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## Adult Learner Attrition Analysis: At-Risk Hispanic Males in New York City Transfer Schools

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

ADULT LEARNER ATTRITION ANALYSIS: AT-RISK HISPANIC MALES IN  
NEW YORK CITY TRANSFER SCHOOLS

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF EDUCATION

in

ADULT EDUCATION AND HUMAN RESOURCE DEVELOPMENT

by

Jason Joseph Almodóvar

2022

To: Dean Michael R. Heithaus  
College of Arts, Sciences & Education

This dissertation, written by Jason Joseph Almodóvar, and entitled *Adult Learner Attrition Analysis: At-Risk Hispanic Males in New York City Transfer Schools*, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: June 16, 2022

The dissertation of Jason Joseph Almodóvar is approved.

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Andres Gil  
Vice President of Research and Economic Development  
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Florida International University, 2022

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ABSTRACT OF THE DISSERTATION  
ADULT LEARNER ATTRITION ANALYSIS:  
AT-RISK HISPANIC MALES IN  
NEW YORK CITY TRANSFER SCHOOLS

by

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Florida International University, 2022

Miami, Florida

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Adult Basic Education (ABE) initiatives in the United States of America reintroduce high school dropouts to alternative diploma granting pathways. These pathways have one pivotal goal: to graduate high school dropouts, which in turn boosts the economy at both a state and national level, as well as take these learners away from the margins of society, enhancing their lives in long-term ways. In the state of New York, high school dropouts are abundant when compared nationwide. Hispanic males have the highest dropout rates in New York City alone. ABE programs, like New York City Transfer Schools (NYCTS), attempt to decrease the Hispanic male attrition phenomenon; yet results are still low. To better comprehend factors that promote diploma attainment for Hispanic males in NYCTS, this study examined Hispanic male high school attrition amongst other enrolled female and racial groups. School minority ratio, school performance, and graduation rate, as well as restorative practice, student counseling, extended-day programming, and ELL programming in NYCTS were explored to determine their effects on high school attrition and diploma attainment of Hispanic males.

This quantitative study consisted of analyses of the 2015 NYCTS cohort ( $N = 5,205$ ). Logistic regression, chi-squares and crosstabulations revealed that Hispanic male students enrolled in NYCTS from the 2015 cohort have higher attrition than other enrolled female and racial groups; 82.4% did not attain their high school diploma. Hispanic males experience lower attrition when they attend a NYCTS whose graduation rate percent is high and whose performance is assigned good standing or comprehensive support and improvement. However, school minority ratio does not have a statistically significant effect on attrition of Hispanic males.

NYCTS who provided student counseling as a service to students was significant in predicting diploma attainment of Hispanic males. However, Hispanic males' diploma attainment decreased if they attended schools who provided student counseling. Schools that provided extended day/after school, restorative practice, and English Language Learner (ELL) programming were not statistically associated with diploma attainment for Hispanic males. The findings propose that the best practices created by education stakeholders and from the theoretical frameworks of Finn (1985) and Bean (1980) do not collectively benefit Hispanic male students in alternative high school diploma attainment programs in NYCTS. The findings suggest that it would require a collective partnership consisting of faculty, administrators, counselors, and non-school members of the community, such as parents, guardians, and mentors to devise an assessment and evaluation initiative that counters attrition and subsequently fosters diploma attainment for this population of young men.

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# **CHAPTER I**

## **INTRODUCTION**

This research aimed to examine the attrition of at-risk adult Hispanic male students in New York City Transfer Schools from the 2015-2020 cohort and compare these results to those of other at-risk subgroups. Attrition decreases when a learning institution is able “to retain a student from admission through graduation” (Seidman, 2005, p. 14). The specific aim of this study was to predict adult Hispanic males are the population with the highest need for counter-attrition strategies in NYCTS. This chapter begins with the background to the problem, description of NYCTS, statement of the problem, purpose, research questions and theoretical framework. The significance of the research, assumptions and delimitations of the study, definition of terms, and organization of the study will follow.

### **Background to the Problem**

Adult high schools or dropout-recovery schools are an Adult Basic Education (ABE) initiative (Sparks, 2013) that help student dropouts return to obtain a high school diploma. ABE programs are multi-layered alternative diploma granting initiatives synonymous with general basic education, transfer school or dropout-recovery school (high school for adults aged 16 to 21). Transfer schools are a brand of “dropout-recovery systems,” that “re-engage and re-direct...people who leave the public school system” (Bloom, 2010, p. 90). Transfer school students are considered “at risk” because they lack coursework credits required to graduate from the traditional public school system.

Transfer schools are intended to be an alternative pathway to high school diploma attainment in the urban U.S., such as New York City. Large urban minority dropout

populations can use the Transfer School as an alternative diploma pathway, helping public schools combat low graduation rates, which are above the U.S. average of 14.4% (Clarke, 2013; Dari et al., 2021). Minorities are “any racial and ethnic populations underrepresented...relative to their numbers in the general population” (Page et al., 2013, p. 68). The education stakeholders who work to increase Transfer School enrollment are looking for counter-attrition strategies for adults who do not respond well to the traditional learning curriculum relied on by the public school system (Baum-Tuccillo et al., 2020; Bloom, 2010; Cooper, 2011). For the purposes of this research, education stakeholders would include public Transfer School teachers, school administrators and the creators of New York City adult basic education (ABE) policy (Bloxham, 2008).

New York City’s Hispanic male population has highest dropout rate in the U.S. (Mariano et al., 2018). Hispanics are of “Mexican, Puerto Rican, Cuban, Central and South American, or other Spanish culture or origin, regardless of race” (Jaimes et al., 2013, p. 275). In New York City, ABE programming for this population is a viable option (Hobbs, 2021). And, many enroll in a Transfer School as a personal choice over a General Education Development (GED) test (Borck, 2018).

New York City’s Department of Education (NYCDOE) encourage students who have dropped out of traditional high schools to enroll in New York City Transfer Schools (NYCTS). An increase in enrollment in NYCTS could augment the socio-economic status of New York City’s Hispanic population; Hispanics are New York City’s largest uneducated population living below its poverty line (Furchtgott-Roth, 2013; Glorieux et al., 2011; Jacobson & Mokher, 2009; López & Foster, 2021).

Transfer schools started off as street academies localized in NYC storefronts more than two decades ago. Today, there are 54 transfer schools. Due to the Every Student Succeeds Act (ESSA) signed by President Obama in 2015, the federal government transferred high school diploma accountability to state levels. The ESSA has a 67% diploma attainment requirement. Two New York City Transfer Schools (NYCTS) met this requirement in a four-year timespan and only five met this requirement in a six-year timespan; now, NYCTS face closure and/or being merged with other NYCTS, potentially leaving approximately 13,000 at-risk learners displaced (Baum-Tuccillo et al., 2020). If answers to high attrition could be found, these programs may continue to exist.

Males in NYC, as tends to be the case nationwide, are likely to have the highest attrition and lowest diploma attainment in public schools, with Hispanic males demonstrating the worst attrition rates (Bloom, 2010; López & Foster, 2021). Importantly, among the many ethnic groups represented in the city, Hispanics are NYC's largest uneducated population (López & Foster, 2021).

The majority of New York City's dropout rate is associated with its Hispanic male population (Cullen et al., 2013; Garcia-Coll & Garcia, 2021). For the entire state of New York, Hispanic male dropout rates are historically 25% higher than Hispanic females and 7% higher than African American males, which significantly lowers New York's overall average for minority student attendance beyond the ninth-grade level (Orfield et al., 2004). Education stakeholders believe that bringing minority adults back to school to obtain a high school diploma preserves the State's "economic competitiveness" and simultaneously increases the "education levels of [its] workforce" (Bloom, 2010, abstract; Ponjuán et al., 2021). The NYCDOE is proactive in its efforts to

increase minority educational attainment of the foreign (born outside of the U.S.) and domestic-born Hispanic population, which make up 29% of the city's population, placing second to White (non-Hispanic) residents (Ponjuán et al., 2021); this could be because 41% of NYC Hispanics do not have a high school diploma (Bergad, 2011; Flores et al., 2021).

Overall, 6% of adult foreign-born Hispanic males obtain a high school diploma, contrary to 40% of domestic-born males (Bergad, 2011); Mexicans and Dominicans are the largest foreign-born male populations without a high school diploma. Currently, NYCDOE implements Transfer Schools as a pathway (initiative) to help both foreign-born and domestic-born Hispanics, and other minority populations attain a high school diploma (Bloom, 2010; "Other Ways to Graduate," 2021; Sparks, 2013).

A longstanding term used in the adult educational (i.e., andragogical) (Knowles, 1990) literature associated with a Transfer School is the Secondary School for Adults (SSA) (Glorieux et al., 2011; Johnstone & Rivera, 1965; Londoner, 1974; MacGregor, 2011; Stenberg, 2010). Transfer schools are small, academically rigorous high schools designed to re-engage and support students who have dropped out or who have fallen behind from where they should be for their age and grade. A special feature of Transfer Schools is that they provide a personalized learning environment in small, full-time class settings that are aimed to decrease attrition ("Other Ways to Graduate," 2021).

