Success Through Inclusion:

Impact of Honors Participation on Transfer Student Graduation Frequency

at Four-Year Colleges and Universities

By

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DEDICATION

This dissertation is dedicated to my parents, who always believed in the importance of education and instilled in me the ethics of hard work and perseverance. This degree would not be possible without your firm foundation and never-ending support.

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ABSTRACT

Nationally collected data reveals that transfer students encounter added difficulty graduating on time from four-year institutions than non-transfer students. Since transfer students traditionally graduate at a lower rate, targeting and improving transfer students' graduation percentages is one way to augment an institution's overall graduation rate and the total number of degrees conferred. Numerous studies have shown evidence of higher completion frequencies for first-time freshmen who participate in four-year honors programs. However, research has yet to reveal how honors programs impact transfer student outcomes.

Furthermore, a criticism often leveled at honors is that it can be elitist. One way to diversify honors programs is to promote the inclusion of transfer students within honors programs. Diversity will increase because transfer students, especially community college students, tend to include various socioeconomic backgrounds, underrepresented minority groups, first-generation, and non-traditional students. As such, this study is motivated by the dual need to increase graduation frequency (expressed as a percentage) and diversify honors programs by including transfer students.

Based on ex post facto data collected on transfer student graduation percentages at a large public university in Tennessee, the purpose of this non-

experimental, quantitative, comparative study was to investigate if transfer student honors participation has an association with graduation frequency. Chi-square analyses were performed to investigate the association among graduation frequency and honors participation along with additional variables, including gender, age, race, and number of honors credits earned. The findings indicate that the association among honors participation and graduation frequency, as well as honors participation, graduation frequency, and age, was statistically significant for similarly abled transfer students. Gender and race had partial associations with honors participation and graduation frequency. Finally, the number of attempted honors credits had no significant association. Since the overall findings indicate that high-impact practices such as honors programs are associated with higher graduation frequency for transfer students, the study calls for more institutional support and an increased focus on integrating transfer students into honors programs.

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INTRODUCTION

Statement of the Problem

Nationally collected data reveals that transfer students encounter added difficulty graduating from a four-year institution on time than non-transfer students. For example, the National Student Clearinghouse (NSC) Research Center's *Tracking Transfer* (2021) and *Completing College* (2022) reports state that compared to a 62.2% six-year graduation percentage for students initially starting at four-year institutions, the six-year graduation percentage for transfer students is merely 47% (NSC Research Center, 2021). Additionally, at the national level, only 14.6% of students who start at a community college will earn a bachelor's degree within six years (NSC Research Center, 2021).

Given that transfer students traditionally graduate at a lower rate, targeting and improving transfer students' graduation percentages (or frequency) is one way to augment an institution's overall six-year graduation percentage and the total number of degrees conferred. Furthermore, it is important to note that these two measurements (graduation percentage and degrees conferred) constitute a significant component of performance-based funding for many institutions (Podesta et al., 2020). Therefore, in addition to advantaging students, improving graduation frequency for transfer students is a critical component of student success for institutions whose operating budgets depend on outcome-based funding formulas.

Higher education institutions often look to improve graduation frequency by spotlighting high-impact initiatives for targeted populations (Tennessee Board of Regents, 2022). One significant example of a high-impact practice is honors education (Cobane & Jennings, 2017). Honors programs are prevalent in higher education institutions, with at least 1500 programs in community colleges and four-year institutions (Scott et al., 2017). Furthermore, research has shown increased graduation percentages for students participating in honors (Cognard-Black, 2019; Cosgrove, 2004; Furtwengler, 2015; Keller & Lacy, 2013; Patton et al., 2019). However, there has not been a specific focus on how honors education impacts transfer student graduation frequency.

Background of the Problem

Transfer Students

Because transfer students comprise a large percentage of their student population, four-year institutions should purposefully concentrate on transfer student success initiatives within their programs. Nationally, almost half of the students who completed a baccalaureate degree (49%) had attended a community college within the past ten years (Maliszewski Lukszo et al., 2020), and 38% of students transferred to at least one other institution within six years of their college experience (Shapiro et al., 2018). While transfer students comprise a significant percentage of the total student body, their graduation percentages fall behind non-transfers. Nationally, transfer

students' graduation percentages are lower than non-transfers by almost 13%, with only 47% of transfer students graduating within six years (NSC Research Center, 2021).

The Tennessee Higher Education Commission (THEC) and the Tennessee Board of Regents (TBR) are the primary parties responsible for tracking the statewide success of Tennessee transfer students. As such, they produce annual reports on transfer student data for the state. For example, the recent (2021) THEC *Articulation and Transfer Report* provided detailed data on the 2014 cohort of first-time students at all Tennessee public colleges and universities.

Of all students, the report found that 39.7% of students attended more than one institution in six years. In this same report, THEC also reviewed transfer graduation percentages at the state level but delineated the data into two types of transfers – those who start at two-year institutions and transfer and those who start at four-year institutions and transfer. Unfortunately, this report does not provide an overall six-year bachelor's degree graduation percentage that includes both groups of students. It does, however, provide this information for two-year students. It states that only 17.3% of students who start at a two-year institution graduate with a bachelor's degree within six years, which is higher than the national average of 14.6%. Furthermore, of those students who started at a four-year institution, 55% completed a bachelor's degree in six years, compared to 64.1 of students who did not transfer.

Impact of Graduation Frequency

Transfer graduation frequency (expressed as percentages) are an area of concern because, since the late 1990s, there has been a growing trend for states to use performance/outcome-based funding formulas (PBF) to allocate funding for public higher education (Miller, 2016; Ortagus et al., 2020). By 2020, a report by Rosinger et al. found that 32 states used PBF policies to fund their public institutions. While many states have PBF formulas, it is essential to note that some states may have a variety of funding stipulations that limit which institutions benefit from this method (e.g., community colleges versus four-year institutions). Additionally, the amount of total funding provided by PBF versus other funding policies may vary across states (Rosinger et al., 2022).

Tennessee has a long-standing history of using PBF, but prior to 2010, this funding was limited to bonuses for meeting Quality Assurance Program goals. Starting in 2010, the Complete College Act of Tennessee (CCTA) changed the funding formulas for higher education in Tennessee. CCTA based the new funding formulas on several outcomes, with larger weights given to retention and completion goals (Meehan & Kent, 2020). Funding formulas were later adjusted in 2015 and are reviewed every five years for significant changes (Podesta et al., 2020).

At the four-year level, individual institutions work with the Tennessee Higher Education Commission (THEC) to determine the weight of each outcome based on the institution's mission. Testa (2018) further states that achievement outcomes with

"higher mission weights will have a greater effect on the amount of funding received under the formula, all else being equal," (Testa, 2018, p. 1). Currently, in Tennessee, all four-year public institutions place the number of degrees earned and the four-year or six-year graduation outcomes as the highest percentages of their mission weight (Testa, 2017).

Therefore, while graduation percentages are not the sole measure of student success, institutions cannot disregard the impact of these numbers on institutional funding. As a result, institutions have increased their use of data analytics to select target groups (such as transfer students) to improve their graduation and retention percentages. Once a target group is specified, institutions design initiatives to help improve performance for these groups. Often these initiatives center on including high-impact practices that help students engage further with the institution and elevate academic achievement (Tennessee Board of Regents, 2022).

High-Impact Practices

High-impact practices (HIP), defined by the Tennessee Board of Regents (2022), are teaching or learning techniques that increase student engagement and benefit students. Kuh (2009) lists ten common HIPs: "first-year seminars, learning communities, writing-intensive courses, common intellectual experiences, service learning, diversity experiences, student-faculty research, study abroad, internships and other field placements, and senior capstone experiences" (Kuh, 2009, pp. 688-689). Students in

honors programs often have the opportunity to incorporate many, and sometimes all, of the above practices into their educational experience.

As a high-impact practice, honors education prides itself on providing students with opportunities to engage fully in their coursework (Tennessee Board of Regents, 2022). As stated in the National Collegiate Honors Council (NCHC) definition of honors education, students achieve this engagement through enrollment in smaller classes designed to provide more significant interaction and enhanced discussion (NCHC, 2013). Furthermore, due to the nature and design of honors courses, students can take advantage of enriched interaction with like-minded peers and develop closer professional relationships with their faculty members. These opportunities allow students to develop their sense of identity and belonging to an institution (NCHC, 2013).

Honors Education and Transfer Students

Recently, honors programs in four-year institutions have also started to pay specific attention to integrating transfer students into their programs (Bahls, 2018; Frana & Rice, 2017; Thomas et al., 2019). A criticism often leveled at honors is that it can be elitist (Weiner, 2009). As a response, honors programs have concentrated efforts to prioritize diversity and inclusion within their programs (Cognard-Black & Spisak, 2021). One way to diversify honors programs is to promote the inclusion of transfer students within honors programs. Diversity will increase because transfer students, especially those from community colleges, tend to include various socioeconomic backgrounds,

underrepresented groups, first-generation, and non-traditional students (Thomas et al., 2019).

Research has yet to show how honors programs specifically impact transfer student outcomes. However, numerous studies have shown evidence of higher completion percentages for first-time freshmen who participate in four-year honors programs (Cognard-Black, 2019; Cosgrove, 2004; Furtwengler, 2015; Keller & Lacy, 2013; Patton et al., 2019). Furthermore, additional research has reviewed the impact of community college honors programs on student success and found similar benefits (Bennett, 2021; Honeycutt, 2017). Therefore, it can be reasoned that transfer students will also benefit from inclusion in these programs since honors education is improving the completion frequencies of first-time freshmen students at both two and four-year institutions. Therefore, the inclusion of transfer students into honors programs at four-year institutions can meet two needs: increased diversity within honors programs and the statewide goal of incorporating high-impact practices for students.

Theoretical Framework

Student success, retention, and graduation percentages are complex issues related to cognitive and affective development, institutional support, and socioeconomic status, among other factors (Astin, 1984; Tinto, 2012). Consequently, this study uses the work of four theorists to support a variegated theoretical framework that sheds light on the multi-dimensional aspects of this complexity.

Chickering and Gamson's Seven Principles for Good Practice in Education (1987), Kuh's recommendations for high-impact practices in higher education (2009), and Renzulli's Three-Ring Conception of Giftedness (1998) are referenced in this study as best practices utilized within honors education to support student success. Additionally, Strayhorn's work on student involvement and sense of belonging, especially among diverse students (2012), informs the effective facets of transfer students' retention and graduation frequency.

Strayhorn's work expands upon the work of several educational researchers (Astin, Bean, Kuh, Pascarella & Terenzini, Spady, and Tinton, among many others) who posit that a student's involvement, attitudes, and beliefs are primary reasons for retention and eventual graduation. Thus, numerous studies have used these theoretical frameworks to improve retention by promoting initiatives that increase involvement and a student's sense of belonging. However, earlier student retention models failed to account for additional factors, including diversity and the changing demographics of the student body. To account for this lack of attention, Strayhorn purposefully examines diverse student groups to investigate how their sense of belonging impacts their success in college.

Statement of Purpose

This study is motivated by the dual need to increase graduation frequency and the need to diversify honors programs via the inclusion of transfer students. Based on ex post facto data collected on transfer student graduation percentages at a large public

university in Tennessee, the purpose of this non-experimental, quantitative, comparative study was to investigate if transfer student honors participation has an association with student graduation frequency and to examine if increased levels of participation influence academic performance within this population.

Findings will help honors programs determine what impact their programs have on transfer student success. Specifically, if higher levels of participation indicate increased success outcomes, then honors programs should examine the possibility of inclusive admissions criteria and honors curriculum options for transfer students. Finally, if the political aphorism “a rising tide lifts all boats” also applies to higher education, then transfer student success in honors benefits the honors program and the broader institutional mission.

Research Questions

1. Is there an association between student honors participation and graduation frequency for transfer students?
2. Is there an association between honors participation and graduation frequency among male and female transfer students?
3. Is there an association between honors participation and graduation frequency among traditional (18-24) and non-traditional (25 and older) aged transfer students?
4. Is there an association between honors participation and graduation frequency among white and non-white transfer students?

5. Is there an association between the number of honors credits a transfer student attempts and graduation frequency?

Research Hypotheses

H_1: Student participation in honors classes is associated with graduation frequency among similarly abled transfer college students.

H_2: Student participation in honors is associated with graduation frequency among similarly abled male and female transfer students.

H_3: Student participation in honors is associated with graduation frequency among similarly abled traditional and non-traditional-aged transfer students.

H_4: Student participation in honors is associated with graduation frequency among similarly abled white and non-white transfer students.

H_5: The number of honors courses completed is associated with graduation frequency among honors students.

Definition of Terms

- Academic success – references a student's academic achievement as measured by specific metrics such as graduation percentage, retention, GPA, credit-hour benchmarks, and special recognitions or honors (Noel Levitz Inc, 2008).
- Belongingness –a person's need to form positive, meaningful relationships and connections with others (Baumeister & Leary, 1995). **See also student belongingness*

- Cohort – a group of students who start in the fall as either first-time freshmen or first-time transfer students for a specific year. These groups are then tracked over time to measure outcomes such as graduation percentage, GPA, and retention. Additionally, researchers can further delineate cohorts by demographic aspects such as age, gender, ethnicity, Pell Grant eligibility, and others.
- Drive to 55 – Tennessee initiative to increase the percentage of adult Tennesseans who have earned a college degree or certificate to at least 55% by 2025 (Tennessee Board of Regents, 2014).
- Graduation – for the purpose of this study, graduation pertains to the institutional awarding of an initial baccalaureate degree; this study will not include associate degrees, second degrees, or post-baccalaureate programs in the reported graduation percentage.
- Graduation frequency/percentage/rate – the rate or frequency of a cohort of students who earn a bachelor's degree within a specific time frame, expressed as a percentage. This rate commonly tracks the four-, six-, or eight-year graduation percentages of first-time, full-time freshmen who start in summer or fall. This study will follow the six-year graduation frequency of students. Additionally, graduation frequency or percentage will be used in place of the more commonly used "graduation rate" terminology for this study.

- High Impact Practices (HIP) – teaching or learning practices that increase student engagement and benefit students (Tennessee Board of Regents, 2022)
- Honors/Honors Education – "Honors education is characterized by in-class and extracurricular activities that are measurably broader, deeper, or more complex than comparable learning experiences typically found at higher education institutions" (NCHC, 2013, Section A).
- Honors eligible transfer student – the four-year institution examined in this study allows any first-time transfer student who has earned at least 12 credit hours and an inclusive GPA of 3.25 or higher to enroll in honors courses. If eligible, students may self-select to register for honors courses and do not need additional permits (Middle Tennessee State University, 2022).
- Honors eligible non-participant transfer student – transfer students who meet honors eligibility requirements as defined above but have opted out of enrolling in honors courses.
- Honors programs/colleges – a unit within an institution that provides and oversees honors education according to the institution's culture and mission. It is ideally "composed of carefully selected teachers and students who form a cross- or multi-disciplinary cohort dedicated to achieving exceptional learning and personal standards" (NCHC, 2013, Section A). For this study, "honors program" will be used as the preferred term when referring to honors options at institutions instead of "honors college."

- Inclusion – "ongoing and transformative process of improving education systems to meet everyone's needs, especially those in marginalized groups," (Inside Government Higher Education, 2020, top of page).
- MTSU Honors Transfer Fellowship – a competitive honors fellowship program that requires students to complete honors requirements but also provides a scholarship. Placement is offered to 30 transfer students at MTSU each fall. Each applicant must have at least a 3.5 or higher inclusive GPA and have earned 60 hours by the start of the fellowship (Middle Tennessee State Institution, 2022).
- MTSU Transfer Promise – a guaranteed scholarship for first-time, incoming transfer students at MTSU who meet the following conditions: 3.0 or higher inclusive GPA, 60 earned credit hours prior to the summer or fall start at MTSU, and a completed application for admission by the deadline (Middle Tennessee State Institution, 2022).
- Outcome-Based/Performance-Based Funding Formulas (OBF/PBF) – Funding policies are enacted at the state level to allocate state funding to higher education institutions based on specific performance metrics. For example, in Tennessee, "performance outcomes include measures of progression, efficiency, and completion, such as graduation percentage, number of degrees awarded, student credit-hour accumulation benchmarks, and certificates and degrees granted per 100 full-time equivalent students" (Testa, 2017, p.1).

- Retention - represents the percentage of undergraduate students who enrolled in the fall and returned in the subsequent fall term at the institutional, college, department, or program level. Typically, researchers track this rate over subsequent years to determine if students graduate, remain enrolled, transfer, or have not been retained (Noel Levitz Inc, 2008).
- Student Belongingness – "[referring] to students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and essential to the campus community" (Strayhorn, 2012, p. 4).
- Student Success – a combination of academic success and additional measures such as student engagement, holistic personal development, career placement, and mentorship, among others (Noel Levitz Inc, 2008).
- Tennessee Higher Education Commission (THEC) – "The Commission coordinates and provides guidance to the institutions governed by the University of Tennessee Board of Trustees, the six locally-governed state universities, and the community colleges, and colleges of applied technology governed by the Tennessee Board of Regents" (Tennessee Higher Education Commission, n.d., "About THEC" History Section).
- Tennessee Promise - Tennessee Promise provides Tennessee high school graduates the opportunity to attend a community or technical college free of

tuition and mandatory fees. Tennessee Promise is both a scholarship and mentoring program (Tennessee Board Regents, 2022).

- Tennessee Reconnect - an initiative to help more adults return to higher education to gain new skills, advance in the workplace, and complete a degree or credential. Eligible adults who do not have an associate degree or higher can attend a community or technical college for up to two years tuition-free (Tennessee Board of Regents, 2021).
- Transfer – "defined as any change in a student's initial enrollment institution irrespective of the timing, direction, or location of the move, and regardless of whether any credits were transferred from one institution to another" (Shapiro et al., 2018, p.6).

