Toward Student Success: The Impact of Honors Participation on Transfer Student Graduation Rates

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Abstract: While numerous studies have shown evidence of higher completion frequencies for first-time freshmen who participate in four-year honors programs, research has yet to reveal how honors programs might impact outcomes for 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, honors participation, and the number of honors credits earned. The findings indicate that the association between honors participation and graduation frequency was statistically significant for similarly abled transfer students. The number of attempted honors credits, however, was found to have no significant association. The study calls for more institutional support and an increased focus on integrating transfer students into honors programs.

Keywords: higher education—honors programs and colleges; honors inclusivity; transfer student outcomes; engagement and belonging; high-impact practices

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INTRODUCTION

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 transfer (four-year to four-year) to vertical transfer (two-year to four-year). 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 Barack Obama's administration 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, including Tennessee, have joined this national initiative, resulting in many changes to educational policy, governing structures, and curriculum offerings within higher education over the past two decades.

This focus on transfer students is needed as nationally collected data reveal that transfer students encounter added difficulty graduating from a four-year institution on time compared to non-transfer students. For example, the National Student Clearinghouse Research Center's *Tracking Transfer* (2021) and *Completing College* (2023) 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).

Reports in the *Chronicle of Higher Education* (Kafka, 2020) and *Inside Higher Ed* (*Survey*, 2020) state that more than 80% of students at two-year institutions hope to transfer and complete a four-year degree. However, fewer than 30% end up doing so within six years (*Survey*, 2020). To give context to these percentages, according to fall 2021 IPEDS (Integrated Postsecondary Education Data System) data (National Center for Educational Statistics, 2021a, 2021b), there were 4.5 million students enrolled in public two-year institutions and 1.2 million transfer students enrolled in postsecondary institutions (based on 3,421 institutions). While transfer students compose 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).

Given that transfer students traditionally graduate at a lower rate, targeting and improving transfer students' graduation percentages (or rates) is one way to augment an institution's overall six-year graduation

percentage and the total number of degrees conferred. Furthermore, these two measurements (graduation percentage and degrees conferred) constitute a significant component of performance-based funding for many public institutions (Podesta et al., 2020). In addition to advantaging students, improving graduation frequency for transfer students is a critical component of student success for public institutions whose operating budgets depend on outcome-based funding formulas. To achieve this goal, institutions create or promote initiatives, such as high-impact practices (HIP), to support students' engagement and retention to increase graduation frequency. 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). As a high-impact practice, honors education prides itself on providing students with opportunities to engage fully in their coursework. As stated in the National Collegiate Honors Council's (2013) *Definition of Honors Education*, one way that students achieve this engagement is through enrollment in smaller classes designed to provide more significant interaction and enhanced discussion. 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. Many honors programs also provide opportunities for co-curricular offerings, including, but not limited to, research experiences, internships, study abroad experiences, fellowship offices, community spaces (including honors-designated dorms or academic spaces), specialized honors advising, and professional development opportunities. These opportunities allow students to develop their sense of identity and belonging to an institution (National Collegiate Honors Council, 2013).

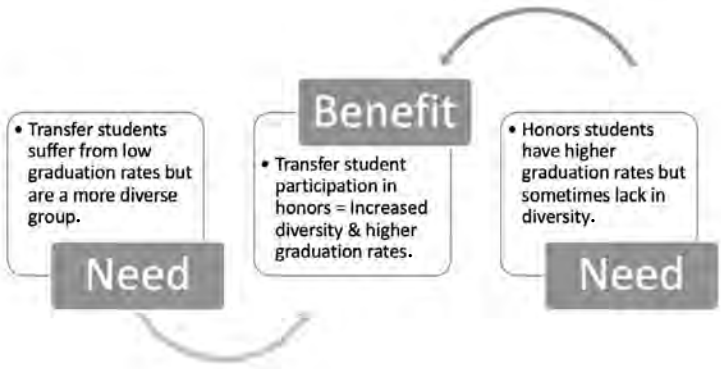
Previous research has shown that students who participate in honors have a higher graduation percentage (Cobane & Jennings, 2017; Cognard-Black, 2019; Cosgrove, 2004; Diaz et al., 2019; Furtwengler, 2015; Keller & Lacy, 2013; Patton et al., 2019). However, this research has focused on students who entered as first-time first-year students at a four-year institution. There is a lack of quantitative research regarding the impact of honors education on transfer student outcomes in terms of student success, retention, and graduation percentages.