In 2014-15, New York City Transfer School (NYCTS) enrollment was over 10,000 high school students starting at 15 and going up to 21 years of age ("Other Ways to Graduate," 2016). These students did not want a GED, but instead a traditional high school diploma (Bloom, 2010; MacGregor, 2011). Less than 40% obtained their diploma

unfortunately (“Other Ways to Graduate”, 2016). Commonly, students enrolled in NYCTS are at-risk of not completing their diploma pathway for reasons including life challenges, not earning enough credits, behavioral issues, truancy, and/or due to being from an ostracized ethnic or racial minority group (Carswell et al., 2009; Grunbaum et al., 2002).

NYCTS help at-risk adult high school dropouts move beyond their current position of being an unskilled citizen. As such, Transfer School teachers, public dropout-recovery school administrators and the creators of New York City ABE policy struggle to explore ways to decrease attrition and increase NYCTS diploma attainment. The goal is to better enrich the U.S. workforce and help urban minority dropouts increase their economic well-being (Lee & Burkam, 2003; López & Foster, 2021; Stenberg, 2010).

NYCTS are considered an innovative approach to help provide at-risk adult high school students educational attainment and subsequent economic leverage in the workforce (Bloom, 2010; “Other Ways to Graduate,” 2021). NYCTS frame counter-attrition initiatives grounded in trust, strong family-community ties, effective school leadership, and supportive environments with collaborative teachers.

Current NYCTS institutional policies include: restorative practices in the context of code of conduct - student behavior is approached as a teachable lesson versus expulsion or removing students from the classroom; school counseling and extended-day/after school programming and programs for English-Language-Learners (ELL). These policies are branded counter-attrition strategies.

Studies focused on Hispanic students and their educational success have shown that engaging them in these exemplary ways, versus just providing a curricular learning



platform, is essential for their diploma attainment (O'Hara, 2020); especially with minority males (Ponjuán et al., 2020). Although NYCTS have existed for over 20 years, they still evolve as they struggle to meet state diploma requirements through counter-attrition and diploma attainment strategy policies.

Little to no empirical research has examined Hispanic male attrition in NYCTS (even though their departures have not declined) in the context of school characteristics and attrition policy. As there has been only one systematic analysis on NYCTS (Baum-Tuccillo et al., 2020), clearly NYCTS could benefit from more empirical research on their counter-attrition strategies.

Current NYCTS counter-attrition strategies are intended to help students successfully pass New York State Regents examinations if the proper initiatives are in place (Bloom, 2010). These counter-attrition initiatives, in turn, lead NYCTS students to diploma attainment (Villavicencio et al., 2013). Considering how NYCTS attrition rates are above 40% and Hispanics hold the lowest numbers in diploma attainment within that percentage rate, it could be argued that adult Hispanic male population in NYCTS is understudied in the literature (Bloom, 2010). This could also be due to themes of their attrition being explored mainly in the context of GED and college degree attainment programs (Gonzalez et al., 2020; Huerta & Hernandez, 2021; Hughes et al., 2018; Mellard, 2013). As a result, education stakeholders of NYCTS understandably have less access to best practice initiatives. This perpetually challenging phenomenon could arguably stymie any decrease in at-risk adult Hispanic male attrition for NYCTS.

## **New York City Transfer Schools**

According to the 2017-18 publication, *Additional Ways to Graduate*, the pathways to diploma attainment funded and offered by the New York City Board of Education include New York City Transfer Schools as an ABE option. They are defined as a “full time, day school” for students who are as young as 15 and have “completed at least one year of high school” but can have as little as zero credits at start, and still “obtain a high school diploma” by the age of twenty-one (“Other Ways to Graduate,” 2021).

Counter-attrition initiatives that frame the model of NYCTS include “a personalized learning environment, rigorous academic standards, student-centered pedagogy, support to meet instructional and developmental goals” (“Other Ways to Graduate,” 2021) and introduction to self-awareness. Each enrolled learner is given their own advisor who, with the learner, creates a personalized academic pathway. This type of individual attention is aimed to create a sense of attachment between the learner and her respective NYCTS. The idea is that attached learners enrolled in NYCTS have low attrition and obtain their diplomas.

Astin (1984) argues that no matter the counter-attrition initiatives designed to foster attachment in a learning institution, the detached learner will most likely not thrive long enough to take advantage of these initiatives; thus, not obtain their diploma. At-risk learners are more likely to be detached due to the extenuating circumstances that led them to not being able to fulfill the traditional high school pathway requirements in the first place (Almodovar, 2014). And, because NYCTS are an ABE program designed

specifically to enroll and graduate at-risk learners, there is the possibility that their attrition rates are disparately high, thus worthy of examination.

### **Statement of the Problem**

There is decidedly little empirical research on at-risk adult Hispanic male high school student attrition with regards to NYCTS. This unfortunate phenomenon leaves little evidence to support research related to Hispanic male attrition nor support educational stakeholders seeking to enhance or devise policy and best practices to decrease attrition rates. The lack of research evidence is an acute societal issue too in that education stakeholders may be missing a useful path for helping this population gain better access to workforce opportunities. NYCTS graduation efforts and ABE counter-attrition efforts in NYC overall remain static (Sparks, 2013; Ponjuán et al., 2021). An examination of attrition from this marginalized community could not just counter the undeveloped and inconsistent research that currently exists around at-risk adult Hispanic male students in NYCTS (Bloom, 2010; Mellard, 2013; Ponjuán et al., 2021), but also aid in increasing the overall average of adult Hispanic male high school diploma attainment for New York State.

Thus, when considering that Hispanic males are most at-risk of leaving the educational system completely, with profound societal implications, we need empirical research guided by theory, which filters the degree to which gender, ethnicity and any interactions linked significantly to attrition in NYCTS. This is in addition to research on the factors that contribute to the highest level of diploma attainment of Hispanic males in NYCTS; along with school characteristics that contribute to the highest level of their diploma attainment as well.

It may be that females or those from different ethnic subgroups benefit most from participation in ABE schools like NYCTS, as suggested by adult educational theory (Finn, 1989), but current empirical evidence is lacking that could clarify this issue. Hence, the need for this research to contribute to adult basic educational theory building and subsequent transfer school empirical research to support decision making by educational stakeholders seeking to enhance or devise policy and best practices to decrease attrition and increase diploma attainment for adult students.

### **Purpose of the Study**

The purpose of this research was to examine attrition in New York City Transfer Schools and determine the likelihood that at-risk Hispanic adult male high school students are in the most need of counter-attrition initiatives and immediate academic intervention strategies. This study explored attrition and diploma attainment among students enrolled in the NYCTS, 2015-2020 cohort.

### **Research Questions**

The data generated by this research helped to answer:

- (1) Do Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups?
- (2) What following NYCTS characteristics contribute to the high level of attrition among Hispanic males in NYCTS during the period of 2015-2020? The study will examine school minority ratio, school performance, and graduation rate as NYCTS characteristics.
- (3) What are the following school programs and policies significantly associated with higher Diploma Attainment among Hispanic males in NYCTS during the period of 2015-2020? The study will explore the effect of restorative practice, student counseling,

extended-day programming, and ELL programming on the Diploma Attainment of Hispanic males.

### **Theoretical Framework**

At-risk students do not typically form an emotional attachment to ABE programs, such as the Transfer School, because they are more likely to believe they are not a part of the school community (Finn, 1989; Finn & Zimmer, 2012). This is quite problematic because positive attachment to a school and its instructors is an important predictor of reduced student attrition (Bean, 1980; Reio et al., 2009) and higher diploma attainment.

Finn's (1989) Participation-identification model delineates early dropout signs which could inform counter-attrition strategies in schools (Brundrett, 2004; Hernandez, 2019). Participation-identification is a system that monitors the behaviors that cultivate learner detachment and stymie a student's attachment while on their learning track (Finn, 1989). Participation-identification outlines how a student values or, more importantly, devalues their participation and decreases their attachment to an educational program (Demant & Van Houtt, 2014).

Additionally, Bean (1980) addressed predictors of student attrition in the context of grade point average, development of the learner, the quality of the school and its "practical value" (Aljohani, 2016, p. 3) to inform education stakeholders in their approach to programming and policy(s) for learning. As the researcher will focus on school characteristics and policy-informed programmatic factors that may foster diploma attainment in NYCTS, Bean's model will also serve as a theoretical lens of this research.

Bean (1980) addressed attrition as a longstanding obstacle for education stakeholders; decades later attrition is still a challenge for formal secondary learning

institutions (Barramuño et al., 2021; Gatson & Enslin, 2021). Bean focused on attrition at a macro level, in formal learning institutions versus a micro level wherein individual dropout cases were explored. This approach mirrored the researcher's approach in this study.

### **Significance of the Research**

Attrition and diploma attainment have been explored in various educational contexts, including ABE programming (e.g., Adelman, 2006) but not in the context of NYCTS (Borck, 2018; Baum-Tuccillo et al., 2020). This study aims to create new knowledge in the area through secondary data statistical analysis. This new knowledge could serve as an informative line of support for ABE theory building (e.g., Finn 1989), empirical research related to the efficacy of Transfer Schools, practical, more culturally appropriate classroom endeavors in Transfer Schools, and refined policy related to developing upon or creating counter-attrition and diploma attainment interventions within NYCTS.