Limitations

This study is limited to the investigation and data collection of transfer student graduation frequencies at one large, public, locally governed institution (LGI) in Tennessee. Although controls were implemented to compare transfer students with academically similar backgrounds, it is acknowledged that are many other variables besides honors participation that may affect graduation frequency. Furthermore, eligible transfer students can enroll in honors on a self-select basis at the institution in this study without specifically applying or committing to the honors program. Many other honors programs require an application process in addition to meeting GPA requirements (and other metrics) to participate in honors. Therefore, these results may

only be generalizable to some honors programs that allow transfer students to enroll in honors coursework.

Delimitations

This study is delimited to transfer students who enrolled in honors courses and honors-eligible transfer students who did not enroll in honors courses. Transfer students who were ineligible for honors were not investigated for this study. Additionally, four years of cohorts were studied in an attempt to control for homogeneity in the sample. Multiple cohorts may increase generalizability to other peer institutions with honors programs.

CHAPTER II.

REVIEW OF LITERATURE

The primary purpose of this study is to investigate the impact of honors participation on transfer student success as measured by graduation percentage. In this chapter, the first section reviews the prominent figures associated with student success in order to identify the effective components of honors education on student success. The review will then provide background information regarding historical trends and issues affecting transfer students and offer a more comprehensive picture of how honors participation can positively impact transfer academic success.

Theoretical Perspectives

Student Retention Theory

The eminent scholars of student retention are Astin and Tinto (Manyanga et al., 2017). Alexander Astin proposed his original Theory of Student Involvement in 1984. This theory proposes that students' academic performance is correlated with students' involvement. Those who become more involved in their education and institutions are more likely to persist and graduate. Soon after, in 1987, Vincent Tinto published his theory of student departure on the assumption that all students arrive at an institution with various experiences and individual goals for their college experience. The ability, or inability, to integrate into an institution then plays a factor in the student's commitment to stay. Tinto's theory has been revised over time to include additional factors that impact students' decisions to leave or stay at an institution (Tinto, 2012). Still, Tinto's

main point that institutions have a responsibility to help students integrate into their culture and community remains unchanged. While these early theorists provide a foundation for student engagement and involvement, this study will also highlight the theories of Chickering and Gamson, Kuh, Strayhorn, and Renzulli and how they account for the constructs of student engagement, sense of belonging, and giftedness. Moreover, in the following sections, the study will show how these diverse theories can be connected to transfer students' experiences with honors education.

Effective Teaching

Building on the work of Astin and Tinto, Chickering and Gamson's *Seven Principles for Good Practice in Undergraduate Education* (1987) further outlines how institutions can improve student engagement. The seven principles, phrased as directives, are as follows:

1. encourage multiple contacts between students and faculty
2. develop reciprocity and cooperation among students
3. use active learning techniques
4. give prompt feedback
5. emphasize time on task
6. communicate high expectations
7. respect diverse talents and ways of learning (Chickering & Gamson, 1987, p. 2)

Each practice can stand on its own merit. Furthermore, there are additional forces that are employed when educators can combine them all. These forces include activity, cooperation, diversity, expectations, interaction, and responsibility (Chickering

& Gamson, 1987). Additionally, Chickering and Gamson state that these practices can benefit students from all backgrounds, majors, and levels of preparedness. The implementation of these practices can be individualized to the institution's mission but is also dependent on the support the institution gives to this effort.

High Impact Practices

George Kuh's 2009 work augments Chickering and Gamson's theory by classifying specific types of instruction or support, which include their principles, as high-impact practices (HIP). His emphasis on HIPs was based on evidence from several studies that showed that higher levels of engagement are found when institutions purposefully develop policies and practices targeting learning and personal development (Kuh, 2009). As mentioned in chapter one, high-impact practices include "first-year seminars, learning communities, writing-intensive courses, common intellectual experiences, service learning, diversity experiences, student–faculty research, study abroad, internships and other field placements, and senior capstone experiences" (Kuh, 2009, pp. 688-689).

According to results published by the National Survey of Student Engagement, high-impact practices positively correlate with student success metrics. In addition to their effect on institutional metrics, students who are able to participate in HIPs such as research, internships, and service-learning are gaining skills and experiences outside of the typical classroom environment. These experiences can make students well-rounded and better prepared for their future careers.

Student Engagement and Belonging

Student engagement and a sense of belonging are critical elements of several theorists for student success, including Astin and Tinto. However, their earlier work was not as inclusive of all students. More recent research has found that students from underserved groups often feel less engaged with the institutions, and their needs are left unmet. For example, as a student of color, Terrell Strayhorn experienced times when he did not feel a sense of belonging in the institutions he attended as an undergraduate and graduate student (Strayhorn, 2012). These experiences inspired his research efforts to create a more comprehensive definition of a student's sense of belonging in college. He also provides empirically based recommendations to educators and institutions to improve procedures and policies that will enhance students' sense of belonging and, therefore, their educational outcomes with the institution (Strayhorn, 2012).

Strayhorn first establishes a definition of students' sense of belonging in college as:

> [referring] to students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and essential to the campus community or others on campus, such as faculty, staff, and peers (Strayhorn, 2012, p.4).

Furthermore, Strayhorn states that belonging can be analyzed in three different ways. First, belonging is a basic human need. Second, belonging is a motive sufficient to drive behavior. Third, belonging can "take on heightened importance in certain social contexts where some individuals are prone to feeling unsupported, unwelcomed, or

lonely" (Strayhorn, 2012, p. 5). At a practical level, he encourages institutions to find ways of "encouraging positive peer interactions, connecting students with supportive faculty, and providing opportunities for student involvement" to enhance students' sense of belonging (Strayhorn, 2012, p. 22). He argues that if students have a satisfied sense of belonging, they can then focus on acquiring knowledge and self-actualization. This focus comes from Strayhorn's interpretation of Maslow's *Hierarchy of Needs* framework, which states that the concepts of "Love and Belonging" must be met before higher-level needs such as "Self-Actualization" can be met.

Additionally, Strayhorn purposefully views the concept of belonging across various student groups and further argues that belonging does not equate to "fitting in." Instead, students should be able to maintain their individuality but find enough connections to build a community that celebrates differences and values the contributions those differences provide to the group.

Finally, his work has included several studies on the impact of belonging as it relates to race, gender, and sexual orientation. Subsequently, Strayhorn's broader perspectives on belongingness can correlate to the diverse needs of transfer students.

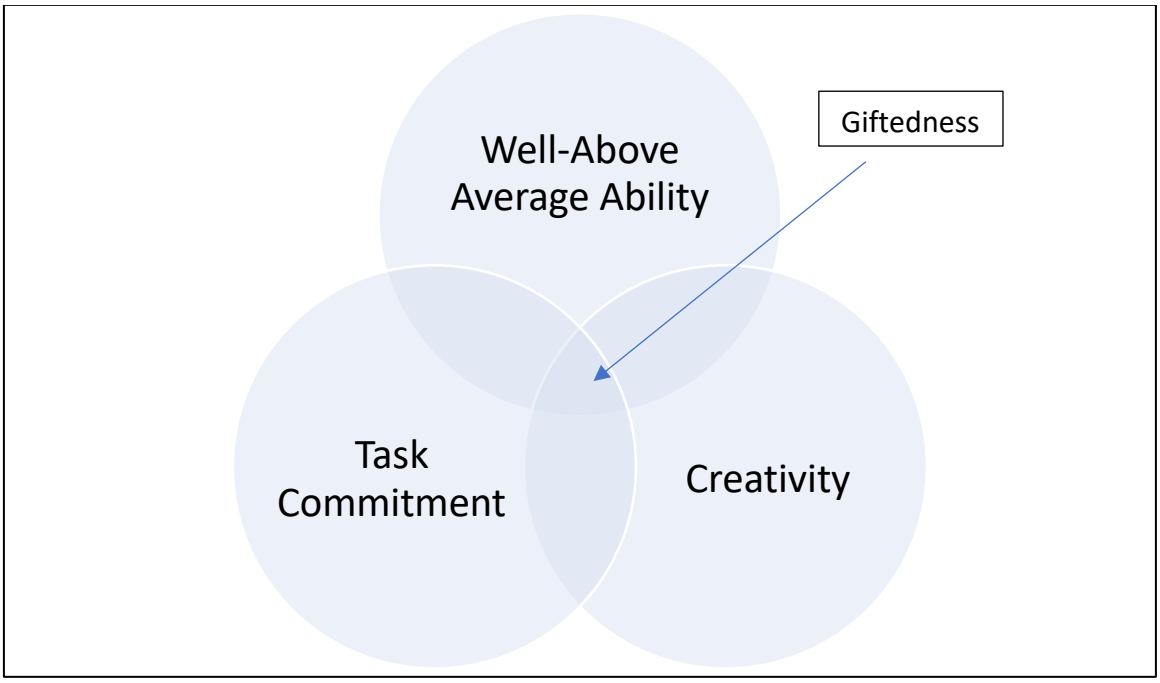
Giftedness

Renzulli's work identifies giftedness in children and develops academic programs to promote giftedness and creativity (Renzulli, 1998). Renzulli initially created his "Three-Ring Conception of Giftedness" in 1978 to expand the definition of giftedness beyond just high levels of intelligence. Renzulli's Three Rings include the following three

clusters of human traits that must all be present for behavior to be defined as giftedness: above-average general or specific abilities (or both), high levels of task commitment, and high levels of creativity (Renzulli, 1998). In this model, giftedness occurs at the intersection of all three rings (see Figure 1).

Figure 1.

Renzulli's Three-Ring Conception of Giftedness



Later models of this figure include a background with a “houndstooth” pattern. The pattern represents the multitude of factors that can “cause persons to display gifted behaviors at certain times and under certain circumstances” (Renzulli, 1998, Section III). Renzulli’s work encourages educators to look beyond the typical measurements of

intelligence (as expressed through IQ scores or other standardized assessment techniques) and to include creative-productive abilities as markers of giftedness. Additionally, while many students have the first ring (ability) and possibly the second ring (creativity), the third ring of task commitment is essential to expressing giftedness, especially throughout life, after the classroom (Renzulli, 1998).

After his initial creation of the three-ring conception of giftedness, Renzulli partnered with Reis and Smith to develop the Revolving Door Identification Model (Renzulli, 1999). This model called for a three-tiered system of identifying students with giftedness potential and providing them with enrichment opportunities (Tier I and II). Tier III became available to students who responded positively to the first two tiers. This system challenged the traditional exclusivity of including only "top ability" students in gifted programs. Subsequent research on this model found that students who were considered in the top 15-20% (based on standardized tests of intelligence and achievement) fared just as well as the top 5%, which was the cutoff level for traditional classifications of giftedness (Renzulli, 1999). Renzulli's later work centers on School-Wide Enrichment Models that provide a multifaceted approach to working with all students, identifying strengths and abilities, and providing corresponding enrichment opportunities (Renzulli, 1999).

Connection to Honors

The constructs of engagement, belongingness, and giftedness have been chosen because of their connection to student success within honors programs. First, Chickering

and Gamson's seven principles (1987) and Kuh's high-impact practices (2009) reflect the engagement elements within honors education. The inclusion of this construct is exemplified in the definition of honors education by the National Collegiate Honors Council (NCHC).

> Honors education is characterized by in-class and extracurricular activities that are measurably broader, deeper, or more complex than comparable learning experiences typically found at higher education institutions. Honors experiences include a distinctive learner-directed environment and philosophy, provide opportunities that are appropriately tailored to fit the institution's culture and mission, and frequently occur within a close community of students and faculty (NCHC, 2013, Section A).

While largely aimed at primary school students, Renzulli's (1998) theory of giftedness and enrichment opportunities can also apply to college-level programs. Many honors programs rely on metrics beyond GPA and test scores (standardized metrics) for admission and choose to evaluate students more holistically (Colangelo, 2018). Furthermore, Renzi's tiered levels of support are also seen in honors programs. Honors programs typically scaffold the student's involvement in honors over time in the institution. Additional opportunities become available as students make progress through the program's requirements. Finally, honors programs provide additional support services for gifted students and the opportunity for these students to reach their fullest potential (Colangelo, 2018).

It is important to note that not all honors students meet the definition of giftedness and not all gifted students may benefit from an honors education (Guzy, 2018). Honors students may also include high-ability or high-achieving students

(Kotinek, 2018). High-ability students are defined as one who "(1) performs at or shows the potential for performing at an outstanding level of accomplishment in at least one domain when compared with other students of the same age, experience, or environment; and (2) is characterized by exceptional gifts, talents, motivation, or interests," (IN Code § 20-36-1-3, 2018). High-achieving students are defined as students who score highly on national performance assessments and fall within the top percentiles of their academic class (Giancola & Kahlenberg, 2016). High-ability and high-achieving students can be represented in two of the rings in Renzulli's Three Ring Conception of Giftedness (Above Average Ability and Task Commitment) and still benefit from honors education (Kotinek, 2018). Renzulli's approach provides the framework to identify gifted, high-ability, and high-achieving students, and his tiered support system is beneficial to all three groups (Chancey & Butts, 2018).

Strayhorn's theory of belonging among diverse students connects to the shared principle of inclusive excellence in honors education (NCHC, 2013). This principle states that honors education "strives to serve undergraduates drawn from all of the many campus communities and explores practices that allow it to reach the broadest and most diverse populations" (NCHC, 2013, Inclusive Excellence Section). This principle of inclusivity is particularly impactful for transfer students who are able to participate in honors at four-year institutions. Additionally, honors programs often provide co-curricular offerings such as fellowship offices, community spaces (including honors-designated dorms or academic spaces), specialized honors advising, and professional

development opportunities. These options can help students find their sense of place and belonging within the institution.

Student Success

The reviewed constructs lay the foundation for the postpositivist theoretical framework used in this study. In addition, these constructs help to define the meaning of student success and the institutional practices and policies that must be provided to support students. This section, therefore, establishes a working definition of student success and the measures that will be investigated for this study, particularly as it relates to improving transfer student graduation frequency and encouraging participation in auxiliary support systems, such as honors programs.

Student success has many definitions (Manyanga et al., 2017; York et al., 2015). In its simplest form, student success is narrowly defined as only comprising quantitative measures like persistence, retention, and graduation percentages (Noel Levitz Inc., 2008). However, most institutions and individuals acknowledge that a comprehensive definition of student success consists of more than just these metrics (Manyanga et al., 2017; Noel Levitz Inc., 2008). Therefore, while this study features transfer student graduation percentages at Middle Tennessee State University, it must be acknowledged that this metric is just one facet of the broader definition of success. The following definition of student success represents the investigator's views and offers a more expansive view of success. This definition is grounded in the central tenets of the 2013-

2016 Middle Tennessee Quest for Success initiative and the MTSU Academic Master Plan, The Reach to Distinction, 2015-2025.

First, “Student Success” is a balance between degree completion and connecting the students’ college experiences to their long-term goals. A degree loses its worth in students’ eyes if they cannot connect the value of their education to their ability to thrive professionally (Milsom & Coughlin, 2015). While some programs will teach specific skill sets for a particular job, all graduates should also have the “soft skills” that are transferable to any number of jobs or positions (Dicker et al., 2018, Mayorga, 2019). Second, student success implies that an institution educates students not just to learn their curriculum but to be lifelong learners. Learning new material and applying it to real-life situations will enable students to be successful as they encounter new problems and materials throughout their lives (Middle Tennessee State University, 2015).

Finally, student success should result in students learning the value of contributing to the school and their communities throughout their time at the university and after graduation (Middle Tennessee State University, 2015). The university first shows this by investing in resources and auxiliary units that enhance learning and engagement opportunities both in and out of the classroom. Then, after graduation, students can use the connections and skills found at the university to network and engage with their communities outside the university (Mayorga, 2019; Middle Tennessee State University, 2015).

Efforts to improve student success are at the forefront of many initiatives within higher education (Noel Levitz Inc., 2008). Administrators rely on theoretical models, such as Astin, Tinto, and Kuh, to create policies and programs to improve retention, persistence, and graduation frequency (York et al., 2015). The common thread among these theories is that students' learning is individualized and impacted by various factors, including some of which the institution cannot control. Nevertheless, the institution is responsible for creating inclusive environments that engage the student, provide community, and enrich the educational experience (York et al., 2015).

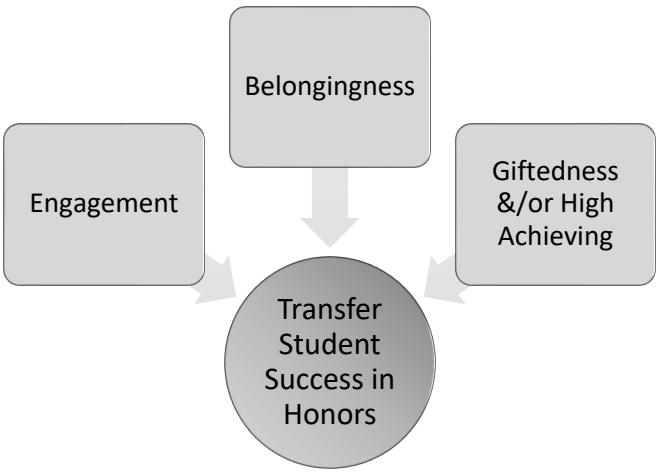
Therefore, a more expansive view of success better serves as a blueprint for institutional policies, practices, and services for all students, including transfer students. Transfer students represent a cohort of students with specific needs that sometimes differ from traditional first-time students. Transfer students also include a broader diversity of students in age, ethnicity, socioeconomic background, and first-generation status. These students each have unique factors that impact the types of available institutional support services. Consequently, institutions must take the time and effort to identify transfer students, track their success metrics, and investigate which services best serve their needs.