One other benefit of transfer student participation in honors programs is that it can improve honors inclusivity. A criticism often leveled at honors is that it can be elitist (Weiner, 2009). To counter this criticism,

increasing diversity in honors programs is now frequently a central tenet in honors-focused journal articles and conference themes (Coleman et al., 2017; Graeme Harper, 2018; Jones, 2017; Yavneh Klos, 2018). Many honors programs have actively been working to increase access to improve diversity (Badenhausen & Buss, 2022). Badenhausen and Buss further argue that many honors programs already have pathways for transfer student participation, but another study has found that these pathways are not always clearly articulated or advertised (Bahls, 2018). One way to achieve diversity goals is to further promote the inclusion of transfer students within honors programs. Diversity will be enhanced because transfer students, especially those from community colleges, tend to include various socioeconomic backgrounds, underrepresented groups, first-generation students, and nontraditional students (Calcagno et al., 2008; Glynn, 2019; Jenkins & Fink, 2016; Umbach et al., 2019). Diversifying programs meets the moral obligation to increase access for all students, and as many studies have shown, increasing diversity is correlated with improved outcomes that include financial performance, creativity, innovation, teamwork, research, communication, and open-mindedness (Phillips, 2014).

The inclusion of transfer students into honors programs at four-year institutions is thus mutually beneficial and can potentially meet two needs: first, to increase diversity within honors programs, and second, to provide more opportunities for transfer students to participate in high-impact practices associated with higher graduation frequencies (Figure 1).

Figure 1. The mutual benefit of transfer student participation in honors programs



LITERATURE REVIEW ON POSITIVE EFFECTS OF TRANSFER STUDENTS IN HONORS

Initial Enrollment in Community Colleges

One of the common reasons for students to initially enroll in a community college may be financial restrictions or considerations. Tuition and fees at a community college are significantly lower than at a four-year institution. For example, in 2022, the average yearly cost of tuition and fees for community colleges was $3,860 compared to $10,940 at four-year public institutions (American Association of Community Colleges, 2022). Additionally, according to Calcagno et al., (2008) and Glynn (2019), community colleges tend to enroll more low-income or Pell Grant-eligible students; this is true for Tennessee as seen in Table 1 (Tennessee Higher Education Commission, 2022).

Table 1. Percentage of Tennessee Student Demographic Categories within All Institutions by Institutional Type 2021–2022

Institution Type	Pell Grant Eligible	Nontraditional
Community College	55.7%	28.1%
University	42.5%	13.3%

Note: Data compiled from the *Tennessee Higher Education Fact Book* 2021-2022.

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). Location can also 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., 2019).

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, 2019). Other students may meet university admission requirements but not feel academically ready for the rigor of a four-year

institution. Finally, community college is often attractive to nontraditional students (Community College Research Center, 2021). As seen in Table 1 above, nontraditional students make up a higher percentage of Tennessee community colleges' overall student population than four-year institutions. This group of students either starts college later in life or returns to the classroom after a lengthy absence (Bellare et al., 2021; Leggins, 2021). Reasons for nontraditional preference for community colleges may include financial considerations, academic readiness, distance from home, or increased availability of evening or online classes (Bellare et al., 2021).

Gifted and High-Achieving Transfer Students

Two areas of potential improvement in transfer student graduation rates concern low-income students and those who fall within one or more of the categories that make up giftedness, high-achieving, and high-ability transfer students. First, community college demographics include higher percentages of low-income students. 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 now benefit from more rigorous coursework as they progress through their degree requirements (Glynn, 2019). While each group has its own needs and challenges, low-income 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 within lower socioeconomic status groups, benefit from specific programs targeted to their needs.