For example, this research could support expounding upon attrition theoretical frameworks and advise a new approach to exploring at-risk Hispanic adult male high school students in dropout-recovery schools by focusing on data in real-time. For instance, this research will focus upon the attrition and diploma attainment of at-risk Hispanic males in NYCTS and the findings may shed insight on new understandings of how they compare to the other subgroups enrolled in a nontraditional learning population.

Further, the findings may confirm the necessary call for counter-attrition initiatives among the at-risk Hispanic male learner population. In addition, this new knowledge could inform similar fields of study including human resource development

(HRD) that explores attrition in the workplace. This new knowledge could be used by HRD professionals that recruit and hire adults out of dropout-recovery schools to design contemporary counter-attrition based practices that increase organizational performance and enhance workplace adaptability (Boushy & Glynn, 2012) and continuity.

### **Assumptions and Delimitations of the Study**

There are several assumptions and one considered delimitation to this study.

#### ***Assumptions***

The study's assumptions include: (a) at-risk Hispanic adult males are not being retained in NYCTS; and (b) learners in NYCTS naturally do not make it to graduation.

#### ***Delimitations***

A delimitation to this study is the research was limited to Hispanic male adult learners in New York City enrolled in a specific kind of ABE drop-out recovery school (NYCTS), rather than the entire population of Hispanic adult learners enrolled in NYCDOE ABE programs, which will limit the generalizability of the study.

Due to the damaging effects of COVID-19, the ability to engage with at-risk Hispanic male students enrolled in NYCTS was impossible due to the strict health standards and recommendations in place at the time of this study.

### **Definition of Terms**

*Adult.* This term refers to individuals beyond the required education age of 16.

*At-risk Adult.* Students who are at-risk of not completing their diploma pathway for reasons including life challenges, not earning enough credits, behavioral issues, truancy, and/or due to being from an ostracized ethnic or racial minority group (Carswell et al., 2009; Grunbaum et al., 2002).

*Dropout-Recovery School.* This term refers to formal, secondary institutions (Almodovar, 2014) which serve as adult basic education “dropout-recovery systems” (Bloom, 2010, p. 90) that connect adult dropouts with an alternative high school diploma attainment track (Sparks, 2013). Other recognized terms are Secondary School for Adults and Transfer School.

*Stakeholders.* This term refers to faculty, administration and the makers of education policy involved in dropout-recovery schools (Bloxham, 2008).

### **Organization of the Study**

This chapter included the background to the problem, problem statement, purpose statement, and theoretical framework. The significance of the study, definitions of terms assumptions and delimitations were also discussed. Chapter 2 provides a review of the literature supporting the study. Chapter 3 describes the research method proposed to conduct the study.



## CHAPTER II

### LITERATURE REVIEW

Approximately 70% of the young adults who drop out of Adult Basic Education (ABE) programs cite isolation as the reason (Dupéré et al., 2019; Klein & Englund, 2021; Vann & Hinton, 1994). Adult Basic Education is for dropouts past the compulsory education age of sixteen (Almodóvar, 2014). Adult Basic Education programs are multifaceted alternative diploma granting initiatives (Pickard, 2021) synonymous to GED, *Transfer School* (high school for adults 15 to 21) or various dropout-recovery programs. Adult Basic Education learner attrition in comparison to traditional high school learners is extremely high, with less than a 50% rate of learner diploma attainment (Bloom, 2010; James, 2020; Sparks, 2013). Attrition is the interrupted involvement of a young adult learner in an ABE program up-through-to diploma attainment (U.S. Department of Education, 2010).

High attrition in ABE programs, such as Transfer Schools create a bleak outlook for dropouts who lack a high school diploma because a high school diploma is a standard prerequisite for workforce access; adult dropouts endure a life of poverty without a diploma (Cullen et al., 2013; Royce, 2018). Without jobs and proper training, young adults overstretch social service program funding and resources and are subsequently more inclined to resort to criminal acts that lead to their incarceration (Carnevale & Desrochers, 2003; Pickard, 2021; Sum et al., 2009).

High student attrition, student isolation and student detachment are at the root of this Transfer School dropout crisis. Attrition is associated with the learner's voluntary withdrawal from ABE programs, including Transfer Schools (Anderson, 2011). A young

adult's isolation and detachment can occur early on in Transfer Schools, when students are more susceptible to believe they are neglected and not a part of the institution's learning community (Borck, 2018; Finn, 1989; Malicky & Norman, 1994; Montecel et al., 2004; Quigley, 1995). Overall, ABE programs, including Transfer Schools are designed with the intent to embolden learner engagement and learner enthusiasm, which can deflect the negative behaviors that incite premature withdrawal (Montecel et al., 2004; What Works Clearing House, 2014).

Finn's (1989) *Participation-identification model* recognizes negative behaviors that are signs to early dropout which could support educational stakeholders of Transfer Schools, specifically New York City where dropout percentages are the highest in the state, as well as when compared to overall US dropout statistics (Brundrett, 2004; Gottfredson, 1990; Hernandez, 2019; Ponjuán et al., 2021; Zins et al., 2004).

Participation-identification is comparable to a monitoring system that delineates the behaviors that deter young adults from being active participants in school and from feeling as if they are a part of their learning community (Finn, 1989). Participation-identification outlines behaviors that can both influence how a student values or, more importantly, devalues their engagement and participation in learning institutions (Demantet & Van Houtt, 2014).

Finn's (1989) Participation-identification is one model that will guide this study as a theoretical approach to combat attrition in NYCTS programming. Additionally, present empirical evidence that supports the use of Participation-identification as a theoretical lens to interpret reasons for attrition in dropout-recovery programs, such as Transfer Schools, explore gender/ethnic variables in relation to student attrition, and

describe how to best operationalize barriers to young adult participation in alternative high school diploma attainment programs and why.

Additionally, Bean (1980) addressed predictors of student attrition in the context of GPA, development of the learner, the quality of the school and its “practical value” (Aljohani, 2016, p. 3) to inform education stakeholders in their approach to programming and policy(s) for learning. As the researcher will focus on school characteristics and policy-informed programmatic factors that may foster diploma attainment in NYCTS, Bean’s model will also serve as a theoretical lens of this research.

The chapter proceeds with a background to Transfer Schools as one approach to ABE programming in New York City. The first section examines Finn’s (1989) Participation-identification model. The second section presents empirical evidence that supports the use of Participation-identification to interpret reasons for attrition in NYCTS programs. The third, ethnic or gender differences as they relate to Participation-identification and the dropout phenomena.

This is followed by the exploration of Bean’s research on student attrition, including the focus on the nontraditional student. The last section describes how to best operationalize barriers to young adult participation in NYCTS programs and why, followed by a conclusion.

### **Adult Basic Education Programming**

Adult Basic Education programming is multifaceted; it offers different opportunities for adults to engage with learning based upon their learning needs. In the context of high school diploma attainment, ABE encompasses basic education and

dropout-recovery initiatives designed to offer young adults who dropout alternative pathways to diploma attainment.

### **Basic Education**

Basic Education is either a community, state or government-funded initiative free of cost designed to prepare adult dropouts to take the General Education Development (GED) test (“Adult Basic Education,” 2013). The GED test, if passed, provides adult dropouts a chance to gain access to college and/or vocational opportunities, better jobs, and obtain a living wage increase more than adults who do not have a diploma (Stein, et al., 2022; Pulley, 2011). Basic education encompasses basic skills preparation in English, writing and math through pre-GED classes designed to help test takers pass the GED (“Adult Basic Education,” 2013).

### **Dropout-recovery**

Dropout-recovery programs provide adult dropouts between the ages of 15 and 21 the opportunity to return to high school during the day to attain their diploma (Bloom, 2010). Dropout-recovery schools are known as *Transfer Schools* in New York City (“Other ways to graduate,” 2016; Bloom, 2010) or more historically recognized as Secondary School for Adults or Alternative High Schools (Espinoza et al., 2021; Glorieux et al., 2011).

New York City Transfer Schools are:

Small, academically rigorous high schools designed to re-engage and support students who have dropped out or who have fallen behind and now have fewer credits than they should for their age and grade. [Transfer Schools] offer a

personalized learning environment in small class settings (“Other ways to graduate,” 2016).

These type of dropout recovery or Transfer Schools are purposeful because they offer learners who could not navigate through the large traditional NYC high school system an opportunity to engage with teachers and mentors at a more personal level, in less overcrowded learning environments (Diaz, 2014; Espinoza et al., 2021). This type of close engagement found between the adult learner and their teachers/mentors in NYCTS fosters positive relationships if the learning environment’s culture encourages this type of social bonding. Positive teacher/mentor and learner relationships can lead to higher levels of participation and get students enthused about their commitment to learning- the principle of Finn’s (1989) Participation-identification model.

