UPWARD TRANSFER OF COMMUNITY COLLEGE STUDENTS: A MULTIYEAR, ANALYSIS

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

Sam Houston State University

In Partial Fulfillment

of the Requirements for the degree of

Doctor of Education

---

by

America Yolanda Lopez

May, 2022

UPWARD TRANSFER OF COMMUNITY COLLEGE STUDENTS: A MULTIYEAR, ANALYSIS

by

America Yolanda Lopez

_____

APPROVED:

Dr. John R. Slate
Dissertation Chair

Dr. Frederick C. Lunenburg
Committee Member

Dr. Cynthia Martinez-Garcia
Committee Member

Dr. Janene W. Hemmen
Committee Member

Dr. Stacey Edmonson
Dean, College of Education

DEDICATION

I dedicate my dissertation to my Dad, who has been my number one supporter, the person who has encouraged me all my life and gave me one of the greatest gifts a father can give to a rebellious daughter; he believed in me. He believed in me even when I was not sure about myself. He was patient enough to walk by my side even when I was slow at discovering the wonderful world of learning.

I dedicate my dissertation to my children Mateo and Sofia, who have been my support system, companion, and inspiration to be better. We are a strong team that works together and looks for the best option to move forward and grow even in difficult times.

To my family and friends here and around the world who have perfected the art of listening and uplifting. To my partner who has been by my side during this journey with a smile, unconditional love, and patience.

ABSTRACT

Lopez, America Yolanda, *Upward transfer of community college students: A multiyear, analysis.* Doctor of Education (Educational Leadership), May 2022, Sam Houston State University, Huntsville, Texas.

Purpose

The overall purpose of this journal-ready dissertation centered on community college students in Texas, was to determine the degree to which changes had occurred in upward transfer rates. The first specific purpose was to establish the degree to which changes had occurred in upward transfer rates for Asian, Black, Hispanic, and White community college students in the 2015-2016 academic year through the 2020-2021 academic year. A second purpose was to determine which changes existed in upward transfer rates for Pell grant recipients, non-Pell grant recipients, and low-income community college students in the 2015-2016 academic year through the 2020-2021 academic year. The final purpose of this study was to ascertain the extent to which changes had occurred in upward transfer rates for first-generation community college students in the 2015-2016 academic year through the 2020-2021 academic year.

Method

A causal-comparative research design was present for all three studies. Archival data from a public community college in Texas were obtained and analyzed for the 2015-2016 academic year through the 2020-2021 academic year.

Findings

The overall trend of upward transfer rates of students at this one community college from the 2015-2016 academic year to the 2020-2021 academic year was the presence of similar upward transfer rates by student ethnicity/race. Asian, Black,

Hispanic, and White students transferred at almost the same rates. Similarly, the upward transfer rates as a function of socioeconomic status were similar for both Pell grant recipients and non-Pell grant recipients. The overall trend in upward transfer rates as a function of first-generation status was also the presence of similar upward transfer rates for both first-generation and non-first-generation students. Contrary to other researchers, however, underrepresented students did not have lower upward transfer rates than their counterparts based on their race/ethnicity, economic status, or first-generation status. A progressive decline in upward transfer rates was observed for all groups from the 2015-2016 academic year to the 2019-2020 academic year. Finally, community college students upward transfer rates for all groups declined dramatically by up to 30 percentage points from the 2019-2020 academic year to the 2020-2021 academic year.

Keywords: Asian; Black; Community college; Economically disadvantaged; First generation; Race/Ethnicity; Hispanic; Pell grant; Upward transfer; 4-year university; White.

ACKNOWLEDGEMENTS

I want to express my sincere gratitude to my chair, Dr. John R. Slate, whose guidance has been invaluable during my doctorate program and the dissertation. Dr. Slate always had a positive attitude and has been enthusiastic about the dissertation process. His work ethic, unconditional support, and experience go beyond the expected. Dr. Slate is a "Machine" who provides valuable and timely feedback, without missing even a comma. Always expecting the best to help me grow academically, Dr. Slate is not just a chair but a mentor.

I want to express my most profound appreciation to my Dissertation Committee Members, Dr. Frederick C. Lunenburg, Dr. Cynthia Martinez-Garcia, and Dr. Janene W. Hemmen, for offering constructive feedback and supporting me throughout this process. I want to acknowledge all my professors for challenging me and always promoting academic excellence. A special "Thank You" to Dr. Paul Eaton for his overall insights, humanity, and invaluable positive influence that has made this an inspiring experience to me.

I am deeply indebted to my colleague, peer, doctoral, and dissertation partner, Alisa McLendon, with whom we have walked "hand to hand" to make this dream possible, to overcome stress, despair, scholarship applications, deadlines, ANOVAS, and more. To my fantastic Cohort 41 family, thank you for the unity, the motivation, and the resolution to ensure that no one was left behind. I want to extend my deepest gratitude to my Lone Star College colleagues. Especially my RDA family, who have been on my side during this process. Specially Cyndi, Victoria, Charis, Dave, and Jennifer, for such an incredible support system that has undoubtedly made a huge difference.

I am incredibly grateful to my kids Mateo and Sofia and my partner Vincenzo for being patient and being by my side during the long working hours, for pushing me when I thought I was not able to go forward, for keeping me sane, and for reminding me that this has been my dream and that they were there to help me accomplish it.

My friends Isabel and Silene for their continuous support, my neighbors for the warm meals and the opportunities to relax, and my mentors Dr. Bernice Strauss and Dr. Jackie Thomas for their words of wisdom.

To my family in Ecuador, particularly helpful to me during this time was my sister Veronica for being my "Mama Churucuta," who provided me with strength and example to move forward. To my mom, siblings, nieces, and nephews, especially Verito. To my daughter Sofia and my "adopted" niece Elisa for all the time we spent studying and growing together.

Today as I looked back at how my dreams have materialized into reality, you all and those who I have forgotten to mention stand clearly in my mind. You patiently listened to my challenges, understood them, and motivated me to push harder in life.

TABLE OF CONTENTS

Page

LIST OF TABLES

Table **Page**

LIST OF FIGURES

Figure **Page**

CHAPTER I

INTRODUCTION

Community college students represent 44% of all undergraduate students enrolled in postsecondary settings in 2017-2018; of these community college students, 80% aspire to transfer and earn a bachelor's degree or higher. Unfortunately, only 31% transferred to a 4-year university from the 2013 cohort (Community College Research Center, 2021). In Texas, 70% of all college students take at least one course at a community college, but the transfer rate is low at 24.1% and only half of the students who transfer graduates with a bachelors degree in four years of transfer (Texas Higher Education Coordinating Board, 2020).

The transfer from a 2-year to a 4-year Institution of Higher Education is known as upward transfer, "a term used to describe a student's transition from a community college or primarily associate's degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153). Upward transfer is a decisive indicator when analyzing postsecondary success, especially when most students start at community college intending to transfer to earn a bachelor's degree or higher. The percentage of students who transfer is low at the national and state level. Still, researchers (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) examining upward transfer have documented that not all students transfer at the same rate.

The focus of this journal-ready dissertation is on student transfer as a function of race/ethnicity, economic status, and first-generation status. These emphases are important because researchers (e.g., Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wang, 2009;

Wawrzynski & Sedlacek, 2003) have established that certain demographic factors could predict transfer from a community college to a 4-year university. Demographic factors that play a crucial role in lowering upward transfer rates include age, ethnicity/race, socioeconomic status, and risk factors such as being a first-generation student (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wawrzynski & Sedlacek, 2003).

Literature Review for Upward Transfer and Race/Ethnicity

Community colleges are an essential part of the postsecondary makeup of the United States. Nationwide, 1 out of 4 undergraduate students attends a community college, and 8 out of 10 aspire to transfer to a 4-year university with the intention to get a bachelor's degree. Unfortunately, only 3 out of 10 reach their goal of transferring (Community College Research Center, 2021) to a 4-year university. The transfer from a 2-year to a 4-year institution of higher education is known as vertical transfer or upward transfer, "a term used to describe a student's transition from a community college or primarily associate's degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153).

Studies on upward transfer have generally been divided into institutional-level factors and student-level factors. Studies about institutional level factors have been centered on credit mobility, which refers to the "transfer of credits from a sending to a receiving institution" (Hodara et al., 2017, p. 331). Another focus has been on co-enrollment. For example, Wang and Wickersham (2013) identified two types of co-enrollment: lateral co-enrollment, "where students simultaneously enrolled at institutions of the same level as their first institution" (p. 173), and vertical co-enrollment, "where students had ever concurrently attended multiple institutions of different levels" (p. 173).

Also, studies have been centered on analyzing institutional culture of transfer (Felix & Trinidad, 2018). Finally, in state and institutional policies such as transfer and articulation agreements between 2 and 4-year institutions have been the emphasis of some studies (Bragg, 2017; Giani, 2016).

Among those researchers (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) who have investigated student-level factors, scholars have concentrated on the relationship between upward transfer and student demographic factors. Numerous authors (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) have emphasized the need to understand the nature of upward transfer among historically underserved students. For example, Crisp and Nunez (2014) stated that considerable transfer equity gaps were present among Hispanic and Black students.

According to Bragg (2017), "transfer is one of the most important aspects of higher education today and moving forward" (p. 269). Participation in upward transfer differs depending on the student population. Accordingly, it is necessary to understand the importance of disaggregating student data by race/ethnicity, among other defining student characteristics (Bragg, 2017; Fink & Jenkins, 2017; Giani, 2016). Understanding upward transfer differences is essential in the ever-growing diverse postsecondary environment where the number of students of color is increasing. For example, the percentage of undergraduate students of color has increased from about 30% to 45% between 1995 and 2015-2016 (Espinosa et al., 2020). An increasing number of students of color are enrolling in community colleges (Espinosa et al., 2020).

Upward transfer is critical for student success and completion. As such, support services, policies, and programs need to be implemented according to the student demographic being served. Bragg (2017) stated that transfer research should "delve deeply into understanding the experience of students of color…" (p. 271). Transfer needs to be implemented in equity-minded ways (Chase et al., 2012; Crisp & Nunez, 2014). Reducing the ethnic/racial transfer gap is vital as a growing diverse population of students enrolls in community colleges whose students desire to transfer to 4-year universities. Although 80% of community college students reported their intention to transfer to a 4-year university, only around 23% to 30% reached their goal of transferring in the 2014 to the 2019 academic years (Community College Research Center, 2021; Crisp & Nunez, 2014).

A better understanding of upward transfer for students of color is critical for the nation but even more relevant for states such as Texas, where the majority of the population is no longer White (Chase et al., 2012; Crisp & Nunez, 2014). According to the Institute for Demographic & Socioeconomic Research (2021), in 2019, the minority population in Texas reached 58.1%. Of note is that Texas is one of the states with a high number of community colleges and a state where Hispanic and Black students account for 6 out of 10 students enrolled in a Technical College System (Chase et al., 2014).

"Texas relies more heavily on two-year institutions to deliver undergraduate education than any other state" (Jenkins, 2013, p. 2); thus, upward transfer is paramount for the state. Upward transfer in the United States is inefficient, but it is even more so in Texas (Jenkins, 2013). The majority of community college students in Texas aspire to transfer (Bailey et al., 2017; Jenkins, 2013), but transfer rates are low. Only 35% transfer

and only 15% earn a bachelor's degree within six years (Bailey et al., 2017). According to data reported at the Texas Higher Education Coordinating Board 2020 Almanac, the transfer rate in Texas is low at 24.1%; and only 59 out of 100 students graduate within four years of transfer (Texas Higher Education Coordinating Board, 2020).

To address this issue of transfer, Texas has instituted several policies intended to promote and to facilitate student transition among higher education institutions, including the Texas General Education Core Curriculum, the Common Course Numbering, statewide major-related transfer agreements, and reverse transfers (Bailey et al., 2017). In theory, the 2 + 2 sequence (two years at a community college and two years at a 4-year university) should be an ideal path toward earning a bachelor's degree, especially for low-income students who can save money during their two first years of postsecondary education. In reality, only 18% of students who transfer in Texas earn an Associate degree before transferring, compared to 29% nationwide and 58% in Florida (Bailey et al., 2017), one of the states with more robust transfer policies (Jenkins, 2013).

The Texas Higher Education Coordinating Board adopted the Closing the Gaps plan in 2000 to "Increase by 50 percent the number of degrees, certificates and other identifiable student successes from high quality programs" (2005, p. 2). This plan included four goals: (a) to close the gaps in student participation, (b) student success, (c) excellence, and (d) research. This plan was created to close the enrollment and graduation gaps between racial/ethnic groups in the state (Texas Higher Education Coordinating Board, 2005).

The Closing the Gaps in success goal included provisions for seamless student transitions, supporting students to transition through the Texas Education System,

including transitions from community colleges to universities. The emphasis was on increasing the number of Black and Hispanic students who complete associate's and bachelor's degrees (Texas Higher Education Coordinating Board, 2005). Interestingly, the word transfer was not mentioned on the Closing the Gaps Texas higher education plan; instead, the focus was on a seamless transition.

In 2001, the Texas Higher Education Coordinating Board appointed the Transfer Issues Advisory Committee to assess the transfer of academic credit among institutions of higher education in Texas, supporting the Closing the Gaps in success goal (Texas Higher Education Coordinating Board, 2001). The Transfer Issues Advisory Council concluded that the transfer of credits between institutions was generally efficient (Texas Higher Education Coordinating Board, 2001). Still, the transfer of core curriculum credits was more problematic for specific academic fields (Bailey et al., 2017; Texas Higher Education Coordinating Board, 2001).

The 60x30TX Higher Education Plan replaced the Closing the Gaps plan. This new plan regulates higher education in Texas from 2015 to 2030. The 60x30TX aims to increase the number of adults age 25 to 30 who hold a certificate or degree to 60% by 2030 (Texas Higher Education Coordinating Board, 2015). Similar to the Closing the Gap plan, the 60x30TX plan emphasizes the critical role of transfer between 2-year colleges to 4-year universities, including the need to facilitate transfer of 42 semester credit hours that are fully transferable and count toward a bachelors degree (Texas Higher Education Coordinating Board, 2018).

Literature Review for Upward Transfer and Economic Status

The path to earning a bachelors degree is not the same for all students. Some students enroll in a 4-year university after high school graduation, whereas other students enroll in a community college intending to earn credits and transfer to a 4-year university to earn a bachelors degree. This latter group who aspires to earn a bachelors degree following the 2+2 pathway is increasing. At the present time, it represents 44% of all undergraduate students nationally (Community College Research Center, 2021). The complexity of the postsecondary education environment due to the different pathways available to earn a bachelors degree is heightened by the diverse student populations that attend specific institutions of postsecondary education.

Community colleges serve a majority-minority student population, including minority racial/ethnic student populations, non-traditional age, and low-income students (Xu et al., 2018). For instance, overall, 51% of community college students identify as a racial/ethnic group other than White (Ma & Baum, 2016). Hispanic students are overrepresented in public community colleges, whereas Black students are overrepresented in for-profit colleges (Ma & Baum, 2016). Community colleges are home to a higher percentage of non-traditional students (i.e., students who are over 25 years of age or older). Non-traditional students ages 25-59 are overrepresented in 2-year public colleges (43%) compared to all higher education institutions (36%) (Beer, 2021). Finally, an increase has been documented in the number of students in poverty who enroll in colleges and universities; "the rise of poor and minority undergraduates has been more pronounced in public two-year colleges" (Fry & Cilluffo, 2019, p. 3).

Some students attending postsecondary education are considered dependent students because their family income includes their own income and their family's income. Other students are considered independent students as their status is based on their own income and the income of their spouse (Choy & Bobbitt, 2000). According to the Community College Research Center (2021), among dependent students attending a 2-year college, 23% have an income of less than $20,000, 28% have an income of $20,000 to $49,999, and 49% have an income of $50,000 and higher. The percentages among independent students are very different, with 47% having an income of less than $20,000, 31% having an income of $20,000 to $49,999, and only 22% having an income of $50,000 and up.

Low-income students have a lower persistence and success rate (Choy & Bobbitt, 2000) than students from higher income levels. Accordingly, the government has instituted financial aid to support them. Financial aid comes in the form of Pell grants that support both dependent and independent students based on their income level. Educational attainment of a bachelor's degree is lower among Pell grant recipients compared to non-Pell grant recipients. According to Yuen (2019), the bachelor's degree attainment rate for Pell grant recipients is more than 10 percentage points lower at public colleges than the bachelor's degree attainment rate for non-Pell grant recipients.

Students attending community colleges are mainly from underrepresented populations, including low-income students who are historically marginalized (Bragg, 2017; Fernandez & Fletcher, 2014). The transition from a 2-year college to a 4-year university is called upward transfer (LaSota & Zumeta, 2016). Upward transfer is vital as 80% of community college students aspire to transfer to a 4-year university, but only

31% achieve this goal (Community College Research Center, 2021). Different demographic variables have negative effects on upward transfer (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wang, 2009; Wawrzynski & Sedlacek, 2003), including student economic status. Students with lower socioeconomic status are less likely to transfer to a 4-year institution (Dougherty & Kienzl, 2006; Gross & Goldhaber, 2009; LaSota & Zumeta, 2016; Wang, 2009, 2012; Wawrzynski & Sedlacek, 2003). Felix and Trinidad (2018) concluded that there are "inequitable transfer outcomes for low-income and students of color (p. 875).

The State of Texas relies on community colleges as "feeders for baccalaureate programs more than any other state" (Jenkins, 2013, p. 3). In Texas, the upward transfer rate is low as only 24.1% of community college students transfer to a 4-year university (Texas Higher Education Coordinating Board, 2020). In Texas, low upward transfer rates are predominantly among low-income students as higher-income students transfer at a higher rate (18%) compared to low-income students who transfer at a much lower rate (11%) (Bailey et al., 2017). In Texas, most students who earned a bachelor's degree have attended a community college (Jenkins, 2013), portraying the importance of understanding this postsecondary education pathway.

The educational attainment gap for low-income students is problematic for the State of Texas, even though the state has implemented policies to address this issue. For instance, the Advise TX program launched in 2010-2011, matched high school students with an advisor to help students determine their best postsecondary path. This program resulted in an increased number of high school students enrolled in college (Texas Higher Education Coordinating Board, 2019). This problem was also addressed in the Texas

Higher Education Coordinating Board 60x30 Plan, emphasizing the need to support low-income students to attend college (Texas Higher Education Board, 2015). As stated by Whitmire (2019), the number of students who enroll in postsecondary education after high school graduation has increased seven percentage points from 2000 (63%) to 2016 (70%). As such, the problem in higher education in the United States is not enrollment but graduation.

Numerous policies have been developed and implemented at the national and state level to improve postsecondary graduation rates, nonetheless graduation rates remain low, especially among low-income students (Association of American Colleges and Universities, 2018; Strumbos et al., 2018). In a report by the National Center for Education Statistics, only 14.6% of students from the lowest income groups earned a bachelor's degree within 10 years compared to 46% of those individuals from the highest income groups (Whitmire, 2019). In Texas, several issues concerning transfer students were addressed in the Texas Higher Education Coordinating Board (2018) report, including insufficient financial aid, deficient advising, programmatic challenges, and few opportunities to help students plan early for their academic and financial transfer pathway. These shortages have resulted in a continued trend of low upward transfer rates for community college students who spend more years in college with lower graduation rates (Texas Higher Education Coordinating Board, 2018).

Low completion rates and time to degree are problematic as several students accumulate debt but are not able to repay due to lack of credentials that would provide them with a higher income; “one of the worst case scenarios surrounding student loan debt is accruing such a debt and being unable to complete a degree that would help lead

to employment to repay the debt" (Gonzales, 2019, p. 903). Student debt is lower for students who start at 2-year colleges (Gonzales, 2019, p. 903) than for students who start at 4-year universities. However, it is still problematic, especially among low-income students who have lower incomes (Fernandez & Fletcher, 2014) and fewer resources to repay debt, a problem that is magnified if they remain in college longer, fail to transfer to a bachelorette granting institution, and do not graduate with a bachelor's degree.

Literature Review for Upward Transfer and First-Generation Status

Different student populations have lower success and completion rates in postsecondary education. These low rates affect first-generation students, a term used to identify students whose parents or guardians do not have a bachelor's degree (Garriott et al., 2015). This designation of first-generation college students is used by most institutions of postsecondary education admission offices (Brookover et al., 2021) and by the Department of Education that provides this designation to students based on "parents educational attainment and not on the student's immigration status. Parental highest education level reflects the highest degree earned by either parent" (Cataldi et al., 2018, p. 2). This group of students are usually students of color, female, from low-income families, and need to work and attend school part-time (Radunzel, 2018). Of importance to this article is that first-generation students have lower enrollment, persistence, success, and completion rates compared to their continuing generation peers (Brookover et al., 2021; Cataldi et al., 2018; Radunzel, 2018; Redford & Hoyer, 2017); thus, their postsecondary journey is different.

The number of first-generation students attending college continues to increase (Bailey & Alfonso, 2005; Garriott et al., 2015). Some national estimates were that in the

2010-2011 academic year, around one-third were first-generation students (Cataldi et al., 2018) and in the 2015-2016 academic year, one-half (Center for First-Generation Student Success, 2021a) of all undergraduate students were first-generation students. Community colleges play an important role in the postsecondary journey of many non-traditional students (Jabbar et al., 2017), including first-generation students whose attendance is more prevalent at this type of institution. First-generation students represent 42% of the student population at 2-year colleges, compared to 23% of the undergraduate student population at 4-year universities (Cataldi et al., 2018).

In the United States, community colleges play a crucial role in improving the nation's educational attainment. Among all undergraduate students, 40% attend a community college (Community College Research Center, 2021). One of the primary roles of community colleges is to facilitate transfer (Jabbar et al., 2017). Of note is that, although 80% of community college students expressed a goal of transferring to a 4-year institution to obtain a bachelors degree, only 30% actually do so (Community College Research Center, 2021). In Texas, the role of community colleges to support undergraduate students is vital as this state relies on this type of higher education institution even more than other states. Still, upward transfer does not occur at a high rate in Texas (Jenkins, 2013).

Upward transfer is "a term used to describe a student's transition from a community college or primarily associate's degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153). Researchers (e.g., Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) have centered their upward transfer

studies on student demographic factors. Researchers have highlighted some risk factors that have negatively influenced upward transfer, such as being a first-generation student (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wawrzynski & Sedlacek, 2003). Evidence exists that first-generation students are less likely to transfer from a 2-year college to a 4-year university (Radunzel, 2018; Taylor & Dimpal, 2017; Wang, 2012).

The low upward transfer rates of first-generation students can be understood by examining the connection with social capital theory (Moschetti & Hudley, 2008). Social capital theory relates to "relations among persons" (Coleman, 1988, p. 101) and plays a vital role in student degree aspiration; an important variable to understand with respect to postsecondary enrollment and educational attainment (Shahidul et al., 2015; Yu & Soki, 2019). Cultural and social capital is helpful to understand first-generation students' postsecondary journey. First-generation students are more likely to enter postsecondary education with less social capital. First-generation students might lack understanding about "the culture of higher education and its role in personal development and socioeconomic attainment" (Pascarella et al., 2004, p. 252) and skills on how to find support and resources (Moschetti & Hudley, 2008; Pascarella et al., 2004). Thus, they are at a disadvantage compared to students with highly educated parents.