Giancola and Kahlenberg's 2016 report comprehensively reviewed the admission processes of highly selective institutions and the barriers students from low-income 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. The authors found that when admitted to highly selective institutions, these lower-income students succeeded at higher rates but still represented a minimal percentage of the overall student population. The authors suggest that in this current era, when 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).

Jenkins and Fink's 2016 *Tracking Transfer* report found that institutional practices matter just as much as, if not more than, institutional characteristics for transfer student success. They further found that transfer students had higher completion rates at public institutions, highly selective institutions, and institutions with higher socioeconomic status students. Glynn's 2019 report builds on Giancola and Kahlenberg's 2016 study but also draws on data from Jenkins and Fink's 2016 report to investigate the impact of highly selective institutions on transfer student success. After reviewing overall transfer numbers and disaggregating the numbers, Glynn found 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 other four-year institutions.

Glynn's 2019 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 twofold. First, highly selective institutions can improve their socio-economic 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.

All these published reports should be of interest to honors programs, particularly in less selective institutions. If high-ability transfer students fare better at highly selective institutions, it would be logical to predict that they may also receive similar benefits by participating in honors programs at less selective institutions since honors programs are often touted as bringing an "ivy league education" to more students (Weiner, 2009, p. 21).

Honors

The surge of initiatives related to the Complete College Act and the rise of honors programs at the community college level equate to an increase in high-ability transfer students who may wish to participate in honors at the four-year level. Previous research on supporting transfer students (Calcagno, 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. Recent studies

have expanded 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 general there is a relative scarcity of research regarding transfer students in honors programs. A few published studies have shown how honors education can impact or improve outcomes for community college students (Bennett, 2021; Bulakowski & Townsend, 1995; Floyd & Holloway, 2006; Honeycutt, 2017; Korah et al., 2019). The research on honors transfer students at the four-year level is similarly limited. The few relevant studies highlight the need to increase honors opportunities for transfer students (Bahls, 2018), offer suggestions on how to create or improve memorandums of understanding (MOU) agreements between two-year and four-year honors programs (Frana & Rice, 2017), and discuss several ways to support transfer students at the four-year institutions (Thomas et al., 2019). Further research, however, is needed to examine the impact of honors education once a transfer student matriculates to a four-year institution, which is the goal of this study.

Theoretical Framework

Student success has many definitions (Manyanga et al., 2017; York et al., 2015). In its simplest form, student success is narrowly defined as 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 a particular institution, this metric is just one facet of the broader definition of success.

To build a variegated framework that sheds light on the multi-dimensional aspects and best practices that support student success, I draw on the work of the following researchers: 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). Additionally, Strayhorn's (2012) work on student engagement, especially among diverse students, informs the effective facets of how transfer students' sense of belonging impacts their success in college.

Effective Teaching and High-Impact Practices

Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education" (1987) 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. (p. 2)

Each practice can stand on its own merit, and additional forces are employed when educators can combine them all. These forces include activity, cooperation, diversity, expectations, interaction, and responsibility (Chickering & Gamson, 1987).

George D. Kuh's 2009 work augments Chickering and Gamson's theory by classifying specific types of instruction or support as high-impact practices (HIP). His emphasis on HIPs was based on evidence from several studies that showed higher levels of engagement when institutions purposefully develop policies and practices targeting learning and personal development (Kuh, 2009). 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).

Chickering and Gamson's seven principles and Kuh's high-impact practices reflect the engagement elements within honors education. This construct is exemplified in the National Collegiate Honors Council's *Definition of 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. 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. (National Collegiate Honors Council, 2013, Section A)

Giftedness and High-Ability

Renzulli's (1998) work identifies giftedness and develops academic programs to promote giftedness and creativity. The "Three-Ring Conception of Giftedness" was initially created 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 demonstrating giftedness: above-average general or specific abilities (or both), high levels of task commitment, and high levels of creativity (Renzulli, 1978). In this model, giftedness occurs at the intersection of all three rings.