### **New York City Transfer Schools**

The New York City Department of Education implemented the Transfer School to broaden ABE options for NYC dropouts and entice them to enroll in a program designed as a full-time, day-time diploma attainment opportunity for adults (“Other ways to graduate,” 2016). Transfer Schools in NYC specifically offer student-centered learning environments designed to decrease attrition (“Other Ways to Graduate,” 2021). New York City Transfer Schools enroll at-risk adult high school students between the ages of 15 to 21 (“Other Ways to Graduate,” 2016) who want a high school diploma (Bloom, 2010; MacGregor, 2011).

On Average only 38% of students deemed at-risk obtained their diploma in New York City high school programs, including Transfer Schools (“Other Ways to Graduate”, 2016). NYCTS are designed to not just provide diploma attainment for at-risk adult

learners, but also help them become a skilled citizen. The struggles Transfer School teachers, administrators and the overall designers of curriculum for New York City ABE face include encouraging student enrollment, fostering their attachment, decreasing attrition and increasing diploma attainment.

NYCTS frame counter-attrition initiatives within a community context; each teacher, administrator and members and organizations of the immediate community are contributors to at-risk learner diploma attainment and responsible for counter-attrition programming. Current NYCTS initiatives offer access to tutors and advisors, mental health counselors and other means of academic support. These counter-attrition initiatives are a holistic approach to foster student attachment and diploma attainment; moreover, when scrutinized, it can be argued that they mirror Finn's (1989) Participation-identification model formula for programming student success.

The following section examines Finn's (1989) Participation-identification model. The second section presents empirical evidence that supports the use of Participation-identification to understand reasons for attrition in NYCTS programs.

### **Participation-identification**

Finn's (1989) Participation-identification model introduced engagement "as participation in and identification with school" (van Uden et al., 2014, p. 22), which is an essential prerequisite to young adult diploma attainment in a Transfer School. Transfer School students in NYC, like many enrolled in ABE programs, do not easily connect with their learning institution, which subsequently puts them more at risk to demonstrate behaviors that lead to their eventual feelings of isolation and subsequent withdrawal/detachment (Dupéré et al., 2021; Finn, 1989; Montecel et al., 2004). The

Participation-model was designed as a counter-attrition strategy, through the exploration of students' behaviors that affect their identification and participation when enrolled in a learning institution (Finn, 1989). Finn contended *identification* and *participation* were two constructs that platform the framework of a progressive student counter-attrition model.

### **Identification**

Identification has both a positive and negative implication in the context of dropout prevention. A student's positive identification is easily demonstrated by their high level of engagement, which is brought on by an "internalized conception of belongingness" (Finn, 1989, p. 123). Students sense that they belong because they seem themselves as part of their learning institution's fabric. A student's sense of belonging transforms the way they perceive their learning institution into a more positive light. The result is that the student identifies school as a valuable element to their academic life experience that can lead them to attain their specific academic goals (Dupéré et al., 2021; Finn, 1989).

In contrast, identification's negative implications are concomitant to attrition. Learners' unproductive behavior is incited by their "noninvolvement or nonattachment" (Finn, 1989, p. 124) and eventual withdrawal; this happens when students experience *normlessness* and *social isolation*. Normlessness and social isolation parallel the positive identification implications of belonging and valuing school experience (Finn, 1989). Social isolation prompts disengagement between a student and their learning community. Disengagement deflects students' exposure to any positive experiences that could nurture belonging. Normlessness is when students do not believe that they contribute to their

institutional fabric (normalness); thus, they respond by acting out through bad behavior patterns (Finn, 1989); there is very little participation in their learning at this point. Other behaviors that form out of normlessness are increased absenteeism and eventual institutional withdrawal.

### **Participation**

Participation is malleable: the more engagement opportunities and encouragement dropout programs provide to students the likelier they will stymie student attrition. Finn (1989) argued that a student's active or high level of participation can support positive identification when academically inclined. Increased levels of participation could augment the way low academically achieving students engage, perceive their learning experience, and stimulate their participation up-through-to diploma attainment.

Participation is multifaceted. For example, participation in high school differs from what participation in middle or grammar school appears to be. Participation for high school students up-through-to the age of 19 was demarcated by the way accomplished students participated inside of the classroom. Specifically, healthy engagement with the teacher, readiness to learn and an interest in one's academic progress were empirically established behaviors associated with participation (Finn, 1989; Kerr, 1986; Wheaton, 2021). Any divergent behaviors were associated with negative participation, empirically recognized as lateness, disrespectfulness to teachers, sleeping in class, and arriving unprepared to learn (without materials or completed assignments) (Finn, 1989; Kerr, 1986; Wheaton, 2021).



## **The Transfer School Learner**

Finn (1989) contended that both identification and participation develop early on; moreover, the higher level of interpersonal engagement between a student and their family the more likely they are to better navigate their educational career track and not end up in ABE programs, such as Transfer Schools. The Transfer School practitioner's focus, then, is not on the student with positive participation and identification who came from an environment that nurtured engagement and conversation amongst family members; modeled appropriate behaviors for the sake of social adaptation, and provided some type of support system (Finn, 1989). The practitioner's focus is on at-risk young adults who traditionally enroll in Transfer Schools because their academic and/or life challenges affected the way they perceived learning and how they *negatively* identified with and engaged and participated in traditional academic learning environments (Borck, 2018; Cheney et al., 2009; Johnson et al., 2014; Montecel et al., 2004).

The following section presents empirical evidence that supports the use of Participation-identification to interpret reasons for attrition in NYCTS programs.

### **Participation-identification: Empirical Implications**

A theoretical framework can inform the practitioner's blueprint design of an ABE program (Sheared, 1999), such as the NYCTS, to highly monitor student participation and identification for the sake of counter-attrition strategies. Practitioners that must address attrition in NYCTS should know why young adults tend to dropout, and why they remain enrolled (Finn, 1989; Lehr et al., 2004; Mhlaba, 2021), to holistically inform their choice in a theoretical model that supports young adult counter-attrition strategy. Healthy and consistent engagement with young adults, such as by forming bonds will help

practitioners gauge behaviors associated with at-risk learners enrolled in NYCTS. This section explores empirical research speaking to Finn's (1989) Participation-identification Model in the context of student attrition.

### **Attrition**

Social bonds are central to Finn's (1989) Participant-Identification Model (Brundrett, 2004; Espinoza et al., 2021; Gottfredson, 1990; Zins et al., 2004). Forming bonds between the NYCTS learner and their learning community can foster in them a sense of belonging and can encourage them to be more active in their participation in their own learning experience (Finn, 1989). Eith (2005) argued, however, that there was little empirical evidence to demonstrate *how* students felt that they belonged or *if* they considered themselves participants in their learning community to determine social bonding's effect on attrition. Pascarella and Terenzini (2005) countered; they recognized social bonding as an effective way to form healthy student/teacher relationships that facilitate a student's sense of belonging and foster positive academic life experiences.

In Participant-identification framework a young adult's positive opinion of their learning community subsequently fosters their engagement and decelerates attrition (Finn, 1989). There is a correlation between high attrition and young adult learner isolation in ABE programs, such as Transfer Schools, unfortunately (Anderson, 2011; Braxton et al., 2007; Garg & Goel, 2021). Isolation can be heightened by behaviors or *variables* that scholars categorized as *status* or *alterable* variables (Christenson & Thurlow, 2004; Finn, 1989; Lehr et al., 2004; Wong & Chapman, 2022).

**Status variables.**

Status variables are inflexible, thus hard to change by practitioners in dropout prevention programs like NYCTS (Lehr et al., 2004). A nonexhaustive list of status variables includes gender (males have a higher dropout rate), socioeconomic status (a lack of income affects diploma attainment), language (native vs. non-native speakers), region (urban dropout rates are higher than suburban dropout rates), disability (emotional or physical disability), or size of school/learning environment (Macmillan, 1991; Rosenthal, 1998; Rumberger, 1995; Traver et al., 2014; Wolman et al., 1989). Status variables linked to attrition are predominant in disabled, non-native speaker, and Hispanic student groups (Bucheli et al., 2021; Lehr et al., 2004; Montecel et al., 2004; Wagner et al., 1991).

**Alterable variables.**

Alterable variables have a better chance of being modified by practitioners within a participant-identification framework. A nonexhaustive list of alterable variables includes poor grades, troublesome behavior, and truancy; unrealistic academic expectations with few support mechanisms in place to promote success, negative perception of school culture/climate, little or zero parent engagement, a sense of not fitting in, isolation and life challenges (Finn, 1989; Macmillan, 1991; Rosenthal, 1998; Rumberger, 1995; Skiba et al., 2014; Waxman et al., 2021; Wolman et al., 1989). Alterable variables that heighten attrition are truancy and lateness (Zigmond & Thornton, 1985), poor grades (Thompson-Hoffman & Hayward, 1990), little to zero social engagement (Jay & Padilla, 1987) and a negative perception of school culture/climate (MacMillan, 1991; Rogers, 2014; Waxman et al., 2021).

For all counter-attrition purposes, NYCTS practitioners must amend alterable variables that foster a negative, isolated, and detached outlook in students to clear the way for their opportunity to be exposed to exercises in engagement and experiences of enthusiasm that can help deflect their ultimate withdrawal (Finn, 1989; Lehr et al., 2004; Plummer et al., 2022; Rogers, 2014). The Participant-Identification framework can inform NYCTS intervention strategy and help practitioners measure program effectiveness by the number of student success rates, a significant increase in student engagement, and a significant decrease in program attrition regardless of a student's gender or ethnicity (Finn, 1989). First and foremost, however, NYCTS stakeholders must be informed of the learner outcome statistics proving or disproving at-risk learner success.