Further, while social capital refers to relationships among persons and access to social networks, aspirational capital refers to the vision people have about their future (Sandoval-Lucero et al., 2014). Finally, researchers (e.g., Laanan et al., 2010; Rosenberg, 2015) have addressed transfer student capital to understand the relationship between upward transfer and social capital. Transfer student capital refers to the knowledge that

students have accumulated regarding the transfer process to enable them to transfer between institutions

Upward transfer in Texas is essential as most community college students in Texas aspire to transfer (Bailey et al., 2017; Jenkins, 2013). Readers should note, however, that only 35% of students in Texas transfer to a 4-year university (Bailey et al., 2017). Texas has endorsed several policies to promote and facilitate upward transfer, such as the Texas General Education Core Curriculum, the Common Course Numbering, and statewide transfer agreements (Bailey et al., 2017). Texas promotes the 2+2 postsecondary education journey in which students attend a 2-year college for two years and transfer to a 4-year university for the last two years to obtain a bachelor's degree. But, in reality, the transfer system is very inefficient as "There is lack of alignment between community college offering and university requirements" (Jenkins, 2013, p. 6). Less than 40% of the students transfer to a 4-year university (Bailey et al., 2017); less than 20% of the students who transfer in Texas earn an associate degree before transferring compared to 29% nationwide and 58% in Florida (Bailey et al., 2017), one of the states with more robust transfer policies (Jenkins, 2013). Texas has instituted a 42-credit framework for core general education curricula that can be transferred and must be accepted by 4-year universities. Still, students are unaware of these policies (Jenkins, 2013) and end up taking extra unnecessary credits once they transfer (Hodges et al., 2018).

Transfer student capital is essential to persist and graduate (Rosenberg, 2015). Consequently, this lack of understanding is especially detrimental for first-generation students who are disenfranchised and need extra support to navigate postsecondary

education and understand the system (Brookover et al., 2021), including upward transfer procedures (Jabbar et al., 2019; Schwehm, 2017). Different researchers provide information about first-generation students' upward transfer rates. Jabbar et al. (2017) concluded that "social capital is not deterministic for transfer success" (p. 9); community college students can gain social capital, including transfer student capital thanks to the support of faculty and advisors (Jabbar et al., 2017; Maliszewski, 2020). Still, Crisp and Nunez (2014) determined that "Having one or more parents who had earned a college degree increased the odds of successful transfer for minority students (p. 305).

Literature Review Search Procedures

For this journal-ready dissertation, the literature concerning upward transfer was reviewed. The literature review search was conducted using educational databases, including Education Source and Educational Research Information Clearinghouse (ERIC). The strategy used for searching for literature on upward transfer was an electronic search of educational databases, limiting to full-text studies published between 2000 and 2021, using the keywords community college, baccalaureate, and transfer. Later, another search was conducted, adding the keywords race, ethnicity, first-generation, low-income, and economically disadvantaged. Additional databases used in the search included the United States Census Bureau, the Texas Higher Education Coordinating Board, the American Association of Community Colleges, and the Community College Research Center. These later databases were used to retrieve relevant demographic and education-related statistical data.

Statement of the Problem

According to the Community College Research Center (2021), 80% of the students who start their postsecondary education in a community college aspire to transfer to a university to earn a bachelor's degree. However, while many students who start at a community college intend to transfer, only 31% of community college students actually transfer to a 4-year postsecondary institution in the United States. In Texas, the transfer rate is even lower than at the national level. In Texas, only 24.1% of community college students transfer to a 4-year university, and only 59 out of 100 students graduates within four years of transfer (Texas Higher Education Coordinating Board, 2020).

Upward transfer rates among different student populations are not the same. For example, the National Student Clearinghouse Research Center (2020) reported that the transfer rate of low-income students is 24%, which is substantially lower than the transfer rate of other students (40%). Additionally, noted in the same report was that the graduation rate within six years is also lower for low-income students at 10% compared to their peers at 21%.

Purpose of the Study

The purpose of this journal-ready dissertation, centered on community college students in Texas, was to determine the degree to which changes had occurred in upward transfer rates for Asia, Black, Hispanic, and White community college students in the 2015-2016 academic year through the 2020-2021 academic year. A second purpose was to determine which changes existed in upward transfer rates for Pell grant recipients, non-Pell grant recipients, and low-income community college students in the 2015-2016 academic year through the 2020-2021 academic year. The final purpose of this study was

to determine the extent to which changes had occurred in upward transfer rates for first-generation community college students in the 2015-2016 academic year through the 2020-2021 academic year.

Significance of the Study

Improving college pathways is of great concern for stakeholders in Texas and community college and university leaders. This need is even more salient among certain student populations, such as low-income, first-generation, and students of color who transfer at a lower rate than their peers (Taylor & Dimpal, 2017). For example, in Texas, students of color transfer at a lower rate; Hispanic (21.1%) and Black (15.9%) compared to White (27.2%) (Texas Higher Education Coordinating Board, 2019).

The Texas Higher Education Coordinating Board 60x30TX Higher Education Plan aims to increase the number of adults age 25 to 30 who hold a certificate or degree to 60% by 2030 (Texas Higher Education Coordinating Board, 2021b). To facilitate upward transfer, the Texas Higher Coordinating Board adopted the revised transfer rules in March 2021 (Texas Higher Education Board, 2021a). The new Texas Transfer Framework is a state strategic plan to analyze educational degrees and determine the field of study in which courses are packaged together. In addition, it provides a state mandate requiring approved fields of study to be accepted by all 4-year universities in Texas. The goal is to increase course applicability and to decrease the number of excessive credit hours students acquire to graduate (Texas Higher Education Coordinating Board, 2021c).

Although several policies have been implemented, student transfer rates remain low. Further, researchers have concentrated their efforts on analyzing transfer rates over a relatively short period of time or centered on the general student population, disregarding

the lower transfer rates of particular student populations. As such, this study will add to the existing literature available and contribute to filling a gap and providing more in-depth information that would be of value to higher education leaders in Texas.

Definition of Terms

In this journal-ready dissertation, key terms used are defined below.

Black

The term Black is used to define "The race of a person having origins in any of the black racial groups of Africa" (Texas Higher Education Coordination Board, 2017, p. 8).

Community College

This term is commonly used to refer to public 2-year institution of higher education that offers "a 2-year program of college-level studies which terminates in an associate degree or is principally creditable toward a baccalaureate degree" (U.S. Department of Education, 2020, p. 313).

Economically Disadvantaged

Colleges may use one or more of the following standards to determine whether an individual is economically disadvantaged: "1) annual income at or below the federal poverty line, 2) eligibility for Aid to Families with Dependent Children or other public assistance programs (includes WIC program participants), 3) receipt of a Pell Grant or comparable state program of need-based financial assistance, 4) participation or eligible for JTPA programs included under Title II, and 5) eligible for benefits under the Food Stamp Act of 1977 or the Health and Humans Services (HHS) Poverty Guidelines, 403.114, page 36721 of final Rules and Regulations" (p. 27).

First Generation

First Generation status refers to students whose parents had not attended college. It is a designation given to students that are based on "parents educational attainment and not on the student's immigration status. Parents' highest education level reflects the highest degree earned by either parent" (Cataldi et al., 2018, p. 2).

Race/Ethnicity

The term race or ethnicity refers to a "classification indicating general racial or ethnic heritage" (U.S. Department of Education, 2020, p. 314).

Hispanic

The term Hispanic is used to define "An ethnic origin of a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race" (Texas Higher Education Coordination Board, 2017, p. 38).

Pell Grant

The federal government provides this financial support to undergraduate students who need it to pay for college. Pell grants are "designed to assist students from low-income households. To qualify for a Pell grant, a student must demonstrate financial need by completing and submitting the FAFSA® form" (U.S. Department of Education, 2021).

Upward Transfer

The term upward transfer is "a term used to describe a student's transition from a community college or primarily associate's degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153).

4-year University

This term refers to an institution of higher education "offering at least a 4-year program of college-level studies wholly or principally creditable toward a baccalaureate degree" (U.S. Department of Education, 2020, p. 313).

White

The term White is used to define "A race of a person having origins in any of the original peoples of Europe, the Middle East or North Africa" (Texas Higher Education Coordination Board, 2017, p. 68).

Theoretical Framework

The concept of social capital emerged from economic capital; the modern social capital idea can be traced back to John Dewey in the 1900s. Dewey recognized the importance of specific knowledge developed by students that help them improve their social life, emphasizing the importance of social relationships (Plagens, 2011). It was not until the 1980s that social capital referring to educational and associational life was again used by Pierre Bourdieu and James S. Coleman (Plagens, 2011; Turner, 2006). Following the ideas presented by Dewey, sociologists Bourdieu and Coleman reflected on the benefits of sociability, from relationships between individuals being family members, groups, or community. Social capital is less tangible than physical capital as it refers to "relations among persons" (Coleman, 1988, p. 101) but still plays a crucial role in the transmission of social advantages across generations. For example, this concept has been used to demonstrate how social capital in the family and social capital in the community played a key role in reducing dropout rates among high school students (Coleman, 1988). Further, Coleman applied the concept of social capital to understand better disparities in

the educational attainment of minorities related to inequalities in status, race/ethnicity, and gender (Liou & Change, 2008).

Social capital plays an essential role in fostering student degree aspiration (Yu & Soki, 2019). Degree aspiration is considered an influential variable to comprehend students' college enrollment and educational attainment (Shahidul et al., 2015; Yu & Soki, 2019). Sandoval-Lucero et al. (2014) stated that social capital refers to having access to social networks and connections and aspirational capital refers to having meaning and a vision for the future (p. 525).

The association between upward transfer and social capital has been analyzed under the banner of transfer student capital. This term refers to student accumulation of knowledge about the transfer process that helps them navigate transferring from one institution to another institution (Laanan et al., 2010; Rosenberg, 2015). Transfer information could include information about the transfer school or the Texas Core Curriculum that provides a list of courses that undergraduate students in Texas need to graduate (Texas Higher Education Coordinating Board, 2021b). This understanding is vital for community college students, so they understand which courses to take at 2-year institutions, which courses are transferable, and which courses they need to take at 4-year universities to finish their degree. Several authors (e.g., Rosenberg, 2015) have concluded that transfer student capital is essential as "The more transfer student capital an individual accumulates, the more likely they are to be academically successful and persist to graduation" (p. Abstract). Thus, understanding the sources of transfer student capital is essential to support students. Some of the identified sources at the personal level are

family members and peers, important sources at the college level are faculty and advisors (Maliszewski, 2020).

The concepts of social capital, aspirational capital, and student transfer capital are relevant for this dissertation on community college students in Texas. The purpose of this doctoral dissertation is to determine the degree to which changes had occurred in transfer rates as a function of race/ethnicity, as a function of economic status, and as a function of first-generation status. As stated before, social capital has been used to understand inequalities in status, race, and first-generation; further, social capital has been an essential variable in degree aspiration. Degree aspiration is central when addressing upward transfer as a need is present to comprehend the aspirations of community college students in reference to obtaining a bachelor's degree. Finally, transfer student capital is applicable to understand how students can gain skills that would help them to transfer and be successful upon transfer.

Delimitations

For the purpose of this journal-ready dissertation, archival data were obtained from one public community college in Texas. Data included the number of students who transferred to a 4-year university. Data included transfers for Asian, Black, Hispanic, and White, Pell grant recipients, non-Pell grant recipients, low-income, and first-generation students. Data for this study were delimited to students who transferred from one selected Texas community college to public 4-year universities in Texas for the 2015-2016 academic year through the 2020-2021 academic year. Data for students who transferred to a private and for-profit 4-year universities were not included in the proposed dissertation.

Limitations

This journal-ready dissertation consists of three empirical, multiyear analyses that is limited to students from one Texas community college. These students will have transferred to a 4-year university. Specifically addressed was the extent to which student race/ethnicity, economic status, and first-generation status were related to their transfer status. The years of data were limited to the 2015-2016 academic year through the 2020-2021 academic year. One of the main limitations was using data from a single source, one Texas community college. Another limitation was that the independent variable of academic year serves as a proxy variable for initiatives and interventions conducted by community colleges in efforts to improve the upward transfer rates of their students. Finally, the sole dependent variable involves transferring from one Texas community college to a Texas public 4-year university.

Assumptions

For the purpose of this journal-ready dissertation, the central assumption was that the data on the number and percentages of community college students who transferred to a 4-year university were accurately reported and recorded by the community college. A second assumption was that student demographic characteristics were accurately recorded and reported. Any existing errors in the reports of data, data collection, and/or data entry might potentially influence the findings and conclusions of this study.

Procedures

Following the dissertation committee's approval of this journal-ready dissertation, an application was submitted to the Institutional Review Board at Sam Houston State University. Once the Sam Houston State University Institutional Review Board approved

this study, an application was submitted to the Institutional Review Board at the selected community college to receive and analyze their upward transfer data. Once approval was received from the community college, archival data for the 2015-2016 academic year through the 2020-2021 academic year were analyzed.

Organization of the Study

This journal-ready dissertation consists of three empirical research studies. In the first article, the number and percentage of community college students who transferred to a Texas 4-year university is addressed for Asian, Black, Hispanic, and White community college students in the 2015-2016 academic year through the 2020-2021 academic year. In the second article, the number and percentage of community college students who transferred to a Texas 4-year university is addressed for Pell grant recipients, non-Pell grant recipients, and low-income community college students in the 2015-2016 academic year through the 2020-2021 academic year. Finally, in the third article, the number and percentage of community college students who transferred to a Texas 4-year university is addressed for first-generation students in the 2015-2016 academic year through the 2020-2021 academic year.

This journal-ready dissertation consists of five chapters. Chapter One includes an introduction to the dissertation topic and supporting information. In Chapter Two, the first article about upward transfer differences for Asian, Black, Hispanic, and White students to Texas 4-year universities is discussed. In Chapter Three, the second article about upward transfer differences for Pell grant recipients, non-Pell grant recipients, and low-income students to Texas 4-year universities is discussed. Finally discussed in Chapter Four is the third article about upward transfer differences for first-generation

students to Texas 4-year universities. Provided in Chapter Five is the data analysis, discussion, and summary of the results of Chapter Two, Chapter Three, and Chapter Four. Also, the study's implications for higher education leaders and practitioners will be presented in Chapter Five. Finally, this last chapter will conclude with recommendations for future research.

CHAPTER II

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF RACE/ETHNICITY: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

The purpose of this study was to determine the degree to which differences were present between upward transfer rates as a function of race/ethnicity from the 2015-2016 academic year to the 2020-2021 academic year. Inferential statistics analysis revealed a slight progressive decline in upward transfer rates for Asian, Black, Hispanic, and White students for the 2015-2016 academic year to the 2019-2020 academic year. A dramatic decline was present in upward transfer rates for all racial/ethnic groups during the 2020-2021 academic year. Still, no noticeable differences were observed between upward transfer rates of community college students as a function of race/ethnicity.

Keywords: Asian; Black; Community College; Race/Ethnicity; Hispanic; Upward transfer; 4-year University; White.

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF RACE/ETHNICITY: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

Community colleges are an essential part of the postsecondary makeup of the United States. Nationwide, 1 out of 4 undergraduate students attend a community college, and 8 out of 10 aspire to transfer to a 4-year university with the intention to get a bachelor's degree. Unfortunately, only 3 out of 10 reach their goal of transferring (Community College Research Center, 2021) to a 4-year university. The transfer from a 2-year to a 4-year institution of higher education is known as vertical transfer or upward transfer, "a term used to describe a student's transition from a community college or primarily associate degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153).

Studies on upward transfer have generally been divided into institutional-level factors and student-level factors. Studies about institutional level factors have been centered on credit mobility, which refers to the "transfer of credits from a sending to a receiving institution" (Hodara et al., 2017, p. 331). Another focus has been on co-enrollment. For example, Wang and Wickersham (2013) identified two types of co-enrollment: lateral co-enrollment, "where students simultaneously enrolled at institutions of the same level as their first institution" (p. 173), and vertical co-enrollment, "where students had ever concurrently attended multiple institutions of different levels" (p. 173). Also, studies have been centered on analyzing institutional culture of transfer (Felix & Trinidad, 2018). Finally, in state and institutional policies such as transfer and articulation agreements between 2 and 4-year institutions have been the emphasis of some studies (Bragg, 2017; Giani, 2016).

Among those researchers (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) who have investigated student-level factors, scholars have concentrated on the relationship between upward transfer and student demographic factors. Numerous authors (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) have emphasized the need to understand the nature of upward transfer among historically underserved students. For example, Crisp and Nunez (2014) stated that considerable transfer equity gaps were present among Hispanic and Black students.

According to Bragg (2017), "transfer is one of the most important aspects of higher education today and moving forward" (p. 269). Participation in upward transfer differs depending on the student population. Accordingly, it is necessary to understand the importance of disaggregating student data by race/ethnicity, among other defining student characteristics (Bragg, 2017; Fink & Jenkins, 2017; Giani, 2016). Understanding upward transfer differences is relevant in the ever-growing diverse postsecondary environment where the number of students of color is increasing. For example, the percentage of undergraduate students of color has increased from about 30% to 45% between 1995 and 2015-2016 (Espinosa et al., 2020). An increasing number of students of color are enrolling in community colleges (Espinosa et al., 2020).

Upward transfer is crucial for community college student success and completion. As such, support services, policies, and programs need to be implemented according to the student demographic being served. Bragg (2017) stated that transfer research should "delve deeply into understanding the experience of students of color…" (p. 271). Transfer needs to be implemented in equity-minded ways (Chase et al., 2012; Crisp & Nunez,

2014). Reducing the ethnic/racial transfer gap is vital as a growing diverse population of students enrolls in community colleges whose students desire to transfer to 4-year universities. Although 80% of community college students reported their intention to transfer to a 4-year university, only around 23% to 30% reached their goal of transferring in the 2014 to the 2019 academic years (Community College Research Center, 2021; Crisp & Nunez, 2014).

A better understanding of upward transfer for students of color is critical for the nation but even more relevant for states such as Texas, where the majority of the population is no longer White (Chase et al., 2012; Crisp & Nunez, 2014). According to the Institute for Demographic & Socioeconomic Research (2021), in 2019, the minority population in Texas reached 58.1%. Of note is that Texas is one of the states with a high number of community colleges and a state where Hispanic and Black students account for 6 out of 10 students enrolled in a Technical College System (Chase et al., 2014).

"Texas relies more heavily on two-year institutions to deliver undergraduate education than any other state" (Jenkins, 2013, p. 2); thus, upward transfer is paramount for the state. Upward transfer in the United States is inefficient, but it is even more so in Texas (Jenkins, 2013). The majority of community college students in Texas aspire to transfer (Bailey et al., 2017; Jenkins, 2013), but transfer rates are low. Only 35% transfer and only 15% earn a bachelor's degree within six years (Bailey et al., 2017). According to data reported at the Texas Higher Education Coordinating Board 2020 Almanac, the transfer rate in Texas is low at 24.1%; and only 59 out of 100 students graduate within four years of transfer (Texas Higher Education Coordinating Board, 2020).

To address this issue of transfer, Texas has instituted several policies intended to promote and to facilitate student transition among higher education institutions, including the Texas General Education Core Curriculum, the Common Course Numbering, statewide major-related transfer agreements, and reverse transfers (Bailey et al., 2017). In theory, the 2 + 2 sequence (two years at a community college and two years at a 4-year university) should be an ideal path toward earning a bachelor's degree, especially for low-income students who can save money during their two first years of postsecondary education. In reality, only 18% of students who transfer in Texas earn an associate degree before transferring compared to 29% nationwide and 58% in Florida (Bailey et al., 2017), one of the states with more robust transfer policies (Jenkins, 2013).

The Texas Higher Education Coordinating Board adopted the Closing the Gaps plan in 2000 to "Increase by 50 percent the number of degrees, certificates and other identifiable student successes from high quality programs" (2005, p. 2). This plan included four goals: (a) to close the gaps in student participation, (b) student success, (c) excellence, and (d) research. This plan was created to close the enrollment and graduation gaps between racial/ethnic groups in the state (Texas Higher Education Coordinating Board, 2005).

The Closing the Gaps in success goal included provisions for seamless student transitions, supporting students to transition through the Texas Education System, including transitions from community colleges to universities. The emphasis was on increasing the number of Black and Hispanic students who complete associate's and bachelor's degrees (Texas Higher Education Coordinating Board, 2005). Interestingly, the

word transfer was not mentioned on the Closing the Gaps Texas higher education plan; instead, the focus was on a seamless transition.

In 2001, the Texas Higher Education Coordinating Board appointed the Transfer Issues Advisory Committee to assess the transfer of academic credit among institutions of higher education in Texas, supporting the Closing the Gaps in success goal (Texas Higher Education Coordinating Board, 2001). The Transfer Issues Advisory Council concluded that the transfer of credits between institutions was generally efficient (Texas Higher Education Coordinating Board, 2001). Still, the transfer of core curriculum credits was more problematic for specific academic fields (Bailey et al., 2017; Texas Higher Education Coordinating Board, 2001).

The 60x30TX Higher Education Plan replaced the Closing the Gaps plan. This new plan regulates higher education in Texas from 2015 to 2030. The 60x30TX aims to increase the number of adults age 25 to 30 who hold a certificate or degree to 60% by 2030 (Texas Higher Education Coordinating Board, 2015). Similar to the Closing the Gap plan, the 60x30TX plan emphasizes the critical role of transfer between 2-year colleges to 4-year universities, including the need to facilitate transfer of 42 semester credit hours that are fully transferable and count toward a bachelors degree (Texas Higher Education Coordinating Board, 2018).

Statement of the Problem

Based on the U.S. Census Bureau data, the racial and ethnic diversity of the United States has increased in the last decades. Approximately 4 out of 10 Americans identify as belonging to a minority group (Frey, 2020). In Texas, the state of interest for this investigation, ethnic/racial diversity is even more remarkable. The minority

population accounted for 58% of the total population in 2019 (Institute for Demographic & Socioeconomic Research (2021). Furthermore, according to Frey (2020), the nation's diversity is higher among the younger population; thus, "more attention needs to be given to the needs and opportunities for America's highly diverse younger generations" (Frey, 2020, p. 15). Among minority students, Hispanic students are overrepresented in public 2-year colleges (51%) compared to Black (48%), Asian (38%), and White (36%) students (Santiago et al., 2017). In Texas, although 7 out of 10 community college students aspire to transfer, only 2 out of 10 do so, and only 5 out of 10 community college students who transfer graduate with a bachelor's degree within four years of transfer (Texas Higher Education Coordinating Board, 2020). Furthermore, although a high percentage of Hispanic students are enrolled in community colleges, their graduation rate with a bachelor's degree is low (11%) compared to White (19%) and Asian (23%) students (Santiago et al., 2017).

Purpose of the Study

The purpose of this article, centered on students in one Texas community college, was to determine the degree to which changes had occurred in upward transfer rates for Texas community college students. Addressed herein was the degree to which differences were present in the upward transfer rates of Asian, Black, Hispanic, and White students between the 2015-2016 academic year and the 2020-2021 academic year.

Significance of the Study

The importance of community colleges in Texas cannot be dismissed as the state relies on this type of postsecondary institution to provide education to undergraduate students (Jenkins, 2013). Further, Texas has implemented several policies to provide

students with improved transfer pathways, as reflected on the Texas Higher Education Coordinating Board Closing the Gaps plan (2000-2015) and the 60x30TX Higher Education Plan (2015-2030). Still, transfer rates remain low; thus, improving college pathways remains a concern for stakeholders in the state. This need is particularly important for students of color who, although being overrepresented in community colleges (Santiago et al., 2017), have a lower transfer rate (Taylor & Dimpal, 2017). For instance, in Texas, only 21% of Hispanic students transfer, compared to a higher transfer rate of 27% for White students (Paredes, 2019).

The Texas Higher Coordinating Board, the state regulating agency for higher education, provides transfer information regularly; but the information provided is general, without desegregating transfer rates by race/ethnicity. Other researchers have provided information for specific subgroups but only for limited periods of time. As such, findings from this multiyear study will add to the existing literature available and contribute to filling a gap and providing more in-depth information that would be of value to higher education leaders in Texas.