Building on the three-ring conception of giftedness, Renzulli in conjunction with Reis and Smith developed the Revolving Door Identification Model (Renzulli et al., 1981). 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 classification system challenged the traditional exclusivity of including only "top ability" students in gifted programs. 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).

While largely aimed at primary school students, Renzulli's Three-Ring Conception of Giftedness and his later collaborative work in creating tiered systems for identifying students with giftedness potential and providing them with enrichment opportunities can also apply to college-level programs. Many honors programs, for instance, rely on metrics beyond GPA and test scores (standardized metrics) for admission and instead choose to evaluate students more holistically, echoing Renzulli's ideas. Renzulli's tiered levels of support are further evident when a student's involvement is scaffolded in honors programs over time with additional opportunities that become available as students make progress through the program's requirements. Finally, honors programs provide additional support services for gifted students to reach their fullest potential (Colangelo, 2018).

Not all honors students meet the definition of giftedness, and not all gifted students benefit from an honors education (Guzy, 2018). Honors students may also include high-ability or high-achieving students (Kotinek, 2018), who can be represented in just two of the rings in Renzulli's Three Ring Conception of Giftedness (Above Average Ability and Task Commitment) but 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).

Student Engagement and Belonging

Terrell Strayhorn's (2012) work expands on the work of several educational researchers (Bean, 1985; Kuh, 2009; Pascarella & Terenzini, 2005; Spady, 1994; and Tinto, 1993, among many others) who posit that a student's involvement, attitudes, and beliefs are primary reasons for retention and eventual graduation. 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 (2012) purposefully examines diverse student groups to investigate how their sense of belonging impacts their success in college. Through his work, Strayhorn 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 (p. 22). Additionally, he purposefully investigates 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.

Strayhorn's (2012) theory of belonging among diverse students connects to the shared principle of inclusive excellence in honors education (National Collegiate Honors Council, 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" (National Collegiate Honors Council, 2013, Inclusive Excellence section). This principle of inclusivity can be particularly impactful for transfer students who are able to participate in honors at four-year institutions, which can 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.

Drawing on the previous theories, concepts, and practices, I propose a student success framework that identifies the main constructs that could help us understand the relationship between graduation frequency and transfer student participation in honors. These constructs include engagement (Chickering & Gamson, 1987; Kuh, 2009), belonging (Strayhorn, 2012), and giftedness and high achieving (Renzulli, 1978, 1998, 1999; Renzulli et al., 1981), which form a triad model for student success in honors (see Figure 2).

Figure 2. Triad Model of Student Success in Honors

METHODOLOGY

This study is motivated by the dual needs to increase transfer student graduation frequency and 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.

Research Questions and Hypotheses

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

H1: Student participation in honors classes is associated with graduation frequency among similarly abled transfer college students.

Question 2: Is there an association between the number of honors credits a transfer student attempts and graduation frequency?

H2: The number of honors courses completed is associated with graduation frequency among honors students.

Data Collection and Subjects

This longitudinal research study used archived institutional records to collect information regarding four cohorts of transfer students who initially met the institution's honors eligibility GPA criteria (≥ 3.25 incoming GPA) at a large public university in Tennessee. The data set also 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 cohorts in the investigation included transfer students entering the fall semester of 2013 through 2016. The study included these years since they hold 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).

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. The study employed a retrospective, ex post facto approach. Chi-square tests, *Cramer's* V, and an odds ratio were performed on the two main variables (honors participation and transfer student graduation frequency) to establish the association between the two variables and the effect size.

The overall sample sizes of the two comparison groups are not equal. This disproportion exists because fewer students take honors courses than are eligible (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 can 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, the goal is

to ascertain whether there is an association between graduation and honors participation while controlling for incoming GPA.

In addition to the initial chi-square analysis, this study uses *Cramer's V* to determine the effect size among the variables. In addition to *Cramer's V*, an odds ratio was calculated for each research question to further determine the strength of the association among each group (group one: those who participate in honors; group two: those who do not). These ratio formulas allow us to discover which group is more likely to graduate and to what degree.

