between graduation rates of Institution 1 and Institution 3. There was also a significant difference between graduation rates of Institution 2 and Institution 3.

**Figure 1**

*Differences Between Baccalaureate Degree Completion for Three Institutions for Students Who Did Complete Associate Degree Prior to Transfer*



An ANOVA was run to determine differences between students who transferred before graduation from SXM and attended one of three institutions. Institution 1 was a public, less competitive institution; Institution 2 was a public, more competitive institution; and Institution 3 was a private, moderately competitive institution.

A total of 2,210 SXM students did not graduate prior to transfer. Of those students, 1,265 transferred to Institution 1 (mean .45, SD .498), 802 students transferred to Institution 2 (mean .52 SD .500), and 143 students transferred to Institution 3 (mean

.51 SD .499). There was a significant difference between institutions  $F(2, 2207)=3,776$ ,  $p=.023$ .

**Table 11**

*Means and Standard Deviations for Students Who Did Not Graduate From SXM and Attended One of Three Institutions*

Variable	n	M	SD
Institution #1	1,265	.45	.498
Institution #2	802	.51	.500
Institution #3	143	.51	.502

**Table 12**

*One-Way ANOVA Results Comparing Colleges and Baccalaureate Completion for Students Who Did Not Graduate With an Associate Degree*

	SS	df	MS	F	p
Between Groups	1.879	2	.940	3.776	.023
Within Groups	549.151	2,207	.249		
Total	551.030	2,209			

Tukey's test for multiple comparisons found there to be a significant difference between the graduation rates between Institutions 1 and 2 ( $p=0.026$ , 95%CI = [-.11, -.01]). The mean difference is significant at the 0.05 level.



**Table 13**

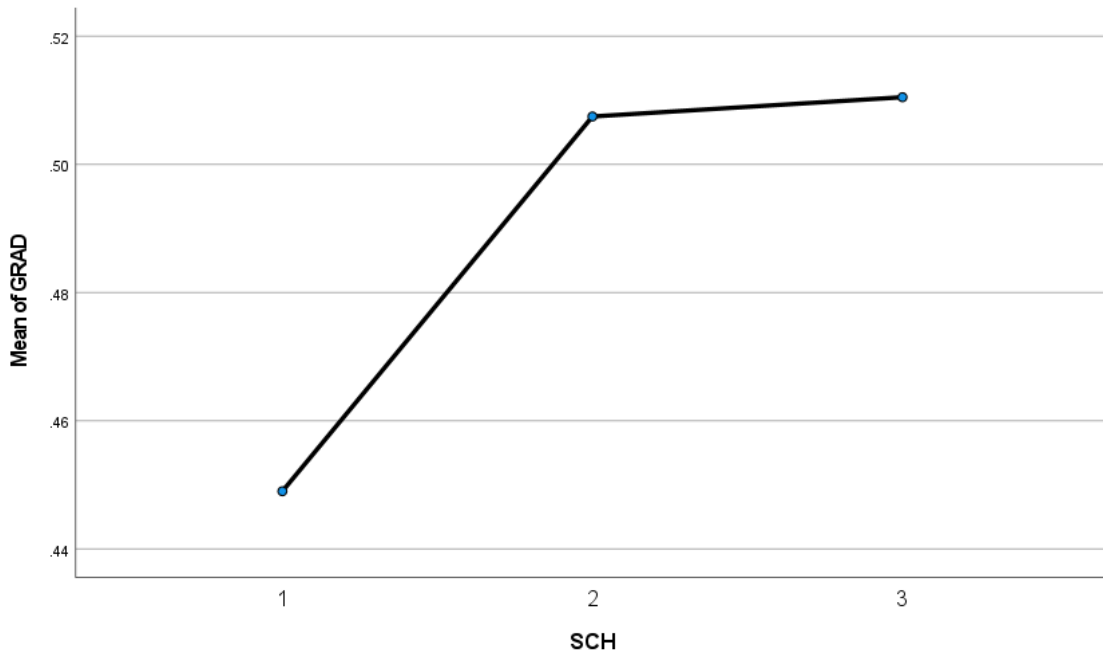
*Multiple Comparisons for Students Who Did Not Graduate From SXM and Graduated From One of Three Institutions*