Drawing on the previous theories, concepts, and practices, this study seeks to build a framework to inform how institutions incorporate the intersection of honors education and the inclusion of transfer students. These constructs include engagement (Chickering & Gamson and Kuh), belonging (Strayhorn), and giftedness and high

achieving (Renzulli), which form a triad model for student success in honors (see Figure 2).

Figure 2.

Triad Model of Student Success in Honors.



This model can serve as an interpretive framework for analyzing the relationship between graduation frequency and transfer student participation in honors. Subsequently, the remaining sections of this chapter will delve further into transfer students and the myriad challenges they encounter. The final section of the chapter then shifts to honors programs with a particular focus on MTSU Honors transfer-specific initiatives.

Transfer Students

The act of transferring has been a part of the educational landscape for almost as long as students have attended colleges and universities (Bragg, 2017). The creation of junior colleges in the early 1900s increased the number of students who transferred and changed the focus from lateral (four-year to four-year transfer) to vertical (two-year to four-year transfer). However, the surge in research on transfer students is relatively recent (Brinkley-Etzkorn & Cherry, 2020). Some of this focus is credited to the Complete College America Act (CCA), first proposed by President Barak Obama in early 2009 and implemented later that same year. The Complete College America Act is a national initiative to increase college completion rates and close institutional performance gaps (Complete College America, 2022). Several states have joined this initiative, including Tennessee. As a result, these states have made changes to educational policy, governing structures, and curriculum offerings within higher education.

As a result of CCA, many states have also concentrated on increasing enrollment in community and technical colleges (Meehan & Kent, 2020). Since completion rates have historically lagged for students who start at a community college, much of the recent research has investigated how to improve the community college experience and support students' efforts in transferring from community colleges to four-year institutions.

Current trends in transfer research include transfer and articulation functions of community colleges and universities; access and success among students of color and

other underserved populations; and support policy at the state, system, and institutional levels (Bragg, 2017). In addition, states and institutions interested in transfer issues should pay particular attention to new transfer partnerships and pathways trends, how students can access and utilize services, and which of these services show empirical evidence of support. Accordingly, the following sections will review the current literature regarding these issues.

Categorizing and Tracking Transfer Students

Research on transfer student issues often examines the transition from community college to a four-year institution. There can be many reasons students start at a community college, but a common reason to initially enroll in a community college may be financial restrictions or considerations. First, tuition and fees at a community college are significantly lower than at a four-year institution. For example, in 2020, the average yearly cost of tuition and fees for community colleges was $3,730 compared to $10,440 at four-year public institutions (American Association of Community Colleges, 2020). Additionally, according to Bailey et al. (2018) and as seen in Table 1, community colleges tend to enroll more Pell Grant-eligible students (Tennessee Board of Regents, 2021).

Table 1.

Percentage of Tennessee Student Demographic Categories within All Institutions by Institutional Type 2021-2022.

Institution Type	Pell Grant Eligible	Non-Traditional
Community College	55.7%	28.1%
University	42.5%	13.3%

Note: data compiled from the 2021-2022 THEC Fact Book.

Furthermore, community college enrollment can be more financially viable since some states, such as Tennessee, provide "last-dollar" scholarships that cover the total cost of tuition and fees at community colleges (Meehan & Kent, 2020). Finally, location can factor into the affordability of higher education. While some community colleges offer residency hall options, many students commute to community college campuses. Community college students often pick institutions relatively close to their homes and workplaces, thus saving money on travel and living expenses (LaSota & Zumeta, 2016; Umbach et al., 2018).

Beyond financial considerations, other students might find that a community college is initially a better academic "fit" (LaSota & Zumeta, 2016). Some of these students might not qualify for admission to a four-year institution because of low standardized test scores or low high school GPAs (Umbach et al., 2018). Other students may meet university admission requirements but not feel academically ready for the rigor of a four-year institution. Furthermore, community college is often attractive to non-traditional students (Community College Research Center, 2021). As seen in Table 1,

non-traditional students make up a higher percentage of Tennessee community colleges' overall student population than four-year institutions. This group of students either start college later in life or return to the classroom after a lengthy absence (Bellare et al., 2021; Leggins, 2021). Reasons for non-traditional preference for community colleges may include academic readiness, distance from home, or increased availability of evening or online classes (Bellare et al., 2021).

While the study of vertical (two-year to four-year) transfer students deserves considerable attention, these are not the only type of transfer students. Students transfer for numerous reasons, and not all follow the same path. Furthermore, transfer students do not fall into just one category. Taylor and Jain (2017) divide them into several categories, including:

- Vertical transfer: students who begin at a two-year and transfer to a four-year.
- Lateral transfer: students who transfer from a two-year to a two-year or from a four-year to a four-year.
- Reverse transfer: students who begin at a four-year and transfer to a two-year.
- Reverse credit transfer: the transfer of credits from a four-year back to a two-year to confer an associate degree.
- Swirlers and alternating enrollees: students who attend more than two institutions and transfer; or those students who transfer from and to community colleges.
- Concurrent enrollees, co-enrollment, double-dipping, simultaneous enrollees: students who simultaneously attend more than one institution and transfer courses back to their home institution.
- Dual credit, dual enrollment: transfer of college-level courses taken during high school.
- Transient: students who take courses as nondegree-seeking students at institutions with the intention to transfer credits to the home institution (Taylor & Jain, 2017, p 276).

It is clear that, given the variety of these classifications, tracking transfer student success can be challenging. Classification, however, is only one part of the issue; the other is the previous lack of available data at the national level. The core postsecondary education data collection program, the Integrated Postsecondary Education Data System (IPEDS), only tracked transfer data as of its 2015 cycle (NCES Blog, 2017). Moreover, some institutions have not yet separated transfer students in their retention and graduation data. If institutions track transfers at all, they generally keep them as one group rather than identifying the "type" of the transfer student (e.g., vertical, lateral, swirler, etc.). Finally, beyond the "type" of transfer students, there are also many variables to consider when tracking transfers, including, but not limited to, the number of earned credit hours, earned GPA, type of transfer institution, gender, ethnicity, and financial need (LaSota & Zumeta, 2016; Umbach et al., 2018).

Given the difficulties in categorizing and tracking transfer students, it is unsurprising that transfer research often focuses on vertical transitions. Tracing such students through statewide data analysis and the National Student Clearinghouse databases can be more manageable. Consequently, this lens of research provides a starting point for researchers and institutions to study the impact of transfer and the challenges these students face but comes with the caveat that the research's findings may not apply to all transfer student types.

The Transfer Experience

The *Tracking Transfer* report in 2016 by Jenkins and Fink provided one of the earliest comprehensive overviews of national transfer student success. Using student data from the National Student Clearinghouse (NSC), this report tracked 700,000+ students since 2007. NSC provides an annual report on trends and outcomes for all students, including transfer students.

The annual NSC report provides four specific metrics on student outcomes (see Table 2). These metrics are defined as follows,

- Transfer-Out Rate—the rate at which a community college's degree-seeking students transfer to a four-year institution
- Transfer-with-Award Rate—the rate at which a community college's transfer students earn a credential (either an occupational certificate or an associate degree) before transferring to a four-year institution
- Transfer-Out Bachelor's Completion Rate—the rate at which a community college's students who transfer to a four-year institution earn a bachelor's degree from any four-year institution within six years of entering higher education
- Transfer-in Bachelor's Completion Rate—the rate at which the students who transfer to a given four-year institution complete a bachelor's degree at the institution within six years of entering higher education
- Community College Cohort Bachelor's Completion Rate —the rate at which degree-seeking students who enter higher education through a community college in a given state transfer and earn a bachelor's degree (at any four-year institution) (Jenkins & Fink, 2016, pp. 4-5).

Table 2.

*Six-Year Transfer Metrics, Fall 2007 (*n *= 237,126) and Fall 2014 (*n *= 201,502) cohorts*

Type	2007 Cohort %	2014 Cohort %
Transfer Out	33%	30.8%
Transfer with Award	29%	41.9%
Transfer-out bachelor's completion	42%	47.7%
Transfer-in bachelor's completion		
Public	42%	45.8%
Private Nonprofit	31%	33.2%
Community college cohort bachelor's completion	14%	14.6%

Note: The data represents national averages and is compiled from the 2016 Jenkin and Finks *Tracking Transfer* Report and the 2021 NSC *Tracking Transfer* Report.

The 2016 report found significant differences in percentages among states, student socioeconomic status, and selectivity of four-year institutions. At the community college level, they found that the institutional demographic differences are not as significant as the policies and institutional practices to support transfer student success. Conversely, the institutional type does make a difference at the four-year level. Transfer students tend to have higher completion percentages at public institutions, highly selective institutions, and institutions with students with higher socioeconomic status levels (Jenkins & Finks, 2016). The report also found that there was not a strong connection between earning an associate degree before transferring and earning a bachelor's degree.

The report further found that lower-income transfer students had worse completion percentages than higher-income transfer students in most states. The implications for two-year and four-year schools are that they should track these standard metrics to gauge success rates for transfer students. Additionally, policymakers should review other states' records to find best practices. Finally, more resources should be provided to lower-income students to promote higher success rates among this group (Jenkins & Finks, 2016).

Challenges

Transfer students often face challenges while pursuing their degree requirements. These challenges can come from individual or institutional factors and can include "student demographics, academic ability and performance, educational goals, course load, college preparation, differences in state and local policies, and cultural and policy differences between community colleges and four-year institutions" (Umbach et al., 2019, p. 61).

Previous research on supporting transfer students (Bailey et al., 2008; Carlan & Byxbe, 2000; Carrell & Kurlaender, 2016) has concentrated mainly on how community colleges can support and encourage their students to matriculate to four-year institutions. However, recent studies have expanded their view to investigate the four-year institutions' services and their impact on transfer student success (Allen et al., 2014; Fink & Jenkins, 2017; Frana & Rice, 2017; Musoba & Nicholas, 2020).

In a 2019 education blog post, EAB (formerly known as Educational Advisory Board) advised a six-step approach to improve transfer enrollment policies. This approach includes "identifying gaps in transfer-friendliness, assessing the quality of two-year partnerships, mitigating the loss of transfer credit, building transfer-specific event strategies, having dedicated transfer admissions staff, and providing easy access to online information" (EAB, 2019). One step in helping attract transfer students to four-year institutions is making transfer information easily attainable through many sources. Institutions can do this by partnering with community colleges, maintaining/redesigning websites, direct mailings, and clearly defined administrative staff who can help students through the transition (Glynn, 2019).

While the percentage of transfer students will differ among institutions, national data shows that 38% of students have transferred at least once during their college careers (Shapiro et al., 2018; Umbach, 2019). This percentage can include those moving from two-year to four-year institutions, four-year to two-year, or among the same type of institution (e.g., two-year to two-year). While needs can vary among different types of transfer, researchers have found some common challenges that students encounter upon transfer.

Credit Matriculation. A significant challenge for transfer students is the loss of credits upon matriculation at the new institution (Blekic et al., 2020; Umbach et al., 2019). This concern is so prevalent that it has increased transfer articulation agreements and transfer pathways within state systems. However, students are often unsure if their

credits will be accepted or, more importantly, unaware of how these credits will count towards the degree requirements at the new university (Musoba & Nicolas, 2020). For example, a university may accept most or even all of a student's transfer credits. However, a significant number of these credits may only count as electives and not apply to degree requirements at the new institution. In these cases, a student may be classified as a junior or senior by credit hours but still have more than two years of coursework left for their degree. This loss of progress is further complicated by four-year programs with very strict sequencing of coursework. Pathway programs are agreements between two-year and four-year institutions that ensure two-year courses meet requirements found at the four-year level. These pathways are meant to help students with the challenge of credit loss. However, students still encounter issues if they choose generalized pathways, change their major, or if the pathway is not updated regularly (LaSota & Zumeta, 2016).

Admission & Financial Aid. Another challenge transfer students face is navigating a new institution's admission and financial aid processes. Students may look for new institutions based on program offerings, distance to home, affordability, or other factors (Umbach et al., 2018). Four-year institutions should make transfer admission information easy to find on their websites, with contacts who can answer questions and help students navigate their options. A further complication of cost and affordability is that some institutions only offer scholarship opportunities to incoming first-year students. If there are scholarships for transfer students, the monetary amount

is often not as high as those for incoming first-year students. Cost and financial aid information must also be available to transfer students early in the process so they are not surprised by “sticker shock” after transfer and registration (LaSota & Zumeta, 2016).

Support Services. Once at the institution, transfer students can struggle to find information on available services and programs. New first-year students often are required to go through orientation programs that introduce them to these options. Many institutions do not require similar orientations for transfer students. As such, transfer students may not be aware of the support systems that are available to them (Umbach et al., 2018).

Social integration. Finally, transfer students will face at least two social integration transitions in higher education. Finding a sense of belonging in a new institution is a significant issue for first-year students and can be even more difficult for transfer students, especially those who transition to multiple institutions (Blekic et al., 2020; Lane et al., 2015). Therefore, institutions must be intentional about providing opportunities for transfer students to integrate into the social environment of the institution.

These are certainly not the only challenges that transfer students face. Nevertheless, knowing which challenges are more common is necessary as states and institutions create policies and initiatives that help improve transfer students' success. Fink and Jenkins (2017) state that much research has been done on the student experience of transfer, transfer barriers, and transfer success rates. However, there is

limited information on what institutions are explicitly doing to improve the transfer experience. As such, their research strives to fill that gap.

Fink and Jenkins's research focuses on which types of partnerships between two- and four-year institutions are highly effective for transfer student success. Based on their findings, their recommendation for best practices at the four-year level includes identification and outreach to potential transfer students, transparent transfer credit evaluation (before transfer), and providing financial aid options specifically for transfer students.

Furthermore, Fink and Jenkin's analysis of successful partnerships identified three common areas of strength in high-performing partnerships: prioritizing transfer, creating clear programmatic pathways with aligned, high-quality instruction, and providing tailored transfer student advising. In order to prioritize transfer, institutions need to utilize data and provide resources to support the transfer process. In curricular considerations, more collaboration is needed between institutions, and two-year institutions need to provide enough rigor to prepare students for the expectations of four-year institutions. Finally, advising is needed at both institutions to make sure students are on track and can transition into the next level of courses seamlessly.

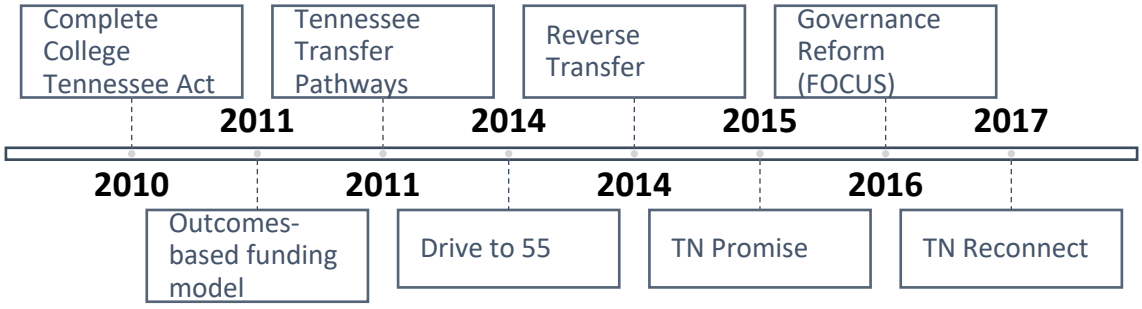
Statewide Initiatives

Following the 2009 Complete College America Act, many states have recognized that transfer issues can impact college completion rates. Accordingly, they have made several policy changes and transfer-focused initiatives. The 2022 Education Commission

of the States report indicates that 31 states have policies requiring a transferable core of lower-division courses. Additionally, 43 states have some type of reverse transfer agreement policies in place, and multiple states are refining their policies to improve student completion rates (Whinnery & Peisach, 2022). The State of Tennessee, in particular, has gained national recognition for its higher education initiatives over the past two decades (Meehan & Kent, 2020). Many of the general policy changes adopted by Tennessee also directly impact transfer students. The timeline for these initiatives is shown in Figure 3.

Figure 3.

Timeline of Recent Higher Education Policy Changes in Tennessee.



The Complete College Tennessee Act (CCTA) was created in 2010 in response to the Complete College America Act. One of the first policy changes enacted was changing the funding formulas in higher education to “outcomes-based” funding formulas that correlate to several retention and completion goals (Meehan & Kent, 2020).

The CCTA also enacted many curriculum changes and transfer-specific policies such as Tennessee Transfer Pathways (TTP) and Reverse Transfer. The Transfer Pathways created clear curricular paths in which

> the student is guaranteed that all the community college courses taken will be accepted at another Tennessee public college/university, and the courses will count toward completion of the particular major. Therefore, if a community college student transfers to another Tennessee community college, [they are] guaranteed that all courses transfer" (Tennessee Board of Regents, 2014, second paragraph).

Correspondingly, more credits are accepted by the new institution, resulting in a higher completion of general education courses and major prerequisites, thus helping them to graduate on time. Additionally, the Reverse Transfer program benefits transfer students when they can "transfer back" their courses taken at four-year institutions. Reverse Transfer enables the student to complete the associate degree requirements and helps the community college to improve their graduation frequency. As a result, the Reverse Transfer program helps to improve community college completion rates while encouraging students to transfer sooner to four-year institutions.