The following section explores ethnic or gender differences as they relate to Participation-identification and attrition.

### **Ethnic or Gender Differences: Participation-identification and Attrition**

By 2050 approximately 39% of students enrolled in U.S. public schools will be Hispanic (Fry, 2011); however, Hispanics, male and female, will remain less likely to obtain a public high school diploma if current statistics prevail. Although several scholars documented an overall gradual decline in U.S. public school attrition based off of statistical data since the 1970s (Fry, 2011; Fry & Gonzales, 2008; Jani, 2022; Vann & Hinton, 1994), Hispanic attrition, at a rate of 10.6%, is significantly higher than the rate of 5.2 % for Whites and 7.4% for African Americans (NCES, 2016). A similar statistical disparity exists among genders. In terms of gender, both male and female Hispanic

attrition is high when compared with White and African American male and female attrition (NCES, 2016).

Status variables, such as gender and ethnicity, can be linked to attrition among Hispanic student groups (Lehr et al., 2004; Mitra & Zhang, 2021; Montecel et al., 2004; Wagner et al., 1991). Finn (1989) categorized gender and ethnicity under *status variables* and explored these variables within the framework of the Participation-identification model. This section explores participation-identification and attrition in relation to ethnic or gender differences, with a focus on Hispanic learners.

### **Ethnicity: Participation-identification and Attrition**

Early explorations that sought to explain attrition include the 1965 study on its causes by Luis Cervantes; wherein Cervantes predicted the longstanding attrition crisis in the United States and delineated its certain traits. Several traits or factors mentioned in Cervantes' study include students from low-income households, single parents, welfare recipients and delinquents (Cervantes, 1965). Dorn (1993) noted similar traits; he correlated attrition to learners *predominantly* active in criminal activity and delinquency; thus, they do not realize any of the possibilities a high school diploma could afford them. In addition, Dorn (1993) affiliated *attrition* with ethnic minorities and race/class categories. The 1998 publication of the study on background factors of attrition by posited that ethnic minority groups from traditionally low-income families, first generation students, and students from low-educated families could benefit from counter-attrition initiatives in public school education (McWhirter et.al).

Ethnicity, low socioeconomic status and low education levels of family members are several risk factors (Finn & Dock, 1997) that make it “twice as likely” for students to

withdraw before diploma attainment more than “students from affluent families” (McWhirter et.al., 1998, p. 5) within the United States. *Risk* “embodies the notion that exposure to particular conditions, or risk factors,” such as ethnicity, “increases the likelihood that an individual will experience certain adverse consequences” (Finn & Dock, 1997, p.221) on their path toward diploma attainment.

Finn & Dock (1997) deemed *ethnicity* as a status variable (fixed/unchangeable) within the framework of participation-identification. Specifically, they controlled race/ethnicity in their 1997 publication of their empirical study of diploma attainment among low-income ethnic groups in academic environments of grades 8-12. The goal of this study was to gauge ethnic students’ success (diploma attainment) in the context of grades and test scores (Finn & Dock, 1997).

Finn’s 1989 “taxonomy on engagement or participatory behaviors” (1997, p. 222) was used to argue that engagement “provides an explanation for...academic success among students at risk” (1997, p. 223). Hispanic and African American students, per this study, when exposed to engagement activities inside (academic) and outside (extracurricular) of the classroom had attrition of 10.4% and 8.2%, respectively (Finn & Dock, 1997).

More than 20 years have passed since this study and Hispanic attrition is still a predominant crisis among ethnic groups (Fierro et al., 2021). This perpetual crisis still reflects the larger crisis in society and the U.S. education system today: Hispanics still hold the lowest educational and socioeconomic status.

## **Hispanics**

Hispanic dropouts still perpetuate their higher-than-average poverty and higher than average dropout rates in comparison to the rates of White, non-Hispanics, Asians and African Americans. Per the Pew Research Center 2011 Report on Poverty in the U.S., Hispanics held the highest poverty rate in the United States over White, non-Hispanics, Asians and African Americans. Specifically, 28.2% of Hispanics made up the U.S. poverty rate, African Americans made up 25.4% and White, non-Hispanics made up 11.1%; Asians a bit higher than White, non-Hispanics at 16.7%.

The Hispanic population is expected to increase to 107 million by 2065 according to the Pew Research Center Report from 2015.

## **White, non-Hispanics, Asians and African Americans**

White, non-Hispanics, Asians and African Americans, male and female, have less of an attrition crisis than Hispanics (NCES, 2016). This documented delay in Hispanics' social advancement demonstrates the perpetuation of a critical dilemma, wherein Hispanics' lack of socioeconomic progress and their lack of high school diploma attainment overextend the efforts of stakeholders in counter-attrition initiatives; exhaust social service funding and threaten U.S. economic stability.

The following sub-section explores gender and attrition in the context of Finn's (1989) participation-identification model.

## **Gender: Participation-identification and Attrition**

In terms of gender disparities in attrition in the U.S. public school system, as of 2014, Hispanic male attrition was 11.8% in comparison to 9.3% of Hispanic females (NCES, 2016). This is likened to, 5.9% of White females and 5.7% of White males; 7.1%

of African American males and 7.7% of African American females (NCES, 2016).

Overall, Hispanic female attrition is highest among White and African American males and females. And, Hispanic male attrition is highest among all racial and ethnic groups, regardless of gender.

**Hispanic males.** Historically, Hispanic males populate prisons in large numbers as adolescents (Darby, 2021; Hernandez, 2017). They are less likely to participate in the U.S. public school system, let alone obtain their high school diploma because of incarceration (Carnevale & Desrochers, 2003; Darby, 2021; Hirschfield, 2009; Sum et al., 2009). Principal explanations for the provocation of this phenomenon include socioeconomic status, urban environments, little to zero access to positive role models and too few opportunities for them to connect with their academic community while in school (Hernandez, 2017; Huerta & Hernandez, 2021; Stephens, 1990; Stephens & Repa, 1992).

A lack of connectedness and access to a support system *while in school* can lead to increased absences among Hispanic males and/or delinquent behavior; then, consequent suspension, which puts them on the subsequent fast track to criminal activity and imprisonment (Darby, 2021; Finn, 1989; Henderson & McClinton, 2015; Hernandez, 2017; Novak & Fagan, 2022; Rios, 2011). This pattern is consistent with the pattern explained in Finn's (1989) Participation-identification model: cycles of negative behaviors are attrition pathways for Hispanic students (Novak & Fagan, 2022; Peguero et al., 2016). As discussed, attrition and poverty are high among Hispanic females over any other female ethnic or racial group, but not necessarily due to the degree of delinquency or criminal behavior as their Hispanic male counterparts.



**Hispanic females.** Between 1970 and 2007, Hispanic female enrollment (aged 16-25) in U.S. schools increased from 30% to 50%; Hispanic females' (aged 16-25) presence in the workforce increased from 40% to 54% during this period as well (Pew Hispanic Center, 2007). Despite the advances, 19% of Hispanic females were not in school or the work force during this time frame- a rate 3% higher than African Americans (Pew Hispanic Center, 2007). Current data trends demonstrate that by 2060, Hispanic females will represent over 30% of the female population in the United States (Sites.ed.gov., 2015; Terson de Paleville, 2022). With the Hispanic female population growing at such an alarming rate, scholars have tried to gain a better understanding of their attrition phenomenon.

Although risk factors for Hispanic female students can vary, common obstacles to obtaining a high school diploma and leading causes of attrition for Hispanic females in the U.S. are teenage pregnancy, subsequent single-parent status; no access to appropriate childcare services and no affordable housing (Garcia-Coll & Garcia, 2021; Lowder et al., 2022; Minnis et al., 2013; Sites.ed.gov., 2015). In terms of pregnancy, alone, 83 births out of 1,000 are from Hispanic females, while White females count for 37.8 births out of 1,000 in the United States (Sites.ed.gov., 2015). And, with Hispanic females already living below the poverty level, their offspring are born into the same circumstance- a cycle of poverty flourishes out of this teenage pregnancy phenomenon within the U.S. Hispanic community (Garcia-Coll & Garcia, 2021; Minnis et al., 2013).

Out of the female gender, among observed ethnic and racial groups, Hispanic females hold the lead as the most socioeconomically disadvantaged and the most likely of all female groups to give birth to a child (teenage pregnancy) before obtaining their high

school diploma (Masterson et al., 2021; Minnis et al., 2013; Pazol et al., 2011). In the scope of Finn's participation-identification framework, teenage pregnancy among Hispanic females affects attrition, while decreasing their probability of exposure to engagement opportunities that could foster belonging and eventual diploma attainment. Lawson & Masyn concurred in their 2015 publication on predictor of diploma attainment, which applied Finn's (1989) model, Hispanic females' "low chances of belonging" limits their "academic engagement and overall school identification," (p. 20), thus their attrition is higher over White, African American and Asian female students.