Research Questions

The following research questions were addressed in this study: (a) What are the percentages of Asian, Black, Hispanic, and White community college students who transferred to a 4-year institution of higher education?; (b) What is the difference in the percentage of Asian community college students who transferred to a 4-year institution of higher education between the 2015-2016 academic year and the 2020-2021 academic year?; (c) What is the difference in the percentage of Black community college students who transferred to a 4-year institution of higher education between the 2015-2016

academic year and the 2020-2021 academic year?; (d) What is the difference in the percentage of Hispanic community college students who transferred to a 4-year institution of higher education between the 2015-2016 academic year and the 2020-2021 academic year?; (e) What is the difference in the percentage of White community college students who transferred to a 4-year institution of higher education between the 2015-2016 academic year and the 2020-2021 academic year?; and (f) What is the trend in the percentages of Asian, Black, Hispanic, and White community college students who transferred in the 2015-2016 academic year through the 2020-2021 academic year? All four ethnic/racial groups were involved in the first research question; each racial/ethnic group was addressed separately in the next four research questions, with respect to academic year; and all four ethnic/racial groups were again addressed in the final trend question.

Method

Research Design

A quantitative, nonexperimental causal-comparative research design (Johnson & Christensen, 2020) was used in this study. Archival data from a public community college in Texas were obtained and analyzed in this study. Archival data were collected for events that occurred in the past; thus, dependent variables and independent variables cannot be changed or manipulated. As a result, a cause and effect relationship between the dependent variables and independent variables was not made (Johnson & Christensen, 2020).

Participants and Instrumentation

The selected college's database managed by the institution's reporting office was used to obtain the data that were analyzed to address the research questions previously discussed. The college reporting office collects data from all students attending the institution and provides information regularly to the community college leadership to support planning and decision-making. Participants of this study were all community college students attending the selected campus on whom data regarding upward transfer were available.

Results

In this research investigation, with respect to upward transfer rates as a function of race/ethnicity, descriptive statistics were calculated for the percentages of students who transferred and who did not transfer in each of the six academic years. These descriptive statistics are reported by student ethnicity/race for the six academic years in Tables 2.1 through 2.6. In the 2015-2016 academic year, the majority of the students were White at 59.16%, followed by Hispanic students at 24.61%. Black students comprised 8.03% of students, with Asian students having the lowest percentage at 2.71%. Readers are referred to Table 2.1 for the descriptive statistics of the 2015-2016 academic year.

Insert Table 2.1 about here

In the 2016-2017 academic year, the majority of students were White at 58.52%, followed by Hispanic students at 25.48%. The percentages of Black students, 6.91%, and

Asian students, 3.70%, were low. Table 2.2 contains the descriptive statistics for the 2016-2017 academic year.

Insert Table 2.2 about here

With respect to the 2017-2018 academic year, the percentage of White students remained above 50%, at 53.05%, followed by Hispanic students at 30.16%. The percentages of Black students at 7.35% and Asian students at 4.25% remained below 10%. Delineated in Table 2.3 are the descriptive statistics for the 2017-2018 academic year.

Insert Table 2.3 about here

In the 2018-2019 academic year, the percentage of White students remained above 50%, at 53.76%, followed by Hispanic student percentages, at 26.60%. The percentages of Black students and Asian students remained below 10%, with Black students at 7.76%, and Asian students at 4.08%. Readers are directed to Table 2.4 for the descriptive statistics for the 2018-2019 academic year.

Insert Table 2.4 about here

In the 2019-2020 academic year, the majority of students continue to be White, at 50.78%, followed by Hispanic students at 29.73%. The percentages of Black students

and Asian students continued to be below 10%, Black students at 8.62%, and Asian students at 4.45%. Table 2.5 contains the descriptive statistics for the 2019-2020 academic year.

Insert Table 2.5 about here

Finally, in the most recent academic year, 2020-2021, the percentage of White students fell below 50%, at 47.51%, followed by Hispanic students at 34.08%. The percentages of Black students and Asian students remained below 10%, with Black students at 7.45% and Asian students at 3.87%. Revealed in Table 2.6 are the descriptive statistics for the 2020-2021 academic year.

Insert Table 2.6 about here

To ascertain whether differences were present in upward transfer rates (i.e., Transfer, Did Not Transfer) for Asian, Black, Hispanic, and White community college students, Pearson chi-square analyses were conducted. This statistical procedure was viewed as the optimal statistical procedure to use because frequency data were present for both the independent and dependent variables. As such, chi-squares are the statistical procedure of choice when all variables are categorical (Slate & Rojas-LeBouef, 2011). With the large sample size, the available sample size per cell was more than five. Consequently, the assumptions for using Person chi-square procedures were met.

Regarding the research question involving the upward transfer rates of Asian community college students between the 2015-2016 academic year and the 2020-2021 academic year, a statistically significant difference was revealed, $\chi^2(1) = 22.12$, $p < .001$, Cramer's V of .27, small effect size (Cohen, 1988). The upward transfer rate of Asian community college students was statistically significantly higher almost twice as high, in the 2017-2018 academic year than in the 2020-2021 academic year. Upward transfer percentages were 63.0% and 32.2%, respectively. During the 2015-2016 academic year and the 2020-2021 academic year, slightly more than half, 55.6%, of the Asian community college students transferred, as presented in Table 2.7.

Insert Table 2.7 about here

With respect to the upward transfer rates of Black community college students between the 2015-2016 academic year and the 2020-2021 academic year, the result was statistically significant, $\chi^2(1) = 77.17$, $p < .001$, Cramer's V of .33, moderate effect size (Cohen, 1988). The upward transfer rate of Black community college students was statistically significantly higher in the 2017-2018 academic year, more than three times higher, than the upward transfer rate of Black community college students in the 2020-2021 academic year. These upward transfer percentages were 73.7% and 22.6%, respectively. Table 2.7 contains the descriptive statistics for this analysis.

Concerning the upward transfer rates of Hispanic community college students between the 2015-2016 and the 2020-2021 academic year, the result was statistically significant, $\chi^2(1) = 319.88$, $p < .001$, Cramer's V of .38, moderate effect size (Cohen,

1988). The upward transfer rate for Hispanic community college students was statistically significantly higher, more than three times higher, in the 2016-2017 academic year than in the 2020-2021 academic year. These upward transfer percentages were 67.8% and 17.9%, respectively. Table 2.7 contains the descriptive statistics for this analysis.

With respect to the upward transfer rates of White community college students between the 2015-2016 academic year and the 2020-2021 academic year, the result was statistically significant, $\chi^2(1) = 465.90$, $p < .001$, Cramer's V of .36, moderate effect size (Cohen, 1988). The upward transfer rate for White community college students was statistically significantly higher, more than three times higher, in the 2016-2017 academic year than in the 2020-2021 academic year. These upward transfer percentages were 69.3% and 20.1%, respectively. Revealed in Table 2.7 are the descriptive statistics for this analysis.

Upward transfer rates were investigated by the race/ethnicity of community college students in this multiyear investigation. Rates for Asian, Black, Hispanic, and White students who transferred in the 2015-2016 academic year through the 2020-2021 academic year are depicted in Figures 2.1 to 2.4. Concerning the upward transfer rates of Asian community college students, as delineated in Figure 2.1, an increase was clearly evident in upward transfer rates between the 2015-2016 academic year and the 2017-2018 academic year; 20% more Asian students transferred between these two time periods. The upward transfer rate decreased from the 2017-2018 academic year from 75% to 56% in the 2019-2020 academic year. A dramatic decrease was present in the 2020-2021 academic year as only 3 out of 10 students transferred, representing a 43% decrease from the 2017-2018 academic year.

Insert Figure 2.1 about here

With respect to the upward transfer rates of Black community college students, upward transfer rates gradually increased from the 2015-2016 academic year to the 2017-2018 academic year; 7% more Black students transferred between these two time periods. From the 2017-2018 academic year to the 2019-2020 academic year, the upward transfer rate substantially decreased from 74% to 48%, respectively. A dramatic decrease was clearly evident in the 2020-2021 academic year as only 2 out of 10 students transferred, representing a 51% decrease from the 2017-2018 academic year. Readers are directed to Figure 2.2 for the trend in upward transfer rates for Black community college students.

Insert Figure 2.2 about here

Shown in Figure 2.3 is the trend in upward transfer rates for Hispanic students. During the 2015-2016 academic year through the 2017-2018 academic year, between 6 to 7 out of 10 students transferred. The rates declined to around 5 out of 10 students during the 2018-2019 academic year and the 2019-2020 academic year. A dramatic decline was clearly evident in upward transfer rates for the 2020-2021 academic year as only 18% of the Hispanic students transferred, representing a 50% decrease from the 2016-2017 academic year.

Insert Figure 2.3 about here

Concerning the upward transfer rates of White community college students, the trends were similar to the rates for Hispanic students. During the 2015-2016 academic year through the 2017-2018 academic year, 6 out of 10 students transferred. The rates declined to around 5 to 6 out of 10 students during the 2018-2019 academic year and the 2019-2020 academic year. A decline was clearly evident in upward transfer rates for the 2020-2021 academic year as only 2 out of 10 White community college students transferred, representing a 49% decrease from the 2015-2016 academic year. Illustrated in Figure 2.4 is the trend in upward transfer rates for White students.

Insert Figure 2.4 about here

Although some differences were present between each racial/ethnic group of students in each academic year, as presented in Figure 2.5, the upward transfer rates for all four groups declined substantially in the 2020-2021 academic year. The lowest upward transfer rate was for Hispanic community college students at 18%, followed by White students at 20%, Black students at 23%, and Asian at 32%.

Insert Figure 2.5 about here

Discussion

As documented in this multiyear investigation, upward transfer rates as a function of race/ethnicity were examined from the 2015-2016 academic year to the 2020-2021 academic year. Results delineated herein are congruent with the finding of previous researchers in respect to low upward transfer rates. Still, results were not consistent with previous findings of lower upward transfer rates for marginalized students.

In this investigation, upward transfer rates for community college students were low but not as low compared to the national and state transfer rates. The upward transfer rate at 54% from the 2015-2016 academic year to the 2020-2021 academic year is substantially higher than the national transfer rate at 31% in the United States (Community College Research Center, 2021) and more than double than the upward transfer rate in Texas of 24% (Texas Higher Education Coordinating Board, 2020). Readers should note that the transfer rate from the 2015-2016 academic year to the 2020-2021 academic year at 54% was negatively affected by the massive decline in upward transfer in the 2020-2021 academic year. The upward transfer rate from the 2015-2016 academic year to the 2019-2020 academic year at 62% is even higher than the national and state transfer rate.

Connections with Existing Literature

Prior researchers (e.g., LaSota & Zumeta, 2016; Taylor & Dimpal, 2017) established that the upward transfer rates of community college students are low. In Texas, only 31% of community college students transferred to a 4-year university from the 2013 cohort (Community College Research Center, 2021). Additionally, several researchers have documented that not all students transfer at the same rate (Bragg, 2017;

Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) and that demographic factors play a role in upward transfer rates (Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009), including race/ethnicity. For example, Crisp and Nunez (2014) affirmed the presence of transfer equity gaps among Hispanic and Black students.

The upward transfer rate of Hispanic students from the 2015-2016 academic year to the 2020-2021 academic year at 54% was lower than the upward transfer rate for other racial/ethnic groups but only by one percentage point compared to White students and two percentage points compared to Asian and Black students. Contrary to the results reported by other researchers, Black students transferred at the same rate as Asian students at 56%. The dramatic lower upward transfer rate for all racial/ethnic groups in the 2020-2021 academic year affected more Hispanic and White students at 18% and 20%, respectively.

Implications for Policy and for Practice

Illustrated in these findings is the value of multiyear investigations as variations can happen in different periods. The upward transfer rates of Asian, Black, Hispanic, and White students have declined in the last four academic years. This pattern in lower upward transfer should be carefully considered by practitioners, such as community college leaders, who need to address these low upward transfer rates and identify barriers to upward transfer. For example, what policies and practices were in place that supported students upward transfer rates in the 2015-2016 academic year, and what policies and

practices were in place that was detrimental to upward transfer in the 2019-2020 academic year?

Policymakers could take an even more important step, understanding the policies and practices that this specific community college has implemented, resulting in higher upward transfer rates than transfer rates at the state level. Further, policymakers should identify the policies that might be influencing the decline in transfer rates in the last years. This issue is particularly important for Texas policymakers if the goal of the 60x30TX Higher Education Plan to increase the number of adults who hold a certificate or degree to 60% by 2030 is to be achieved.

Given the unique challenges students faced during the 2020-2021 academic year and the dramatic decline in upward transfer rates, it is central for the institution and policymakers to better understand the factors that negatively affect student transfer. The historic decline in upward transfer rates at this community college, combined with the historical low upward transfer rates in the last year, should be analyzed further to implement policies and practices that would help community college students to transfer to a 4-year university and obtain a bachelor's degree.

Recommendations for Future Research

Based on the results of this investigation, several recommendations for future research can be made. First, demographic factors and other risk factors that might influence student transition from a community college to a 4-year university warrant investigation. For example, upward transfer could be addressed as a function of economic status, first-generation status or gender. Second, a combination of demographic factors might influence upward transfer. For example, it will be valuable to examine the upward

transfer of community college students who are first-generation and low-income students; or minority students who are also first-generation students. Third, the inclusion of qualitative studies might help better understand upward transfer rates at this community college, or studies that examine the issue across the entire state in different time periods will be of value. Finally, this community college's service area includes areas with low poverty levels and others with high poverty levels. Thus, for this institution of higher education, it will be beneficial to investigate upward transfer as a function of race/ethnicity depending on the geographical service area.

Conclusion

The overall trend of upward transfer rates from the beginning point, the 2015-2016 academic year, and to the endpoint, the 2020-2021 academic year, was interpreted to mean that the upward transfer rates for the four ethnic/racial groups of students were similar in nature. A progressive decline in upward transfer rates was observed for all ethnic/racial groups of students in this study. Though a plethora of studies are available about upward transfer, only a few research investigations have been published about community college students in which multiple years of data were analyzed. Most of what is known about upward transfer is based on a single-year investigation. In this investigation, low upward transfer rates were documented. Contrary to other researchers, Hispanic and Black students did not have lower upward transfer rates than White and Asian students.

References

Bailey, T., Jenkins, D., Fink, J., Cullinane, J., & Schudde, L. (2017). Policy levers to strengthen community college transfer student success in Texas. *Community College Research Center*, 1-32. https://ccrc.tc.columbia.edu/media/k2/attachments/policy-levers-to-strengthen-community-college-transfer-student-success-in-texas.pdf

Bragg, D. (2017). Transfer matters: Forward to the special issues on transfer. *Community College Review, 45*(4), 267-272. https://doi.org/10.1177%2F0091552117728572

Chase, M. M., Dowd, A. C., Pazich, L. B., & Bensimon, E. M. (2014). Transfer equity for "minorized" students: A critical policy analysis of seven states. *Educational Policy, 28*(5), 669-717. https://doi.org/10.1177%2F0895904812468227

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.

Community College Research Center. (2021). *Community college FAQs. Community college enrollment and completion*. https://ccrc.tc.columbia.edu/Community-College-FAQs.html

Crisp, G., & Nunez, A. M. (2014). Understanding the racial transfer gap: Modeling underrepresented minority and nonminority students' pathways from two- to four-year institutions. *Review of Higher Education, 37*(3), 291-320. http://dx.doi.org/10.1353/rhe.2014.0017

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. M. (2020). Race and ethnicity in higher education. A status report. *American Council for Education*

https://1xfsu31b52d33idlp13twtos-wpengine.netdna-ssl.com/wp-content/uploads/2019/02/Race-and-Ethnicity-in-Higher-Education.pdf

Felix, E. R., & Trinidad, A. (2018). Fulfilling the transfer and mission at the urban technical college: How a transfer center mediates baccalaureate aspirations for students. *Community College Journal of Research and Practice, 42*(12), 861-877. https://doi.org/10.1080/10668926.2017.1361877

Fink, J., & Jenkins, F. (2017). Takes two to tango: Essential practices of highly effective transfer partnerships. *Community College Review, 45*(4), 294-310. https://doi.org/10.1177/0091552117724512

Frey, W. (2020). The nation is diversifying even faster than predicted, according to new census data. *Brookings Institution*. https://www.brookings.edu/research/new-census-data-shows-the-nation-is-diversifying-even-faster-than-predicted/

Giani, M. (2016). *Transfer research questions that matter: 2016 transfer scholar meeting recommendations. Credit when it's due*. https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/158/2018/08/23173636/CWID-Data-Note7.pdf

Hodara, M., Martinez-Wenzl, M. M., Stevens, D., & Mazzeo, C. (2017). Exploring credit mobility and major-specific pathways: A policy analysis and student perspective on community college to university transfer. *Community College Review, 45*(4), 331-349. https://doi.org/10.1177%2F0091552117724197

Jenkins, D. (2013). *Texas would benefit by improving its community college to bachelor's transfer system (Policy Brief.)* Educate Texas. https://www.edtx.org/our-impact-areas/higher-education/texas-student-success-council/tssc_transfer.pdf

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.

LaSota, R., & Zumeta, W. (2016). What matters in increasing community college students' upward transfer to the baccalaureate degree: Findings from the Beginning Postsecondary Study 2003-2009. *Research in Higher Education, 57*, 152-189. https://doi.org/10.1007/s11162-015-9381-z

Paredes, R. A. (2019). *The state of Latino education. Texas Association of Chicanos in Higher Education.* Texas Higher Education Coordinating Board. http://www.thecb.state.tx.us/DocID/PDF/12210.PDF

Santiago, D. A., Perez, E. A., & Ortiz, N. C. (2017). Framing, not blaming – improving Latino college transfer in TX. *Excelencia in Education*. https://www.edexcelencia.org/research/publications/framing-not-blaming-improving-latino-college-transfer-texas

Slate, J. R., & Rojas-LeBouef, A. (2011). *Calculating basic statistical procedures in SPSS: A self-help and practical guide to preparing theses, dissertations, and manuscripts.* NCPEA Press.

Smith, D. G. (2009). *Diversity's promise for higher education*. Johns Hopkins University Press.

Taylor, J. L., & Dimpal, J. (2017). The multiple dimensions of transfer: Examining the transfer function in American higher education. *Community College Review, 45*(4), 273-293. https://doi.org/10.1177%2F0091552117725177

Texas Higher Education Coordinating Board. (2001). *Transfer issues advisory committee report. Identifying and closing the gaps*. http://www.thecb.state.tx.us/DocID/pdf/0427.pdf

Texas Higher Education Coordinating Board. (2005). *Closing the gaps by 2015. The Texas higher education plan*. http://www.thecb.state.tx.us/DocID/PDF/0379.PDF

Texas Higher Education Coordinating Board. (2015). *Texas Higher Education strategic plan: 2015-2030*. https://files.eric.ed.gov/fulltext/ED573001.pdf

Texas Higher Education Coordinating Board. (2018). *Academic quality and workforce. Texas core curriculum*. https://reportcenter.thecb.state.tx.us/agency-publication/miscellaneous/elements-of-the-texas-core-curriculum/

Texas Higher Education Coordinating Board. (2020). *Texas public higher education almanac. A profile of state and institutional performance and characteristics*. https://reportcenter.highered.texas.gov/agency-publication/almanac/2020-texas-public-higher-education-almanac/

Wang, X., & Wickersham, K. (2013). Postsecondary co-enrollment and baccalaureate completion: A look at both beginning 4-year college students and baccalaureate aspirant beginning at community colleges. *Research in Higher Education, 55*(2), 166-195. https://doi.org/10.1007/s11162-013-9317-4

Table 2.1

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2015-2016 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	17	54.8	14	45.2
Black	62	67.4	30	32.6
Hispanic	182	64.5	100	35.5
White	470	69.3	208	30.7

Table 2.2

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2016-2017 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	29	63.0	17	37.0
Black	59	68.6	27	31.4
Hispanic	215	67.8	102	32.2
White	478	65.7	250	34.3

Table 2.3

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2017-2018 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	41	74.5	14	25.5
Black	70	73.7	25	26.3
Hispanic	250	64.1	140	35.9
White	430	62.7	256	37.3

Table 2.4

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2018-2019 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	28	56.0	22	44.0
Black	55	57.9	40	42.1
Hispanic	202	58.7	142	41.3
White	386	58.7	272	41.3

Table 2.5

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2019-2020 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	35	55.6	28	44.4
Black	58	47.5	64	52.5
Hispanic	218	51.8	203	48.2
White	380	52.9	339	47.1

Table 2.6

Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2020-2021 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	19	32.2	40	67.8
Black	26	22.6	89	77.4
Hispanic	93	17.9	427	82.1
White	146	20.1	579	79.9

Table 2.7

Aggregated Frequencies and Percentages of Students by Ethnicity/Race and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

	Transferred		Did not Transfer	
Racial/Ethnic Group	*n*	*%*	*n*	*%*
Asian	169	55.6	135	44.4
Black	330	54.5	275	45.5
Hispanic	1,160	51.0	1,114	49.0
White	2,290	54.6	1,904	45.4