Later in 2014, under Governor Bill Haslam, Tennessee started its "Drive to 55" initiative (Tennessee Board of Regents, 2014). This initiative aims to increase the percentage of Tennesseans who have earned a college degree or certificate to at least 55% by 2025. Within the "Drive to 55" initiative are two specialized programs called the "Tennessee Promise" and "Tennessee Reconnect." Both programs provide two years of "last dollar" financial assistance so those participating can attend a technical or community college for free. Last-dollar assistance means that the institution first uses

any federal or state grants and then receives additional funding through these programs for the difference in aid and tuition. From the start of CCTA to now, Tennessee has made progress in improving education outcomes for its students (Meehan & Kent, 2020).

An additional benefit of the 2010 Complete College Tennessee Act is the improvement of credit articulation agreements between all Tennessee public colleges and universities. This improvement has been achieved by creating Transfer Pathways and common course numbering. Tennessee has further prioritized this effort by charging the Articulation and Transfer Council of THEC to continue improving the articulation process. For example, the focus areas for the 2020 – 2025 council are:

- Streamlining Tennessee Transfer Pathways (TTP) to minimize exceptions;
- Expanding data collection and dissemination on TTP utilization, completion, and transferability for the annual THEC Articulation and Transfer Report;
- Designating courses that are not university parallel and implementing common course numbering; and
- Including Reverse Transfer in the Council (THEC, 2021, p. 8).

Through these efforts, Tennessee continues to make great strides in improving credit matriculation policies and practices. For example, all Tennessee public two and four-year institutions currently participate in the Tennessee Transfer Pathways program. These pathways have significantly improved the transfer credit acceptance process at most four-year institutions (THEC, 2021). As a result, institutions can continue to work with the state to streamline general education requirements and have clear pathways to all majors.

However, in practice, the Transfer Pathways are still a work in progress as not all pathways can be taught at all institutions, and there are still several programs at four-year institutions that are not covered within the pathways program. Furthermore, some community college students choose to complete a general education pathway rather than focusing on a particular major or concentration. While this option fulfills general education requirements, their pathway may not satisfy later major prerequisites with specific sequential requirements. Students may need to complete these prerequisites after matriculation, which may impact the student's time to graduation. Despite these concerns, students who participate in the pathway program have shown increases in the number of transfer students continuing at four-year institutions and graduation rates (THEC, 2021).

Common Transfer Success Metrics

Two commonly tracked measures are retention rates and graduation percentages. While these two metrics are not the only measure of success, they help provide quantifiable data to measure students' progress through degree requirements. Unfortunately, both retention and graduation percentages can be difficult to capture for transfer students (NCES, 2017), but research has shown some trends at the national and state levels (NSC Research, 2021; Tennessee Board of Regents, 2020; Tennessee Higher Education Commission, 2022).

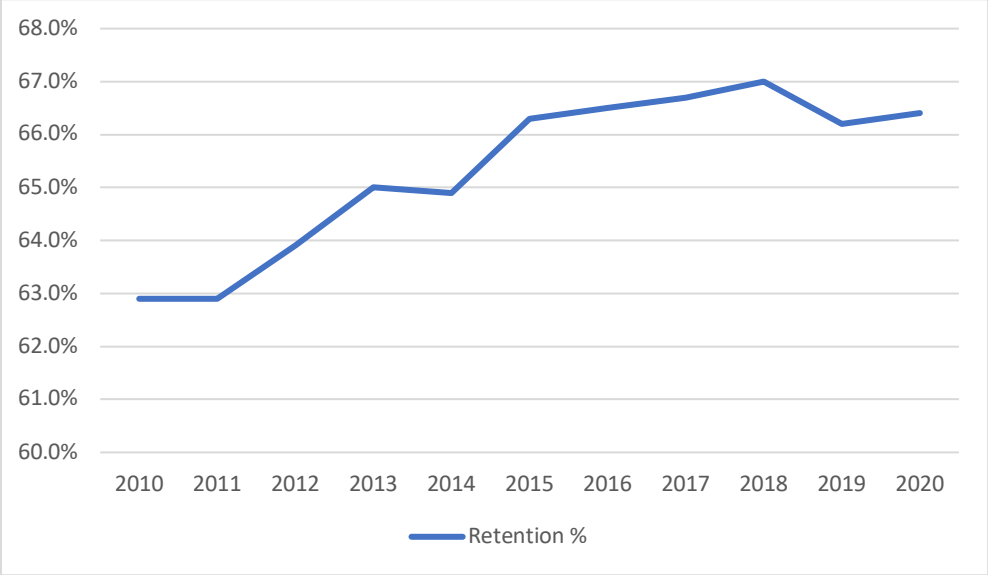
Retention

Retention data for transfer students can be difficult to track since there are several different variations of transfer types. Institutions are usually able to track student retention within the institution, but once a student transfers to a new institution, their data becomes harder for colleges to capture. Tracking faces additional complications when students' transfer types move beyond traditional vertical transfers. Reports created from the National Student Clearinghouse or through state analytics (such as those used by the Tennessee Higher Education Commission or Tennessee Board of Regents) are helpful when tracking student retention and completion trends across several institutions. However, if a student transfers to several institutions, there is a greater chance that their information can be lost in the shuffle. Additionally, if a student stops attending for a period of time but re-enrolls later in life, their data will not be captured by later completion reports.

The National Student Clearinghouse (NSC) provides a comprehensive picture of national student retention trends. NSC has found that since the rise of the Complete College America act and other state-level initiatives, there have been modest gains and losses in retention numbers for all students (see Figure 4).

Figure 4.

National Retention Percentages 2010-2020 (all students), NSC Research Center



In contrast to the general numbers, first-time community college students have lower retention than first-time students at four-year institutions (see Table 3).

Table 3.

2020 Retention Percentages by Institutional Type

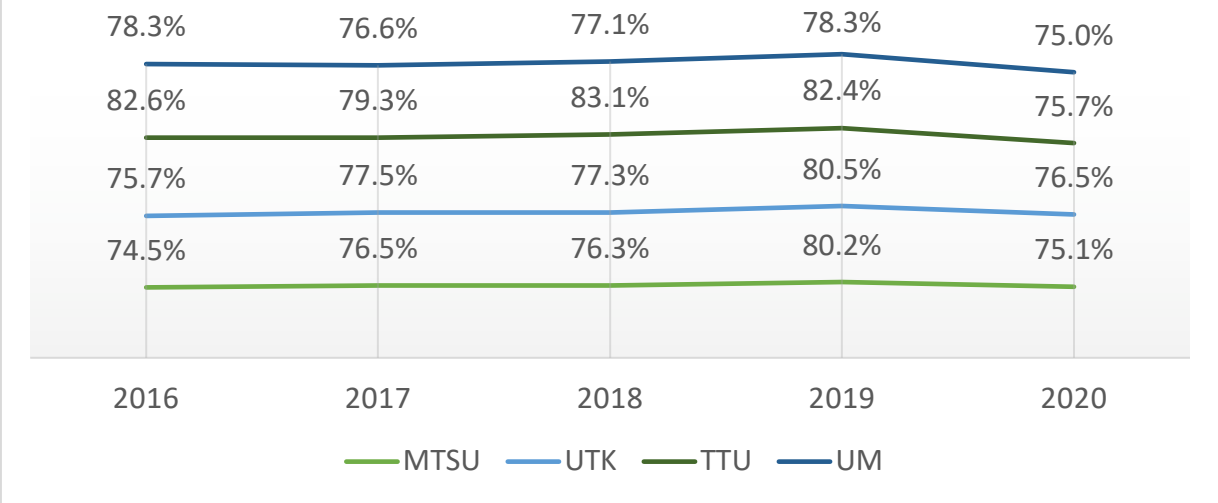
	Two-Year Institutions	**Four-Year Institutions (Public)**
Retention %	52.4%	75.4%

However, if transfer student retention is measured, it is typically only found at the institutional level since it is more difficult to track at the state and national levels. At

the institutional level, transfer student retention trends can be discovered by examining Common Data Sets, Institutional Dashboards, and other publicly available reports. Four Tennessee public four-year institutions have this information publicly available (see Figure 5).

Figure 5.

Five-year Transfer Retention Trends Among Four Tennessee Institutions (fall to fall).



Note: MTSU is Middle Tennessee State University, UTK is the University of Tennessee Knoxville, TTU is Tennessee Technical University, and UM is the University of Memphis.

Graduation Percentage

In addition to retention reports, the National Student Clearinghouse (NSC) also provides a national database to track college completion rates (Causey et al., 2020; NSC Research Center, 2021). NSC completion reports include graduation percentages of all students and drills down to reports focused explicitly on transfer students. Additionally,

states' education commissions may track graduation rates for transfer students. For example, the Tennessee Higher Education Commission and Tennessee Board of Regents provide yearly reports with this information (see Table 4).

Table 4.

Comparison of National and Tennessee Six-Year Graduation Percentages of the Fall 2014 Cohort.

	National %		**Tennessee %**	
	All Students	***Transfer Only***	***All Students***	***Transfer Only***
Graduation %	60.1%	49.1%	51.5%	65%

Note: For Tennessee data, "All Students" include all first-time students (both two-year and four-year). Lower completion rates at two-year schools are factored into the lower percentages for all students. Transfer-only graduation percentages include students who have transferred to one or more institutions within six years (TBR, 2020; THEC, 2022).

Not all institutions track graduation percentages of transfer students. However, if they do, these percentages tend to be measured at four, six, and eight years from the student's matriculation to the institution. Since this study will focus on six-year percentages, Table 5 provides a comparative overview of six-year graduation percentages of transfer students in three of Tennessee's public four-year institutions.

Table 5.

Comparison of Six-Year Graduation Percentages of Full-Time Transfer Students in the Fall 2014 Cohort at MTSU, UTK, and TTU.

	MTSU *(n = 1462)*	**UTK** *(n = 1264)*	**TTU** *(n = 640)*
Graduation %	62.7%	65.5%	71.3%

Note: Information taken from institutional data dashboards for each university.

These Tennessee cohorts' graduation percentages are on par with national averages and have seen modest gains over the past few years. However, early reports from 2022 reflect declines, most likely related to COVID-19 impacts (NSC Research Center, 2022). Whether these declines are temporary data points or predict further long-term fallout from the pandemic is still unclear. Nevertheless, institutions should be aware of this development and proactively protect against future declines.

As previously mentioned, graduation percentages are not the only, or even the best, metric of success since success can have many definitions. However, their importance cannot be overlooked due to the emphasis of graduation percentages on performance-based funding (or outcomes-based funding). States that continue to weigh graduation percentages more heavily within their funding formulas will continue to emphasize graduation percentages as an essential metric. Since Tennessee uses the outcomes-based model for higher education, this study will also focus on graduation percentages as a primary measure of success.

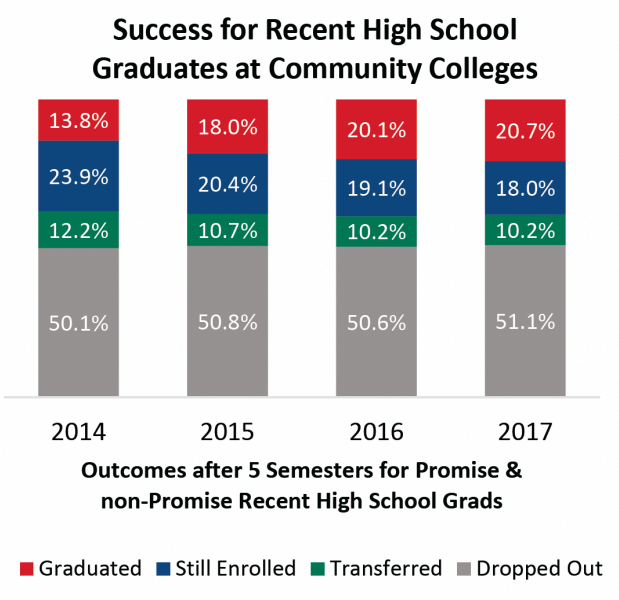
Tennessee has made some improvements in student graduation and retention frequencies (Tennessee Board of Regents, 2020). Additionally, statewide efforts have increased awareness of transfer students' importance in student success. However, much progress can still be made. According to the THEC Articulation and Transfer in Tennessee Higher Education 2021 Report, overall transfer student graduation percentages are as follows: starting at a two-year school = 43.7%, starting at a four-year school = 55.5%

It is important to note that these reported graduation percentages combine associate's and bachelor's degree completion statuses. Other data provided through THEC's 2021 Fact Book show an overall bachelor's degree graduation percentage rate of 65% for all transfer students. An additional finding to note from the THEC report is that only 17.3% of students who start at a two-year institution will graduate with a bachelor's degree within six years. While this percentage is higher than the national average of 14.6% (NSC Research Center, 2021), it should still indicate a need for improvement in state and institutional policies.

Another concern is that while graduation percentages have increased for Tennessee community and technical colleges (13.8% to 20.7%), their retention and transfer rates have not improved. As seen in Figure 6, the transfer percentages have decreased (12.2% to 10.2%), and the drop-out percentages have increased (50.1% to 51.1%).

Figure 6.

Success for Recent TN High School Graduates at Community Colleges



Note. TBR TN Promise Report, March 2020.

Collecting and reporting this data is an essential first step. THEC has started using various transfer metrics in its collection procedures. However, to continue improving, institutions need to update their institutional reports to “drill in” to the finer details of transfer if they plan to use transfer student data as part of their assessment initiatives. Therefore, data collection efforts must include the type of transfer student and categorize students further by other academic and demographic variables. Once these details have been reviewed, more effort can be made to increase the types of services that will help improve outcome measures for this group.

Gifted and High Achieving Transfer Students

Two areas of potential improvement in transfer student graduation rates are focus on underrepresented groups and those students who fall within one or more of the categories that make up giftedness, high-achieving, and high-ability transfer students. First, as seen in the previous sections, community college demographics include higher percentages of underrepresented students. Furthermore, retention and graduation percentages tend to be lower for this group (Jenkins & Fink, 2016). Second, gifted, high-achieving, or high-ability students may have chosen to start at a community college for financial reasons rather than concerns about academic readiness. Alternatively, they may be students who excelled in the community college system and can benefit from more rigorous coursework as they progress through their degree requirements (Glynn, 2019). While each group has its own needs and challenges, underrepresented students and gifted, high-achieving, or high-ability students are not mutually exclusive groups. Recent studies have found that gifted, high-achieving, or high-ability students, especially those from underrepresented groups, benefit from specific programs targeted to their needs.

Giancola and Kahlenberg's 2016 report for the Jack Kent Cooke Foundation comprehensively reviewed the admission processes of highly selective institutions and the barriers students from underrepresented groups face when applying to these institutions. These barriers include admission policies that favor selection criteria that disproportionally favor students from higher income brackets and a lack of information

about the admissions process. Additionally, many low-income students have a "sticker shock" reaction that causes them to refrain from applying to more selective schools. The combination of all these factors results in a feeling that the deck is stacked against lower-income students.

The report is broken into four sections: 1) demographics and representation of high-achieving, low-income students at selective institutions, 2) reasons why these students do not apply in higher numbers, 3) how the selection process disadvantages high-achieving, low-income students, and 4) suggested strategies to improve the process. The authors have found that when admitted to highly selective institutions, these lower-income students have succeeded at higher rates but still represent a minimal percentage of the overall student population. They suggest that in this current era, where many colleges can no longer use race-conscious affirmative action policies to diversify their student body, they instead emphasize increasing the number of low-income students (Giancola & Kahlenberg, 2016).

Glynn's 2019 Jack Kent Cooke Foundation report builds on Giancola and Kahlenberg's 2016 study. It uses additional data from Jenkins and Fink's 2016 *Tracking Transfer* report to investigate the impact of highly selective institutions on transfer student success. Glynn reviewed overall transfer numbers and disaggregated the numbers to find that at highly selective institutions, transfer students make up 14% of the students, but only 5% transfer from community colleges (the other 9% transfer from four-year institutions). Furthermore, the report found that while community college

students represent a small portion of transfer students at highly selective institutions, those who did transfer had equal to higher graduation percentages than non-transfer students. The implications are two-fold. First, highly selective institutions can improve their diversity by augmenting their enrollment numbers with transfer students from community colleges. Second, high-ability community college students are better served by attending highly selective institutions.

Jenkins and Fink's 2016 *Tracking Transfer* report echoed these suggestions. They found that institutional practices matter just as much, if not more, than institutional characteristics. Furthermore, they found that transfer students had higher completion rates at highly selective institutions. These reports should be of particular interest to honors programs, particularly in less selective, public state institutions. If high-ability transfer students fare better at highly selective institutions, they may also receive similar benefits by participating in honors programs at less selective institutions.

Honors

As seen previously, gifted, high-achieving, or high-ability transfer students have higher success metrics when transferring to highly selective institutions (Jenkins & Finks, 2016). For students who are unable to transition to a highly selective institution, participating in honors programs upon matriculation to the new institution can provide similar benefits. The following section will provide a brief history of honors programs in the United States, their commonly shared features, and the benefits students receive by participating in these programs.

History and Development of Honors Programs

Designing special programs for high-ability students in colleges and universities can be traced back to tutors working with students at Oxford (Rinn, 2006). Rinn further reviewed the development of degrees with honors notations at Harvard, the University of Michigan, Princeton, and Columbia University. However, the more modern concept of an honors program is generally attributed to Frank Aydelotte's creation of the Swarthmore College honors program in 1922 (Rinn, 2006; Smith, 2020). Later, Joseph Cohen built on Aydelotte's ideas at the University of Colorado and established an Honors Council that created additional honors options through curriculum and mentoring opportunities (Rinn, 2006).