		M	SE	Sig
Inst #1	Inst #2	-.058	.023	.026
	Inst #3	-.061	.044	.343
Inst #2	Inst #1	-.058	.023	.026
	Inst #3	-.003	.045	.998
Inst #3	Inst #1	-.061	.044	.343
	Inst #2	-.003	.045	.998

Figure 2 represents the significant differences between the baccalaureate degree completion rates of Institution 1 and Institution 2. The graduation rates of Institutions 2 and 3 were higher than those of Institution 1.

**Figure 2**

*Differences Between Baccalaureate Degree Completion for Three Institutions For Students Who Did Not Complete Associate Degree Prior to Transfer*



Although it appears in Figure 2 that there was a significant difference between Institutions 1 and 3, the smaller n for Institution 3 was likely the reason for no significant difference. The n of Institution 1 was 1,265, the n of Institution 2 was 802, and the n of Institution 3 was 143.

### **Conclusion**

The findings from Research Question 1 showed that students who graduate with an associate degree prior to transfer are more likely to complete a baccalaureate degree than students who transfer prior to completing an associate degree.

The findings from Research Question 2 showed that the type of institution a student transfers to does influence the likelihood of completing a baccalaureate degree. Students who attended the public SUNY less competitive college completed a

baccalaureate degree at a lower rate than the students who attended the public SUNY more competitive college and the private moderately competitive college. Although for the students who did not complete an associate degree prior to transfer, Institution 3 did not have a significantly higher baccalaureate degree completion rate, it was still higher than those for Institutions 1 and 2. Chapter 5 will discuss the possible reasons for these differences and identify ways the research can benefit degree completion outcomes.

## CHAPTER 5

### Review of Problem

As of 2013, approximately 43% of all college students in the United States were enrolled in community colleges. As enrollment dropped at colleges throughout the country starting in 2010, the number of underrepresented students enrolled in community colleges grew disproportionately. Data from the Department of Education showed that 15% of community college students were Black, compared with 14% of undergraduate students overall. The numbers are even more disproportionate for Hispanic students, where 21% attend community college, compared to 16% attending undergraduate institutions (Ma & Baum, 2016). Paired with the fact that individuals with a baccalaureate degree will earn approximately \$1,400 more each month than those with an associate degree (U.S. Bureau of Labor Statistics, 2020), it is reasonable to look at the factors that are more likely to result in students earning a baccalaureate degree.

Baccalaureate degree-granting institutions are also keenly focused on completion rates for their students. With declining enrollments across the country in recent years, 4-year institutions are competing for students, both traditional first-year students and transfers from other colleges. Many baccalaureate degree-granting institutions rely heavily on transfer students, most of whom come to them from local community colleges. It is in everyone's best interests for all higher education institutions—community colleges and baccalaureate degree-granting institutions—to be mindful of the factors that may relate to higher degree completion rates for all students. In a world where rankings and placements are increasingly scrutinized, degree completion rates are important factors that 4-year colleges are working to improve. Likewise, community colleges rely

on high completion rates for funding from both state and local entities. Accrediting agencies also are keenly aware of graduation rates for all degree-granting institutions. In a world where education leads to opportunity, educational institutions should focus on what factors are most likely to result in student success as measured by degree completion.

### **Summary of Findings**

This study sought to show a relationship between students' completion of an associate degree at a community college prior to transfer to a baccalaureate degree-granting institution and eventual completion of a baccalaureate degree. Of the 4,167 students in the study, 63% of those who completed an associate degree prior to transfer went on to earn a baccalaureate degree. For students who did not complete an associate degree prior to transfer, 47% went on to earn a baccalaureate degree. As Maslow's (1943) theory of motivation indicates, after an individual fulfills a need, they are motivated to move onto pursuing the next goal. When students accomplish the goal of obtaining an associate degree, they are motivated to pursue the next degree, a baccalaureate degree. As McLeod (2018) indicated, personal growth needs often stem from a desire to grow.