The following section explores student attrition through the lens of the research of Bean (1980), as well as subsequent, correlative research regarding attrition in formal educational institutions.

### **Bean: Student Attrition**

Bean (1980) developed a causal model to explore student attrition. The research was inspired by the alarming rate of student attrition in formal learning institutions for the 60 years prior to the research having been executed. In the forty years since, student attrition is still a phenomenon (Aljohani, 2016; Braxton, 2019; Burke, 2019; Ertem & Gokalp, 2022; Park et al., 2011).

Bean (1980) explained attrition was at a stagnant 50% for decades, nationally; this was also the case internationally (Baumgart & Johnstone, 1977; Mehra, 1973; Richling, 1971; Vaizey, 1971). A part of the impetus for Bean's (1980) research were the consistent shortcomings in studies exploring attrition in formal learning institutions because they did not "distinguish determinants of student attrition (analytic variables) and the correlates of student attrition (demographic variables)" (p.156).

Attrition is “the cessation of individual student membership” (Bean, 1980, p.157) in a formal learning institution. Bean did not focus on the positive reasons for attrition, but rather “determinants of student attrition” (1980, p.157). Although Bean (1980) relied on previous models that focused on turnover in work settings, the research was contextualized in academic environments to provide future implications for research on attrition in formal learning institutions. One goal in Bean’s seminal work was to consider what affects the lack of a learner’s educational attainment, which is the question the researcher considered in this study.

To understand students’ attrition, understanding or learning their background characteristics is essential, along with what elements in their environment affect their decision to not achieve their educational attainment (Bean, 1980). Background variables, such as a learner’s socioeconomic status; the learning institution’s organizational determinants, such as institutional quality; as well as, intervening variables, such as student satisfaction serve as platforms for understanding student attrition (Aljohani, 2016; Bean, 1980; Ertem & Gokalp, 2022; Park et al., 2011) in educational contexts.

Students’ satisfaction with their learning institutions enhances commitment and students’ engagement with their learning institution also enhances their commitment (Bean, 1980). The longer a student commits to their learning environment, the more they engage; thus, the greater chance of their achieving their educational attainment versus dropping out (Bean, 1980; Christenson et al., 2000; Reio, Marcus & Sanders-Reio, 2009; Wheaton, 2021).

In terms of gender, male and female students both achieve their educational attainment when primarily committed to their learning institution. However, this doubles

with male learners; males and their institutional commitment are influenced by institutional quality and their own development (Bean, 1980). This coincides with other studies on student attrition and gender at both the secondary and higher education level (Alspaugh, 2000; Espinoza et al., 2021; Ewert, 2012; Ferreira, 2003; Gupta, 1991; Summers, 2003).

Bean's model (1980) excluded Hispanic males and non-U.S. citizens, which does not reflect the specific population evaluated by the researcher in this research. However, since then, studies on Hispanic male attrition have increased (Addis & Withington, 2016; Cooper, 2012; Johnson, 2021; Rivera, 2009). And what these studies unanimously concur is that there is more of a break in the continuity Hispanic males' educational milestones than there is in their eventual educational attainment. Thus, research on how to operationalize the barriers to their attrition needs to continue to evolve to endorse best practices as much as professionally possible.

The following section explores ways to operationalize barriers to young adult attrition, followed by a conclusion.

### **How to Operationalize Barriers to Young Adult Attrition**

Christenson, Sinclair, Lehr, & Hurley (2000) explored numerous studies that examined why young adults stay enrolled in ABE programs, such as Transfer Schools. The scholars then compiled an informative, yet nonexhaustive list for adult educators to use as a reference for counter-attrition strategy. The list suggests that *supportive academic environments, social interaction with teachers and mentors, and positive academic engagement experiences* support effective counter-attrition (Christenson et al.,

2000), in line with Finn's (1989) Persistence-Identification model and Bean's (1980) research on attrition and student commitment.

For the NYCTS adult education practitioners, strategy to decelerate student attrition requires an operationalization of barriers to students' participation. Noted below are strategies that possibly will promote at-risk young adult participation and possibly lead to their diploma attainment in alternative high school diploma granting learning institutions.

### **Supportive Academic Environment**

Aside from ensuring that appropriate learning resources are in place, such as tutors and supplemental learning materials, a supportive academic environment should be a learning space that enhances the at-risk young adult's participation and success (CohenMiller et al., 2022; Pearson, 2012) in NYCTS. The challenge for the NYCTS practitioner is to construct an academic environment that is intimate enough to support and sustain a space that will build trust between the at-risk learner and program staff at the onset of their enrollment (Diaz, 2014; Pham et al., 2022).

At-risk students already enter NYCTS distrustful of these educational institutions and program staff due to previous negative experiences in learning environments and any history of negative student/teacher interactions (Stoppelbein et al., 2021; Torres et al., 2006). Trust will initially bridge the at-risk learner with her learning community at the onset of her enrollment. For trust to manifest, a NYCTS practitioner needs to reeducate program staff to understand why forming bonds with students is pivotal to their success and indoctrinate them in current best practices that forms mentor-mentee relationships between staff and the student community for counter-attrition purposes.

A supportive academic environment should also implement intervention strategy that gauges “observable indicators” and monitors students’ “completion of academic work and accrual of credits... attendance, number of suspensions, and classroom participation” (Christenson & Thurlow, 2004, p. 37; Finn, 1989).

### **Social Interaction with Teachers and Mentors**

Student attrition in NYCTS programs exists, in part, when students feel isolated and nonattached (Finn, 1989; Vann & Hinton, 1994). Constructive engagement between at-risk young adults and their teachers and mentors can foster positive experiences that encourage students to remain in their program (Reio et al., 2009; Wu & Ware, 2022).

To initiate and maintain healthy social relationships a cultural lens is required to inform teachers and mentors’ approach to engagement with at-risk young adult minority Transfer School populations (O’Keefe, 2013; Williams et al., 2022). A cultural lens can be cultivated through the implementation of “critical teacher reflection; youth voice; school/community renewal; socially just curriculum” (Smyth, Down, & McNerney, 2014, p. 43) to reform the way teachers approach and perceive the diverse needs of minority students. The goal is to empower teachers to let students know that they are cared for and that their presence is of value (Tinto, 1993). Students will flourish in an environment that makes them feel safe, valued, and connected (Finn, 1989; Reid, 2022). It takes just one person from their learning community to encourage student engagement and educational attainment (Pope & Miles, 2022).

### **Positive Academic Engagement Experiences**

Positive academic engagement experiences are nurtured in a learning environment that focuses more on learners’ competencies (Christenson & Thurlow, 2004; Pope &

Miles, 2022); in a program that takes a holistic approach to learning, this means faculty, mentors, family and the community take an active part in supporting students' engagement (Finn, 1989). The NYCTS practitioner must be hands-on when cultivating an environment that takes a holistic approach to nurturing positive academic experiences for at-risk young adults. Fostering positive academic experiences requires a communal response: a committee of parents, community leaders, teachers, mentors, and staff should be formed; research on best practice should be considered along with the reconsideration of Finn's Persistence-Identification model to ensure its relativity; personal commitments and contributions should be clarified; accountability must be in place; student feedback and empirical school-based interventions that address positive academic engagement should be considered when deemed necessary.

### **Student Counseling**

There is a documented correlation between diploma attainment and secondary school students' exposure to counseling as an intervention (Eather et al., 2022; Lowder et al., 2022); if students are not assisted in the management of their personal life challenges, it is argued they are likelier to not achieve diploma attainment (Ndanu et al., 2022). A systematic review of best practices for student diploma attainment earmarked counseling as a proactive and successful counter-attrition strategy (Eather et al., 2022).

In terms of counseling and high school aged Hispanic students, students engaged in counseling; however, they did not demonstrate interest in future pursuits, for example, in pursuing and applying to college as much as other racial and ethnic groups (Bryan et al., 2022). This could be a result, in part, of the fact that Hispanic male students have not had their needs assessed holistically due to the lack of familiarity with their exact needs

amongst education stakeholders in the field of education (Halx & Ortiz, 2011; Huerta, 2015; Huerta & Hernandez, 2021).

### **Restorative Practice**

Restorative practice is a practice where educators try to prevent conflict before its onset. With this method, students are assisted in seeing themselves as responsible for their own path within their school community. Thus, the student, in part, is responsible for creating a setting that is more apt to positivity and inclusivity (Sedillo-Hamann, 2022).

Education stakeholders rely on restorative practice to replace zero-tolerance policies that tend to place obstacles in the learning pathway of students. These obstacles can be temporary, but most likely lead to the student being suspended, expelled, and ultimately displaced in the national public education system (Sedillo-Hamann, 2022). Restorative practice changes the traditional way disciplinary action is approached in formal learning institutions, in turn creating a healthy learning environment.

Among Hispanic students, restorative practice assists this already marginalized group within the national public education system take more of an active role in their learning pathway, thus engaging them and encouraging their diploma attainment (Gregory et al., 2016). For the Hispanic male learner, restorative practice is a best practice tool that encourages and promotes equity for these displaced young men within their own school setting (Gregory et al., 2016; Vincent et al., 2021).