In the 1950s, Cohen worked with other institutions to expand honors education nationally through the aid of a Rockefeller Foundation grant. As a result, there was further growth in honors programs from the 1950s to the 2000s, with periods of rapid growth in the 1960s, 1980s, and 2000s (Scott et al., 2017). This later growth can also be partially attributed to the development of honors programs in two-year institutions (Floyd & Holloway, 2006). An evaluation of honors colleges and programs in 2002 by Bridget Long found that of the 506 programs listed in the 1999 Peterson's Honors Program guide, the average age of the programs was 17.3 years old. Since Long's 2002 study, further systematic research has been done on the demographic aspects of honors programs. As of 2017, Scott et al. have found a "pervasive" presence of campus-wide

honors curriculum options that impacted over 60% of nonprofit undergraduate institutions in the United States.

Characteristics of Honors Programs

The majority of honors programs have shared structural features (Scott & Smith, 2016). Nevertheless, there are significant differences among institutions that include admission criteria, curriculum requirements, community or campus service expectations, research participation, and the number of scholarship opportunities.

National best practices and standards influence the structural commonalities found in honors programs. As honors programs developed in the 1950s and 1960s, there was a consensus regarding the need to find common characteristics to define a "fully-developed" honors program (Rinn, 2006; Smith, 2020). As a result, national organizations, starting with Cohen's Inter-University Committee on the Superior Student (ICSS) and later the National Collegiate Honors Council (NCHC), were formed to provide support and guidance to honors programs (Rinn, 2006).

The NCHC's mission is "to support and enhance the community of educational institutions, professionals, and students who participate in collegiate honors education around the world" (NCHC, 2022, "Our Mission" section). NCHC currently consists of "nearly 900 member institutions and several hundred individual members, impacting over 330,000 honors students" (NCHC, 2022, "What is NCHC?" section). However, at the national level, not all honors programs are members of the NCHC.

In an attempt to gain a more comprehensive picture of honors, Scott and Smith (2016) looked beyond the NCHC membership institutions. They reviewed 2550 private and public institutions to determine how many had honors programs that benefited all students. They found that 1503 institutions offered honors education as an institutional-wide option. Of these institutions, 389 are two-year colleges, and 1114 are four-year colleges and universities. Additionally, of the 1503 programs, 182 were classified as honors colleges.

Further demographic research on honors programs, published in 2017 by Scott, Smith, and Cognard-Black, shows slight growth in honors offerings and highlights similarities in the structural components of an honors program. These components include administrative staff, honors-designated faculty, student financial support, designated academic space, and shared honors curriculum options, especially within general education requirements.

Cognard-Black, Smith, and Dove (2017) took the demographic research one step further by reviewing admission criteria, first-year cohort features, program support structures, retention rates, and graduation percentages across NCHC member institutions. The following is a brief overview of their study's findings. For admission, honors programs and colleges require an application that often includes an essay (62%), an average minimum ACT score of 26.1, and an average minimum high school GPA of 3.47. The average GPA requirement to remain in honors is 3.29. In addition, there are some common support structures, such as first-year student mentor programs (59%),

study abroad programs (55%), honors housing (60%), honors-specific advising (86%), and priority registration for honors (67%). Less common elements are honors tutors (22%), internship programs (27%), and service requirements (36%). Finally, retention and graduation percentages for honors students trend higher than the national average. The second-year retention rate was 84.4% across all institution types. The four-year honors graduation percentage (meaning those who completed the honors graduation requirements) was 47.8%, and the overall four-year graduation percentage was 72%. Furthermore, the six-year percentages were 53.6% and 85%, respectively.

Impact on Students

A growing body of research shows how honors programs have positively impacted student success measures (Bottoms & McCloud, 2019; Brown et al., 2019; Campbell & Fuqua, 2008; Cobane & Jennings, 2017; Diaz et al., 2019; Mould & DeLoach, 2017; Shushok, 2006). These impacts can include practices related to recruitment, retention, student engagement, research experience, and graduation frequency. As such, honors programs are positioned to offer a "value-added" opportunity to a student's academic path. This evidence of success benefits institutions facing increasing pressure to show return on investment data to outside parties.

At a recruitment level, honors programs (especially at less selective public institutions) often serve as a recruitment tool to attract academically gifted students to their institution. Dr. Ted Humphrey, previous director of the Honors College at Arizona State University (ASU), uses the evolution of ASU's honors college to illustrate this

phenomenon (Sederberg, 2009). In the 1980s, ASU was losing academically gifted students to the state's flagship institution (the University of Arizona) and out-of-state institutions that offered generous merit aid packages. The Honors College at ASU was developed as a critical component to recruit better students and raise the institution's overall profile. ASU's story is not unique; many honors programs have similar histories of creation or evolvement due to an institutional effort to attract high-caliber students.

Campbell and Fuqua's 2008 study moved beyond recruitment considerations and researched predictive factors of success for honors programs. They found that high school GPA, high school class rank, first-semester college GPA, gender, and initial residential housing assignment were the most critical discriminating variables on a student's future completion of the honors program degree requirements. Additional research has also shown that students in honors programs are retained at a higher rate, especially when reviewing first to second-year retention (Brown et al., 2019; Cosgrove, 2004; Keller & Lacy, 2013; Shushok, 2006). It should be noted, however, that some of these studies found that this benefit was less significant in subsequent years.

As a counterpoint, however, skeptics have argued that honors programs have higher retention and graduation percentages simply because honors students are already more likely to succeed due to their initial academic preparedness. Cosgrove's 2004 study was one of the first to compare the success measures of students who participated in honors against those with similar academic credentials. His study found

that even among students with similar backgrounds, those who participated in honors had higher GPAs, higher retention rates, and comparable graduation percentages.

Keller and Lacy (2013) further investigated the impact of honors. They used a propensity score analysis to estimate the effect of honors participation among factors such as high school academic achievement, ethnicity, gender, in-state or out-of-state status, first-generation status, and academic unit at entry. After adjusting for these factors, students who participated in honors still had higher retention percentages (5%) and graduation percentages (8.4% higher for four-year and 14% higher for six-year percentages). More recently, Diaz et al. (2019) used independent samples, *t*-tests, and chi-square analyses to test for significant differences in first-term GPA, credits earned in the first year, first-to-second year retention, four-year graduation percentage, and six-year graduation percentage between groups. Their study also controlled for gender, age, race/ethnicity, parent education, parent income, high school GPA, AP credits earned, ACT composite score, and writing placement test scores. Their study not only found that honors students performed better across all five categories but, more significantly, they found that the positive effects of honors participation were more pronounced for African American and Latino/a students on some of the indicators.

These studies highlight ways honors education can positively impact student success metrics. Thus, honors programs and increased student participation in honors education should be considered as one way to help institutions grapple with the issues

of recruiting high-ability students, increasing retention, promoting student engagement, and improving graduation frequency.

Honors Inclusivity

A criticism of honors education is that it can be elitist and exclusionary (Kinghorn & Smith, 2013; Morgan, 2015; Weiner, 2009). Part of this perception may come from the origins of honors in institutions such as Oxford and Cambridge and later in Aydelotte's honors program at Swarthmore and other small, private East Coast colleges (Weiner, 2009). For example, the idea that honors programs replicate a more prestigious educational experience can be seen in the commonly used proclamation that an honors program provides "an ivy league education in a state institution" (Weiner, 2009, p. 23). However, while Weiner admits that honors programs typically only include a particular academic class of students, he argues that its role, especially at a state institution, enables more students to "develop their own ideas and explore means of living up to and benefiting from their fullest potential" (Weiner, 2009, p. 23). Furthermore, Morgan (2015) argues that one way for honors programs to counter the criticism of elitism is to highlight how honors programs are different rather than better. Although, he also notes that honors programs (and institutions) need to make a special effort to include a more diverse group of students who can benefit from these differences.

Badenhausen (2018) adds that honors programs traditionally, though unintentionally, use scripts that discourage students of diverse backgrounds from

joining or even considering joining their honors programs. She charges programs to review not only admission policies but also pedagogy and allocation of funding. With admissions policies, she encourages honors programs to do away with standardized test scores as part of the admission metrics. These scores discriminate among students of more diverse backgrounds. When these students find that they do not meet those initial criteria, they often eliminate honors as ever being a possibility for them even in the future. Beyond GPA and standardized test scores, other areas of concern include essay prompts and requirements (or preferences) for community service and volunteer service. Experiences such as community service and volunteer activities tend to lend themselves as more available to students within specific income brackets, thus placing other students at a disadvantage when ranking applications. Finally, persistence can be encouraged through pedagogical practices and support services once a student is in an honors program. For example, faculty should allow students to exhibit multiple ways of demonstrating mastery of the material, vary teaching strategies, and help students connect the material to their own lives.

The growth of honors programs in community colleges helps to make the honors experience more accessible to a broader group of students. However, complaints of exclusion can be found at this level as well. In 2006, Floyd and Holloway reviewed various models of honors programs found at the community college level and found that while there may be some structural differences among programs, these processes are appropriate as long as they fulfill the individual institution's mission. Thus, they

conclude that the appropriateness of including honors programs at the community college depends on that college's overall mission. If honors programs help fulfill the institution's mission, they can provide an alternative path for increased inclusivity.

Part of the elitist argument is the perception that honors students already come into the institution with an advantage and therefore do not need additional support services to help them succeed (Rinn & Cobane, 2009). These opponents of honors programs argue that institutions should spend money on other initiatives that will either benefit more of the overall student body or help less prepared students. In reviewing the history of honors programs, the lull in growth from the late 1960s through the early 1980s can partially be attributed to this emphasis on supporting underprepared students (Smith, 2020).

However, in the mid-1980s, this trend was reversed with the release of *A Nation at Risk: The Imperative for Educational Reform* (United States National Commission of Excellence in Education, 1983). This report, which also prompted the rise in gifted education at the K-12 levels (Renzulli, 1999), refocused higher education efforts to support the growth and development of honors programs. In addition to providing support services for students who fell below the national average, proponents of gifted education argued for additional support and opportunities for those with above-average intelligence and ability (Renzulli, 1999; Rinn & Cobane, 2009). Rinn and Cobane further argue that the label of elitism comes when people equate giftedness or honors programs as only benefiting students from higher socioeconomic backgrounds. Honors

programs must therefore ensure equal access to its programs by reviewing admission policies that favor middle or upper-class students and removing those items that penalize students from lower socioeconomic backgrounds, even if unintentionally.

Increasing diversity in honors programs is now a central tenet seen in many recent journal articles and conference themes (Coleman et al., 2017; Graeme Harper, 2018; Jones, 2017; Klos, 2018). This focus on diversity, partnered with the surge of initiatives related to the Complete College Act and the rise of honors programs at the community college level, equates to an increase in high-ability transfer students who wish to participate in honors at the four-year level.

Transfer Students in Honors

There is a relative scarcity of research regarding transfer students in honors. A handful of published studies have shown how honors education can impact or improve outcomes for community college students. The research on honors transfer students at the four-year level is similarly limited. At the time of this study, only three articles could be found in the NCHC Journal (the primary source for research related to honors education). These three studies highlight the need to increase honors opportunities for transfer students (Bahls, 2018), suggestions on how to create or improve memorandums of understanding (MOU) agreements between two-year and four-year honors programs (Frana & Rice, 2017), and ways to support transfer students at the four-year institutions (Thomas et al., 2019). However, these studies have yet to examine

the impact of honors education once a transfer student matriculates to a four-year institution.

Community College Honors. As seen in the literature, community colleges play a crucial role in meeting the needs of students who either cannot attend a four-year institution or would benefit (financially or academically) from starting a two-year institution. Initially established in the 1950s, community college honors programs also benefited from the growth and further development of honors programs in the 1980s (Rinn, 2006). Part of the rise of honors programs at the community college is attributed to meeting the needs of academically gifted students who choose to attend community college for any of the reasons mentioned earlier. Moreover, as mentioned in the inclusivity section, community college honors programs help the institutional mission by providing academic opportunities that help high-ability students succeed and flourish (Floyd & Holloway, 2006).

Honors programs have a significant presence in community colleges. Scott and Smith's 2016 survey of honors programs found 389 honors programs within community colleges. However, their survey numbers are limited to the number of respondents; other sources cite higher numbers, that up to half of all community colleges now support an honors program (Beck, 2003 as cited by Floyd and Holloway, 2006).

Students who participate in honors programs at the community college level receive many of the same educational benefits as those who participate at the four-year level. These benefits include smaller classes, like-minded peers, and a sense of

community and belonging to the institution. While success metrics for community college honors programs have not been studied at the national level, a few studies of individual and institutional results provide evidence of positive relationships between honors participation and student success (Bennett, 2021; Honeycutt, 2017).

Four-Year Institution Honors. A logical progression for students participating in honors at the community college is to continue with honors once they transfer to a four-year institution. However, the honors participation of transfer students at the four-year level has yet to be formally evaluated. More research is needed in this area because increasing transfer student access to four-year honors programs should be a priority for all honors programs since transfer participation is one way to increase diversity in a program. As seen in the previous section on diversity, this is needed since honors programs have been called to increase diversity and to be inclusive of all student types.

A broad review of transfer student success in honors is not available, but the three current studies provide practical information and suggestions for four-year honors programs. Frana and Rice (2017) published one of the first NCHC journal articles on the inclusion of transfer students to honors. Rice represents a community college, and Frana represents a four-year institution. Their two institutions have a Memorandum of Understanding (MOU) between their respective honors programs. Due to their experience creating MOUs, they outline a framework for the basic features of honors transfer agreements.

Honors transfer agreements are recommended by the NCHC and many schools (around 60%) state that they have such agreements (Frana & Rice, 2017). However, relatively few honors students transfer from two-year to four-year programs. The authors cite three main reasons for this discrepancy: pro forma transfer agreements, insufficient marketing, and non-alignment between programs. Authors recommend that two-year programs create MOUs with four-year programs rather than pro forma agreements, as leadership or curriculum requirements can change. Changes in leadership and curriculum requirements can lead to students being unable to transfer credits or meet acceptance requirements when programs change. Frana and Rice also recommend specific funding for honors transfer students and advisors trained to handle transfer student issues. Finally, they posit that the most significant challenge is the inherent "inertia" of many honors programs that rely on tradition and the strict structuring of program requirements. They argue that honors programs are ideally "learner-centered and learner-directed" (Frana & Rice, 2017, p. 15), thus challenging honors programs to expand their policies to be more transfer student inclusive.

Bahls's 2018 article, *Opening Doors: Facilitating Transfer Students' Participation in Honors,* addresses the challenges transfer students face when considering honors post-matriculation. First, he reflects on the number of transfer students within four-year institutions nationally and their overall lack of participation in four-year honors programs after matriculation. He argues that honors programs should reflect on policies and practices that encourage more participation by transfer students. This increased

participation will help promote more diversity within honors and meet students' need for connection to the institution, faculty mentorship, and research opportunities.

Next, Bahl reflects on Frana and Rice's (2017) work on honors transfer agreements. He encourages four-year programs with such agreements with two-year institutions to advertise them more prominently on their websites. He opines that transfer students tend not to participate in four-year honors programs because they may not feel that they are honors material or that the honors requirements cannot be fulfilled as a transfer student. Finally, Bahl recommends that four-year honors programs review the following areas to encourage more participation from transfer students. First, establish transfer-friendly honors admission criteria and procedures. Second, find ways to accommodate transfer students through honors eligibility and graduation requirements. Third, update the design of the honors curriculum and highlight agreements or MOUs with community colleges. Fourth, ensure the website language and design include information for transfer students.

Thomas et al. (2019) also argue that honors programs can become more diverse through the inclusion of transfer students. Diversity can be increased because transfer students, especially those from community colleges, tend to include a higher percentage of underrepresented backgrounds, socioeconomic factors, first-generation, and non-traditional-aged students. Knowing these issues, the authors reflect on issues and challenges discovered through their honors program in their study. Since the authors knew transfer students have low participation rates in honors programs post-transfer,

their honors program adjusted its strategy starting in 2014 to create a cohort for transfer students. Previous internal studies had found that transfer students lacked a sense of belonging and often felt "imposter syndrome" within the honors program at their institution. Therefore, the authors collected information to measure the impact and success of the new transfer cohort.

First, Thomas et al. used descriptive statistics to collect data on the new cohort's demographics. Next, they gathered information from transfer student focus groups about what they valued about the program and what they found challenging or disheartening. As a result, this study found several improved academic performance metrics for those transfer students who participated in honors in the first semester. These improvements included higher research engagement than non-honors peers and higher engagement with faculty members. Conversely, they also found higher anxiety and feelings of imposter syndrome. As a result, the program provided more flexibility with the eligibility requirements, is trying to gain additional financial aid opportunities, has increased communication to share the stories of honors transfer students (to help imposter syndrome), and is partnering more with admissions to ensure diversity for incoming cohorts of transfers in the program.

The Honors College at Middle Tennessee State University

The mission of the Honors College at Middle Tennessee State University (MTSU) is "to provide an undergraduate education of exceptional quality and value to a small but diverse student population deeply committed to scholarship" (MTSU Honors

College, 2022, “Mission and Creed” section). It fulfills this mission through its inclusive admission requirements, small class sizes (15-20 students per section), research and creative project opportunities, fellowships, scholarships, and a sense of community in a large comprehensive university.

History and Demographics

The Honors College at MTSU was initially established as an honors program in 1973 and later transitioned to a college in 1998. The college has a dean, associate dean, administrative aides, honors advisors, a fellowship coordinator, a publications coordinator, and an event coordinator. It does not have any faculty lines that report directly to the honors dean, but five honors faculty members have offices within the honors building.

Curricular offerings include 80-100 sections of honors-designated courses each fall and spring semester. These include general education courses, major-specific courses, interdisciplinary seminars, lecture series, service learning, and thesis courses. The fall semester headcount averaged 878 students (from 2018-2022). Some additional students are not enrolled in an honors class but are “on track” with honors requirements and thus counted as “active” in honors bringing the college's overall average to 987 active students each fall.