The findings from Research Question 1 concur with the studies by Kopko and Crosta (2016) and Crook et al. (2012). Kopko and Crosta looked at baccalaureate degree completion rates for students in a state university system. They found that students who completed an associate degree prior to transfer had 10% higher baccalaureate degree completion rates (Kopko & Crosta 2016). Crook et al. found that students in the CUNY system who earned an associate degree prior to transfer to a baccalaureate degree-granting institution in the CUNY system were 3.4% more likely to complete a

baccalaureate degree than students who transferred without obtaining an associate degree (Crook et al., 2012). The findings from this study are consistent with prior studies and literature.

Research Question 2 found that the type of college a student transferred to did have a significant effect on baccalaureate degree completion rates. Between the years 2012 and 2018, a total of 4,166 students transferred from SXM to three local baccalaureate degree-granting institutions. Institution 1 was a SUNY less competitive institution, to which 2,436 students transferred. Institution 2 was a SUNY more competitive institution, to which 1,432 students transferred. Institution 3 was a moderately competitive private institution, to which 298 students transferred. Students who graduated from SXM and transferred to Institution 3 were significantly more likely to complete a baccalaureate degree. Students who did not graduate from SXM and transferred to Institutions 2 and 3 were significantly more likely to graduate. Students who transferred to Institution 1 were less likely to graduate regardless of associate degree completion. Jenkins and Fink (2016) studied the presence of statewide college agreements as they pertained to transfer students. They found that that despite agreements, even if they were statewide agreements, such as is the case with SUNY, it was difficult to compare each college to the next. It was often the individual programs, policies and “institutional characteristics” (p. 37) that had the strongest effect on student degree completion (Jenkins & Fink, 2016).

Most students in the study transferred to Institution 1, and it had the lowest baccalaureate degree completion rate. The admissions criteria for this school require a 2.0 GPA. While students may have felt prepared to transfer, according to Sandoval-Lucero et

al. (2024), “Despite the social capital and self-efficacy gained from previous college experience, community college transfer students can experience self-doubt and confusion when navigating unfamiliar processes and systems at a new institution” (p. 6). While this could be true for any of the transfer students, it is possible that those who chose to attend the least competitive institution may have not had the self-efficacy to persist to degree completion. Bandura explained that self-efficacy is learned, not inherited (Bandura, 1977). If students were not particularly successful at the community college, they were likely to be less successful at the baccalaureate degree institution.

### **Discussion of Findings**

As Perna and Thomas (2008) summarized, many factors may pertain to a student’s success in completing a baccalaureate degree following transfer from a community college. This study shows that of the students who completed an associate degree before transfer, 64% completed a baccalaureate degree. Only 36% of those who transferred with an associate degree did not complete a baccalaureate degree. Those who did not complete an associate degree before transfer had similar outcomes for completing a baccalaureate degree.

Perhaps of greater interest was the difference in the type of school a student transferred to as it pertained to baccalaureate degree completion. Nationwide, over a quarter of first-time college attendees fail to complete a degree within 6 years. This number is slightly lower for public institutions; however, the challenge exists to determine which factors cause students to fail to complete a degree (Ackerman et al., 2013).