Figure 2.1

Rates for Asian Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

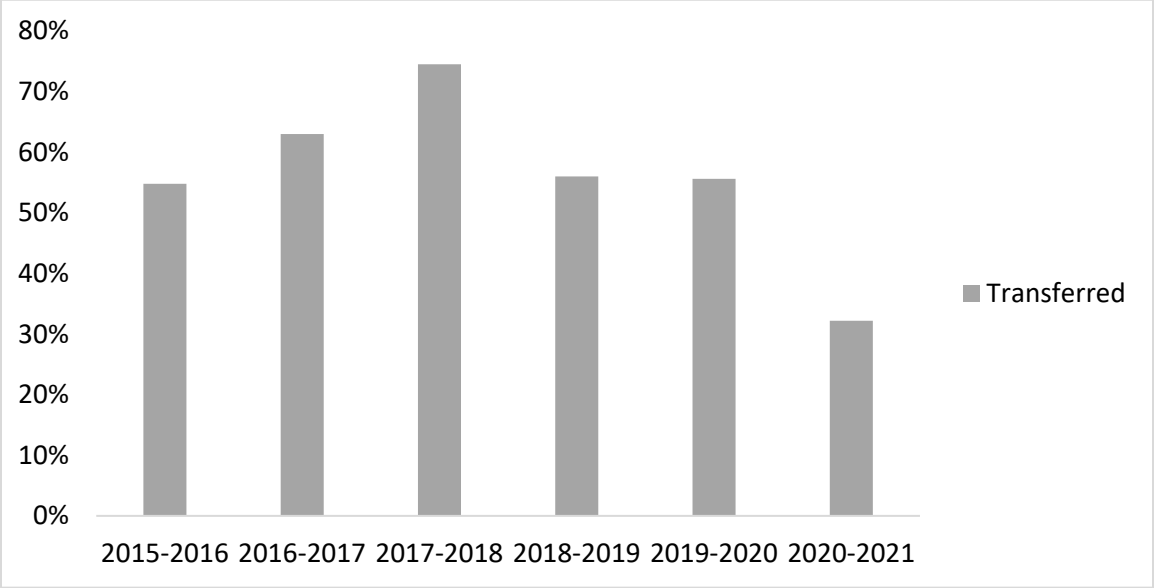


Figure 2.2

Rates for Black Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

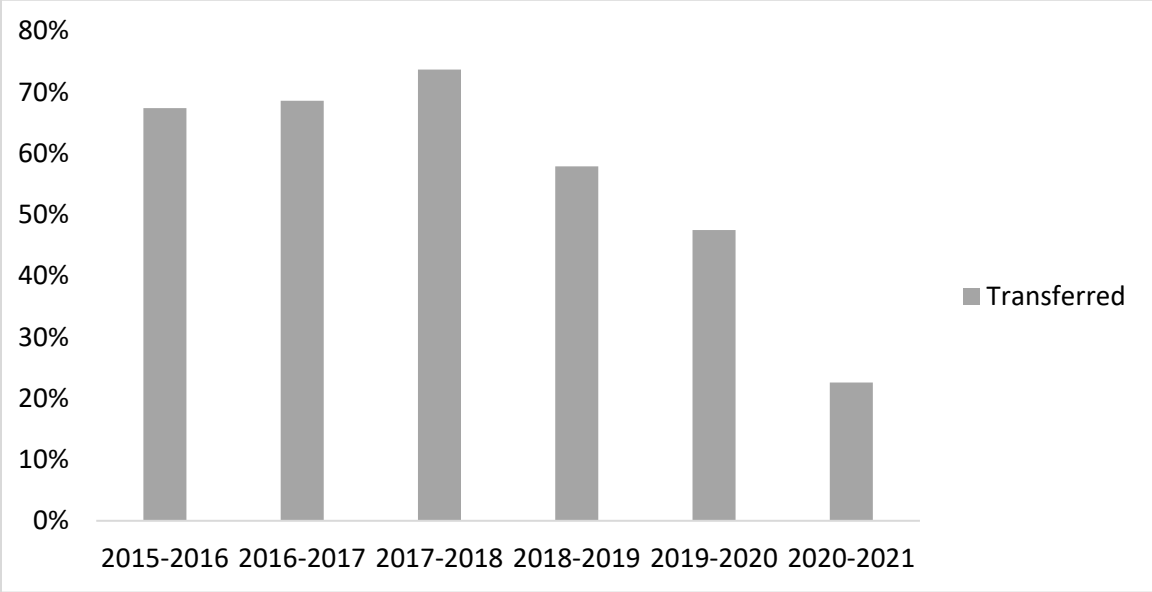


Figure 2.3

Rates for Hispanic Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

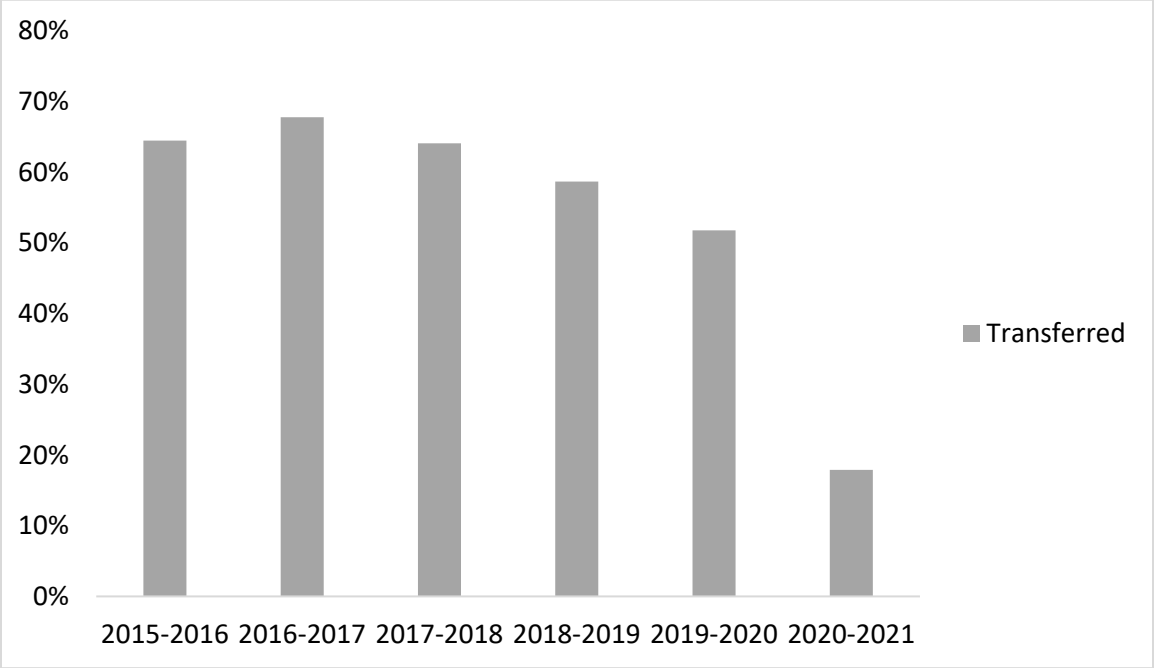


Figure 2.4

Rates for White Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

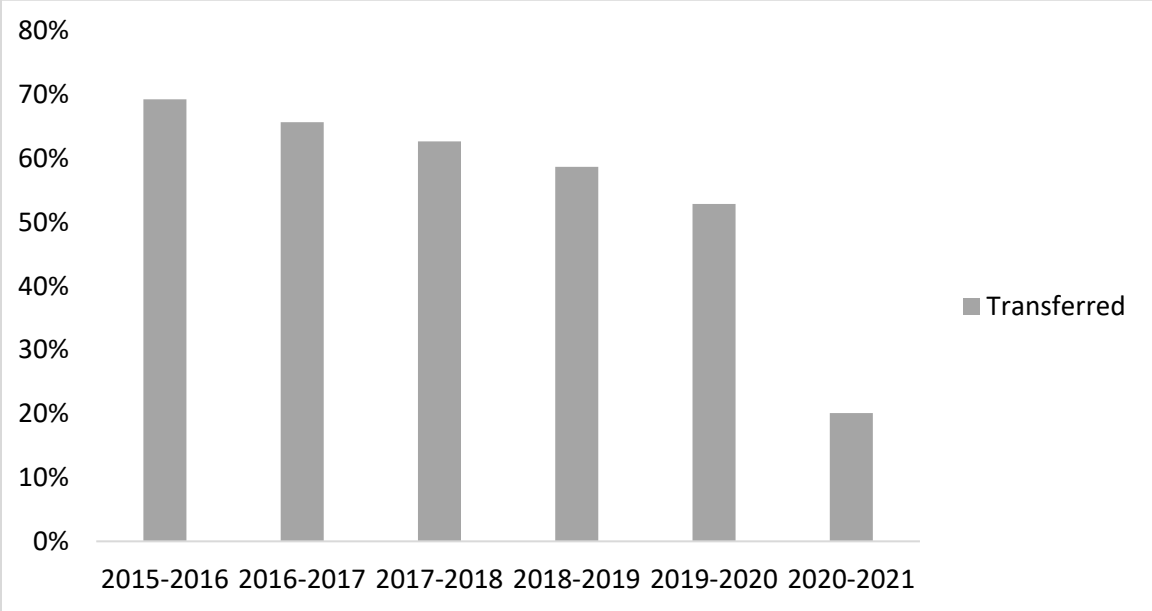
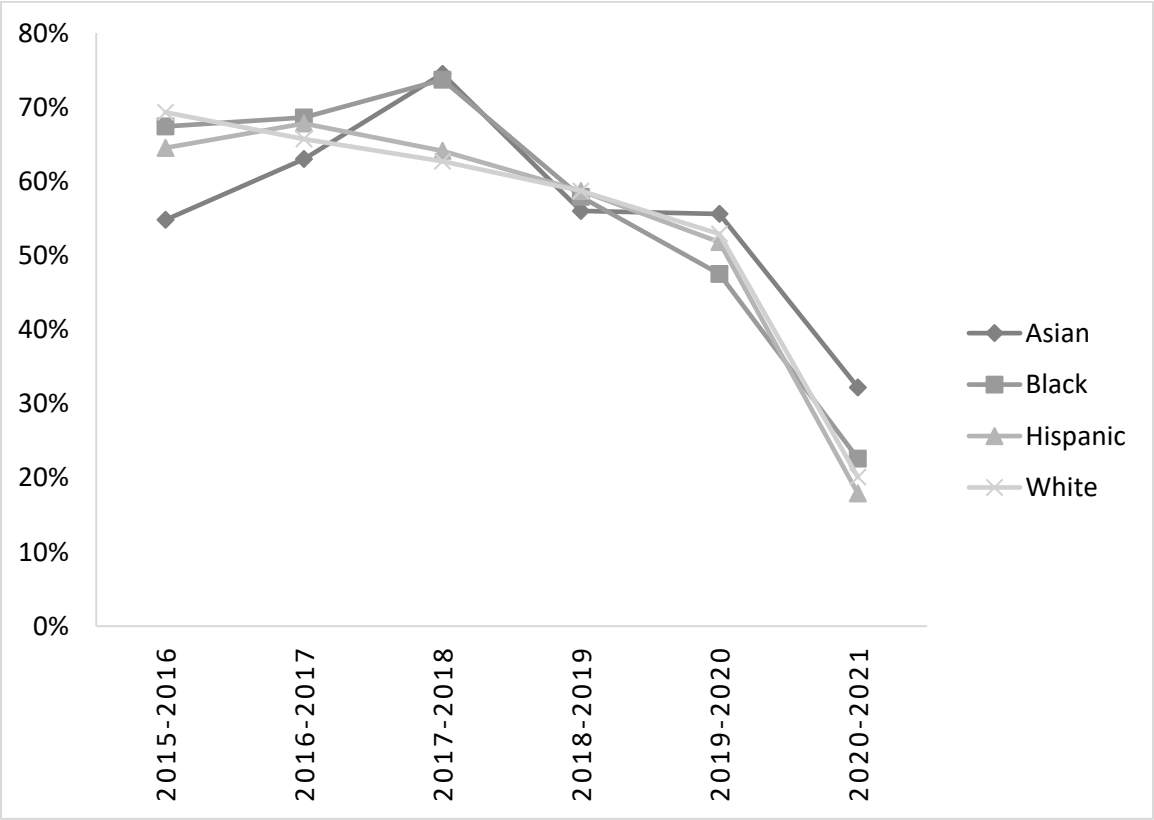


Figure 2.5

Upward Transfer Rates for Community College Students by Race/Ethnicity for the 2015-2016 through the 2020-2021 Academic Year



CHAPTER III

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF ECONOMIC STATUS: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

The purpose of this study was to determine the degree to which differences were present between upward transfer rates for Pell grant and non-Pell grant recipients from the 2015-2016 academic year to the 2020-2021 academic year. Inferential analyses of six years of data revealed a progressive decline in upward transfer rates for both groups during the first five years of data. A dramatic decline was documented in upward transfer rates for both groups during the last year of data. Still, the absence of marked differences between upward transfer rates between Pell grant and non-Pell grant recipients was present.

Keywords: Community College; Economically disadvantaged; Pell grant; Upward transfer; 4-year University.

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF ECONOMIC STATUS: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

The path to earning a bachelor's degree is not the same for all students. Some students enroll in a 4-year university after high school graduation, whereas other students enroll in a community college intending to earn credits and transfer to a 4-year university to earn a bachelor's degree. This latter group who aspires to earn a bachelor's degree following the 2+2 pathway is increasing. At the present time, it represents 44% of all undergraduate students nationally (Community College Research Center, 2021). The complexity of the postsecondary education environment due to the different pathways available to earn a bachelor's degree is heightened by the diverse student populations who attend specific institutions of postsecondary education.

Community colleges serve a majority-minority student population, including minority racial/ethnic student populations, non-traditional age, and low-income students (Xu et al., 2018). For instance, overall, 51% of community college students identify as a racial/ethnic group other than White (Ma & Baum, 2016). Hispanic students are overrepresented in public community colleges, whereas Black students are overrepresented in for-profit colleges (Ma & Baum, 2016). Community colleges are home to a higher percentage of non-traditional students (i.e., students who are over 25 years of age or older). Non-traditional students ages 25-59 are overrepresented in 2-year public colleges (43%) compared to all higher education institutions (36%) (Beer, 2021). Finally, an increase has been documented in the number of students in poverty who enroll in colleges and universities; "the rise of poor and minority undergraduates has been more pronounced in public two-year colleges" (Fry & Cilluffo, 2019, p. 3).

Some students attending postsecondary education are considered dependent students because their family income includes their own income and their family's income. Other students are considered independent students as their status is based on their own income and the income of their spouse (Choy & Bobbitt, 2000). According to the Community College Research Center (2021), among dependent students attending a 2-year college, 23% have an income of less than $20,000, 28% have an income of $20,000 to $49,999, and 49% have an income of $50,000 and higher. The percentages among independent students are very different, with 47% having an income of less than $20,000, 31% having an income of $20,000 to $49,999, and only 22% having an income of $50,000 and up.

Low-income students have a lower persistence and success rate (Choy & Bobbitt, 2000) than students from higher income levels. Accordingly, the government has instituted financial aid to support them. Financial aid comes in the form of Pell grants that support both dependent and independent students based on their income level. Educational attainment of a bachelor's degree is lower among Pell grant recipients compared to non-Pell grant recipients. According to Yuen (2019), the bachelor's degree attainment rate for Pell grant recipients is more than 10 percentage points lower at public colleges than the bachelor's degree attainment rate for non-Pell grant recipients.

Students attending community colleges are mainly from underrepresented populations, including low-income students who are historically marginalized (Bragg, 2017; Fernandez & Fletcher, 2014). The transition from a 2-year college to a 4-year university is called upward transfer (LaSota & Zumeta, 2016). Upward transfer is vital as 80% of community college students aspire to transfer to a 4-year university, but only

31% achieve this goal (Community College Research Center, 2021). Different demographic variables have negative effects on upward transfers (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wang, 2009; Wawrzynski & Sedlacek, 2003), including student economic status. Students with lower socioeconomic status are less likely to transfer to a 4-year institution (Dougherty & Kienzl, 2006; Gross & Goldhaber, 2009; LaSota & Zumeta, 2016; Wang, 2009, 2012; Wawrzynski & Sedlacek, 2003). Felix and Trinidad (2018) concluded that there are "inequitable transfer outcomes for low-income and students of color (p. 875).

The State of Texas relies on community colleges as "feeders for baccalaureate programs more than any other state" (Jenkins, 2013, p. 3). In Texas, the upward transfer rate is low as only 24.1% of community college students transfer to a 4-year university (Texas Higher Education Coordinating Board, 2020). In Texas, low upward transfer rates are present predominantly for low-income students as higher-income students transfer at a higher rate (18%) compared to low-income students who transfer at a much lower rate (11%) (Bailey et al., 2017). In Texas, most students who earned a bachelor's degree have attended a community college (Jenkins, 2013), portraying the importance of understanding this postsecondary education pathway.

The educational attainment gap for low-income students is problematic for the State of Texas, even though the state has implemented policies to address this issue. For instance, the Advise TX program launched in 2010-11 that matched high school students with an advisor to help students determine their best postsecondary path; this program resulted in an increased number of high school students enrolled in college (Texas Higher Education Coordinating Board, 2019). This problem was also addressed in the Texas

Higher Education Coordinating Board 60x30 plan, emphasizing the need to support low-income students to attend college (Texas Higher Education Board, 2015). As stated by Whitmire (2019), the number of students who enroll in postsecondary education after high school graduation has increased seven percentage points from 2000 (63%) to 2016 (70%). As such, the problem in higher education in the United States is not enrollment but graduation.

Numerous policies have been developed and implemented at the national and state level to improve postsecondary graduation rates, nonetheless graduation rates remain low, especially among low-income students (Association of American Colleges and Universities, 2018; Strumbos et al., 2018). In a report by the National Center for Education Statistics, only 14.6% of students from the lowest income groups earned a bachelor's degree within 10 years compared to 46% of those individuals from the highest income groups (Whitmire, 2019). In Texas, several issues concerning transfer students were addressed in the Texas Higher Education Coordinating Board (2018) report, including insufficient financial aid, deficient advising, programmatic challenges, and few opportunities to help students plan early for their academic and financial transfer pathway. These shortages have resulted in a continued trend of low transfer rates for community college students who spend more years in college with lower graduation rates (Texas Higher Education Coordinating Board, 2018).

Low completion rates and time to degree are problematic as students accumulate debt but are not able to repay due to lack of credentials that would provide them with a higher income; “one of the worst case scenarios surrounding student loan debt is accruing such a debt and being unable to complete a degree that would help lead to employment to

repay the debt" (Gonzales, 2019, p. 903). Student debt is lower for students who start at 2-year colleges (Gonzales, 2019, p. 903). However, it is still problematic, especially among low-income students who have lower incomes (Fernandez & Fletcher, 2014) and fewer resources to repay debt, a problem that is magnified if they remain in college longer, fail to transfer, and do not graduate with a bachelor's degree.

Statement of the Problem

Individuals who earn a postsecondary degree have higher earnings and lower rates of unemployment. According to the U.S. Bureau of Labor Statistics (2020), a person with an associate degree has median usual weekly earnings of $938 and an unemployment rate of 7.1%; compared to higher earning of those individuals with a bachelor's degree at $1,305 and lower unemployment rates at 5.5%. Although the usefulness of earning a bachelor's degree as a pathway out of poverty, substantial educational attainment gaps exist for low-income students (Association of American Colleges and Universities, 2018; Strumbos et al., 2018).

Community colleges are more accessible for low-income students who are overrepresented in this type of postsecondary education (Bragg, 2017). Still, upward transfer rates are low. Not surprisingly, students from low-income families are six times less likely to graduate with a bachelor's degree (Bailey & Dynarski, 2011); thus reducing their chances of using education as a pathway out of poverty.

Purpose of the Study

The purpose of this study was to determine the extent to which differences were present for upward transfer rates for Texas community college students, specifically related to the transfer rates of students in poverty. Upward transfer data from students in

poverty and students who were Pell grant recipients at a selected community college were analyzed in the 2015-2016 academic year through the 2020-2021 academic year.

Significance of the Study

This study was conducted to add to the existing research literature available by focusing on postsecondary pathways of students in poverty, focusing on upward transfer from a 2-year college to a 4-year university. Among the different types of higher education institutions, students in poverty attend public community colleges at higher rates; however, their persistence and completion remain low. Given such disparities in upward transfer for students in poverty who at the same time are overrepresented in community colleges, additional research investigations are warranted. Several studies have been conducted regarding upward transfer; however, researchers have largely concentrated their studies on entire student populations and not on specific subgroups of students. Bragg (2017) stated that transfer gaps for students in poverty should be addressed by researchers. As such, findings from this multiyear study on the upward transfer rates of students in poverty will add to the existing literature available.

Research Questions

The following research questions were addressed in this study: (a) What are the percentages of community college students Pell grant recipients who transfer to a 4-year institution of higher education?; (b) What are the percentages of community college students non-Pell grant recipients who transfer to a 4-year institution of higher education?; (c) What is the difference in the percentage of community college students Pell grant recipients who transfer to a 4-year institution of higher education between 2015-2016 academic year and the 2020-2021 academic year?; (d) What is the difference

in the percentage of community college students non-Pell grant recipients who transfer to a 4-year institution of higher education between 2015-2016 academic year and the 2020-2021 academic year?; and (e) What is the trend in the percentages of community college students Pell grant, and non-Pell grant recipients who transfer in the 2015-2016 through the 2020-2021 academic years? The first two research questions addressed for the 2015-2016 academic year through the 2020-2021 academic year whereas the third and the fourth research questions involved comparisons of two academic years. Finally, the last research question involved an analysis of all six academic years of data.

Method

Research Design

This study was conducted following the research design of a quantitative, nonexperimental causal-comparative research design (Johnson & Christensen, 2020). The archival data used for this study were provided by a selected community college in Texas. Archival data were collected by the respective community college prior to the beginning of the research investigation preventing manipulation of the dependent variable and independent variables (Johnson & Christensen, 2020).

Participants and Instrumentation

The selected college's database managed by the institution's reporting office was used to obtain the data that were analyzed to address the research questions previously discussed. The college reporting office collects data from all students attending the institution and provides information regularly to the community college leadership to support planning and decision-making. Participants of this study were all community

college students attending the selected campus who provided data and transfer to a 4-year university.

Results

This research investigation is centered on Pell grant recipients and non-Pell grant recipients at a Texas community college who either transferred or did not transfer to a 4-year institution of higher education. Concerning upward transfer rates as a function of economic status, descriptive statistics are reported by student Pell grant recipients and non-Pell grant recipients who transferred and who did not transfer in each of the six academic years as presented in Table 3.1 through 3.6. In the 2015-2016 academic year, the majority of the students were non-Pell grant recipients at 59.08%, a lower percentage of students were Pell grant recipients at 40.92%. Delineated in Table 3.1 are the descriptive statistics for the 2015-2016 academic year.

Insert Table 3.1 about here

In the 2016-2017 academic year, the majority of students were non-Pell grant recipients at 57.88%. A lower percentage of students were Pell grant recipients at 42.12%. Delineated in Table 3.2 are the descriptive statistics for the 2016-2017 academic year.

Insert Table 3.2 about here

Concerning the 2017-2018 academic year, the majority of students were non-Pell grant recipients at 59.94%. A minority of students were Pell grant recipients at 40.06%. Readers are referred to Table 3.3 for the descriptive statistics for the 2017-2018 academic year.

Insert Table 3.3 about here

In the 2018-2019 academic year, more than 5 out of every 10 students were Pell grant recipients representing 55.56% of all students. Non-Pell grant recipients represented the minority at 44.44%. Table 3.4 contains the descriptive statistics for the 2018-2019 academic year.

Insert Table 3.4 about here

In the 2019-2020 academic year, the majority of students continue to be Pell grant recipients, accounting for 56.78%. Non-Pell grant recipients accounted for 43.22% of all students. Revealed in Table 3.5 are the descriptive statistics for the 2019-2020 academic year.

Insert Table 3.5 about here

Lastly, in the most recent academic year, 2020-2021, the percentage of Pell grant recipients remained above 50% at 52.56%. The percentage of non-Pell grant recipients

increased to 47.44% but remained below 50%. Table 3.6 contains the descriptive statistics for the 2020-2021 academic year.

Insert Table 3.6 about here

To determine whether changes were present in upward transfer rates (i.e., Transfer, Did Not Transfer) for Pell grant recipients and non-Pell grant recipients community college students, Pearson chi-square analyses were conducted. Frequency data were present for both the independent and dependent variables; thus, this statistical procedure was viewed as the optimal statistical procedure when all variables are categorical (Slate & Rojas-LeBouef, 2011). The assumptions for using Person chi-square procedures were met as the available sample size per cell was more than five due to the large sample size existent for this investigation.

Regarding the research question involving the upward transfer rates of community college students who were Pell grant recipients between the 2015-2016 academic year and the 2020-2021 academic year, a statistically significant difference was revealed, $\chi^2(1) = 529.90$, $p < .001$, Cramer's V of .40, moderate effect size (Cohen, 1988). The upward transfer rate of Pell grant recipients was statistically significantly higher, more than four times higher in the 2016-2017 academic year than in the 2020-2021 academic year. The percentages were 71.2% and 17.5%, respectively. During the 2015-2016 academic year and the 2020-2021 academic year, slightly more than half, 54.1%, of the Pell grant recipients transferred, as revealed in Table 3.7.

Insert Table 3.7 about here

With respect to the upward transfer rates of community college students who did not receive a Pell grant between the 2015-2016 academic year and the 2020-2021 academic year, the result was statistically significant, $\chi^2(1) = 414.56$, $p < .001$, Cramer's V of .31, moderate effect size (Cohen, 1988). The upward transfer rate of non-Pell grant recipients was statistically significantly higher in the 2015-2016 academic year, more than three times higher, than the upward transfer rate of non-Pell grant recipients in the 2020-2021 academic year. These percentages were 66.2% and 22.8%, respectively. During the 2015-2016 academic year and the 2020-2021 academic year, slightly more than half, 53.1%, of the non-Pell grant recipients transferred, as revealed in Table 3.7.

Upward transfer rates of community college students Pell grant recipients and non-Pell grant recipients were investigated in this multiyear investigation. Illustrated in Figures 3.1 and 3.2 are rates for Pell grant recipients and non-Pell grant recipients who transferred in the 2015-2016 academic year through the 2020-2021 academic year. In reference to the upward transfer rates of Pell grant recipients, a slight increase, two percentage points, was observed in upward transfer rates between the 2015-2016 academic year and the 2016-2017 academic year. From the 2016-2017 academic year to the 2019-2020 academic year, a progressive decrease was established in the upward transfer rate of Pell grant recipients, from 71% to 56%, respectively. A dramatic decrease was clearly evident in the 2020-2021 academic year as only 18% of the students transferred in that academic year, representing a 38% decrease from the 2019-2020

academic year. Readers are directed to Figure 3.1 for a visual depiction of the trend in upward transfer rates for Pell grant recipients.