Due to the inclusive nature of the MTSU Honors College admission policies (as detailed below), many more students start in honors at MTSU than complete the honors requirements. Beyond the option simply to enroll in honors courses, two honors

completion options are available to students. The first is full honors graduation. Honors graduates receive an additional notation on the student's transcript and diploma and are recognized as a minor. It requires 29 hours' worth of honors coursework. The second completion option is the Honors Associate minor, which requires 11 hours of honors coursework. Both options require a research or creative thesis project. Students who complete one of these minors are considered to have "completed" the honors program requirements, but only the first option receives a graduation notation. The five-year completion average is 86 students per year. Finally, students can receive an honors certificate for completing at least 18 hours' worth of honors courses. This option appeals to those students who enjoy honors coursework but do not wish or are unable to complete a thesis.

Admission Requirements and Scholarship Programs

The Honors College at MTSU has created admission policies that align with the university's overall mission. Separate applications are not required for students to participate in honors at MTSU. Instead, students are considered "automatically qualified" if they enter MTSU with a minimum 3.5 high school GPA and a 25 or higher ACT as first-year students or if they have a 3.25 or higher cumulative GPA after 12 hours of college-level courses. Students who meet these eligibility requirements receive outreach from the college and are encouraged to enroll in an honors section to "try out" the honors program requirements. Additional advising is provided to the students throughout the semester and over subsequent years if students continue with the

program. To increase inclusivity, students with ACT scores or high school GPAs relatively close to the automatic freshmen requirements also receive outreach. This outreach encourages the students to learn more about the Honors College and potentially enroll in an honors course during their first semester.

While general admission to the Honors College does not require separate applications, two fellowship programs require a competitive application process. These fellowships include the "Buchanan Fellowship" for entering first-year students (offered to 20 students per year) and the "Transfer Fellowship" for transfer students (offered to 30 students per year). Both fellowships provide a generous scholarship but require that students stay on track with the honors program requirements as a condition of continuing eligibility.

MTSU Honors Transfer-Specific Initiatives

Two previously mentioned options were created specifically for transfer students. First, the Honors Associate minor option is often favored by transfer students who are unable to graduate from the Honors College. The graduation option may not be feasible if they cannot find honors courses that meet their remaining degree requirements and lack honors credits from their previous institutions. Consequently, the Honors Associate option allows more flexibility for these students who desire to participate in honors at MTSU but cannot complete the full honors graduation requirements.

The second initiative is the Honors Transfer Fellowship. The fellowship was initially created in 2013 and was offered to 15 students per year. The Transfer Fellowship has a selective admission process that requires higher qualifications than general honors admission. Students must have an inclusive (all institutions) GPA of 3.5 or higher and have earned a minimum of 60 credit hours prior to the start of the fellowship. In 2017, the fellowship expanded to include 30 students per year. Transfer Fellows receive a substantial scholarship over four semesters. To maintain eligibility, they must maintain a GPA of 3.25 or higher and complete one of the honors minor options, including a thesis. Transfer Fellows take a common 3-credit hour course together in their first semester, which serves the dual purpose of creating community and preparing students for the thesis. Additionally, they meet regularly with an honors advisor who assists with the transition process and successful integration into the program (Middle Tennessee State University, 2022).

From its inception through the August 2022 cohort, the Honors Transfer Fellowship has included 255 students. The program has shown considerable success in transfer student retention and graduation percentages (see Table 6).

Table 6.

MTSU Honors Transfer Fellow Completion Percentages (2013-2022)

Retained or Graduated	Honors Completion %	Graduation %		
		Four-Semester	Six-Semester	Total %
93.3%	88.4%	70.2%	87.3%	90.6%

Note: N = 255. Four-semester and six-semester graduation rate % refers to the number of semesters it took the student to graduate from the point of receiving the fellowship.

This data is featured separately in this chapter since it includes only those transfer students who received an Honors Transfer Fellowship Scholarship rather than transfer student participation in honors as a whole (see Chapter IV). It should be noted that eligible transfer students are encouraged to participate in honors even if they have not received the fellowship. Therefore, the study will review the graduation frequency (expressed as percentages) for all transfer students who have participated in the honors program, regardless of fellowship status.

Summary

This chapter has proposed a theoretical model for supporting honors transfer student success that draws on the three constructs of engagement, belongingness, and giftedness. Based on the review of the relevant literature, it is evident that honors education can provide the support structure for these three constructs. Therefore, this study hypothesizes that transfer students who participate in honors can benefit from this support and that this participation in honors will have an association with higher graduation frequency.

To test these hypotheses, the next chapter will discuss the methodology used to analyze the association of graduation frequency between transfer students who participate in honors and those who do not participate in honors. The study follows the previous studies reviewed in this chapter, which have shown the importance of controlling for influencing variables of GPA when comparing honors students against non-honors students. In addition, the study investigates the potential impact of

variables such as gender, race, and age. As a result, findings will show whether there is an association between honors participation and graduation frequency, thereby informing institutional support for transfer student participation in honors programs.

CHAPTER III.

METHODOLOGY

The literature shows that transfer student graduation frequency (typically expressed as a percentage) is lower than traditional students who start and stay at a four-year institution. This difference is institutionally problematic, given that institutions often use graduation percentages as a primary indicator of student and institutional success. Additionally, graduation frequency can comprise a significant portion of an institutional funding formula, especially in Tennessee public institutions. To address the problem, institutions create initiatives, such as high-impact practices, to support students' persistence and retention in an effort to increase graduation frequency. Honors education is one such high-impact practice, and previous research has shown that traditional four-year students who participate in honors have a higher graduation percentage. However, research has not yet been done with transfer students to investigate the association between honors participation and graduation frequency.

Data Collection and Subjects

This longitudinal research study used archived institutional records to collect information regarding four cohorts of transfer students who initially met honors eligibility GPA criteria (≥ 3.25 incoming GPA). In addition, the data set included graduation status (within six years), honors participation (defined as enrolling in one or more credit hours of designated honors courses), gender, age, and race. The researcher

selected the additional variables of gender, age, and race based on their inclusion in previous studies on students and the impact of honors education (Cosgrove, 2004; Dias et al., 2019; Keller & Lacy, 2013).

The cohorts in the investigation include transfer students entering the fall semester of the following years: 2013 through 2016. The study included these years since they are the most recent data for which six-year graduation percentages are available. Six-year graduation percentages were chosen as the focus of this study as they represent the standard rate reported by most institutions in state and federal databases such as the National Center for Education Statistics (NCES). Additionally, starting in 2013, transfer student participation in honors increased due to the implementation of the Honors Transfer Fellowship. The inclusion of Honors Transfer Fellows results in a higher number of students participating in honors and yields an adequate N that allows for conducting tests for statistical significance. The dataset was analyzed using the Statistical Package (SPSS) software.

The investigator made all required requests, following institutional research request protocol, starting with seeking exempt approval through the MTSU Institutional Review Board (IRB) office. Once IRB granted approval, the researcher requested the data set from the MTSU Records Office – Enrollment Technical Services. This study did not require informed consent, disclosure, or confidentiality documentation, as the study used no personally identifiable information.

Research Design and Procedures

This quantitative, non-experimental, retrospective study examined the impact of honors participation on graduation frequency as a potential predictor for transfer students. Researchers use a retrospective, *ex post facto* approach (where relevant administrative data on past events is collected) to collect information on graduation percentages over time. Various researchers endorse a retrospective approach when a study starts with a dependent variable (in this case, graduation percentages of transfer students) and looks back over time to investigate potential influences (independent variables) that explain the current state of the dependent variable (Cohen et., al, 2000; Johnson & Christenson, 2020). Since increasing graduation frequency is a goal for many institutions, it behooves the institution to examine which interventions and variables have historically impacted student success metrics.

A non-experimental research design is appropriate for this study due to the longitudinal nature of data collection and the inability to keep numerous students in a controlled experimental environment. Accordingly, a limitation of this type of study is that it cannot determine a perfect cause-and-effect relationship between honors participation and transfer student graduation frequency. Johnson and Christenson require three conditions for causation:

- Condition One: Variable A and variable B must be related (relationship condition).
- Condition Two: Proper time order must be established (temporal antecedence condition).

- Condition Three: The relationship between variable A and variable B must not be due to some confounding extraneous or "third" variable (the lack of alternative or rival explanation condition). (Johnson & Christenson, 2020, p. 373)

This study met two of the three aforementioned conditions. First, chi-square tests and *Cramer's V* were performed on the two main variables (honors participation and transfer student graduation frequency) to establish the relationship between the two variables. The study meets the second condition since a transfer student's participation in honors precedes a graduation event, thus demonstrating temporal antecedence. Condition three can only be fully satisfied if the study controls every confounding variable influencing student graduation frequency. Unfortunately, an untold number of confounding variables impact graduation frequency. Thus, this study cannot establish a probabilistic causal effect, as defined by Johnson and Christenson. While the research could not test for all variables, this study reviewed the influence of three commonly examined variables (gender, age, and race) to determine their association with the dependent and independent variables.

Furthermore, this study limits the initial selection criteria only to include transfer students who meet honors eligibility GPA requirements (≥ 3.25 inclusive GPA) since starting transfer GPA has already been shown to be a strong indicator of success (LaSota & Zumeta, 2016). Therefore, comparing two groups with similar starting GPAs helps to mitigate the influence of that starting variable when exploring the effect of a new variable.

Finally, the overall sample sizes of the two comparison groups are not equal. This disproportion is because fewer honors-eligible transfer students take honors courses than not (approximate ratio of 1:8 students at the institution in this study). However, using a chi-square analysis of frequency eliminates the need to equalize each group through sampling techniques. The chi-square analysis will determine if the observed frequency matches or exceeds the expected frequency (i.e., if associations are just by chance rather than by the influence of the independent variable) (Field, 2017).

Therefore, this study aimed to determine if there is an association between graduation and honors participation while controlling for incoming GPA (LaSota & Zumeta, 2016) and reviewing the additional influences of gender, age, and race (Dias et al., 2019; Keller & Lacy, 2013).

Analysis of the Data

Pearson's chi-square test is utilized in this study to examine the relationship between categorical variables. This 2x2 contingency table analyzes the information, with rows representing the independent categorical value and columns representing the dependent variable. Examining expected frequencies and row and column percentages will determine statistically significant effects (Field, 2017). Finally, as Abbott (2011) states, "the chi-square procedure statistically analyzes the differences among the data in contingency tables to determine whether the patterns of difference are different enough to be considered statistically significant" (p. 454).

The first hypothesis for the study is:

H_1: Student participation in honors classes is associated with graduation frequency among similarly abled transfer college students.

The dependent variable was the graduation status of the student (coded 0 = graduation and 1 = no graduation). The primary independent variable was that the subjects be enrolled in one or more credit hours in honors during their time at the institution (coded 0 = honors enrollment and 1 = no honors enrollment). Using Pearson's chi-square, this study compared the observed frequency in each category to what may occur by chance, i.e., goodness-of-fit (Abbott, 2011; Field, 2017).

In addition to the initial chi-square analysis, this study utilizes *Cramer's V* to determine the effect size. "*Cramer's V* calculates effect size values that range between 0 and 1, but the weight of *Cramer's V* does not always use the guidelines as found in other tests (0.10 for small, 0.30 for medium, and 0.50 for large [effect sizes])," (Abbott, 2011, pp. 469-470). Abbott cautions that researchers examine the shape of their contingency tables and utilize Cohen's adjusted set of guidelines when determining effect size (Abbott, 2011). In addition to *Cramer's V*, Field (2017) recommends using an odds ratio to measure the effect size of categorical data. Therefore, an odds ratio, using the following formula, was calculated for each research question to further determine an effect size among each group (group one: those who participate in honors and group two: those who do not):

$$\text{Odds graduation} = \frac{\text{yes graduation / number of students}}{\text{no graduation / number of students}}$$

Then divide the two ratios to determine the odds ratio between the groups:

$$\text{Odds} = \frac{\text{Odds ratio results group 1}}{\text{Odds ratio results group 2}}$$

These ratio formulas allow the researcher to discover which group is more likely to graduate and to what degree.

While a 2x2 chi-square test will determine an association between the two variables, it is not sufficient to determine if additional confounding variables affect this association. Therefore, the study performed further tests to see if any association changed once the study included other controlled variables (such as gender, age, and race).

H_2: Student participation in honors is associated with graduation frequency among similarly abled male and female transfer students.

H_3: Student participation in honors is associated with graduation frequency among similarly abled traditional and non-traditional-aged transfer students.

H_4: Student participation in honors is associated with graduation frequency among similarly abled white and non-white transfer students.

The study performed a layered crosstab analysis, along with *Cramer's V* and an odds ratio to examine any controlling effects within categories of gender, age, and race to analyze impacts within these groups.

Finally, within the group of students who take honors courses, this study examined the last hypothesis that assumes an association between the number of honors courses taken to a graduation event.

H_5: The number of honors courses completed is associated with graduation frequency among honors students.

This analysis also used Pearson's chi-square test. First, the researcher coded students as graduating = 0 or not graduating = 1. Then the number of earned credit hours in honors was coded as 0 = 1-4 hours and 1 = 5+ hours. With 1-4 hours equaling one honors course (i.e., one interaction with the honors community) and 5+ credit hours equaling at least two honors courses (two interactions). The relatively small sample size prohibits further dissection of hours into other categorical groups as further dissection of hours did not meet the assumptions for chi-square.

Assumptions

The first assumption for this study is that subjects selected for analysis will remain constant throughout the study. For all hypotheses, chi-square analyses will determine the association between variables. The assumptions for chi-square tests are as follows:

1. Each person, item, or entity must contribute to only one cell of the contingency table.
2. All *Expected Counts* should be greater than 1, and no more than 20% of the expected counts should be less than 5 (Field, 2017).

Violations of any of these assumptions will invalidate the tests. Therefore, this study will check the assumptions for each model through statistical analysis.

Summary

This chapter reviewed the methodology used for this study. The researcher utilized four years of retrospective data from the 2013-2016 transfer student cohort years from a four-year university in Tennessee. The subjects selected for this study consisted of new transfer students admitted with a minimum 3.25 GPA. There was a total of 2379 students included in the analysis. The dependent variable for all tests in the study was graduation status. As such, the researcher tested the dependent variable to check for associations with additional variables, including honors participation (including the number of honors credits attempted), gender, age, and race. There was no collection of new data or manipulation of variables. The chi-square test of independence was the analysis chosen for the study to test the statistical significance between selected variables. For each chi-square test, the researcher analyzed the results of the contingency table, chi-square analysis, *Cramer's V* test, and performed an odds ratio analysis. For hypotheses two through four, additional layered chi-square analyses were performed to test the influence of confounding variables. Chapter IV will discuss the results of these tests.

CHAPTER IV.

RESULTS

Motivated by the dual need to increase graduation frequency and the need to diversify honors programs via the inclusion of transfer students, this study aimed to investigate if there was an association among honors participation and increased graduation frequency within the transfer student population at the university over four cohort years. Additionally, the researcher investigated the associations of gender, age, race, and attempted honors hours to graduation frequency. A data set consisting of attempted honors hours, gender, age, race, and graduation status was requested by the researcher and provided by the university. Once the researcher received data from the university, the researcher reviewed the dataset to ensure accuracy and that all subjects met the honors qualification thresholds. Next, the researcher combined all cohort years' data (2013 through 2016) into one dataset. Finally, the variables were then categorized to perform chi-square analyses through SPSS.

The researcher categorized Honors participation as "0 = one or more attempted hours in honors" and "1 = no attempted hours in honors". Additionally, the researcher categorized honors hours as "0 = 1-4 attempted honors credits" and "1 = 5 or more attempted honors credits". Gender was categorized by "0 = Females" and "1 = Males". Race was categorized by "0 = White" and "1 = Non-White". The researcher categorized age as "0 = Traditional Age (18-25)" and "1 = Non-Traditional Age (25+)." Finally,

graduation status was categorized with “0 = Graduation within six years of enrollment” and “1 = No Graduation event within six years of enrollment.”

This chapter will present the statistical methods used on the dataset. It will begin by reviewing the overall population used in the study and then the chi-square analysis results for each research question.

Descriptive Statistics

Table 7 describes the characteristics of 2380 students from the combined four transfer student cohorts who were admitted in the fall terms of 2013 through 2016 and met the honors GPA minimum threshold of 3.25. The total number of students in the study was (*N* = 2380). The data was further categorized as students who participated in honors by enrolling in 1 or more credit hours 12.8% (*n* = 304*)* or students who did not participate in honors 87.2% (*n* = 2076), by 1-4 honors hours attempted 6.8% (*n* = 162) or five or more honors hours attempted 6% (*n* = 142), Female 61.4% (*n* = 1462) or Male 38.6 (*n* = 918) gender, Traditional Age (18-24) 75.6% (*n* = 1799) or Non-Traditional Age (25+) 24.4% (*n* = 581), by White 79.2% (*n* = 1885) or Non-White 20.8% (*n* = 495) Race, and Graduated 75.4% (*n* = 1794) or Not Graduated 24.6% (*n* = 586) status in this sample.

Table 7

Characteristics of Transfer Students Who Have Taken and Have Not Taken Honors Courses (N = 2380)

Characteristic	*N*	*%*
Honors Participation		
Yes – Participated	304	12.8%
No – Participated	2076	87.2%
Honors Hours Earned		
1-4	162	6.8%
5 or More	142	6.0%
Gender		
Female	1462	61.4%
Male	918	38.6%
Age		
18-24	1799	75.6%
25+	581	24.4%
Race		
White	1885	79.2%
Non-White	495	20.8%
Graduated		
Yes	1794	75.4%
No	586	24.6%

Chi-Square Tests of Independence

Research Question 1

1. Is there an association between student honors participation and graduation frequency for transfer students?

Table 8 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for all honors-qualified transfer students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 8 demonstrate a significant association between honors participation and student graduation for all students $X^2(1) = 11.559$, $p = .001$. *Cramer's V* = .070, $p = .001$ indicated a significant but very weak association between the independent and dependent variables. The odds ratio showed the odds of all transfer students who participated in the honors program (83.20%) were 1.72 times more likely to graduate than honors-qualified transfer students who did not participate in the honors program (74.52%).