In this study, the less competitive SUNY college had the lowest completion rate of the three transfer institutions. While this study did not attempt to answer why one school had higher baccalaureate degree completion rates than others, the literature does tell us that a myriad of factors affect degree completion success. As Institution 1 was the less competitive college with the lowest completion rates, it is possible that, as was pointed out by Perna and Thomas (2008), “for community college students, common factors relating to success tend to focus on academic preparation, affordability, and college access” (p. 8). The less competitive SUNY college is the closest of the three colleges geographically to SXM. Additionally, to transfer, students need only show a 2.0 GPA. It is possible that location, cost, and academic preparation play a role in the lower degree completion rates at this college. If students are entering this college less prepared to succeed, it may be that their self-efficacy, as introduced by Bandura (1977), may be affected. If students are not confident in their academic abilities, their lack of confidence may have a negative effect on their motivation and belief that they can succeed (Artino, 2012).

The highest degree completion rate was found for community college graduates who transferred to a moderately competitive private institution. Known for its commitment to economic diversity, this institution welcomes transfer applicants with a minimum GPA of 2.5. It offers scholarship awards to all community college transfers who enter with a completed associate degree. This is done to offset the tuition difference between them and their public institution counterparts. Despite this, the cost to attend is significantly higher than the cost of attendance at a SUNY public institution. However, to further understand why this institution had the highest degree completion rate, one would



have to examine the student experience, financial aid process, and other factors pertaining to student success.

For students who did not graduate from SXM, there was a significant difference in baccalaureate degree completion rates between Institutions 1 and 2. Institution 2 is a more competitive SUNY public college with an undergraduate enrollment 17,500. It is a Research 1 university and is highly regarded as one of the top schools in the SUNY system. Students from SXM who strive to attend Institution 2 are among the strongest students at SXM and often apply to programs focused on math and science. While the minimum GPA needed to be admitted as a transfer student is 2.8, many math and science-based programs at Institution 2 have higher GPA requirements and detailed admission requirements. Students applying to Institution 2 are typically academically strong students.

Based on admission requirements, it is possible that students who transferred to the more competitive SUNY public college and the moderately competitive private college had higher GPAs from SXM. Although this study did not examine GPA as it related to transfer, the fact that Institution 2 and Institution 3 have higher admissions requirements is likely a factor in student success. Institution 3 consistently had higher graduation rates than Institutions 1 and 2. Private institutions may be able to provide more resources to students to support them during their academic journey than public institutions.

### **Recommendations for Future Research**

There are many opportunities for further research. Among them are the reasons students are more likely to succeed at the more competitive and private colleges. One

possible explanation could be that the student's level of preparation for continued study toward a baccalaureate degree was more pronounced at Institutions 2 and 3. Institutions 2 and 3 have more stringent admissions criteria; thus, the students attending those institutions may be more prepared for advanced baccalaureate study. One could also review the level of support the students receive at each institution. Future studies could review the admission and orientation process at each institution for transfer students. It would be useful to understand what entering transfer students are told regarding the availability of support services. It would be reasonable to conduct a qualitative study to understand further students' decisions regarding transfer institutions and their experiences at each transfer institution.

Further study could be conducted to determine if other private colleges on Long Island have similar graduation outcomes for SXM transfer students. Do SUNY schools outside Long Island have similar outcomes for SXM transfer students? Do more competitive schools have better outcomes for transfer students? These and other questions would interest educators from community colleges, baccalaureate institutions, and students. If students were made aware of where they are most likely to complete a baccalaureate degree, might that help them decide where to transfer?

Future studies on this topic would benefit from qualitative data to further understand why students were more successful at one college over another. A mixed-methods study to pair the graduation rates with information such as student experience, college policies, and services for students would result in data that would provide a more holistic look at the reasons students complete a baccalaureate degree after transfer from a community college.

## **Recommendations for Practice**

A recommendation would be to continue to collect data regarding transfer to these and other institutions. If community colleges are informed about where their students are more likely to complete a baccalaureate degree successfully, they might seek to enhance relationships with those colleges. Additionally, 4-year institutions that are not successfully graduating their transfer students may wish to examine why students are not completing degrees and take steps to improve completion outcomes.