Insert Figure 3.1 about here

With respect to the upward transfer rates of non-Pell grant recipients, upward transfer rates gradually decreased from the 2015-2016 academic year to the 2017-2018 academic year. During that time, around 6 out of 10 non-Pell grant recipients transferred. Upward transfer rates dropped to 57% in the 2018-2019 academic year and to 50% in the 2019-2020 academic year. A clear decrease was evident in the 2020-2021 academic year as only 2 out of 10 non-Pell grant recipients transferred in that academic year, representing a 43% decrease from the 2015-2016 academic year and a 27% decrease from the 2019-2020 academic year. Portrayed in Figure 3.2 is the upward transfer trend for non-Pell grant recipients

---

Insert Figure 3.2 about here

Upward transfer rates for Pell grant recipients and non-Pell grant recipients were similar in nature. Both groups had almost the same upward transfer rates through the 2015-2016 academic year and the 2020-2021 academic year, with a dramatic shift in the upward transfer rates for the 2020-2021 academic year. Throughout the 2015-2016 academic year, a slightly higher upward transfer rate was observed for Pell grant recipients than non-Pell grant recipients. In contrast, in the 2020-2021 academic year,

more non-Pell grant recipients transferred. Readers are directed to Figure 3.3 for the upward transfer trends for Pell grant and non-Pell grant recipients.

Insert Figure 3.3 about here

Discussion

Data from the 2015-2016 academic year to the 2020-2021 academic year were examined in this multiyear investigation centered on upward transfer as a function of economic status. Results from this research were consistent with previous researchers (Yuen, 2019; Wawrzynski & Sedlacek, 2003) regarding low upward transfer rates, as only 5 out of 10 Pell grant and non-Pell grant recipients transferred during that period. Still, the upward transfer rate for Pell grant and non-Pell grant recipients at this community college at above 50% is 20 percentage points higher than the upward transfer rate in the United States and almost 30 percentage points higher than the upward transfer rate in Texas.

Furthermore, results from this research investigation were not congruent with previous researchers who emphasized the presence of lower upward transfer rates for Pell grant recipients. As documented in this study, upward transfer rates for both groups are almost identical, with a slightly lower upward transfer rate for non-Pell grant recipients, around 2 to 8 percentage points from 2015-2016 to 2019 to 2020. Still, both groups showed a progressive decline from 2016-2017 to the 2019-2020 academic year. The only year Pell grant recipients transferred at a lower rate is the 2020-2021 academic year, by

five percentage points. Still, both groups showed a dramatic decline in the most recent academic year.

Connections with Existing Literature

Increases have been documented in the numbers of low-income students who attend community colleges (Fry & Cilluffo, 2019). Though this change is positive, their success rate is low (Choy & Bobbitt, 2000). Researchers (Dougherty & Kienzl, 2006; Gross & Goldhaber, 2009) have established the presence of low upward transfer rates for low-income students. In Texas, only 3 out of 10 community college students transferred to a 4-year university from the 2013 cohort (Community College Research Center, 2021), but it has been documented that the upward transfer rate for low-income students in this state is predominantly lower (Bailey et al., 2017).

This study's findings are contrary to researchers (Yuen, 2019) who have documented low upward transfer rates for community college students who are Pell grant recipients. The results from this investigation were that Pell grant recipients have transferred at a higher rate than non-Pell grant recipients from the 2015-2016 academic year to the 2020-2021 academic year. During the 2020-2021 academic year, the upward transfer rate was dramatically low for both groups. This academic year was the only one in which non-Pell grant recipients transferred at a higher rate than Pell grant recipients, by five percentage points.

Implications for Policy and for Practice

Based on the results of this multiyear investigation in which upward transfer rates were analyzed as a function of economic status, fluctuations can be seen in different time points, providing insight into the usefulness of multiyear investigations. The difference in

upward transfer rates from one time point to the other can provide helpful information for practitioners and policymakers. Several implications for policy and for practice can be made based on the similarities in upward transfer patterns for Pell grant and non-Pell grant recipients throughout the different academic years in this community college.

For practitioners, the low upward transfer rates of both groups should be analyzed to identify the practices that can be implemented to increase the upward transfer rate of Pell-grant and non-Pell grant recipients. Given the similar upward transfer rates for both groups of students, community college leaders could study the practices implemented at the college level that have supported Pell-grant recipients to upward transfer at the same or even better rate than non-Pell-grant recipients. Finally, considering that non-Pell grant recipients transferred at a higher rate than Pell grant recipients only on the 2020-2021 academic year, educational leaders should identify the factors that have had more substantive negative effects on Pell Grant recipients' upward transfer.

For policymakers, the parallel upward transfer rates of Pell grant and non-Pell grant recipients in this community college could provide some answers on how to reduce the upward transfer gap between these two groups. These results are especially important for Texas as the number of low-income students who attend community college is increasing. Thus, identifying the practices that can be implemented and emulated statewide would support the efforts of state leaders whose goal is to increase the number of students who obtain a bachelor's degree.

Recommendations for Future Research

Based on the results of this multiyear investigation, some recommendations for future research can be outlined. First, researchers should consider examining upward

transfer rates considering other demographic factors that might affect upward transfer. For example, researchers could analyze upward transfer as a function of race/ethnicity or as a function of first-generation status. In this research, upward transfer was analyzed by economic status. A second recommendation would be for researchers to study how a combination of demographic factors might influence upward transfer; for example, upward transfer as a function of race/ethnicity in combination with economic status. A third recommendation would be to conduct qualitative studies that might provide a more thorough understanding of students' experiences with the institutions' resources and transfer processes that influence upward transfer. A fourth recommendation would be to encourage researchers to conduct multiyear investigations in other community colleges. Only data on the students' upward transfer rate in one community college was examined in this multiyear investigation. The extent to which results can be generalized to other 2-year institutions of higher education is unknown. Finally, this community college's service area includes areas with low poverty levels and others with high poverty levels. Thus, it will be valuable for this community college to examine upward transfer as a function of economic status in relationship with the geographical service area.

Conclusion

The purpose of this study was to determine the degree to which differences were present between upward transfer rates for Pell grant and non-Pell grant recipients from the 2015-2016 academic year to the 2020-2021 academic year. Inferential analyses of six years of data revealed a progressive decline in upward transfer rates for both groups. Still, the absence of marked differences between upward transfer rates between Pell grant and non-Pell grant recipients was present.

References

Association of American Colleges and Universities. (2018). The income gaps in higher education enrollment and completion. *Insights and campus innovations in liberal education*. https://www.mendeley.com/reference-manager/reader/a0bfc77c-a51e-336e-b7b4-3720c5bbe8de/534f84bf-e0b1-96cd-0bbe-6961126af210

Bailey, M. J., & Dynarski, S. M. (2011). Inequality in postsecondary attainment. In G. Duncan & R. Murmane (Eds.), *Whither opportunity: Rising inequality, schools and children's life chances* (pp. 117-132). Russell Sage Foundation.

Bailey, T., Jenkins, D., Fink, J., Cullinane, J., & Schudde, L. (2017). Policy levers to strengthen community college transfer student success in Texas. *Community College Research Center*, 1-32. https://ccrc.tc.columbia.edu/media/k2/attachments/policy-levers-to-strengthen-community-college-transfer-student-success-in-texas.pdf

Beer, A. (2021). Diversity of community college students in 7 charts. *ACCT Now. Perspectives*. http://perspectives.acct.org/stories/diversity-of-community-college-students-in-7-charts

Bragg, D. (2017). Transfer matters: Forward to the special issues on transfer. *Community College Review, 45*(4), 267-272. https://doi.org/10.1177%2F0091552117728572

Choy, S., & Bobbitt, L. (2000). Low-income students: Who they are and how they pay for their education. Statistical Analysis Report. *Postsecondary Education Descriptive Analysis reports*. National Center for Education Statistics. https://nces.ed.gov/pubs2000/2000169.pdf

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.

Community College Research Center. (2021). *Community college FAQs. Community college enrollment and completion*. https://ccrc.tc.columbia.edu/Community-College-FAQs.html

Dougherty, K., & Kienzl, G. (2006). It's not enough to get through the open door: Inequalities by social background in transfer from community colleges to four-year colleges. *Teachers College Record, 108*(3), 452-487. https://eric.ed.gov/?id=EJ733285

Felix, E. R., & Trinidad, A. (2018). Fulfilling the transfer and mission at the urban technical college: How a transfer center mediates baccalaureate aspirations for students. *Community College Journal of Research and Practice, 42*(12), 861-877. https://doi.org/10.1080/10668926.2017.1361877

Fernandez, C., & Fletcher, C. (2014). Transfer students financial aid, and a new perspective on undermatching. *TG Research and Analytical Services*. https://eric.ed.gov/?id=ED579953

Fry, R., & Cilluffo, A. (2019). A rising share of undergraduates are from poor families, especially at less selective colleges. *Pew Research Center*. file:///C:/Users/amerilopez/OneDrive%20-%20Lone%20Star%20College/Desktop/Temporal/Pew-Research-Center-Undergrad-report-FINAL-05.22.19.pdf

Gonzalez, C. M. (2019). Community college students who attained a 4-year degree accrued lower student loan debt than 4-year entrants over 2 decades: Is a 10

percent debt accumulation reduction worth the added “Risk”? If so, for whom. *Research in Higher Education, 61*, 871-915. https://doi.org/10.1007/s11162-019-09565-9

Gross, B., & Goldhaber, D. (2009). Community college transfer and articulation policies. Looking beneath the surface. *Center on Reinventing Public Education*. https://files.eric.ed.gov/fulltext/ED504665.pdf

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative*, *and mixed approaches* (7th ed.). Sage.

LaSota, R., & Zumeta, W. (2016). What matters in increasing community college students' upward transfer to the baccalaureate degree: Findings from the Beginning Postsecondary Study 2003-2009. *Research in Higher Education, 57*, 152-189. https://doi.org/10.1007/s11162-015-9381-z

Ma, J., & Baum, S. (2016). Trend in community colleges: Enrollment, prices, student debt, and completion. *College Research Board Research Brief*. https://research.collegeboard.org/pdf/trends-community-colleges-research-brief.pdf

Slate, J. R., & Rojas-LeBouef, A. (2011). *Calculating basic statistical procedures in SPSS: A self-help and practical guide to preparing theses, dissertations, and manuscripts.* NCPEA Press.

Strumbos, D., Linderman, D., & Hicks C. C. (2018). Postsecondary pathways out of poverty: City university of New York accelerated study in associate programs and the case of national policy. *Journal of the Social Sciences, 4*(3), 100-117.

http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2018/02/CUNY-ASAP_RSF_201802.pdf

Texas Higher Education Coordinating Board. (2015). *Texas higher education strategic plan: 2015-2030*. https://files.eric.ed.gov/fulltext/ED573001.pdf

Texas Higher Education Coordinating Board. (2018). *Texas general academic institutions: Increasing successful community college transfer*. https://www.highered.texas.gov/DocID/PDF/11708.PDF

Texas Higher Education Coordinating Board. (2019). *60x30TX Progress Report*. http://www.60x30tx.com/media/1518/2019-60x30tx-progress-report.pdf

Texas Higher Education Coordinating Board. (2020). *Texas public higher education almanac. A profile of state and institutional performance and characteristics*. https://reportcenter.highered.texas.gov/agency-publication/almanac/2020-texas-public-higher-education-almanac/

U.S. Bureau of Labor Statistics. (2020). Earnings and unemployment rate by educational attainment. *Career Outlook*. https://www.bls.gov/careeroutlook/2021/data-on-display/education-pays.htm

Wang, X. (2009). Baccalaureate attainment and college persistence of community college transfer students at four year institutions. *Research in Higher Education, 50*(6), 570-588. http://dx.doi.org/10.1007/s11162-009-9133-z

Wang, X. (2012). Factors contributing to the upward transfer of baccalaureate aspirants beginning at community colleges. *The Journal of Higher Education, 83*(6), 851-875. https://doi.org/10.1080/00221546.2012.11777272

Wawrzynski, M. R., & Sedlacek, W. E. (2003). Race and gender differences in the transfer students. *Journal of College Student Development, 44*(4), 489-501. https://doi.org/10.1353/csd.2003.0045

Whitmire, R. (2019). *The B.A. breakthrough: How ending diploma disparities can change the face of America*. The 74 Media.

Xu, D., Ran, X., Fink, J., Jenkins, D., & Dundar, A. (2018). Collaboratively clearing the path to a baccalaureate degree: Identifying effective 2- to 4- year college transfer partnerships. *Community College Review, 46*(3), 231-256. https://doi.org/10.1177%2F0091552118772649

Yuen, V. (2019). New insights into attainment for low-income students. *Center for American Progress*. https://cdn.americanprogress.org/content/uploads/2019/02/21045717/LowIncomeStudentAttainment-brief1.pdf?_ga=2.248022151.1889398131.1626552397-1514135988.1626552397

Table 3.1

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2015-2016 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	323	68.9	146	31.1
Non-Pell Grant Recipient	448	66.2	229	33.8

Table 3.2

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2016-2017 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	373	71.2	151	28.8
Non-Pell Grant Recipient	457	63.5	263	36.5

Table 3.3

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2017-2018 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	340	65.6	178	34.4
Non-Pell Grant Recipient	493	63.6	282	36.4

Table 3.4

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2018-2019 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	329	60.5	215	39.5
Non-Pell Grant Recipient	386	56.8	294	43.2

Table 3.5

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2019-2020 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	342	55.9	270	44.1
Non-Pell Grant Recipient	400	49.8	404	50.2

Table 3.6

Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2020-2021 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	127	17.5	597	82.5
Non-Pell Grant Recipient	183	22.8	619	77.2

Table 3.7

Aggregated Frequencies and Percentages of Students by Economic Status and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

	Transferred		Did not Transfer	
Economic Status Group	*n*	*%*	*n*	*%*
Pell Grant Recipient	1,834	54.1	1,557	45.9
Non-Pell Grant Recipient	2,367	53.1	2,367	46.9

Figure 3.1

Rates for Pell Grant Recipients Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

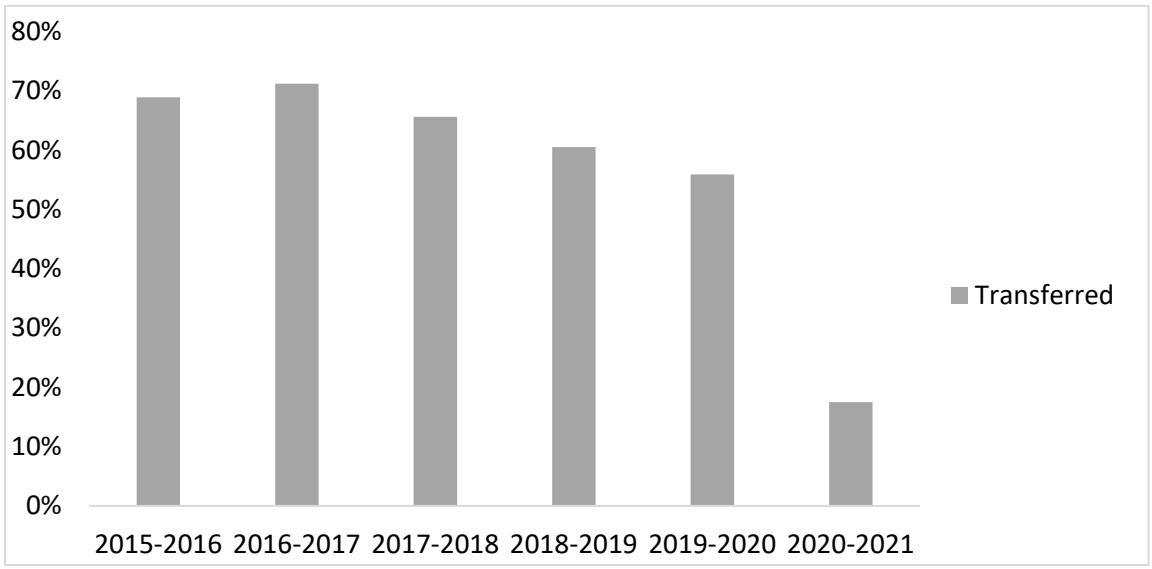


Figure 3.2

Rates for Non-Pell Grant Recipients Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

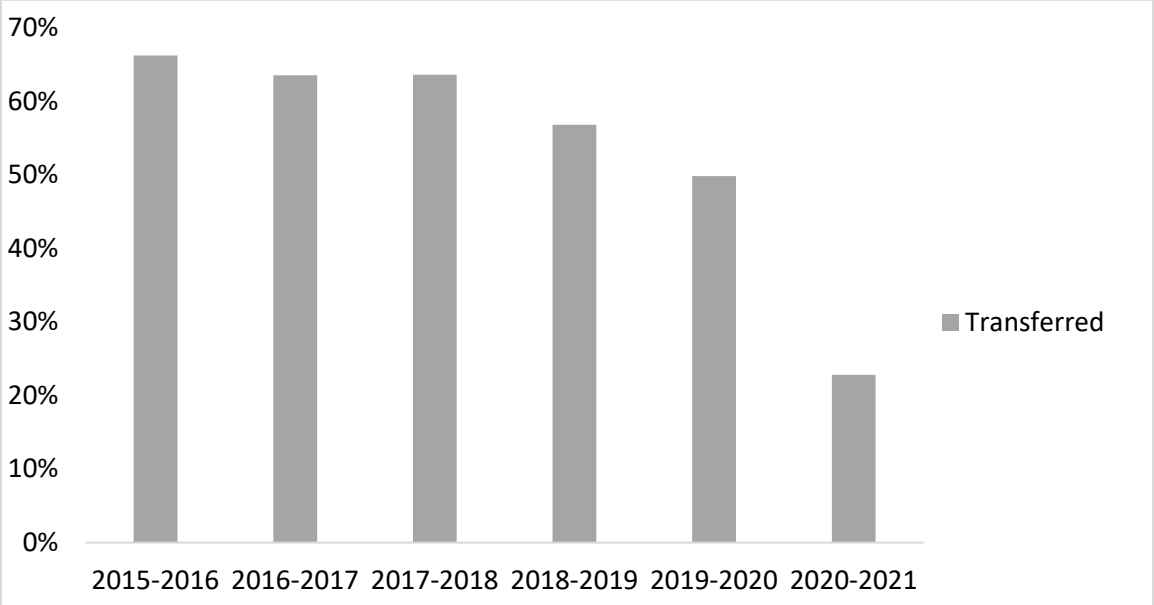
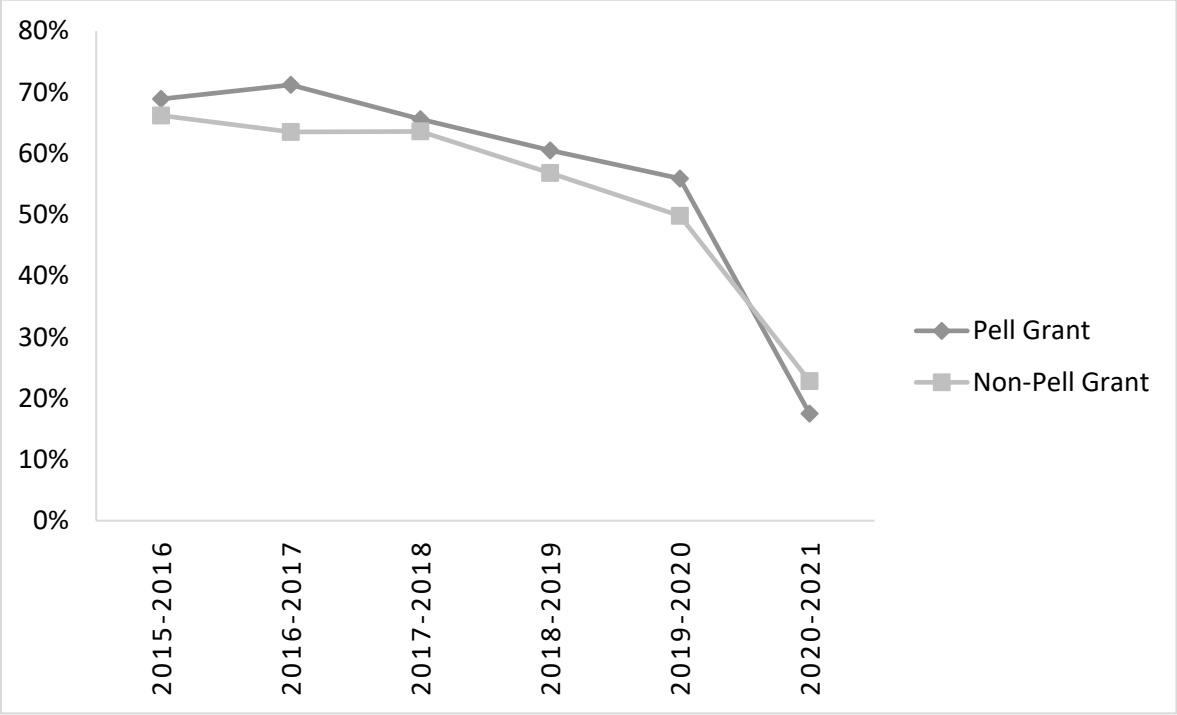


Figure 3.3

Upward Transfer Rates for Community College Students by Economic Status for the 2015-2016 through the 2020-2021 Academic Year



CHAPTER IV

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF FIRST-GENERATION STATUS: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

The purpose of this multiyear investigation was to determine the degree to which differences were present in upward transfer rates between first-generation and non-first-generation community college students from the 2015-2016 academic year to the 2020-2021 academic year. Inferential analyses revealed a slight decline in upward transfer rates for both groups from the 2015-2016 academic year to the 2019-2020 academic year. A dramatic decline was documented in upward transfer rates for both groups during the 2020-2021 academic year. No noticeable differences were present in upward transfer rates of community college students as a function of their first-generation status.

Keywords: Community College; First Generation; Upward transfer; 4-year University.

DIFFERENCES IN UPWARD TRANSFER AS A FUNCTION OF FIRST-GENERATION STATUS: A MULTIYEAR, COMMUNITY COLLEGE ANALYSIS

Different student populations have lower success and completion rates in postsecondary education. These low rates affect first-generation students, a term used to identify students whose parents or guardians do not have a bachelor's degree (Garriott et al., 2015). This designation of first-generation college students is used by most institutions of postsecondary education admission offices (Brookover et al., 2021) and by the Department of Education that provides this designation to students based on "parents educational attainment and not on the student's immigration status. Parental highest education level reflects the highest degree earned by either parent" (Cataldi et al., 2018, p. 2). This group of students is usually students of color, female, from low-income families, need to work, and attend school part-time (Radunzel, 2018). Of importance to this article is that first-generation students have lower enrollment, persistence, success, and completion rates compared to their continuing generation peers (Brookover et al., 2021; Cataldi et al., 2018; Radunzel, 2018; Redford & Hoyer, 2017); thus, their postsecondary journey is different.

The number of first-generation students attending college continues to increase (Bailey & Alfonso, 2005; Garriott et al., 2015). Some national estimates were that in the 2010-2011 academic year, around one-third were first-generation students (Cataldi et al., 2018) and in the 2015-2016 academic year, one-half (Center for First-Generation Student Success, 2021a) of all undergraduate students were first-generation students. Community colleges play an essential role in the postsecondary journey of many non-traditional students (Jabbar et al., 2017), including first-generation students whose attendance is

more prevalent at this type of institution. First-generation students represent 42% of the student population at 2-year colleges, compared to 23% of the undergraduate student population at 4-year universities (Cataldi et al., 2018).

In the United States, community colleges play a crucial role in improving the nation's educational attainment. Among all undergraduate students, 40% attend a community college (Community College Research Center, 2021). One of the primary roles of community colleges is to facilitate transfer (Jabbar et al., 2017). Of note is that, although 80% of community college students expressed a goal of transferring to a 4-year institution to obtain a bachelor's degree, only 30% actually do so (Community College Research Center, 2021). In Texas, the role of community colleges to support undergraduate students is vital as this state relies on this type of higher education institution even more than other states. Still, upward transfer does not occur at a high rate in Texas (Jenkins, 2013).