Table 8

Frequencies of Honors Hours and Graduation among All Students (N = 2380)

			Graduation		
			Yes	No	Total
Honors Hours	Yes	Count	253	51	304
		Expected Count	229.1	74.9	304.0
		% within Hours	83.2%	16.8%	100.0%
		% within Graduation	14.1%	8.7%	12.8%
		% of Total	10.6%	2.1%	12.8%
		Standardized Residuals	1.6	-2.8	
Honors Hours	No	Count	1541	535	2076
		Expected Count	1564.9	511.1	2076.0
		% within Hours	74.2%	25.8%	100.0%
		% within Graduation	85.9%	91.3%	87.2%
		% of Total	64.7%	22.5%	87.2%
		Standardized Residuals	-0.6	1.1	
Total		Count	1794	586	2380
		Expected Count	1794.0	586.0	2380.0
		% within Hours	75.4%	24.6%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	75.4%	24.6%	100.0%

Pearson Chi Square: $X^2(1) = 11.559$, $p = .001$.
Cramer's V = .070, p = .001; OR = 1.72

Research Question 2

2. Is there an association between honors participation and graduation frequency among male and female transfer students?

Table 9 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for Female transfer students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts

less than 5. Results from Table 9 demonstrate a significant association between honors participation and student graduation for Female students $X^2(1) = 11.214$, $p = .001$. *Cramer's V* = .088, $p = .001$ indicated a significant but very weak association between the independent and dependent variables. The odds ratio showed the odds of Female transfer students who participated in the honors program (84.70%) were 2.03 times more likely to graduate than Female transfer students who did not participate in the honors program (73.2%).

Table 9

Frequencies of Honors Hours and Graduation among Female Students (N = 1462)

			Graduation		
Female Students			Yes	No	Total
Honors Hours	Yes	Count	155	28	183
		Expected Count	136.6	46.4	183.0
		% within Hours	84.7%	15.3%	100.0%
		% within Graduation	14.2%	7.5%	12.5%
		% of Total	10.6%	1.9%	12.5%
		Standardized Residuals	1.6	-2.7	
Honors Hours	No	Count	936	343	1279
		Expected Count	954.4	324.6	1279.0
		% within Hours	73.2%	26.8%	100.0%
		% within Graduation	85.8%	92.5%	87.5%
		% of Total	64.0%	23.5%	87.5%
		Standardized Residuals	-0.6	1.0	
Total		Count	1091	371	1462
		Expected Count	1091.0	371.0	1462.0
		% within Hours	74.6%	25.4%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	74.6%	25.4%	100.0%

Pearson Chi Square: $X^2(1) = 11.214$, $p = .001$.
Cramer's V = .088, p = .001; OR = 2.03

Table 10 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for Male students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 10 demonstrate no significant association between honors participation and student graduation in Male students $X^2(1) = 1.513$, $p = .219$. In addition, *Cramer's V* = .041, $p = .219$ indicated no significant association between the independent and dependent variables.

As there was no significant association between honors participation in graduation among Male students, we must reject the research hypothesis that there is a relationship between gender, honors participation, and graduation. However, as the previous results in Table 9 indicate, there is a partial association between honors participation and graduation among Female students. Therefore, we can conclude that gender and honors participation does have some effect on graduation among specific populations of students.

Table 10

Frequencies of Honors Hours and Graduation among Male Students (N = 918)

			Graduation		
Male Students			Yes	No	Total
Honors Hours	Yes	Count	98	23	121
		Expected Count	92.7	28.3	121.0
		% within Hours	81.0%	19.0%	100.0%
		% within Graduation	13.9%	10.7%	13.2%
		% of Total	10.7%	2.5%	13.2%
		Standardized Residuals	0.6	-1	
Honors Hours	No	Count	605	192	797
		Expected Count	610.3	186.7	797.0
		% within Hours	75.9%	24.1%	100.0%
		% within Graduation	86.1%	89.3%	86.8%
		% of Total	65.9%	20.9%	86.8%
		Standardized Residuals	-0.2	0.4	
Total		Count	703	215	918
		Expected Count	703.0	215.0	918.0
		% within Hours	76.6%	23.4%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	76.6%	23.4%	100.0%

Pearson Chi Square: $X^2(1) = 1.513$, $p = .219$.
Cramer's V = .041, p = .219

Research Question 3

3. Is there an association between honors participation and graduation frequency among traditional (18-24) and non-traditional (25 and older) aged transfer students?

Table 11 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for Traditional Aged

(18-24) transfer students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 11 demonstrate a significant association between honors participation and student graduation for Traditional Aged students $X^2(1) = 5.364$, $p = .021$. *Cramer's V* = .055, $p = .021$ indicated a significant but very weak association between the independent and dependent variables. The odds ratio showed that the odds of Traditional Aged transfer students who participated in the honors program (84.30%) were 1.53 times more likely to graduate than Traditional Age transfer students who did not participate in the honors program (77.9%).

Table 11

Frequencies of Honors Hours and Graduation among Traditional Age (18-24) Transfer Students (N = 1799)

			Graduation		
Traditional Age			Yes	No	Total
Honors Hours	Yes	Count	210	39	249
		Expected Count	196.1	52.9	249.0
		% within Hours	84.3%	15.7%	100.0%
		% within Graduation	14.8%	10.2%	13.8%
		% of Total	11.7%	2.2%	13.8%
		Standardized Residuals	1.0	-1.9	
Honors Hours	No	Count	1207	343	1550
		Expected Count	1220.9	329.1	1550.0
		% within Hours	77.9%	22.1%	100.0%
		% within Graduation	85.2%	89.8%	86.2%
		% of Total	67.1%	19.1%	86.2%
		Standardized Residuals	-0.4	0.8	

Table 11 Continued

Traditional Age		Graduation Yes	No	Total
Total	Count	1417	382	1799
	Expected Count	1417.0	382.0	1799.0
	% within Hours	78.8%	21.2%	100.0%
	% within Graduation	100.0%	100.0%	100.0%
	% of Total	78.8%	21.2%	100.0%

Pearson Chi Square: $X^2(1) = 5.364$, $p = .021$.
Cramer's V = .055, p = .021; OR = 1.53

Table 12 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for Non-Traditional Aged (25+) transfer students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 12 demonstrate a significant association between honors participation and student graduation for Non-Traditional Aged students $X^2(1) = 4.712$, $p = .030$. *Cramer's V* = .090, $p = .030$ indicated a significant but very weak association between the independent and dependent variables. The odds ratio showed that the odds of Non-Traditional Aged transfer students who participated in the honors program (78.32%) were 2.06 times more likely to graduate than Non-Traditional Age transfer students who did not participate in the honors program (63.5%).

Table 12

Frequencies of Honors Hours and Graduation among Non-Traditional Aged Students (N = 581)

Non-Traditional Age			Graduation Yes	No	Total
Honors Hours	Yes	Count	43	12	55
		Expected Count	35.7	19.3	55.0
		% within Hours	78.2%	21.8%	100.0%
		% within Graduation	11.4%	5.9%	9.5%
		% of Total	7.4%	2.1%	9.5%
		Standardized Residuals	1.2	-1.7	
Honors Hours	No	Count	334	192	526
		Expected Count	341.3	184.7	526.0
		% within Hours	63.5%	36.5%	100.0%
		% within Graduation	88.6%	94.1%	90.5%
		% of Total	57.5%	33.0%	90.5%
		Standardized Residuals	-0.4	0.5	
Total		Count	377	204	581
		Expected Count	377.0	204.0	581.0
		% within Hours	64.9%	35.1%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	64.9%	35.1%	100.0%

Pearson Chi Square: $X^2(1) = 4.712$, $p = .030$.
Cramer's V = .090, p = .030; OR = 2.06

Research Question 4

4. Is there an association between honors participation and graduation frequency among white and non-white transfer students?

Table 13 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for White students. The contingency table met the chi-square test assumptions, as each subject contributed

to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 13 demonstrate a significant association between honors participation and student graduation in White students X^2 (1) = 9.258, p = .002. *Cramer's* V = .070, p = .002 indicated a significant but very weak association between the independent and dependent variables. The odds ratio showed that the odds of White students who participated in the honors program (84.30%) were 1.74 times more likely to graduate than White students who did not participate in the honors program (75.50%).

Table 13

Frequencies of Honors Hours and Graduation among White Students (N = 1885)

			Graduation		
White Students			Yes	No	Total
Honors Hours	Yes	Count	209	39	248
		Expected Count	190.1	57.9	248.1
		% within Hours	84.3%	15.7%	100.0%
		% within Graduation	14.5%	8.9%	13.2%
		% of Total	11.1%	2.1%	13.2%
		Standardized Residuals	1.4	-2.5	
Honors Hours	No	Count	1236	401	1637
		Expected Count	1254.9	382.1	1637.0
		% within Hours	75.5%	24.5%	100.0%
		% within Graduation	85.5%	91.1%	86.8%
		% of Total	65.6%	21.3%	86.6%
		Standardized Residuals	-0.5	1.0	

Table 13 Continued

White Students		Graduation Yes	No	Total
Total	Count	1445	440	1885
	Expected Count	1445.0	440.0	1885.0
	% within Hours	76.7%	23.3%	100.0%
	% within Graduation	100.0%	100.0%	100.0%
	% of Total	76.7%	23.3%	100.0%

Pearson Chi Square: $X^2(1) = 9.258$, $p = .002$.
Cramer's V = .070, p = .002; OR = 1.74

Table 14 presents the results of the contingency table used to understand the frequencies between honors participation and graduation variables for Non-White students. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 14 demonstrate no significant association between honors participation and student graduation in Non-White students $X^2(1) = 1.976$, $p = .160$. In addition, *Cramer's V* = .063, $p = .160$ indicated no significant association between the independent and dependent variables.

As there was no significant association between honors participation in graduation among Non-White students, we must reject the research hypothesis that there is a relationship between race, honors participation, and graduation. However, as the results displayed in Table 13 indicate, there is a partial association between honors participation and graduation among White students. Therefore, race and honors

participation does have some effect on graduation among specific populations of students.

Table 14

Frequencies of Honors Hours and Graduation among Non-White Students (N = 495)

Non-White Students			Graduation Yes	No	Total
Honors Hours	Yes	Count	44	12	56
		Expected Count	39.5	16.5	56.0
		% within Hours	78.6%	21.4%	100.0%
		% within Graduation	12.6%	8.2%	11.3%
		% of Total	8.9%	2.4%	11.3%
		Standardized Residuals	0.7	-1.1	
Honors Hours	No	Count	305	134	439
		Expected Count	309.5	129.5	439.0
		% within Hours	69.5%	30.5%	100.0%
		% within Graduation	87.4.%	91.8%	88.7%
		% of Total	61.6%	27.1%	88.7%
		Standardized Residuals	-0.3	0.4	
Total		Count	349	146	495
		Expected Count	349.0	146.0	495.0
		% within Hours	70.5%	29.5%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	70.5%	29.5%	100.0%

Pearson Chi Square: $X^2(1) = 1.976, p = .160$
Cramer's V = .063, *p* = .160

Research Question 5

5. Is there an association between the number of honors credits a transfer student attempts and graduation frequency?

Table 15 presents the results of the contingency table used to understand the frequencies between the number of honors hours attempted and graduation variables for students who participated in honors. The contingency table met the chi-square test assumptions, as each subject contributed to one cell of the contingency table, and there were no expected counts less than 5. Results from Table 15 demonstrate no significant association between the number of honors hours attempted and student graduation in honors students $X^2(1) = 3.209$, $p = .073$. In addition, *Cramer's V* = .103, $p = .073$ indicated no significant association between the independent and dependent variables.

As there was no significant association between the number of honors hours attempted and graduation among honors students, we must reject the research hypothesis that a relationship exists between increased levels of honors participation and graduation.

Table 15

Frequencies of Honors Hours Categorization and Graduation among All Honors Students (N = 304)

			Graduation		
All Honors Students			Yes	No	Total
Honors Hours	1-4 hrs	Count	129	33	162
		Expected Count	134.8	27.2	162.0
		% within Hours	79.6%	20.4%	100.0%
		% within Graduation	51.0%	64.7%	53.3%
		% of Total	42.4%	10.9%	53.3%
		Standardized Residuals	-0.5	1.1	

Table 15 Continued

All Honors Students			Graduation Yes	No	Total
Honors Hours	5+ hrs	Count	124	18	142
		Expected Count	118.2	23.8	142.0
		% within Hours	87.3%	12.7%	100.0%
		% within Graduation	49.0%	35.3%	46.7%
		% of Total	40.8%	5.9%	46.7%
		Standardized Residuals	0.5	-1.2	
Total		Count	253	51	304
		Expected Count	253.0	51.0	304.0
		% within Hours	83.2%	16.8%	100.0%
		% within Graduation	100.0%	100.0%	100.0%
		% of Total	83.2%	16.8%	100.0%

Pearson Chi Square: $X^2(1) = 3.209$, $p = .073$.
Cramer's V = .103, p = .073

Summary

This chapter detailed the analysis of several chi-square tests performed to determine the association of the dependent variable (graduation) and the independent variables (honors participation, gender, age, race, and number of honors hours attempted). The tests met all assumptions. Findings from the analysis are as follows for each hypothesis.

H_1: Student participation in honors classes is associated with graduation frequency among similarly abled transfer college students.

Result: A significant association was found; thus, we can reject the null hypothesis.

H_2: Student participation in honors is associated with graduation frequency among similarly abled male and female transfer students.

Result: Only a partial association was found; thus, we must fail to reject the null hypothesis.

H_3: Student participation in honors is associated with graduation frequency among similarly abled traditional and non-traditional-aged transfer students.

Result: A significant association was found; thus, we can reject the null hypothesis.

H_4: Student participation in honors is associated with graduation frequency among similarly abled white and non-white transfer students.

Result: Only a partial association was found; thus, we must fail to reject the null hypothesis.

H_5: The number of honors courses completed is associated with graduation frequency among honors students.

Result: No significant association was found; thus, we must fail to reject the null hypothesis.

Chapter four will review these results further and discuss recommendations for future research.

CHAPTER V.

DISCUSSION & RECOMMENDATIONS

This retrospective research study aimed to determine if honors participation is associated with graduation frequency for transfer students. Previous studies regarding the effect of honors education on student success metrics showed a positive correlation to higher graduation frequencies, final GPAs, and persistence (Cosgrove, 2004; Dias et al., 2019; Keller & Lacy, 2013). However, no previous studies have focused specifically on the impact of honors education on transfer students. Therefore, the researcher gathered data from four cohort years of transfer students and performed chi-square analyses to test the study's research questions and hypotheses. While there was a mix of accepted and failed hypotheses, the overall results provide insight into how transfer students' participation in honors is associated with graduation. The findings can help institutions and honors programs better serve transfer students and guide future research on the impact of honors programs for transfer students.

Analysis of Findings

The researcher tested five research questions through chi-square analyses with a .05 level of significance. The first research question queried if there was an association between student honors participation and graduation frequency for transfer students. In response to this query, the researcher created hypothesis one and posited that student participation in honors classes is associated with graduation frequencies. The contingency table results confirmed a significant association among students enrolled in

honors classes and graduation frequency (p = .001). Therefore, we can reject the null hypothesis. While *Cramer's V* indicated a weak effect for this test (.070), the odds ratio showed that transfer students who participated in honors were 1.72 times more likely to graduate than those who did not participate in honors. The homogeneity among the analyzed subjects can explain the limited effect size for this test. Also, previous research on transfer students has already shown that higher starting GPAs are correlated with higher graduation percentages (LaSota & Zumeta, 2016), thus explaining the relatively high graduation frequency for this group as a whole (75.4%). However, honors participation may help to improve transfer graduation rates within this group even higher since the chi-square analysis showed that the difference in graduation frequencies between honors students (83.2%) and non-honors (74.52%) is significant.

The first hypothesis tested for the association among honors participants and all qualified transfer students. However, other research on transfer students has shown that other variables such as gender, age, and race may also impact graduation frequency for this group of students (Bellare et al., 2021; Causey et al., 2020; Giancola & Kahlenberg, 2016; Glynn, 2019; Leggins, 2021; NSC Research Center, 2021; Shapiro et al., 2018; Umbach et al., 2019). Therefore, the researcher included three additional research questions and hypotheses to examine the association of these independent variables to the initial honors participation and graduation frequency variables.

Hypothesis two stated that student participation in honors is associated with graduation frequency among similarly abled male and female transfer students. The

researcher performed a layered chi-square analysis to test for any controlling effects that the variable of gender may introduce within this group. Results from the chi-square analysis show that within the variable of gender, being female is associated with higher graduation frequency for honors students (p = .001) but that there was no significant effect for male students (p = .219). Therefore, since both categories did not have a significant effect, we must fail to reject the null hypothesis that gender is associated with higher graduation frequency among all honors students. However, a partial association remains for female subjects. While the original hypothesis cannot be accepted, this information is still helpful in showing that female transfer students seem to benefit from participating in honors. This chapter will further discuss the implications for this group of students.

Hypothesis three stated that student participation in honors is associated with graduation frequency among similarly abled traditional and non-traditional-aged transfer students. The layered chi-square analysis showed a significant association among both traditional (p = .021) and non-traditional (p = .030) aged students to honors participation and graduation frequency. Thus, we can reject the null hypothesis that there is no association among honors participation, graduation frequency, and the student's age.