### **Extended-day Programming**

Extended day programming was designed to promote a student's engagement with their academic environment. It does not replace their standard learning curriculum.



This type of programming enhances learners' experience through the design and implementation of after-school activities that foster their commitment to their educational pathways and eventual diploma attainment.

A successful extended-day program consists of a myriad of attributes, which include “adaptability, strong management, staff commitment, involvement of current and former learners, family involvement, multi-stakeholder partnerships, continuous programme funding, and monitoring and evaluation” (Ndlovu & Simba, abstract, 2021) all to promote diploma attainment.

The students that most benefit from extended-day programming are from low socio-economic backgrounds, a minority group, and have disruptions on their learning pathways (Marttinen et al., 2022). In addition, extended-day programs break cultural barriers among racial and ethnic groups, promote productivity and encourage institutional commitment (Mulrooney, 2021).

### **ELL Programming**

English language learner programming is most commonly a federal-and-state-based curricular policy intended to support the needs of non-native English speakers and foster their diploma attainment (Uretsky, 2021). Students are placed into a dual language, transitional bilingual program, or an English as a New Language program. The long-term goal of ELL programming is to not just promote English language learning but exist as a sustainable best practice for high school diploma attainment among non-native speakers.

In terms of Hispanic students, ELL programming is another tool that can promote their commitment to their learning pathway and ultimate diploma attainment (Stairs-Davenport, 2021). In addition, ELL programming for Hispanic students is an educational

tool that can foster integration. And, with integration there is a higher chance of student attachment. This attachment stems from the positive experiences associated with a learner's success in their ELL program. Student attachment to their school is a strong pathway toward diploma attainment.

### **Conclusion**

This chapter explored Finn's (1989) Participation-Identification model and Bean's (1980) student attrition theory as a theoretical approach to counter-attrition strategy for NYCTS programming to help explain why attrition can exist and its respective consequences. Empirical evidence that supported the use of both as a theoretical lens to interpret reasons for attrition in ABE programs was explored. However, there is not enough research that explores Hispanic attrition in NYCTS programs. Further research could provide evidence suggesting at-risk Hispanic learner participation in current NYCTS is not at its best when attrition is examined in each academic institution's context.

To understand why attrition exists requires a focus on the success or lack of student success in NYCTS; the implication is that there is a relationship between these phenomena. What this statistical relationship is for the at-risk Hispanic learner requires further exploration.

## **CHAPTER III**

### **METHOD**

The beginning of Chapter 3 reiterates the purpose of this study, along with the research questions previously stated in Chapter 1. In addition, Chapter 3 entails the following: secondary data, research methodology and design, population and sampling, participants, site, data collection, variables and instrumentation, as well as data analysis.

#### **Purpose of the Study**

The purpose of this research was to examine attrition and diploma attainment in New York City Transfer Schools. This study explored attrition among all students enrolled in the NYCTS, 2015-2020 cohort, but focused on at-risk Hispanic males in particular. In addition, their diploma attainment was also explored. Attrition was operationalized as the number of non-graduates among the 2015-2020 cohort.

#### **Secondary Data**

Due to 21<sup>st</sup> century technological advances, researchers can access, explore, and utilize already available data for their future publications. And, with this access, secondary data analysis can be realized more often and efficaciously. Johnston (2017) noted that secondary data is “flexible and can be utilized in several ways, it is also an empirical exercise and a systematic method with procedural and evaluative steps, just as in collecting and evaluating primary data” (p. 619) providing pathways for contemporary analysis and publications.

Secondary data analysis is the “analysis of data that was collected by someone else for another primary purpose” (Johnson, 2017, p. 619), but can be used for distinct future research analysis. Other scholars agree that secondary data is a contemporary way

to use already existing data toward new, distinct research endeavors (Andrews et al., 2012; Heaton, 1998; Glaser, 1963). Glaser (1963) first recognized secondary data's potential for future research, with the understanding that the data is initially used for a different empirical purpose.

In terms of empirical research in the field of social sciences, for example, secondary data can be used in a single quantitative data set or multiple quantitative data sets to better guide the researcher (Heaton, 1998). Heaton (1998) argued that secondary data analysis for quantitative research was limited and needed more use in studies to consider the method empirically sound. Since 1998, however, secondary data analysis has been and continues to be utilized in quantitative analysis with much success and minute limitation (Cave & von Stumm, 2020; Johnson, 2017).

In terms of the limitations of secondary data analysis, Gorard (2012) does favor this quantitative approach in research. Notwithstanding, understanding that no research is without its limitations, we must remain mindful that with the use of secondary data, we are beholden to the actual quality of their data collection protocols and whether the methodological criteria of solid research practice were met (Hox & Boeijs, 2005). Yet, secondary data analysis is the more cost-effective, less time-consuming, and less “inefficient” approach to empirical studies than any other approaches, such as “creating new and primary evidence” or “third-hand, as in review of literature” which can be “distant and distorting” (Gorard, 2012, p. 77).

For this study, the researcher concluded that the use of secondary NYCTS data was a more efficacious approach to answering the following research questions. The NYCTS 2015-2020 data set provided attrition-related data for every transfer school in

New York City, which was not possible to perform during the COVID pandemic where access to schools to researchers was strictly off-limits. The secondary data was sourced from the NYCDOE database, <https://data.nysed.gov/lists.php?type=school> . The school curricula and policy practices were collected through school websites and merged to data. No identifying information was provided through the database, including names, student identification numbers, addresses or other data that could identify the students. Each NYCTS was given an individual code to replace its name.

### **Research Questions**

A comprehensive analysis of data results helped to answer:

- (1) Do Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups?
- (2) What following NYCTS characteristics contribute to the high level of attrition among Hispanic males in NYCTS during the period of 2015-2020? The study will examine school minority ratio, school performance, and graduation rate as NYCTS characteristics.
- (3) What are the following school programs and policies significantly associated with higher Diploma Attainment among Hispanic males in NYCTS during the period of 2015-2020? The study will explore the effect of restorative practice, student counseling, extended-day programming, and ELL programming on the Diploma Attainment of Hispanic males.

Three hypotheses were tested to explore the three research questions:

*H<sub>1</sub>*: At-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups.

*H<sub>2</sub>*: School minority ratio, school performance, and graduation rate predict attrition of at-risk Hispanic males in NYCTS during the period of 2015-2020.

*H<sub>3</sub>*: Restorative practice, student counseling, extended-day programming, and ELL programming predict diploma attainment of at-risk Hispanic males in NYCTS during the period of 2015-2020.

### **Research Design**

A nonexperimental, quantitative research design was used to determine if disparities existed with regard to Hispanic male attrition and the attrition of the subgroups. Moreover, another goal was to determine if NYCTS school characteristics and specific school efforts predicted diploma attainment among Hispanic males. A chi-square test and crosstabulation was utilized to answer the three research questions. In addition, the researcher employed logistic regression analysis to test Hypotheses 2 and 3.

### **Population Sample**

The research population consisted of students enrolled in all of the 54 Transfer Schools in the state of New York; specifically, New York City. The cohort consists of students who entered or enrolled in NYCTS from 2015 up through to 2020, when students graduated. A five-year timespan (2015 when students first enrolled, up through 2020, when students graduated) was examined to support this study of secondary data representing all 54 NYCTC schools. Five years is the academic cohort timespan for NYCTS, providing students ample time to achieve high school diploma attainment. For the purpose of this study, however, the researcher focused on Hispanic males because they demonstrated the highest school dropout rates in general, and poorest performance once enrolled in such drop-out recovery schools.

Considering Hispanics have the highest attrition in the U.S. (Vela & Gutierrez, 2017) and Hispanic students aged 15-24 dropout more than any other racial and ethnic group (McFarland et al., 2017), this population is creating a disparate and perpetual socio-economic attrition gap in the country's public education system and in the U.S. economy. Economically speaking, Bustamante (2019) calculated just how much one drop out costs U.S. taxpayers: \$300,000.

The cost dropouts incur on taxpayers is not the only discouraging factor; the fact that Hispanic dropouts are not decreasing but increasing, and the fact that they have been and are a marginalized group in the public school education system leaves little hope that their socioeconomic status in the U.S. will improve at any pace without swift intervention.

Lastly, due to NYCTS being scrutinized for their efficacy and struggle to meet their graduation quota, it was appropriate to engage with the data in this way to gauge what shortcomings, if any, the schools might have. Therefore, a quantitative analysis of at-risk Hispanic male students' attrition and diploma attainment rate in counter-attrition programs in NYC is a timely and imperative research endeavor that could thus enlighten education stakeholders of these specific institutions and inform U.S. economic growth practices.

### **Participants**

The participants for this study were at-risk adult high school students enrolled in New York City Transfer Schools. These students enrolled in the year 2015 with an expected completion date of no later than 2020. Students enrolled in NYCTS were

deemed at-risk by the NYCDOE because they did not fulfill the requirements of the NYC traditional high school system.

### **Demographic Characteristics of Students enrolled in NY Transfer schools**

Hispanics make up 48.7% of the sample study population, Blacks represent 41.6%, Asians 6.7% and Whites represent 2.9% of the sample study population of NYCTS 2015-2020 cohort. The demographic characteristics are displayed in Table 1. The table includes the race and gender of the sample as well as the total amount of students, listed by their race.