Upward transfer is "a term used to describe a student's transition from a community college or primarily associate degree-granting institution to a baccalaureate degree-granting institution or program" (LaSota & Zumeta, 2016, p. 153). Researchers (e.g., Bragg, 2017; Chase et al., 2012; Crisp & Nunez, 2014; Fink & Jenkins, 2017; Giani, 2016; LaSota & Zumeta, 2016; Smith, 2009) have centered their upward transfer studies on student demographic factors. Researchers have highlighted some risk factors that have negatively influence upward transfer, such as being a first-generation student (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wawrzynski & Sedlacek, 2003). Evidence exists that first-generation students are less likely to transfer from a 2-year college to a 4-year university (Radunzel, 2018; Taylor & Dimpal, 2017; Wang, 2012).

The low upward transfer rates of first-generation students can be understood by examining the connection with social capital theory (Moschetti & Hudley, 2008). Social capital theory relates to "relations among persons" (Coleman, 1988, p. 101) and plays a vital role in student degree aspiration; an important variable to understand with respect to postsecondary enrollment and educational attainment (Shahidul et al., 2015; Yu & Soki, 2019). Cultural and social capital is helpful to understand first-generation students' postsecondary journey. First-generation students are more likely to enter postsecondary education with less social capital. First-generation students might lack understanding about "the culture of higher education and its role in personal development and socioeconomic attainment" (Pascarella et al., 2004, p. 252) and skills on how to find support and resources (Moschetti & Hudley, 2008; Pascarella et al., 2004). Thus, they are at a disadvantage compared to students with highly educated parents.

Further, while social capital refers to relationships among persons and access to social networks, aspirational capital refers to the vision people have about their future (Sandoval-Lucero et al., 2014). Finally, researchers (e.g., Laanan et al., 2010; Rosenberg, 2015) have addressed transfer student capital to understand the relationship between upward transfer and social capital. Transfer student capital refers to the knowledge that students have accumulated regarding the transfer process to enable them to transfer between institutions

Upward transfer in Texas is essential as most community college students in Texas aspire to transfer (Bailey et al., 2017; Jenkins, 2013). Readers should note, however, that only 35% of students in Texas transfer to a 4-year university (Bailey et al., 2017). Texas has endorsed several policies to promote and facilitate upward transfer,

such as the Texas General Education Core Curriculum, the Common Course Numbering, and statewide transfer agreements (Bailey et al., 2017). Texas promotes the 2+2 postsecondary education journey in which students attend a 2-year college for two years and transfer to a 4-year university for the last two years to obtain a bachelor's degree. But, in reality, the transfer system is very inefficient as "There is lack of alignment between community college offering and university requirements" (Jenkins, 2013, p. 6). Less than 40% of the students transfer to a 4-year university (Bailey et al., 2017); less than 20% of the students who transfer in Texas earn an associate degree before transferring compared to 29% nationwide and 58% in Florida (Bailey et al., 2017), one of the states with more robust transfer policies (Jenkins, 2013). Texas has instituted a 42-credit framework for core general education curricula that can be transferred and must be accepted by 4-year universities. Still, students are unaware of these policies (Jenkins, 2013) and end up taking extra unnecessary credits once they transfer (Hodges et al., 2018).

Transfer student capital is essential to persist and graduate (Rosenberg, 2015). Consequently, this lack of understanding is especially detrimental for first-generation students who are disenfranchised and need extra support to navigate postsecondary education and understand the system (Brookover et al., 2021), including upward transfer procedures (Jabbar et al., 2019; Schwehm, 2017). Different researchers provide information about first-generation students' upward transfer rates. Jabbar et al. (2017) concluded that "social capital is not deterministic for transfer success" (p. 9); community college students can gain social capital, including transfer student capital thanks to the support of faculty and advisors (Jabbar et al., 2017; Maliszewski, 2020). Still, Crisp and

Nunez (2014) determined that "Having one or more parents who had earned a college degree increased the odds of successful transfer for minority students (p. 305).

Statement of the Problem

Based on information provided by the U.S. Department of Education, National Center for Education Statistics, 2015-2016, 1 out of 3 community college students are first-generation students. First-generation students are overrepresented at community colleges (30%) compared to 4-year universities (24%) (Beer, 2021). First-generation students of the undergraduate students attending community college are first-generation students are those students whose parents do not have a bachelor's degree. These student groups lag behind their non-first-generation peers as they might have fewer skills to navigate the postsecondary education complex system, in part due to their lower social capital (Moschetti & Hudley, 2008; Pascarella et al., 2004); aspirational capital (Sandoval-Lucero et al., 2014) and transfer student capital (Laanan et al., 2010; Rosenberg, 2015). First-generation status negatively influences persistence, graduation (Radunzel, 2018), and upward transfer (Taylor & Dimpal, 2017; Wang, 2012). In the 2015-2016 academic year, only 42% of first-generation students earned a bachelor’s degree compared to 58% of non-first-generation students (Center for First-Generation Student Success, 2021b).

Purpose of the Study

Specifically addressed in this quantitative study were upward transfer rates for Texas community college students who are first-generation students. Specifically, the degree to which students' first-generation status might play a role in upward transfer rates

was examined. Data from community college students in the 2015-2016 academic year through the 2020-2021 academic year were used in this investigation.

Significance of the Study

Texas relies on community colleges to provide a pathway to attain a bachelor's degree for many students (Jenkins, 2013), specially underrepresented students who are overrepresented in 2-year colleges (Santiago et al., 2017), including first-generation students (Cataldi et al., 2018). The Texas Higher Education Coordinating Board is the official Texas agency in charge of regulating postsecondary education. This agency has implemented different plans such as the Closing the Gaps plan (2000-2015) (Texas Higher Education Coordinating Board, 2005) and the 60x30TX Higher Education Plan (2015-2030) (Texas Higher Education Coordinating Board, 2015) to increase the number of adults who attain a postsecondary education; further, the plans include policies to address upward transfer as a vital step to increase the number of students who attain a bachelors degree. Despite the existence of policies and the recognition of transfer issues as well as the need to close gaps (Texas Higher Education Coordinating Board, 2001), no specific state data are available about the transfer rates of first-generation students.

Researchers have conducted studies to understand better transfer rates among underrepresented student populations; but few researchers, however, have centered their investigations in the relationship between students first generation status and upward transfer. Further, even fewer studies have been conducted to examine the degree to which differences might be present over time. This study will add to the existing literature available to comprehend better first-generation students upward transfer rates compared to non-first-generation students.

Research Questions

The following research questions were addressed in this study: (a) What are the percentages of first-generation community college students who transfer to a 4-year institution of higher education?; (b) What are the percentages of non-first-generation community college students who transfer to a 4-year I institution of higher education?; (c) What is the difference in the percentage of first-generation community college students who transfer to a 4-year institution of higher education between the 2015-2016 academic year and the 2020-2021 academic year?; (d) What is the difference in the percentage of non-first-generation community college students who transfer to a 4-year institution of higher education between the 2015-2016 academic year and the 2020-2021 academic year?; and (e) What is the trend in the percentages of first-generation and non-first-generation community college students who transfer in the 2015-2016 through the 2020-2021 academic years? The first two research questions were addressed for the 2015-2016 academic year through the 2020-2021 academic year whereas the third and fourth research questions involved comparisons of two academic years. Finally, the last research question involved an analysis of all six academic years of data.

Method

Research Design

A quantitative, nonexperimental causal-comparative research design (Johnson & Christensen, 2020) was used in this study. This investigation was centered in a public community college in Texas which archival data whereas obtained and analyzed. Independent variables and dependent variables cannot be manipulated or changed as archival data that has been collected for events that had occurred in the past were used.

Consequently, a cause and effect relationship between the dependent variables and independent variables was not made (Johnson & Christensen, 2020).

Participants and Instrumentation

The data that were analyzed herein were previously obtained from the selected community college database. The data were collected and analyzed by the college reporting office that is in charge of collecting data from all students attending the institution and providing among others information to the community college leadership to support planning and decision-making. Datasets requested and obtained were for the 2015-2016 through the 2020-2021 academic year. Participants of this study were all community college students attending the selected campus on whom data regarding upward transfer were available.

Results

This research study is centered on first-generation and non-first-generation community college students in a community college in Texas who have transferred or who have not transferred to a 4-year university. In reference to upward transfer rates as a function of first-generation status, descriptive statistics were calculated by first-generation and non-first-generation students who transferred and who did not transfer in each of the six academic years, as revealed in Tables 4.1 through 4.6. In the 2015-2016 academic year, the majority of students at this community college were non-first-generation students at 75.57%. A minority of students were first-generation community college students at 24.43%. Table 4.1 contains the descriptive statistics for the 2015-2016 academic year.

Insert Table 4.1 about here

Concerning the 2016-2017 academic year, non-first-generation students represented the majority of students at 70.98%. First-generation students were only 29.02% of the students in this academic year. Readers are directed to Table 4.2 for the descriptive statistics for the 2016-2017 academic year.

Insert Table 4.2 about here

With respect to the 2017-2018 academic year, the percentage of non-first-generation students remained above 70%, at 71.08%. The percentage of first-generation students was only 28.92%. Table 4.3 contains the descriptive statistics for the 2017-1028 academic year.

Insert Table 4.3 about here

In the 2018-2019 academic year, the majority of students were non-first-generation students at 73.86%. A minority of students were first-generation community college students at 26.14%. Delineated in Table 4.4 are the descriptive statistics for this analysis.

Insert Table 4.4 about here

In the 2019-2020 academic, the majority of students continue to be non-first-generation students at 74.58%. First-generation students continue to be the minority group at 25.42%. Delineated in Table 4.5 are the descriptive statistics for the 2019-2020 academic year.

Insert Table 4.5 about here

Finally, in the last academic year analyzed in this research investigation, 2020-2021, the percentage of non-first-generation students remained about 70% as in the previous years, at 73.79%. Non-first-generation students represented the minority at 26.21%. Readers are referred to Table 4.6 for the descriptive statistics for this analysis.

Insert Table 4.6 about here

Pearson chi-square analyses were completed to establish whether differences exist in upward transfer rates (i.e., Transfer, Did Not Transfer) for first-generation and non-first-generation community college students. This statistical method was viewed as the optimal statistical procedure because all variables are categorical (Slate & Rojas-LeBouef, 2011). The assumptions for using Pearson chi-square procedures were met as

the available sample size per cell was more than five due to the large sample size used for this study.

Concerning upward transfer rates of first-generation community college students between the 2015-2016 academic year and the 2020-2021 academic year, a statistically significant difference was revealed, $\chi^2(1) = 235.94$, $p < .001$, Cramer's V of .34, moderate size effect (Cohen, 1988). The upward transfer rate of first-generation community college students was statistically significantly higher in the 2016-2017 academic year, more than three times higher than that of first-generation community college students in the 2020-2021 academic year. These upward transfer percentages were 68.4% and 20.8%, respectively. Readers are referred to Table 4.7 for the descriptive statistics for this analysis. During the 2015-2016 academic year and the 2020-2021 academic year, slightly more than half, 52.6%, of first-generation students transferred, as revealed in Table 4.7.

Insert Table 4.7 about here

Regarding the upward transfer rates of non-first-generation college students between the 2015-2016 academic year and the 2020-2021 academic year, the result was statistically significant, $\chi^2(1) = 698.08$, $p < .001$, Cramer's V of .35, moderate effect size (Cohen, 1988). The upward transfer rate of non-first-generation students was statistically significantly higher in the 2015-2016 academic year, more than three times higher than that of non-first-generation students in the 2020-2021 academic year. These percentages were 67.4% and 20.2%, respectively. During the 2015-2016 academic year and the 2020-

2021 academic year, slightly more than half, 53.9%, of the non-first-generation students transferred, as revealed in Table 4.7.

Upward transfer rates of first-generation and non-first-generation community college students were investigated in this multiyear investigation. Illustrated in Figures 4.1 and 4.2 are rates for first-generation and non-first-generation students who transferred in the 2015-2016 academic year through the 2020-2021 academic year. Concerning the upward transfer rates of first-generation students, the upward transfer rates remained above 60% from the 2015-2016 academic year to the 2017-2018 academic year. The upward transfer rates for this student population decreased to just about 50% in the 2018-2019 academic year and the 2019-2020 academic year. A dramatic decrease was present in the 2020-2021 academic year as only 21% of the first-generation students transferred in that academic year, representing a 31% decrease from the 2019-2020 academic year. Depicted in Figure 4.1 is the trend in upward transfer rates for the six academic years analyzed in this investigation, portraying the prevailing low upward transfer rate for the last academic year 2020-2021.

Insert Figure 4.1 about here

Upward transfer rates of non-first-generation community college students gradually decreased from the 2015-2016 academic year to the 2018-2019 academic year. Upward transfer rates during those years remained at about 60% but declined to just about 50% in the 2019-2020 academic year. Upward transfer rates dropped dramatically in the 2020-2021 academic year to just 20%, representing a 47% decrease from the 2015-

2016 academic year and a 33% decrease from the 2019-2020 academic year. Illustrated in Figure 4.2 are the upward transfer rates trend for non-first-generation students.

Insert Figure 4.2 about here

Upward transfer rates for first-generation and non-first-generation students were similar in nature for the 2015-2016 academic year through the 2017-2018 academic year. There was a more significant upward transfer gap between first-generation and non-first-generation students in the 2018-2019 academic year, with almost 10 percentage points difference between the upward transfer rate of non-first-generation students at 61% compared to first-generation students at 52%. Both groups had almost the same upward transfer rates in the 2019-2020 academic year at just above 50% and in the 2020-2021 academic year at just above 20%. The substantial difference between the 2019-2020 and 2020-2021 academic years for both groups is dramatic at 30% difference between both academic years for both groups. Readers are directed to Figure 3.3 for a visual representation of the trend in upward transfer rates as a function of first-generation status.

Insert Figure 4.3 about here

Discussion

As documented in this multiyear investigation, upward transfer rates as a function of first-generation status were examined from the 2015-2016 academic year to the 2020-2021 academic year. The results described here were consistent with the finding of

previous researchers (Brookover et al., 2021; Cataldi et al., 2018) regarding the low percentage of students transferring from a community college to a 4-year institution of higher education. Still, the upward transfer rate for first-generation and non-first-generation recipients at this community college at above 50% is higher than the upward transfer rate in the United States by 20 percentage points and higher than the upward transfer rate in Texas by almost 30 percentage points.

Six years of data on community college students' upward transfer rate were analyzed for first-generation and non-first-generation students. Results were not consistent with previous research that has asserted lower upward transfer rates for first-generation students. Contrary to those findings, first-generation students upward transfer at a lower rate only in the 2017-2018 academic year and the 2018-2019 academic year. As for the other academic years examined in this research, both groups transferred at almost the same rate. Also, both groups had a dramatic drop in upward transfer rates in the last academic year.

Connections with Existing Literature

Community college students represent 44% of all undergraduate students enrolled in an institution of higher education, with up to 80% of those aspiring to transfer to earn a bachelor's degree (Community College Research Center, 2021). Additionally, the number of first-generation students continues to increase (Bailey & Alfonso, 2005; Garriott et al., 2015), but prior researchers (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wawrzynski & Sedlacek, 2003) have established that first-generation students transfer at a lower rate.

The findings of this multiyear investigation are not consistent with the existing literature regarding the lower upward transfer rate of first-generation students. Contrary to findings from previous researchers (e.g., Taylor & Dimpal, 2017), results from this investigation present an almost identical upward transfer rate for first-generation and non-first-generation community college students, at 54% and 55%, respectively, from the 2015-2016 academic year to the 2020-2021 academic year. During the 2020-2021 academic year, the upward transfer rate for both groups was extremely low, affecting more non-first-generation students whose upward transfer rate was 20% compared to first-generation students' upward transfer rate at 21%.

Implications for Policy and for Practice

Based on this analysis of six years of community college data, several implications for policy and practices can be outlined. Fluctuations were present in upward transfer rates across different time points that can provide valuable information for policymakers and practitioners. Upward transfer rates as a function of first-generation status in this multiyear investigation were low, accompanied by a downward trend for both groups. Still, no marked differences were present between first-generation and non-first-generation community college students.

For practitioners, the low upward transfer rates for both groups should be analyzed to provide research-based strategies and practices aimed at improving upward transfer rates. College leaders should examine and capitalize on the practices that have provided the needed support to first-generation students who are transferring at the same rate as non-first-generation students. Finally, practitioners should seriously consider the dramatically lower upward transfer rates during the 2020-2021 academic year to

understand the detrimental barriers students face to transfer to a 4-year university during this academic year.

Policymakers are interested in bridging the gap between first-generation and non-first-generation community college students' upward transfer rates. Thus, it will be valuable to analyze the practices that this particular college has implemented that have resulted in similar upward transfer rates for both groups of students. The State of Texas has recognized the need to support first-generation students who are attending community colleges at higher rates. Thus, practices implemented by this community college could provide some insight on how to support this group of students in a proper manner.

Recommendations for Future Research

Several recommendations for future research can be given based on the results of this multiyear investigation. Data on only one of the demographic factors that might negatively affect upward transfer was considered in this investigation. Accordingly, researchers are encouraged to examine other demographic factors that might influence upward transfer, such as race/ethnicity, gender, or economic status. A second recommendation would be to analyze how a combination of demographic factors could influence the upward transfer from a 2-year college to a 4-year university; for example, the relationship between first-generation community college students who are also a minority based on their race/ethnicity or their economic status. This community college's service area includes areas with low poverty levels and others with high poverty levels. Thus, a third recommendation that would benefit this particular institution of higher education would be to address upward transfer in relationship with the geographical

service area in combination with demographic factors. Only data on student upward transfer rate in one community college was examined in this research. As such, a fourth recommendation would be for researchers to conduct multiyear investigations in other settings (e.g., other community colleges, other states) as the extent to which results can be generalized to other 2-year institutions of higher education is unknown. Finally, this is a quantitative study and it would be advantageous to conduct qualitative studies to obtain individuals' perspectives about barriers to upward transfer and the like.

Conclusion

The purpose of this multiyear research investigation was to establish the degree to which differences were present between upward transfer rates for first-generation and non-first-generation community college students from the 2015-2016 academic year to the 2020-2021 academic year. Inferential analyses revealed a slight progressive decline in upward transfer rates for first-generation and non-first-generation students. No noticeable differences were evident between the upward transfer rates for both groups of students.

References

Bailey, T. R., & Alfonso, M. (2005). Paths to persistence: An analysis of research on program effectiveness at community colleges. *Lumina Foundation, New Agenda Series*. 1-44. https://ccrc.tc.columbia.edu/media/k2/attachments/paths-persistence-program-effectiveness.pdf

Bailey, T., Jenkins, D., Fink, J., Cullinane, J., & Schudde, L. (2017). Policy levers to strengthen community college transfer student success in Texas. *Community College Research Center*, 1-32. https://ccrc.tc.columbia.edu/media/k2/attachments/policy-levers-to-strengthen-community-college-transfer-student-success-in-texas.pdf

Beer, A. (2021). Diversity of community college students in 7 charts. *ACCT Now. Perspectives*. http://perspectives.acct.org/stories/diversity-of-community-college-students-in-7-charts

Bragg, D. (2017). Transfer matters: Forward to the special issues on transfer. *Community College Review, 45*(4), 267-272. https://doi.org/10.1177%2F0091552117728572

Brookover, D. L., Hanlye, E. M., Baoulden, R., & Johnson, K. F. (2021). "I want to be a first": Student, family, and school factors influencing first-generation student college readiness. *School Community Journal, 31*(1). http://www.schoolcommunitynetwork.org/SCJ.aspx

Cataldi, E. F., Bennett, C. T., & Chen, X. (2018). Stats in brief. First-Generation students. College access, persistence, and postbachelor's outcomes. *National Center for Education Statistics at IES.* https://nces.ed.gov/pubs2018/2018421.pdf

Chase, M. M., Dowd, A. C., Pazich, L. B., & Bensimon, E. M. (2014). Transfer equity for "minorized" students: A critical policy analysis of seven states. *Educational Policy, 28*(5), 669-717. https://doi.org/10.1177%2F0895904812468227

Center for First-Generation Student Success. (2021a). *First-generation College Graduates*. https://firstgen.naspa.org/files/dmfile/FactSheet-011.pdf

Center for First-Generation Student Success. (2021b). *First-Generation College Students*. https://firstgen.naspa.org/files/dmfile/FactSheet-01.pdf

Coleman. J. S. (2008). Social capital in the creation of human capital. *American Journal of Sociology, 11,* 95-120. http://www.jstor.org/stable/2780243

Community College Research Center. (2021). *Community college FAQs. Community college enrollment and completion*. https://ccrc.tc.columbia.edu/Community-College-FAQs.html

Crisp, G., & Nunez, A. M. (2014). Understanding the racial transfer gap: Modeling underrepresented minority and nonminority students' pathways from two- to four-year institutions. *Review of Higher Education, 37*(3), 291-320. http://dx.doi.org/10.1353/rhe.2014.0017

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.

Felix, E. R., & Trinidad, A. (2018). Fulfilling the transfer and mission at the urban technical college: How a transfer center mediates baccalaureate aspirations for students. *Community College Journal of Research and Practice, 42*(12), 861-877. https://doi.org/10.1080/10668926.2017.1361877

Fink, J., & Jenkins, F. (2017). Takes two to tango: Essential practices of highly effective transfer partnerships. *Community College Review, 45*(4), 294-310. https://doi.org/10.1177/0091552117724512

Garriott, P. O., Hudyma, A., Keene, C., & Santiago, D. (2015). Social cognitive predictors of first- and non-first-generation college students' academic and life satisfaction. *Journal of Counseling Psychology, 62*(2), 253-263. https://doi.org/10.1037/cou0000066

Giani, M. (2016). *Transfer research questions that matter: 2016 transfer scholar meeting recommendations. Credit when it's due*. https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/158/2018/08/23173636/CWID-Data-Note7.pdf

Hodges, R., Payne, M. E., Suh, E., Hernandez, P., Wu, N., Castillo, A., & Shetron, T. H. (2018). A review of demographic trends for Texas and the United States. *Journal of College Academic Support Programs, 1*(2). https://digital.library.txstate.edu/bitstream/handle/10877/7922/Issue2-FA3.pdf?isAllowed=y&sequence=1

Jabbar, H., McKinnon-Crowley, S., & Serrata, C. (2019). Complex pathways to transfer: A qualitative comparative analysis of the transition from community college to 4-year university. *AERA Open, 5*(2). https://doi.org/10.1177%2F2332858419852039

Jabbar, H., Epstein, E., Edwards, W., & Sanchez, J. (2017). Constructing choice sets: How Texas community college students choose transfer institutions. *The University of Texas at Austin*, 1-50.

https://tacc.org/sites/default/files/documents/2018-07/gtf_constructing_choice_sets.pdf

Jenkins, D. (2013). *Texas would benefit by improving its community college to bachelor's transfer system (Policy Brief).* Educate Texas. https://www.edtx.org/our-impact-areas/higher-education/texas-student-success-council/tssc_transfer.pdf

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.