Hypothesis four stated that student participation in honors is associated with graduation frequency among similarly abled white and non-white transfer students. The layered chi-square analysis showed a significant association for white students (p = .002)

but no significant association for non-white students (p = .160). Therefore, since there was no significant association for both categories within this variable, we must fail to reject the null hypothesis that participation in honors is associated with graduation frequency when including overall race as a controlling variable. However, a partial association remains for white students. As with the second hypothesis, while we cannot accept the original hypothesis, the results from this analysis still provide valuable information for this group. Significant association for white students shows that honors participation may be impactful in increasing graduation frequency for this group. This chapter will later discuss the results for non-white students as this indicates future considerations and potential research opportunities.

The final research question asked if there was an association between the number of honors credits a transfer student attempts and graduation frequency. Its corresponding hypothesis stated that the number of honors courses completed is associated with graduation frequency among honors students. The study grouped honors credits into two categories: “1-4 hours” (equivalent to one honors course) and “5+ hours” (equivalent to two honors courses). A significant association was not found for this group (p = .073), indicating that we must fail to reject the null hypothesis. This group's relatively small sample size (n = 304), however, may have impacted the results of this test.

Additionally, due to the small size and *Expected Counts* necessary for chi-square analysis, the researcher could only create two categories to break down the credit hours

(1-4 and 5+). Future tests with a larger sample size and broader distribution of credit hours may result in different findings. However, results from this test are still crucial to the study and provide insights into the impact of honors participation with this group.

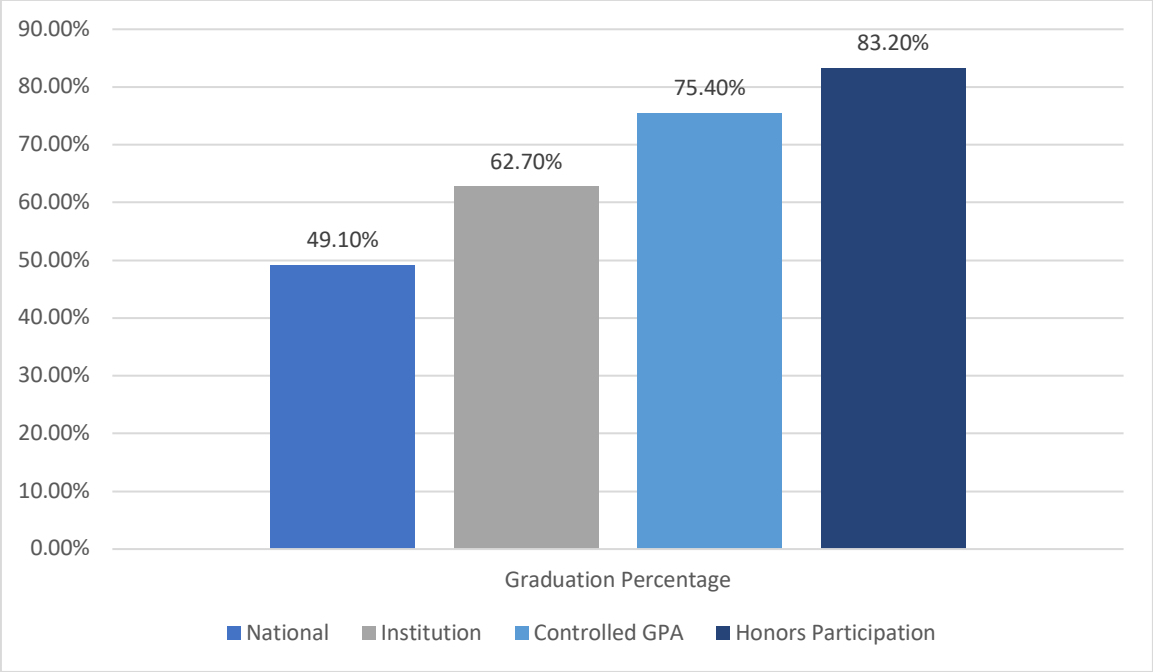
Discussion

The major findings in this study concluded the following: (a) honors participation is significantly associated with graduation frequency for transfer students; (b) there is a partial association among gender, honors participation, and graduation frequency; (c) there is a significant association between age, honors participation, and graduation frequency; (d) there is a partial association between race, honors participation, and graduation frequency; and (e) there is no significant association among the number of honors credit hours attempted and graduation frequency within the group of students who participated in honors.

As seen in the review of literature highlighted in chapter two, transfer students' graduation percentages are lower than non-transfer students (Jenkins & Finks, 2016), and honors participation results in higher graduation percentages for four-year students (Bottoms & McCloud, 2019; Brown et al., 2019; Campbell & Fuqua, 2008; Cobane & Jennings, 2017; Diaz et al., 2019; Mould & DeLoach, 2017; Shushok, 2006) but had not yet been studied for transfer students. This study has shown that honors participation is also associated with higher graduation frequencies for transfer students (see Figure 7).

Figure 7.

Comparison of Transfer Graduation Percentages Included in Study



Note: National and Institution rates include the Fall 2014 cohorts only.

This study does not prove a causation between honors participation and graduation frequency. However, it does show a significant association between the two variables and that transfer students who participate in honors are 1.7 times more likely to graduate. This increase in graduation frequency is critical to review when institutions look at how best to support their students and meet funding formula goals.

At the institution studied (MTSU), the funding formula includes several categories, including the number of degrees conferred, degrees per FTE (full-time enrollment), and six-year graduation rates. Furthermore, premiums (additional weight in the formula) include two special populations: adult learners and Pell-eligible students

(Podesta et al., 2020). Transfer students are within each of these formula metrics, hence the importance of supporting institutional programs that enhance transfer students' progress and eventual degree completion. Therefore, institutions should encourage eligible transfer students to participate in honors programs since the results in this study indicate that honors participation is associated with higher graduation frequencies within this group.

There is also a connection between funding formula considerations and the significant association between honors participation and graduation frequency for transfer students as categorized by age. For example, in Tennessee public universities, adult learners and Pell-eligible students are considered "Premium" populations within the funding formula, which means these groups receive "added weight" within the formula based on their performance (Podesta et al., 2020). As a result, the university will receive higher funding when these students progress through credit hour benchmarks and earn degrees.

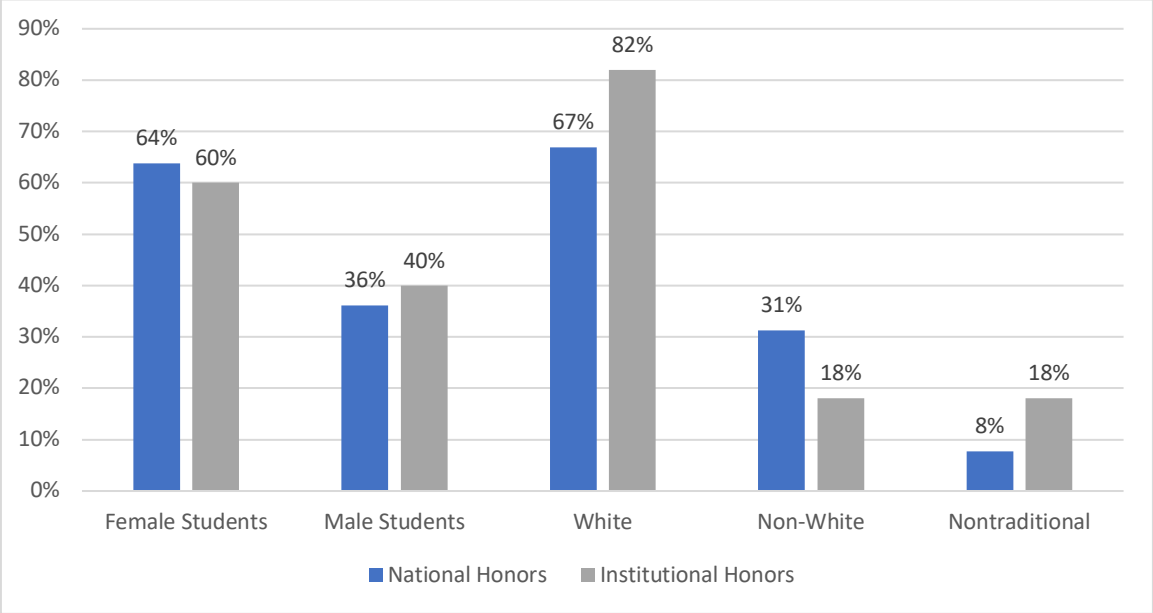
While this study could not analyze the Pell Grant status for the subjects included, it did review age. In light of funding formula considerations, the study's findings are noteworthy since non-traditional (or "Adult") students comprised 24.4% of the sample studied. Consequently, this study found that non-traditional students who participated in honors were two times more likely to graduate than those who did not participate. Accordingly, in addition to promoting honors participation to all transfer students,

institutions and honors programs should also make special efforts to encourage honors participation for non-traditional students.

The study also found that specific populations within the analyzed groups had no significant association with honors participation and graduation frequency. Still, the study found partial associations for two sub-categories (female and white transfer students). The findings for these hypotheses should not be surprising, given that male and non-white students comprise a smaller percentage of the overall sample. Moreover, national surveys on the demographics of honors also find the same trends, see Figure 8 (Cognard-Black et al., 2017; Cognard-Black & Spisak, 2021; Scott et al., 2017).

Figure 8.

Comparison of National Honors Demographics to Institutional Cohorts in Study



Note: National demographics as of the NCHC 2014-2015 Admissions, Retention, and Completion Survey

Even though the study only found a partial association within the categories of gender and race, the results can guide honors programs to review the outreach and support systems it offers to transfer students. Identifying strategies to support and retain students within these sub-categories is imperative for the further diversification of honors programs.

Finally, this study did not find a significant association between the number of honors hours attempted and graduation frequency (among honors students). The initial hope for this hypothesis was that if the study found a significant association, it would encourage honors programs to offer more courses for transfer students and perhaps broaden the eligibility requirements to include more transfer students. Even though the results were not as hoped, these recommendations remain due to the primary evidence of increased graduation frequency among all transfer students who participated in honors. Another takeaway from this result is the impact of fewer honors options for transfer students, as more than half of this sample only took the equivalent of one honors course (n = 162). If future studies investigate a similar hypothesis, it should be done with a program offering more honors course options for upperclassmen.

Overall, even among high-ability students with comparatively higher graduation frequencies, there are ways to increase their percentages. Furthermore, these efforts should receive similar considerations and support as other programs focusing on at-risk students since high-ability students are also included within these premium populations. Their success can significantly contribute to the university's funding formula goals.

Recommendations for Practice

The Complete College America Act of 2010 incentivized many institutions to focus on increasing graduation rates as well as enrollment growth (Complete College America, 2022). Consequently, over the past decade, institutions have researched ways to improve graduation rates, especially among high-risk populations. This study has shown that at the national level, transfer students graduate at a lower rate than non-transfers but that high-impact programs (HIPs) can help to improve these rates (NSSE, 2019). This study also found that transfer student participation in honors is significantly associated with a higher graduation frequency. Therefore, a renewed focus on promoting transfer student participation in honors is the primary recommendation from this study.

The focus on transfer students starts with identifying eligible transfer students and providing individualized outreach that details the benefits of honors. Strategic marketing campaigns to transfer students, especially among underserved populations, can help recruit eligible students to the program. Faculty and staff support within the program is also necessary to further encourage transfer students to feel that they belong in honors and can be successful in the program. Additionally, initiatives focusing on non-white and male student retention can be helpful for the institution studied to help more of these students persist within the honors program and to graduation.

However, increased outreach to eligible transfer students is unlikely to help unless curricular options exist for these students. Transfer student participation will be

limited in honors programs that focus on offering honors courses primarily within the general education curriculum. Honors programs must offer increased curricular options at the junior and senior levels or create alternative pathways to honors completion for these students.

Finally, honors programs need to review their admission policies for transfer students. Transfer students already face various bureaucratic hurdles when entering a new institution, and gaining admission to an honors program should not add to this burden. Memorandums of Understanding (MOUs) for those students who participate in an honors program at the community college is one way to help ease transfer students into university-level honors programs (Frana & Rice, 2017). However, there should also be pathways for transfer students who could not complete community college honors programs or have never taken honors courses.

In conclusion, if honors participation is associated with higher graduation frequency for transfer students, then honors programs have an obligation to provide greater access to their programs to the students who can most benefit from its services. As Cognard-Black and Spisak (2021) state, the questions of how to increase diversity and inclusion are “especially pertinent to collegiate honors education because it has so often and for so long been associated with selectivity and the status conferred by providing access to some students while excluding most others from what is known in the social sciences as a ’positional good’” (Cognard-Black, 2021, p. 81).

Recommendations for Future Research

First, this study is limited by its sample size and the fact that its subjects come from a single site. With the addition of more cohorts, programs can find trends and perform annual reviews of the results. Additionally, the inclusion of more recent data can help to show the impact of the COVID-19 pandemic and more recent transfer student trends for the institution. Finally, while each honors program has its own unique features, many share standard structural components. A broader review of transfer student success across several institutions can show if the results found in this study are also applicable to other honors programs at different institutions.

Second, this study could not include Pell Grant eligibility as a variable due to institutional restraints. As such, future research should endeavor to include this information since national research on transfer student success shows that this variable is significantly associated with persistence and graduation frequency. Moreover, increasing Pell-eligible students in honors programs will help to improve diversity within honors programs. Once included, a periodic review of this sub-populations' progress and trends is necessary so that programs can find ways to best support Pell-eligible students.

Third, the researcher acknowledges that honors programs are not the only high-impact practice that can help transfer student success. Therefore, a comparative examination of honors to other HIPs may be beneficial to see which programs best benefit this group or sub-categories within the transfer student population.

Finally, this study shows a significant association between honors participation and transfer student graduation frequency but did not examine the elements within honors that may have influenced this association. An in-depth review of these elements can help honors programs identify which aspects of their programs are most beneficial to their transfer students. Future researchers can review this through quantitative survey data or qualitative methods, such as a postpositive phenomenological approach that identifies shared experiences associated with increased graduation frequencies.

Summary

This study's primary purpose was to investigate whether there was an association between honors participation and graduation frequency for transfer students. Results from this discovery support two fundamental objectives. First, graduation frequency, especially among special populations (including transfer students), is a student success metric that comprises a large percentage of the university funding formula. As such, universities invest resources in programs that help to improve student success metrics. Often these resources focus on helping at-risk and underserved populations. However, this study has shown that improvements in graduation rates for high-ability students also significantly impact student success metrics. Therefore, reviewing the impact of honors participation on graduation frequency is necessary when reviewing pathways that help all students succeed.

Second, the honors community has been charged with creating a more inclusive environment, and encouraging transfer student participation within honors helps to

increase diversity within the program. It is vital to remember that high-ability students can intersect with high-risk populations (e.g., underserved populations, first-generation students, transfer, and non-traditional). Therefore, improving diversity within honors programs can help a broader range of high-ability students succeed since honors participation is associated with higher graduation frequency.

Institutions have an obligation to help all students succeed, and honors programs have been charged to continue to evolve and remove barriers to access for all students. Beyond the funding formula metrics and data analysis reviewed in this study, the heart of this research is centered on the well-being and development of transfer students. As a high-impact practice, honors programs are distinctly qualified to provide an environment that builds on Renzulli's concept that gifted education assists students in identifying their strengths and abilities and offers corresponding enrichment opportunities (Renzulli, 1999). Honors can also provide the opportunity for students to find a sense of belonging (Baumeister & Leary, 1995; Strayhorn, 2010). The relationships that students create with honors faculty and staff and the opportunities these students have for personal and professional growth have impacts that go well beyond the singular metric of graduation percentage. Data is just the tool that allows us to share our results, improve our practices, and continue to help the next cohort of students to achieve success through inclusion.

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APPENDIX A

IRB APPROVAL

1/24/23, 9:49 AM

[EXTERNAL] IRB-FY2023-16 - Initial: Initial Exempt Protocol Approval Letter

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
Tue 1/24/2023 8:02 AM
To: Jim K. Rost <Jim.Rost@mtsu.edu>;Judy R. Albakry <Judy.Albakry@mtsu.edu>

Office of Research Compliance
2269 Middle Tennessee Blvd.
Sam H. Ingram Bldg (ING) Room 010A
Box 124
Murfreesboro, TN 37132
www.mtsu.edu/irb

Date: January 24, 2023
PI: Judy Albakry
Department: Dean University Honors College, Womack Educational Leadership
Re: Initial - IRB-FY2023-16
Success Through Inclusion: Impact of Honors Participation on Transfer Student Graduation Percentage at Four-Year Institutions

The Middle Tennessee State University Institutional Review Board has rendered the decision below for Success Through Inclusion: Impact of Honors Participation on Transfer Student Graduation Percentage at Four-Year Institutions.

Decision: Exempt
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.

Findings:
Research Notes:

Please note:

Any modifications to the approved study must be submitted for review through Cayuse IRB.

Any unanticipated harms to participants or adverse events must be reported immediately to the Office of Compliance, and relevant changes to the protocol must be submitted to the IRB for approval before implementing this change.

According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to complete the required training. If you add researchers to an approved project, please add the researchers to the project within Cayuse IRB **before** they begin to work on the project.

All research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion and then destroyed in a manner that maintains confidentiality and anonymity.

You must submit an end-of-project form to the Office of Compliance in Cauyse IRB upon completion of your research. Completed research means that you have finished collecting data.

All approval letters and study documents are located within the Study Details in Cayuse IRB.

We wish you a successful research project,

Middle Tennessee State University Institutional Review Board