RESULTS AND DISCUSSION

Overall, 2380 students from the combined four transfer student cohorts 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 were further categorized as students who participated in honors by enrolling in one or more credit hours, 12.8% (n = 304), or students who did not participate in honors, 87.2% (n = 2076), as well as by 1–4 honors hours attempted, 6.8% (n = 162), or five or more honors hours attempted, 6% (n = 142).

Table 2. 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%
Graduated		
Yes	1794	75.4%
No	586	24.6%

Results

Research Question 1

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

Table 3 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 five. Results from Table 3 demonstrate a significant association between honors participation and student graduation for all students—$X^2(1) = 11.559$, $p = .001$; *Cramer's V* = .070, $p = .001$—indicating 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 (74.2%).

Table 3. 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 the number of honors credits a transfer student attempts and graduation frequency?

Table 4 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 4 demonstrate no significant association between the number of honors hours attempted and graduation among 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.

Analysis

This study tested two 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, I posited that student participation in honors classes is associated with graduation frequencies. The contingency table results confirmed a significant association between 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 size (.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 relationship found in *Cramer's V* for this test. Also, previous research on transfer students has already shown that higher starting GPAs are correlated with higher graduation percentages (LaSota &

Table 4. 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	
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 $V = .103$, $p = .073$.

Zumeta, 2016), thus explaining the relatively high graduation frequency for this group as a whole (75.4%). However, honors participation may improve transfer graduation rates within this group since the chi-square analysis showed that the difference in graduation frequencies between honors students (83.2%) and non-honors (74.2%) is significant.

The second 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 ($n = 304$) may have impacted the results of this test, but the test results still provide insights into the impact of honors participation within this group.

The heart of this research is centered on the well-being and development of transfer students. As such, the findings can be informed by the framework of the Triad Model of Transfer Student Success in Honors. Honors programs allow for more individual attention, multiple contacts between students and faculty, and more opportunities for feedback (Chickering & Gamson, 1987). They also provide more space for other high-impact instructional and interpersonal practices such as seminars and learning communities (Kuh, 2009). 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). Finally, honors can also provide the opportunity for students to find a sense of belonging (Strayhorn, 2012). Of equal importance is that the relationships students forge 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.

RECOMMENDATIONS FOR PRACTICE

The major findings in this study concluded the following: (a) honors participation is significantly associated with graduation frequency for transfer students, and (b) there is no significant association among the number of honors credit hours attempted and graduation frequency within the group of students who participate in honors. The study does not prove a causation between honors participation and graduation frequency, but it does show that a significant association exists between the two variables and that transfer students who participate in honors are 1.72 times more likely to graduate. This increase in graduation frequency is critical to review when institutions look at how best to support their transfer students and meet institutional goals.

The focus on transfer students should start 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.

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 ought to, therefore, 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.

LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

This study is limited to the investigation and data collection of transfer student graduation frequencies by its sample size and the fact that its subjects come from a single site. Although controls were implemented to compare transfer students with similar academic backgrounds, many other variables besides honors participation may affect graduation frequency. 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 or low-income status as a variable due to institutional restraints. 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 low-income students in honors programs will improve diversity within honors programs. Once included, a periodic review of this sub-population's progress and trends is necessary so that programs can find ways to best support low-income students.

Finally, 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.

CONCLUSION

The findings of this study support two fundamental objectives. First, graduation frequency, especially among special populations (including transfer students), is a student success metric that often includes a substantial percentage of the university funding formula. Universities invest resources in programs that help to improve student success metrics such as retention and graduation. Often these resources focus on helping at-risk and underserved populations. However, this study has shown that improvements in graduation rates for high-ability transfer 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. High-ability transfer students intersect with diverse and underserved populations. Therefore, improving diversity within honors programs can broaden the range of success since honors participation is associated with higher graduation frequency. If the aphorism "a rising tide lifts all boats" applies to higher education, then transfer student success in honors will benefit both the honors program and the broader institutional mission.

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