Laanan, F. S., Starobin, S. S., & Eggleston, L. E. (2010). Adjustment of community college transfer students at a four-year university: Role and relevance of transfer student capital for student retention. *Journal of College Student Retention, 12*(2), 175-209. https://doi.org/10.2190%2FCS.12.2.d

LaSota, R., & Zumeta, W. (2016). What matters in increasing community college students' upward transfer to the baccalaureate degree: Findings from the Beginning Postsecondary Study 2003-2009. *Research in Higher Education, 57*, 152-189. https://doi.org/10.1007/s11162-015-9381-z

Maliszewski, C. (2020). Facilitating transfer student success: Exploring sources of transfer student capital. *Community College Review, 48*(1), 31-54. https://doi.org/10.1177/0091552119876017

Moschetti, R., & Hudley, C. (2008). Measuring social capital among first-generation and non-first-generation, working class, White males. *Journal of College Admissions*. https://files.eric.ed.gov/fulltext/EJ829418.pdf

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First generation college students additional evidence on college experience and

outcomes. *The Journal of Higher Education*, 75(3), 249-284. https://doi.org/10.1080/00221546.2004.11772256

Radunzel, J. (2018). They may be first but will they last? Retention and transfer behavior of first-generation students. *ACT*. http://www.act.org/content/dam/act/unsecured/documents/R1708-retention-firstgen-2018-04.pdf

Redford, J., & Hoyer, K. M. (2017) First-generation and continuing generation college students: A comparison of high school and postsecondary experiences. *National Center for Education Statistics*. https://www.semanticscholar.org/paper/First-Generation-and-Continuing-Generation-College-Redford-Hoyer/ce2b565619f1b1fc133394eb9be8a049a2200f77

Rosenberg, M. J. (2015). Generational differences in transfer student capital among community college students. Educational Theses and dissertations—Educational Policy Studies and Evaluation. *Educational Policy Studies and Evaluation, 31*. https://uknowledge.uky.edu/epe_etds/31

Sandoval-Lucero, E., Maes, J., & Klingsmith, L. (2014). African American and Latina(o) community college students' social capital and student success. *College Student Journal, 48*(3), 522-533. https://www.hartnell.edu/sites/default/files/u714/peer_reviewed_journal_article_2.pdf

Schwehm, J. (2017). Do student demographics and community college experiences influence the adjustment process of adult vertical transfer students? *Community college Enterprise, 23*(1), 9-25. https://eric.ed.gov/?id=EJ1158192

Shahidul, S. M., Zehadul, A. H. M., & Mustari, S. (2015). Social capital and educational aspiration of students: Does family social capital affect more compared to school social capital? *International Education Studies, 8*(12), 255-260. http://dx.doi.org/10.5539/ies.v8n12p255

Slate, J. R., & Rojas-LeBouef, A. (2011). *Calculating basic statistical procedures in SPSS: A self-help and practical guide to preparing theses, dissertations, and manuscripts.* NCPEA Press.

Smith, D. G. (2009). *Diversity's promise for higher education*. Johns Hopkins University Press.

Taylor, J. L., & Dimpal, J. (2017). The multiple dimensions of transfer: Examining the transfer function in American higher education. *Community College Review, 45*(4), 273-293. https://doi.org/10.1177%2F0091552117725177

Texas Higher Education Coordinating Board. (2001). *Transfer issues advisory committee report. Identifying and closing the gaps*. http://www.thecb.state.tx.us/DocID/pdf/0427.pdf

Texas Higher Education Coordinating Board. (2005). *Closing the gaps by 2015. The Texas higher education plan*. http://www.thecb.state.tx.us/DocID/PDF/0379.PDF

Texas Higher Education Coordinating Board. (2015). *Texas Higher Education strategic plan: 2015-2030*. https://files.eric.ed.gov/fulltext/ED573001.pdf

Wang, X. (2012). Factors contributing to the upward transfer of baccalaureate aspirants beginning at community colleges. *The Journal of Higher Education, 83*(6), 851-875. https://doi.org/10.1080/00221546.2012.11777272

Wawrzynski, M. R., & Sedlacek, W. E. (2003). Race and gender differences in the transfer students. *Journal of College Student Development, 44*(4), 489-501. https://doi.org/10.1353/csd.2003.0045

Yu, C., & Soki, S. (2019). Formation of social capital for community college students: A second-order confirmatory factor analysis. *Community College Review, 47*(1), 3-30. https://doi.org/10.1177/0091552118815758

Table 4.1

Frequencies and Percentages of Students by First Generation Status and Upward Transfer Status for the 2015-2016 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	187	66.8	93	33.2
Non-First-Generation	584	67.4	282	32.6

Table 4.2

Frequencies and Percentages of Students by First-Generation Status and Upward Transfer Status for the 2016-2017 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	247	68.4	114	31.6
Non-First-Generation	583	66.0	300	34.0

Table 4.3

Frequencies and Percentages of Students by First-Generation Status and Upward Transfer Status for the 2017-2018 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	233	62.3	141	37.7
Non-First-Generation	600	65.3	319	34.7

Table 4.4

Frequencies and Percentages of First-Generation Status and Upward Transfer Status for the 2018-2019 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	165	51.6	155	48.4
Non-First-Generation	550	60.8	354	39.2

Table 4.5

Frequencies and Percentages of Students by First-Generation Status and Upward Transfer Status for the 2019-2020 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	186	51.7	174	48.3
Non-First-Generation	556	52.7	500	47.3

Table 4.6

Frequencies and Percentages of Students by First-Generation Status and Upward Transfer Status for the 2020-2021 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	83	20.8	317	79.3
Non-First-Generation	227	20.2	899	79.8

Table 4.7

Aggregated Frequencies and Percentages of Students by First-Generation Status and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

	Transferred		Did not Transfer	
First-Generation Status Group	*n*	*%*	*n*	*%*
First-Generation	1,101	52.6	994	47.4
Non-First-Generation	3,100	53.9	2,654	46.1

Figure 4.1

Rates for First-Generation Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

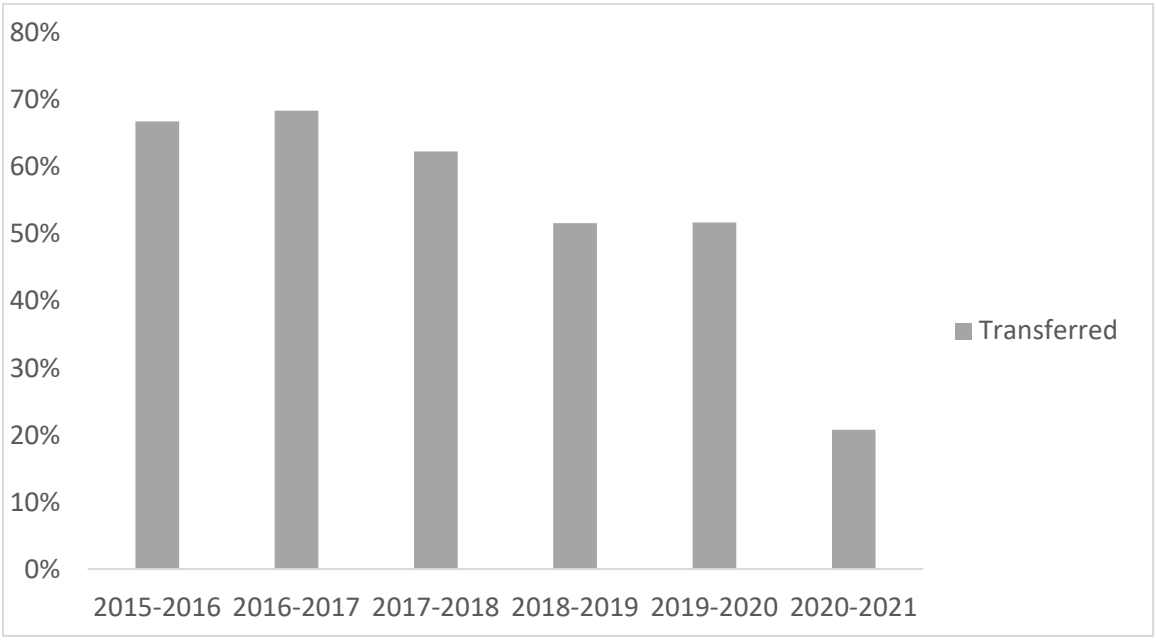


Figure 4.2

Rates for Non-First-Generation Community College Students and Upward Transfer Status for the 2015-2016 through the 2020-2021 Academic Year

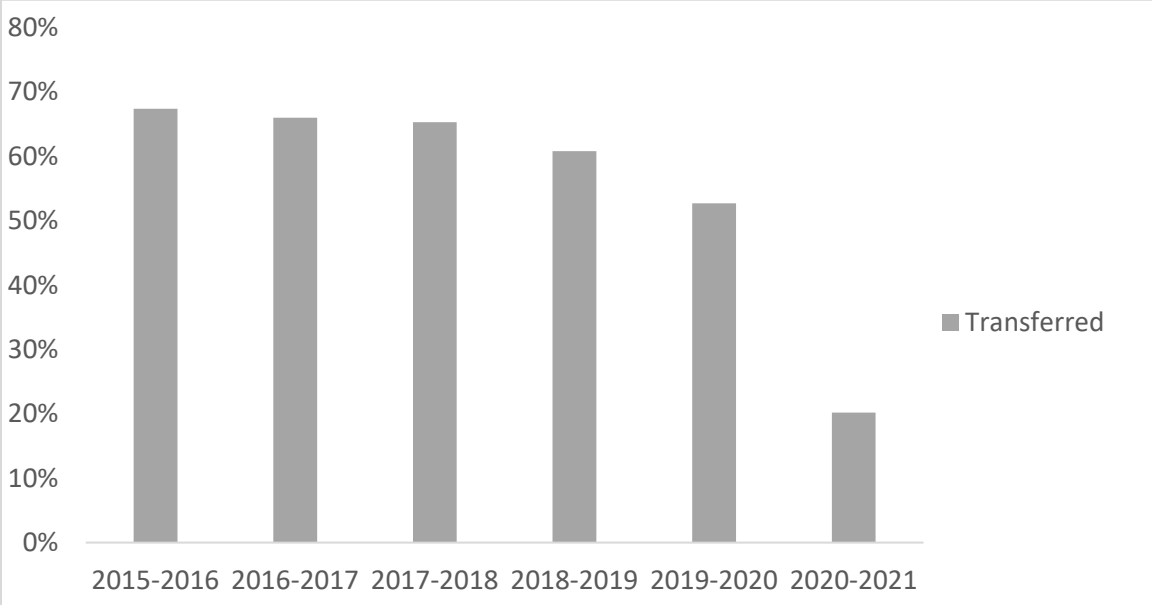
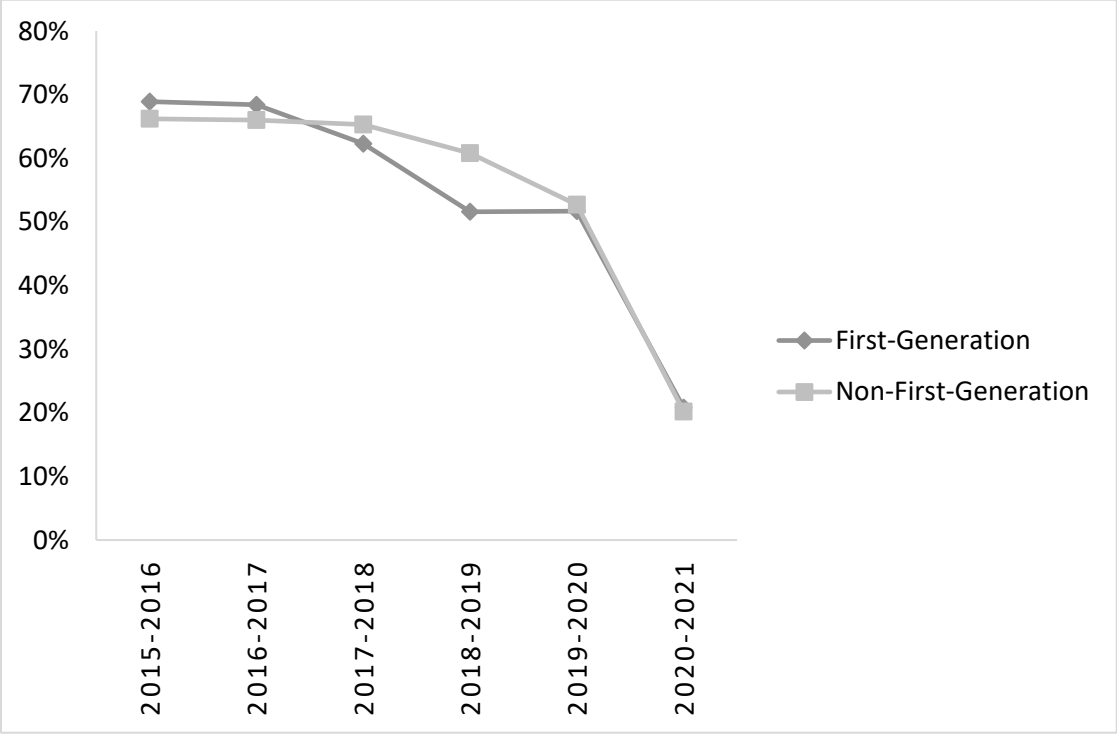


Figure 4.3

Upward Transfer Rates for First-Generation Community College Students for the 2015-2016 through the 2020-2021 Academic Year



CHAPTER V

DISCUSSION

The overall purpose of this journal-ready dissertation centered on community college students in Texas, was to determine the degree to which changes had occurred in upward transfer rates. The first specific purpose was to establish the degree to which changes had occurred in upward transfer rates for Asian, Black, Hispanic, and White community college students in the 2015-2016 academic year through the 2020-2021 academic year. A second purpose was to determine which changes existed in upward transfer rates for Pell grant recipients, non-Pell grant recipients, and low-income community college students in the 2015-2016 academic year through the 2020-2021 academic year. The final purpose of this study was to ascertain the extent to which changes had occurred in upward transfer rates for first-generation community college students in the 2015-2016 academic year through the 2020-2021 academic year.

For each of the three articles in this journal-ready dissertation, their findings are discussed and summarized in this chapter. Then, implications for policy and practice are provided, followed by recommendations for future research. A summary will conclude this chapter.

Discussion of Article One Results

In the first investigation, upward transfer rates for Asian, Black, Hispanic, and White students were addressed. Six years of archival data from a community college were analyzed for the 2015-2016 academic year through the 2020-2021 academic year. Comparisons of upward transfer rates were conducted between the beginning academic

year and the most recent academic year separately for each of the four ethnic/racial groups of students.

For the six academic years analyzed, no statistically significant differences were present in upward transfer rates for Asian, Black, Hispanic, and White students between the 2015-2016 academic year and the 2020-2021 academic year. Upward transfer rates increased for Asian community college students from the 2015-2016 academic year to the 2017-2018 academic year by 19.7%. This trend did not continue as upward transfer rates declined from the 2017-2018 academic year to the 2019-2020 academic year by 18.9%. The upward transfer rate for Asian students declined dramatically for the 2020-2021 academic year by 23.4 percentage points from the previous academic year. Readers are directed to Table 5.1 for the results of this analyses.

Table 5.1

Summary of Results for Asian Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Small	54.8
2016-2017	Yes	Small	63.0
2017-2018	Yes	Small	74.5
2018-2019	Yes	Small	56.0
2019-2020	Yes	Small	55.6
2020-2021	Yes	Small	32.2

Upward transfer rates for Black community college students followed a similar trend that the one for Asian community college students as the upward transfer rates increased from the 2015-2016 academic year to the 2017-2018 academic year and then declined in the following years. The upward transfer rate for Black students increased from the 2015-2016 academic year to the 2017-2018 academic year by 6.3%. The upward transfer rates declined from the 2017-2018 academic year to the 2019-2020 academic year by 26.2%, reversing the trend. The upward transfer rate declined dramatically for the 2020-2021 academic year by 24.9 percentage points from the previous academic year. The results of the statistical analyses are portrayed in Table 5.2.

Table 5.2

Summary of Results for Black Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	67.4
2016-2017	Yes	Moderate	68.6
2017-2018	Yes	Moderate	73.7
2018-2019	Yes	Moderate	57.9
2019-2020	Yes	Moderate	47.5
2020-2021	Yes	Moderate	22.6

In reference to the upward transfer rates of Hispanic students, an increase of 3.3 percentage points was observed from the 2015-2016 academic year to the 2016-2017 academic year. Still, upward transfer rates declined from the 2016-2017 academic year to

the 2019-2020 academic year by 16%. The dramatic decline documented for Asian and Black students was also documented for Hispanic students, registering the most dramatic decline among all race/ethnic groups analyzed in this investigation, the upward transfer rate declined by 33.9 percentage points from the 2019-2020 academic year to the 2020-2021 academic year.

Table 5.3

Summary of Results for Hispanic Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	64.5
2016-2017	Yes	Moderate	67.8
2017-2018	Yes	Moderate	64.1
2018-2019	Yes	Moderate	58.7
2019-2020	Yes	Moderate	51.8
2020-2021	Yes	Moderate	17.9

Contrary to the other racial/ethnic groups, upward transfer rates for White students followed a downward trend for all the six years analyzed. The upward transfer rate declined from the 2015-2016 academic year to the 2019-2020 academic year by 12.7%. The upward transfer rates for White student declined dramatically for the 2020-2021 academic year, almost at the same rate as Hispanic students by 32.8 percentage points. Delineated in Table 5.4 are the results of the statistical analyses.

Table 5.4

Summary of Results for White Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	69.3
2016-2017	Yes	Moderate	65.7
2017-2018	Yes	Moderate	62.7
2018-2019	Yes	Moderate	58.7
2019-2020	Yes	Moderate	52.9
2020-2021	Yes	Moderate	20.1

Discussion of Article Two Results

In the second investigation, upward transfer rates for community college students as a function of economic status was addressed. Archival data from a community college were analyzed for the 2015-2016 academic year through the 2020-2021 academic year. As such, the extent to which a trend was present in upward transfer rates for Pell grant and non-Pell grant recipients could be ascertained.

For the first five academic years analyzed, Pell grant recipients had an upward transfer rate that was higher than the rate of non-Pell grant recipients. Only in the 2020-2021 academic year was the upward transfer rate of non-Pell grant recipients higher than the upward transfer rate of Pell grant recipients. The upward transfer rate for Pell-grant recipients increased from the 2015-2016 academic year to the 2016-2017 academic year

by 2.3%. Further, from the 2016-2017 academic year to the 2019-2020 academic year the upward transfer rate steadily decreased by approximately five percentage points each academic year. The decline in upward transfer rate was 38.4 percentage points lower on the 2020-2021 academic year compared to the previous academic year. The results of the statistical analyses are presented in Table 5.5.

Table 5.5

Summary of Results for Pell Grant Recipients and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	68.9
2016-2017	Yes	Moderate	71.2
2017-2018	Yes	Moderate	65.6
2018-2019	Yes	Moderate	60.5
2019-2020	Yes	Moderate	55.9
2020-2021	Yes	Moderate	17.5

The upward transfer rate for non-Pell grant recipients declined by 2.7 percentage points from the 2015-2016 academic year to the 2016-2017 academic year. This upward transfer rate increased by only 0.1 percentage points by the 2017-2018 academic year. A substantial decrease was evident in upward transfer rates from that academic year to the 2019-2020 academic year by 13.8 percentage points. Finally, the 27 percentage points upward transfer rate decline in the 2020-2021 academic year follows the same trend as

the one for Pell grant recipients. Revealed in Table 5.6 are the descriptive results of the statistical analyses.

Table 5.6

Summary of Results for Non-Pell Grant Recipients and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	66.2
2016-2017	Yes	Moderate	63.5
2017-2018	Yes	Moderate	63.6
2018-2019	Yes	Moderate	56.8
2019-2020	Yes	Moderate	49.8
2020-2021	Yes	Moderate	22.8

Discussion of Article Three Results

In the third investigation, upward transfer rates for community college students as a function of first-generation status were addressed. Archival data from a community college were analyzed for the 2015-2016 academic year through the 2020-2021 academic year. As such, the extent to which a trend was present in upward transfer rates for first-generation and non-first-generation students could be determined.

For the six academic years analyzed, first-generation and non-first-generation students had similar upward transfer rates from the 2015-2016 academic year to the 2020-2021 academic year. The upward transfer rate of first-generation community

college students increased from the 2015-2016 academic year to the 2016-2017 academic year by 1.6%. The upward transfer rate steadily decreased from the 2016-2017 academic year to the 2018-2019 academic year. From the 2018-2019 academic year to the 2019-2020 academic year, the upward transfer rate remained the same. A substantial decrease was observed in upward transfer rates from the 2019-2020 academic year to the 2020-2021 academic year, a decrease of 30.9 percentage points. Table 5.7 contains the results of the statistical analyses.

Table 5.7

Summary of Results for First-Generation Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	66.8
2016-2017	Yes	Moderate	68.4
2017-2018	Yes	Moderate	62.3
2018-2019	Yes	Moderate	51.6
2019-2020	Yes	Moderate	51.7
2020-2021	Yes	Moderate	20.8

The upward transfer rate for non-first-generation community college students decreased from the 2015-2016 academic year to the 2019-2020 academic year. A slight decline was present for the first three academic years by only one percentage point each year. A decline of four percentage points was observed from the 2017-2018 academic

year to the 2018-2019 academic year. A sharper decline of eight percentage points was documented from the 2018-2019 academic year to the 2019-2020 academic year. Finally, the upward transfer rate for non-first-generation students declined dramatically by 32.5 percentage points for the 2020-2021 academic year. The results of the statistical analyses are summarized in Table 5.8.

Table 5.8

Summary of Results for Non-First-Generation Students and Upward Transfer Status for the 2015-2016 Academic Year Through the 2020-2021 Academic Year

Academic Year	Statistically Significant	Effect Size	Upward Transfer Percentage Rates
2015-2016	Yes	Moderate	67.4
2016-2017	Yes	Moderate	66.0
2017-2018	Yes	Moderate	65.3
2018-2019	Yes	Moderate	60.8
2019-2020	Yes	Moderate	52.7
2020-2021	Yes	Moderate	20.2

Connections with Theoretical Framework

The concept of social capital has been applied by researchers (e.g., Liou & Change, 2008) to understand disparities in the educational attainment of minorities based on inequalities (e.g., race/ethnicity). Further, the concept of social capital has played a key role in understanding degree aspiration which is regarded as an important variable to understand student desire to pursue their postsecondary education and ambition to attain a

postsecondary degree (Shahidul et al., 2015; Yu & Soki, 2019). Further, transfer student capital, a term developed from the concept of social capital, refers to the accumulation of knowledge about the transfer process that facilitates upward transfer (Laanan et al., 2010; Rosenberg, 2015). Social capital and transfer capital has been used to understand inequalities, for example, the lower upward transfer rates among students of color, low-income students, and first-generation students. Additionally, the less transfer capital a student accumulates can result in lower persistence that can result in lower upward transfer rates. The results described here were consistent with the finding of previous researchers.

The theory does not explain or account for the current upward transfer rates of community college students as a function of race/ethnicity, economic status, and first-generation status based on the findings of this investigation. Contrary to what is predicted by the theory, underrepresented students who might have lower social and transfer capital did not have a lower upward transfer rate compared to their counterparts based on their race/ethnicity, economic status, or first-generation status. The theory might account for conditions in other community colleges or other areas. Further, the theory might be applicable when analyzing upward transfer rates combining demographic and other risk factors that might influence upward transfer rates.

Connections with Existing Literature

The findings of this multiyear investigation centered on upward transfer as a function of race/ethnicity on the first article, as a function of economic status on the second article, and as a function of first-generation status on the third article, were not consistent with the existing literature regarding the lower upward transfer rate of

historically underrepresented students. As established in the first investigation, no statistically significant differences were present in upward transfer rates as a function of race/ethnicity. Upward transfer rates of Hispanic students were lower than the upward transfer rates for Asian and Black students but only by a minimal rate. Also, the upward transfer rates of White students were similar to the upward transfer rate of Hispanic students. These findings were not commensurate with the results reported by other researchers (Crisp & Nunez, 2014; LaSota & Zumeta, 2016; Wang, 2012) who have established the presence of lower transfer rates for students of color.

The statistically significant findings discussed in the second investigation regarding upward transfer as a function of economic status were not consistent with findings from previous researchers (e.g., Dougherty & Kienzl, 2006; Gross & Goldhaber, 2009) who have asserted that low-income students transfer at a lower rate than non-low-income students. The results from the second investigation were that Pell grant recipients have transferred at a higher rate than non-Pell grant recipients from the 2015-2016 academic year to the 2020-2021 academic year; these finding are contrary to the finding of Yuen (2019) who documented low upward transfer rates for Pell grant recipients.