As we watch various colleges throughout the country struggle financially and with decreasing enrollment trends, data and information of the type collected in this study and similar studies could help improve individual schools' degree completion rates. While prior literature has focused primarily on large national studies and statewide system studies, perhaps it would be helpful for colleges to focus on smaller studies such as this. Smaller studies for local community colleges may prove worthwhile in a state such as New York, where there are hugely diverse geographic areas.

## **Conclusion**

Increasing the number of students who wish to transfer and obtain a baccalaureate degree, and increasing the number of students who successfully do so, should be a priority for all stakeholders. We know that obtaining a baccalaureate degree leads to higher earnings throughout one's life; in addition, it allows for more varied employment opportunities. Knowing the United States is committed to creating a highly educated workforce, researchers must continue to study the barriers to baccalaureate degrees for students and understand support programs that help students succeed academically. By gaining a better understanding of where students can be most successful, community

colleges, in partnership with 4-year colleges, can provide more opportunities for students while simultaneously working to improve the areas where students do not find as much success.

Studies such as this could be replicated at any community college and tailored to specific challenges the college faces. Whether additional variables such as GPA and major are studied, the addition of qualitative data is recommended to fully understand why students are or are not completing a baccalaureate degree.

## APPENDIX A IRB APPROVAL MEMO



Federal Wide Assurance: FWA00009066

Oct 10, 2023 12:10:47 PM EDT

PI: Molly Ludmar

CO-PI: James Campbell

Dept: The School of Education, Ed Admin & Instruc Leadership

Re: Initial - IRB-FY2023-283 *Community College to Baccalaureate Degree: Does the Associate Degree Matter?*

Dear Molly Ludmar:

The St John's University Institutional Review Board has rendered the decision below for *Community College to Baccalaureate Degree: Does the Associate Degree Matter?*.

Decision: Exempt

PLEASE NOTE: If you have collected any data prior to this approval date, the data must be discarded.

Selected Category: Category 4. Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:

(i) The identifiable private information or identifiable biospecimens are publicly available;

(ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;

(iii) The research involves only information collection and analysis involving the investigator's use of identifiable health information when that use is regulated under 45 CFR parts 160 and 164, subparts A and E, for the purposes of "health care operations" or

“research” as those terms are defined at 45 CFR 164.501 or for “public health activities and purposes” as described under 45 CFR 164.512(b); or

(iv) The research is conducted by, or on behalf of, a Federal department or agency using government-generated or government-collected information obtained for nonresearch activities, if the research generates identifiable private information that is or will be maintained on information technology that is subject to and in compliance with section 208(b) of the E-Government Act of 2002, 44 U.S.C. 3501 note, if all of the identifiable private information collected, used, or generated as part of the activity will be maintained in systems of records subject to the Privacy Act of 1974, 5 U.S.C. 552a, and, if applicable, the information used in the research was collected subject to the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq.

Sincerely,

Raymond DiGiuseppe, PhD, ABPP

Chair, Institutional Review Board

Professor of Psychology

**APPENDIX B VARIABLES UTILITZED IN RESEARCH ANALYSIS**

<b>Variable Name</b>	<b>Label</b>	<b>Descriptive Statistics</b>	<b>Description</b>
SXM	SXM Graduate	0: did not graduate from SXM 1: did graduate from SXM	Variable indicates if student obtained associate degree at SXM
SCH	School Attended	1: Institution #1 2: Institution #2 3: Institution #3	Variable indicates the college the student transferred to following attendance at SXM
GRAD	Graduated Baccalaureate	0: did not obtain baccalaureate degree 1: did obtain baccalaureate degree	Variable indicates if student obtained baccalaureate degree

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## Vita

Name	<i>Molly Phelps Ludmar</i>
Baccalaureate Degree	<i>Bachelor of Arts, Randolph-Macon College, Ashland, Virginia, English</i>
Date Graduated	<i>May, 1993</i>
Other Degrees and Certificates	<i>Master of Science, East Carolina University, Greenville, North Carolina, Counselor Education</i>
Date Graduated	<i>December, 2000</i>