The third investigation centered in upward transfer as a function of first-generation status. The results from the third investigation were that first-generation and non-first-generation students transferred at similar rates. These findings are contrary to the findings of researchers (Felix & Trinidad, 2018; LaSota & Zumeta, 2016; Wawrzynski & Sedlacek, 2003) who have reported lower transfer rates for first-generation students.

Implications for Policy and for Practice

Several implications for policy and practice can be outlined based on the findings of this journal ready dissertation. In terms of policy implications, the results from this investigation were that the upward transfer rates for community college students as a function of race/ethnicity, economic status, and first-generation status were higher than findings at the state and national level. These results have the potential of providing some insight into policies and practices that this community college has implemented that can have positive effects on upward transfer rates. Policymakers are interested in bridging the inequality upward transfer gap and increase the number of underrepresented students who transfer from a 2-year college to a 4-year university. Thus, it will be valuable to analyze the practices that this college has implemented that have resulted in similar upward transfer rates.

For policymakers, the parallel upward transfer rates of community college students as a function of ethnicity/race, economic status, and first-generation status (first-generation and non-first-generation students) in this community college could provide some ideas on how to reduce upward transfer gaps. For example, the State of Texas has recognized the need to support the ever-growing number of low-income and first-generation students who are attending community colleges. Thus, practices implemented by this community college could provide some insight on how to support these groups of students in a proper manner.

Further, upward transfer rates have followed a downward trend; thus, it would be important to consider the policies and practices that have influenced this decline. This situation was especially true for the last academic year. This issue is particularly

important for policymakers in Texas if the goal of the 60x30TX Higher Education Plan to increase the number of adults who hold a certificate or degree to 60% by 2030 is to be achieved.

In reference to implications for practice, community college leaders should address the downward trend on upward transfer for all groups to identify barriers to upward transfer. Practices that can be implemented and emulated statewide to support the efforts of increasing the number of students who obtain a bachelor's degree need to be identified. Additionally, practitioners should take a closer look at the dramatic lower upward transfer rates in the 2020-2021 academic year to identify the barriers encountered by students and act on them with the goal of increasing the transfer rates. Implications for practitioners, as well as policymakers, include the usefulness of multi-year investigations that have the potential to show fluctuations in different timepoints, providing a better understanding of differences in upward transfer rates from one time point to the other.

Recommendations for Future Research

Based upon the results of the three articles in this journal-ready dissertation, several recommendations for future research can be made. First, upward transfer rates should be analyzed by researchers considering other demographic factors that might affect upward transfer. For example, researchers could analyze upward transfer as a function of first time in college or non-traditional students. A second recommendation would be to examine upward transfer rates combining demographic and other risk factors that might influence upward transfer. For example, upward transfer as a function of race/ethnicity in combination with economic status; upward transfer as a function of race/ethnicity and gender, or upward transfer rates as a function of race/ethnicity,

economic status, and first-generation status. A third recommendation for researchers would be to conduct qualitative studies that might provide a more thorough understanding of students' experiences with the institutions' resources and transfer processes that influence upward transfer. It would be important to understand students' perceptions of upward transfer processes and understand students and institutional level factors that might influence upward transfer. A fourth recommendation would be to encourage researchers to conduct multiyear investigations in other community colleges in Texas. Finally, this community college's service area includes areas with low poverty levels and others with high poverty levels. Thus, it will be valuable for this community college to examine upward transfer as a function of economic status in relationship with the geographical service area.

Conclusion

The purpose of this journal-ready dissertation centered on community college students in Texas, was to determine the degree to which changes had occurred in upward transfer rates in the 2015-2016 academic year through the 2020-2021 academic year. In reference to the upward transfer rates for Asian, Black, Hispanic, and White community college students, the absence of marked differences was present. Regarding the upward transfer rates for Pell grant and non-Pell grant recipients, the upward transfer rates were parallel in nature. In respect to upward transfer as a function of first-generation status, no noticeable differences were present between the upward transfer rates for first-generation and non-first-generation students. Further, a progressive decline in upward transfer rates was observed for all groups; with a marked low transfer rate for the 2020-2021 academic year. Finally, contrary to other studies, underrepresented students did not have a lower

upward transfer rate compared to their counterparts based on their race/ethnicity, economic status, or first-generation status.

REFERENCES

Association of American Colleges and Universities. (2018). The income gaps in higher education enrollment and completion. *Insights and campus innovations in liberal education*. https://www.mendeley.com/reference-manager/reader/a0bfc77c-a51e-336e-b7b4-3720c5bbe8de/534f84bf-e0b1-96cd-0bbe-6961126af210

Bailey, M. J., & Dynarski, S. M. (2011). Inequality in postsecondary attainment. In G. Duncan & R. Murmane (Eds.), *Whither opportunity: Rising inequality, schools and children's life chances* (pp. 117-132). Russell Sage Foundation.

Bailey, T. R., & Alfonso, M. (2005). Paths to persistence: An analysis of research on program effectiveness at community colleges. *Lumina Foundation, New Agenda Series*, 1-44. https://ccrc.tc.columbia.edu/media/k2/attachments/paths-persistence-program-effectiveness.pdf

Bailey, T., Jenkins, D., Fink, J., Cullinane, J., & Schudde, L. (2017). Policy levers to strengthen community college transfer student success in Texas. *Community College Research Center*, 1-32. https://ccrc.tc.columbia.edu/media/k2/attachments/policy-levers-to-strengthen-community-college-transfer-student-success-in-texas.pdf

Beer, A. (2021). Diversity of community college students in 7 charts. *ACCT Now. Perspectives*. http://perspectives.acct.org/stories/diversity-of-community-college-students-in-7-charts

Bragg, D. (2017). Transfer matters: Forward to the special issues on transfer. *Community College Review, 45*(4), 267-272. https://doi.org/10.1177%2F0091552117728572

Brookover, D. L., Hanlye, E. M., Baoulden, R., & Johnson, K. F. (2021). "I want to be a first": Student, family, and school factors influencing first-generation student college readiness. *School Community Journal, 31*(1). http://www.schoolcommunitynetwork.org/SCJ.aspx

Cataldi, E. F., Bennett, C. T., & Chen, X. (2018). Stats in brief. First-Generation students. college access, persistence, and postbachelor's outcomes. *National Center for Education Statistics at IES.* https://nces.ed.gov/pubs2018/2018421.pdf

Center for First-Generation Student Success. (2021a). *First-generation College Graduates*. https://firstgen.naspa.org/files/dmfile/FactSheet-011.pdf

Center for First-Generation Student Success. (2021b). *First Generation College Students*. https://firstgen.naspa.org/files/dmfile/FactSheet-01.pdf

Chase, M. M., Dowd, A. C., Pazich, L. B., & Bensimon, E. M. (2014). Transfer equity for "minorized" students: A critical policy analysis of seven states. *Educational Policy, 28*(5), 669-717. https://doi.org/10.1177%2F0895904812468227

Choy, S., & Bobbitt, L. (2000). Low-income students: Who they are and how they pay for their education. Statistical Analysis Report. *Postsecondary Education Descriptive Analysis reports*. National Center for Education Statistics. https://nces.ed.gov/pubs2000/2000169.pdf

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.

Coleman. J. S. (2008). Social capital in the creation of human capital. *American Journal of Sociology, 11,* 95-120. http://www.jstor.org/stable/2780243

Community College Research Center. (2021). *Community college FAQs. Community college enrollment and completion*. https://ccrc.tc.columbia.edu/Community-College-FAQs.html

Crisp, G., & Nunez, A. M. (2014). Understanding the racial transfer gap: Modeling underrepresented minority and nonminority students' pathways from two- to four-year institutions. *Review of Higher Education, 37*(3), 291-320. http://dx.doi.org/10.1353/rhe.2014.0017

Dougherty, K., & Kienzl, G. (2006). It's not enough to get through the open door: Inequalities by social background in transfer from community colleges to four-year colleges. *Teachers College Record, 108*(3), 452-487. https://eric.ed.gov/?id=EJ733285

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. M. (2020). Race and ethnicity in higher education. A status report. *American Council for Education* https://1xfsu31b52d33idlp13twtos-wpengine.netdna-ssl.com/wp-content/uploads/2019/02/Race-and-Ethnicity-in-Higher-Education.pdf

Felix, E. R., & Trinidad, A. (2018). Fulfilling the transfer and mission at the urban technical college: How a transfer center mediates baccalaureate aspirations for students. *Community College Journal of Research and Practice, 42*(12), 861-877. https://doi.org/10.1080/10668926.2017.1361877

Fernandez, C., & Fletcher, C. (2014). Transfer students financial aid, and a new perspective on undermatching. *TG Research and Analytical Services*. https://eric.ed.gov/?id=ED579953

Fink, J., & Jenkins, F. (2017). Takes two to tango: Essential practices of highly effective transfer partnerships. *Community College Review, 45*(4), 294-310. https://doi.org/10.1177/0091552117724512

Frey, W. (2020). The nation is diversifying even faster than predicted, according to new census data. *Brookings Institution*. https://www.brookings.edu/research/new-census-data-shows-the-nation-is-diversifying-even-faster-than-predicted/

Fry, R., & Cilluffo, A. (2019). A rising share of undergraduates are from poor families, especially at less selective colleges. *Pew Research Center*. file:///C:/Users/amerilopez/OneDrive%20-%20Lone%20Star%20College/Desktop/Temporal/Pew-Research-Center-Undergrad-report-FINAL-05.22.19.pdf

Garriott, P. O., Hudyma, A., Keene, C., & Santiago, D. (2015). Social cognitive predictors of first- and non-first-generation college students' academic and life satisfaction. *Journal of Counseling Psychology, 62*(2), 253-263. https://doi.org/10.1037/cou0000066

Giani, M. (2016). *Transfer research questions that matter: 2016 transfer scholar meeting recommendations. Credit when it's due*. https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/158/2018/08/23173636/CWID-Data-Note7.pdf

Gonzalez, C. M. (2019). Community college students who attained a 4-year degree accrued lower student loan debt than 4-year entrants over 2 decades: Is a 10 percent debt accumulation reduction worth the added “Risk”? If so, for whom. *Research in Higher Education, 61*, 871-915. https://doi.org/10.1007/s11162-019-09565-9

Gross, B., & Goldhaber, D. (2009). Community college transfer and articulation policies. Looking beneath the surface. *Center on Reinventing Public Education*. https://files.eric.ed.gov/fulltext/ED504665.pdf

Hodara, M., Martinez-Wenzl, M. M., Stevens, D., & Mazzeo, C. (2017). Exploring credit mobility and major-specific pathways: A policy analysis and student perspective on community college to university transfer. *Community College Review, 45*(4), 331-349. https://doi.org/10.1177%2F0091552117724197

Hodges, R., Payne, M. E., Suh, E., Hernandez, P., Wu, N., Castillo, A., & Shetron, T. H. (2018). A review of demographic trends for Texas and the United States. *Journal of College Academic Support Programs, 1*(2). https://digital.library.txstate.edu/bitstream/handle/10877/7922/Issue2-FA3.pdf?isAllowed=y&sequence=1

Institute for Demographic & Socioeconomic Research. (2021). *TxDOT One-Stop. Demographic data analysis tool*. https://idserportal.utsa.edu/txDoT/OneStop/#_ga=2.97938199.984243945.1625065901-788818145.1625065901

Jabbar, H., McKinnon-Crowley, S., & Serrata, C. (2019). Complex pathways to transfer: A qualitative comparative analysis of the transition from community college to 4-year university. *AERA Open, 5*(2). https://doi.org/10.1177%2F2332858419852039

Jabbar, H., Epstein, E., Edwards, W., & Sanchez, J. (2017). Constructing choice sets: How Texas community college students choose transfer institutions. *The University of Texas at Austin,* 1-50.

https://tacc.org/sites/default/files/documents/2018-07/gtf_constructing_choice_sets.pdf

Jenkins, D. (2013). *Texas would benefit by improving its community college to bachelor's transfer system (Policy Brief).* Educate Texas. https://www.edtx.org/our-impact-areas/higher-education/texas-student-success-council/tssc_transfer.pdf

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.

Laanan, F. S., Starobin, S. S., & Eggleston, L. E. (2010). Adjustment of community college transfer students at a four-year university: Role and relevance of transfer student capital for student retention. *Journal of College Student Retention, 12*(2), 175-209. https://doi.org/10.2190%2FCS.12.2.d

LaSota, R., & Zumeta, W. (2016). What matters in increasing community college students' upward transfer to the baccalaureate degree: Findings from the Beginning Postsecondary Study 2003-2009. *Research in Higher Education, 57*, 152-189. https://doi.org/10.1007/s11162-015-9381-z

Liou, T. Y., & Change, N. Y. (2008). The applications of social capital theory in education. *Journal of Humanities and Social Science, 11,* 99-122.

Ma, J., & Baum, S. (2016). Trend in community colleges: Enrollment, prices, student debt, and completion. *College Research Board Research Brief.* https://research.collegeboard.org/pdf/trends-community-colleges-research-brief.pdf

Maliszewski, C. (2020). Facilitating transfer student success: Exploring sources of transfer student capital. *Community College Review, 48*(1), 31-54. https://doi.org/10.1177/0091552119876017

Moschetti, R., & Hudley, C. (2008). Measuring social capital among first-generation and non-first-generation, working class, White males. *Journal of College Admissions*. https://files.eric.ed.gov/fulltext/EJ829418.pdf

National Student Clearinghouse Research Center. (2020). *Tracking Transfer. Measures of effectiveness in helping community college students to complete bachelor's degrees.* https://nscresearchcenter.org/tracking-transfer/

Paredes, R. A. (2019). *The state of Latino education. Texas Association of Chicanos in Higher Education*. Texas Higher Education Coordinating Board. http://www.thecb.state.tx.us/DocID/PDF/12210.PDF

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First generation college students additional evidence on college experience and outcomes. *The Journal of Higher Education, 75*(3), 249-284. https://doi.org/10.1080/00221546.2004.11772256

Plagens, G. K. (2011). Social capital and education: Implication for student and school performance. *Education & Culture, 27*(1), 40-64.

Radunzel, J. (2018). They may be first but will they last? Retention and transfer behavior of first-generation students. *ACT*. http://www.act.org/content/dam/act/unsecured/documents/R1708-retention-firstgen-2018-04.pdf

Redford, J., & Hoyer, K. M. (2017) First-generation and continuing generation college students: A comparison of high school and postsecondary experiences. *National Center for Education Statistics*. https://www.semanticscholar.org/paper/First-Generation-and-Continuing-Generation-College-Redford-Hoyer/ce2b565619f1b1fc133394eb9be8a049a2200f77

Rosenberg, M. J. (2015). Generational differences in transfer student capital among community college students. Educational Theses and dissertations—Educational Policy Studies and Evaluation. *Educational Policy Studies and Evaluation, 31*. https://uknowledge.uky.edu/epe_etds/31

Sandoval-Lucero, E., Maes, J., & Klingsmith, L. (2014). African American and Latina(o) community college students' social capital and student success. *College Student Journal, 48*(3), 522-533. https://www.hartnell.edu/sites/default/files/u714/peer_reviewed_journal_article_2.pdf

Santiago, D. A., Perez, E. A., & Ortiz, N. C. (2017. Framing, not blaming – improving Latino college transfer in TX. *Excelencia in Education*. https://www.edexcelencia.org/research/publications/framing-not-blaming-improving-latino-college-transfer-texas

Schwehm, J. (2017). Do student demographics and community college experiences influence the adjustment process of adult vertical transfer students? *Community college Enterprise, 23*(1), 9-25. https://eric.ed.gov/?id=EJ1158192

Shahidul, S. M., Zehadul, A. H. M., & Mustari, S. (2015). Social capital and educational aspiration of students: Does family social capital affect more compared to school

social capital? *International Education Studies, 8*(12), 255-260. http://dx.doi.org/10.5539/ies.v8n12p255

Slate, J. R., & Rojas-LeBouef, A. (2011). *Calculating basic statistical procedures in SPSS: A self-help and practical guide to preparing theses, dissertations, and manuscripts*. NCPEA Press.

Smith, D. G. (2009). *Diversity's promise for higher education*. Johns Hopkins University Press.

Strumbos, D., Linderman, D., & Hicks C. C. (2018). Postsecondary pathways out of poverty: City university of New York accelerated study in associate programs and the case of national policy. *Journal of the Social Sciences, 4*(3), 100-117. http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2018/02/CUNY-ASAP_RSF_201802.pdf

Taylor, J. L., & Dimpal, J. (2017). The multiple dimensions of transfer: Examining the transfer function in American higher education. *Community College Review, 45*(4), 273-293. https://doi.org/10.1177%2F0091552117725177

Texas Higher Education Coordinating Board. (2001). *Transfer issues advisory committee report. Identifying and closing the gaps*. http://www.thecb.state.tx.us/DocID/pdf/0427.pdf

Texas Higher Education Coordinating Board. (2005). *Closing the gaps by 2015. The Texas higher education plan*. http://www.thecb.state.tx.us/DocID/PDF/0379.PDF

Texas Higher Education Coordinating Board. (2015). *Texas Higher Education strategic plan: 2015-2030*. https://files.eric.ed.gov/fulltext/ED573001.pdf

Texas Higher Education Coordinating Board. (2017). *Glossary of terms*. https://reportcenter.highered.texas.gov/reports/data/glossary-of-data-terms/

Texas Higher Education Coordinating Board. (2018a). *Academic quality and workforce. Texas core curriculum*. https://reportcenter.thecb.state.tx.us/agency-publication/miscellaneous/elements-of-the-texas-core-curriculum/

Texas Higher Education Coordinating Board. (2018b). *Texas general academic institutions: Increasing successful community college transfer*. https://www.highered.texas.gov/DocID/PDF/11708.PDF

Texas Higher Education Coordinating Board. (2019). *60x30TX Progress Report*. http://www.60x30tx.com/media/1518/2019-60x30tx-progress-report.pdf

Texas Higher Education Coordinating Board. (2020). *Texas public higher education almanac. A profile of state and institutional performance and characteristics*. https://reportcenter.highered.texas.gov/agency-publication/almanac/2020-texas-public-higher-education-almanac/

Texas Higher Education Coordinating Board. (2021a). *Texas transfer framework*. https://www.highered.texas.gov/institutional-resources-programs/public-universities-health-related-institutions/transfer-resources/texas-transfer-framework/

Texas Higher Education Coordinating Board. (2021b). *Transfer Resources. Texas core curriculum (TCC)*. https://www.highered.texas.gov/institutional-resources-programs/public-universities-health-related-institutions/transfer-resources/

Texas Higher Education Coordinating Board. (2021c). *60X30TX.* https://www.highered.texas.gov/about-us/60x30tx/

Turner, B. S. (2006). *The Cambridge Dictionary of Sociology.* Cambridge University Press.

U.S. Bureau of Labor Statistics. (2020). Earnings and unemployment rate by educational attainment. *Career Outlook*. https://www.bls.gov/careeroutlook/2021/data-on-display/education-pays.htm

U.S. Department of Education. (2020). *The condition of education.* National Center for Education Statistics at IES. https://nces.ed.gov/pubs2020/2020144.pdf

U.S. Department of Education. (2021). *Glossary.* Federal Student Aid. https://studentaid.gov/help-center/answers/topic/glossary/articles

Wang, X. (2009). Baccalaureate attainment and college persistence of community college transfer students at four year institutions. *Research in Higher Education, 50*(6), 570-588. http://dx.doi.org/10.1007/s11162-009-9133-z

Wang, X. (2012). Factors contributing to the upward transfer of baccalaureate aspirants beginning at community colleges. *The Journal of Higher Education, 83*(6), 851-875. https://doi.org/10.1080/00221546.2012.11777272

Wang, X., & Wickersham, K. (2013). Postsecondary co-enrollment and baccalaureate completion: A look at both beginning 4-year college students and baccalaureate aspirant beginning at community colleges. *Research in Higher Education, 55*(2), 166-195. https://doi.org/10.1007/s11162-013-9317-4

Wawrzynski, M. R., & Sedlacek, W. E. (2003). Race and gender differences in the transfer students. *Journal of College Student Development, 44*(4), 489-501. https://doi.org/10.1353/csd.2003.0045

Whitmire, R. (2019). *The B.A. breakthrough: How ending diploma disparities can change the face of America*. The 74 Media.

Xu, D., Ran, X., Fink, J., Jenkins, D., & Dundar, A. (2018). Collaboratively clearing the path to a baccalaureate degree: Identifying effective 2- to 4- year college transfer partnerships. *Community College Review, 46*(3), 231-256. https://doi.org/10.1177%2F0091552118772649

Yu, C., & Soki, S. (2019). Formation of social capital for community college students: A second-order confirmatory factor analysis. *Community College Review, 47*(1), 3-30. https://doi.org/10.1177/0091552118815758

Yuen, V. (2019). New insights into attainment for low-income students. *Center for American Progress*. https://cdn.americanprogress.org/content/uploads/2019/02/21045717/LowIncomeStudentAttainment-brief1.pdf?_ga=2.248022151.1889398131.1626552397-1514135988.1626552397

APPENDIX

IRB-2021-272 - Initial: Exempt from IRB Review

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
Tue 10/26/2021 5:23 PM
To: Lopez, America <[redacted]>; Slate, John <[redacted]>
Cc: Miles, Sharla <[redacted]>

Sam Houston STATE UNIVERSITY
A Member of The Texas State University System

Date: Oct 26, 2021 5:23:30 PM CDT

TO: America Lopez John Slate
FROM: SHSU IRB
PROJECT TITLE: Upward Transfer of Community College Students: A Multiyear Community College Analysis
PROTOCOL #: IRB-2021-272
SUBMISSION TYPE: Initial
ACTION: Exempt
DECISION DATE: October 26, 2021
EXEMPT REVIEW 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.

OPPORTUNITY TO PROVIDE FEEDBACK: To access the survey, click **here**. It only takes 10 minutes of your time and is voluntary. The results will be used internally to make improvements to the IRB application and/or process. Thank you for your time.

Greetings,

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

*** What should investigators do when considering changes to an exempt study that could make it nonexempt?**

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research.

In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Chase Young, Ph.D.
Chair, IRB
Hannah R. Gerber, Ph.D.
Co-Chair, IRB

VITA

A. Yolanda Lopez

EDUCATIONAL HISTORY

Doctorate of Education – Leadership in Higher Education, May, 2022
Sam Houston State University, Huntsville, Texas
Dissertation: Upward Transfer of Community College Students: A Multiyear Analysis
Master of Arts, Sociology, May, 2006
Sam Houston State University, Huntsville, Texas
Thesis: The Role of Mineral Rights Ownership in Public Support for Natural Gas Development and Environmental Concern: Data from Wise County and Johnson County, Texas
Master of Science, Recreation, Parks, and Tourism Science, May, 2002
Texas A&M, College Station, Texas
Bachelor of Science, Tourism, July, 1999
Universidad Catolica, Quito, Ecuador

PROFESSIONAL EXPERIENCES

2021-Present	Lone Star College, Diversity Manager
2016-2021	Lone Star College, Grant Developer
2009-2015	Malaysian Social Research Institute, Senior Program and Funding Manager
2005-2006	Universidad Catolica del Ecuador, Lecturer
2003-2009	International Assignments, Consultant

RECOGNITIONS

Full Time Staff Excellence Award Lone Star College, 2021
Diversity, Equity, and Inclusion Award Lone Star College, 2022

PRESENTATIONS AND PUBLICATIONS

Lopez, Y. (2021). *Brave Spaces in Community Colleges. Building the Anti-Racist College & University.* Podcast Mini-Series 2021.

Lopez, Y. (2021, June). *Pre- and Post- COVID Shifts Toward Supporting Community College Students.* Presentation at Curriculum Studies Summer Collaborative. Virtual Conference.

Lopez, Y. (2021, May). *Critical Approach to Upward Transfer of Community College Students.* Presentation at Texas Association of Chicanos in Higher Education (TACHE). Virtual Conference.

Lopez, Y. (2018, February). *Empowering Diversity.* Presentation at TEDxTomballED, Tomball, TX.