**Table 1. Demographic Characteristics for NYCTS students, 2015-2020**

<b>Race</b>	<b>Total</b>
Asian	347
Black	2,146
Hispanic	2,514
White	152
<b>Total</b>	<b>5,159</b>

The 2015-2020 cohort of NYCTS consisted of 51.1% male and 48.9% female students.

Table 2 displays this fact.

**Table 2. Gender Characteristics for NYCTS students, 2015-2020**

<b>Gender</b>	<b>Total</b>
Female	2,543
Male	2,662
<b>Total</b>	<b>5,205</b>

### **Site**

A dropout prevention program funded by the New York City Board of Education is the New York City Transfer High School. A Transfer School is a full-time high school for at-risk students who are as young as 15 and can remain enrolled up through to the age



of twenty-one. There are specific strategies created by education stakeholders in NYCTS aimed to lower student attrition and foster diploma attainment.

Individual school counselors are an integrated strategy provided to at-risk students in NYCTS. The goal of the counselor is to help learners gain a “sense of identity, communication skills” and learn about self-reliance to help them “break through barriers” and start “advocating for themselves” (<https://www.brooklynacademyhs.org/camba---ltw.html>, 2021). Through self-advocacy, students can also start to determine their goals and confront personal and psychological obstacles.

Counselors help students with their psychological and personal obstacles. They provide both individual and/or group counseling in the hopes at-risk learners can break through the barriers that foster their detachment and subsequently decrease their attrition. In addition, they “counsel students in behavior, educational progress, family dynamics, mental and physical health” (<https://www.brooklynacademyhs.org/camba---ltw.html>, 2021) and can also offer referrals to various external programs and services that could promote a holistic type of support network that could better encourage at-risk learners to feel they are a part of their learning experience and stay enrolled.

NYCTS have discipline standards comparable to traditional high schools in terms of dress, technology and behavior. The expectations are made clear to students and their parents or guardians and remain enforced throughout a student’s enrollment in a Transfer School. It is the student’s personal responsibility to adhere to the standards or face disciplinary action, just like they would in any traditional public high school program in New York City.

### Data Collection

The secondary data was pulled, filtered into subgroups, and downloaded from each selected Transfer School as listed on the NYCDOE institutional research website: <https://data.nysed.gov/lists.php?type=school> as a Microsoft Excel document. The data was stored on a password-protected file on a password-protected laptop.

### Research Variables

The variables that were examined in this study to determine their influence of attrition and diploma-attainment of at-risk students in NYCTS consists of two dependent variables and nine independent variables, Table 3.

**Table 3. Study Variables**

VARIABLES	TYPE OF VARIABLE
<b><u>Independent Variables</u></b>	
English Language Learner (ELL)	Categorical binary
School Minority Ratio	Continuous
Graduation Rate	Continuous
Gender	Categorical binary
Race	Categorical
Extended day Programming	Categorical binary
Student Counseling	Categorical binary
Restorative Practice	Categorical binary
School Improvement	Categorical
<b><u>Dependent Variable</u></b>	
Attrition	Categorical binary
Diploma-Attainment	Categorical binary

## **Dependent Variable**

### **Attrition**

Attrition will be measured as a student either graduating or not during the 2015-2020 time period.

### **Diploma Attainment**

Diploma Attainment will be measured as a student who graduated by 2020.

## **Independent Variables**

### **English Language Learner Programming (ELL)**

ELL is a diploma attainment policy devised to support the needs of non-native English speakers enrolled in NYCTS. After a diagnostic, students are placed into a dual language, transitional bilingual program or an English as a New Language program.

### **Ethnicity**

According to [nyc.schools.gov](http://nyc.schools.gov) (2021), ethnicity is defined by “which the student primarily identifies” or “as indicated by the student or the parent/guardian” and includes, American Indian or Alaska Native, Asian or Native Hawaiian/Other Pacific Islander, Black or African American, Hispanic or Latino, White or Multiracial.

### **Extended day programming**

Extended day programming encourages NYCTS students to engage with their learning institution beyond academics through developed extracurricular practices designed to foster diploma attainment.

**Gender**

According to nyc.schools.gov (2021), gender is defined as male or female, “as defined by the student”; however, “in the case of very young transgender students not yet able to advocate for themselves, gender may be identified by the parent or guardian.”

**Graduation rate**

NYCTS graduation rate is an essential variable to analyze to determine if higher NYCTS student graduation rates are linked to increases in diploma attainment for Hispanic males enrolled in the 2015-2020 cohort.

**Restorative practice**

Restorative practice is a practice implemented in some NYCTS where educators work on preventing conflict before it manifests. This way, students are allowed to perceive themselves as agents of change in their own school communities, responsible for more positive and inclusive settings.

**School minority ratio**

This variable provides insight into how many minority students there are in NYCTS compared to White students, both male and female. Calculation of this variable is used to determine if the ratio affects diploma attainment of Hispanic males enrolled in NYCTS.

**Student counseling**

Student counseling is a practice offered in some NYCTS. Students are exposed to counselors who gauge their needs, long term and short; rely on strategies to foster engagement, personal growth and attachment to the school; as well as use this practice as a diploma attainment tool.

## **Data Analysis**

All statistical analyses were computed using IBM SPSS 27.0 for Windows. Data were collected online, then organized, recorded, and compiled for analysis. Cross-tabulation and chi-square analysis were used to test the first hypothesis, whereas logistic regression analysis was used for testing the second and third hypotheses.

### **Chi-square**

Chi-square analysis was used to analyze the data required to test the first hypothesis where gender and ethnic group differences in attrition were predicted. Chi-square analysis is appropriate when categorical variables (i.e., gender, ethnic group) are being examined, as was the case with this study (Delucchi, 1993). First, a cross-tabulation was computed (provides frequencies and percentages by category of variable being examined) and the chi-square test was then run to test for statistical differences by category.

### **Logistic Regression**

The researcher utilized logistic regression for this study to explain the predictive relationship between the independent variables and attrition and diploma-attainment. Because this research employs a dichotomous outcome variable, a logistic regression was appropriate (Cox & Snell, 1989). In binary logistic regression, the dependent variable is categorized as zero (0), unsuccessful or one (1), successful.

Logistic regression analysis was used to analyze and predict attrition and diploma attainment as this research employs a dichotomous outcome variable (Cox & Snell, 1989). The gender and ethnicity demographic variables were entered as the first block of the regression equation; the school characteristics (school minority ratio, school

performance, and graduation rate) were entered in the second block, and finally the school curricula and policy variables were entered in the third block.

In previous research analysis, linear discriminant function analysis or ordinary least squares (OLS) regression was generally used for this type of research, but they both have been deemed insufficient “due to their strict statistical assumptions, i.e., linearity, normality, and continuity for OLS regression and multivariate normality with equal variances and covariances for discriminant analysis” (Peng et al., 2002, p. 3). Thus, by the late 20<sup>th</sup> century, logistic regression gained popularity; then with the increase of technological tools, it became an acceptable way to managing and solving research questions (Peng et al., 2002).

More importantly, studies have demonstrated that logistic regression “is well suited for describing and testing hypotheses about relationships between a categorical outcome variable and one or more categorical or continuous predictor variables” (Peng et al., 2002, p. 4), which for the purpose of this research is an ideal statistical tactic.

### *Assumptions*

Logistic regression does not include predictor variables spread as a “multivariate normal distribution with equal covariance matrix,” but rather it assumes that the “binomial distribution describes the distribution of the errors that equal the actual Y minus the predicted Y” (Peng et al., 2002, p. 9). The assumed distribution is binomial; thus, the mean has a dichotomous outcome. The assumed implication is that “the same probability is maintained across the range of predictor values” (Peng et al., 2002, p. 9) and for the purpose of this study, this is most helpful.

### ***Test for Multicollinearity***

To test for Multicollinearity in the independent variables, a spearman rank correlation coefficient was run including all the independent variables. The spearman rank correlation was preferred over the Pearson correlation because most of the independent variable are categorical variables. The correlation matrix was examined to see if there are correlation coefficients greater than 0.7. If a correlation coefficient is greater than 0.7, then this is an indication of the possible presence of multicollinearity. However, it was found that no correlation coefficient was  $>0.7$  in all the correlation matrix. Therefore, the assumption of multicollinearity was not violated in this study.

### ***Test for Outliers***

The Mahalanobis distances were computed for all continuous variables (number of graduates, school minority ratio and graduation rate). The CDF.CHISQ() function was used to compute probabilities to determine the probabilities of each observation being an outlier. From the probabilities column only one row was detected as an outlier. The regression was tested without including this outlier and another one with the outlier included. No measure differences were observed in the results; the outlier was not removed as it did not statistically impact the results.

### ***Test for Linearity***

Test for linearity was executed, as seen in Table 4, to determine whether any continuous independent variable is linearly related to the log odds of the independent variable itself.

**Table 4. Test for linearity**

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>Sig.</i>	<i>Exp(B)</i>
White			0.849	3	0.838	
Asian	0.000	0.678	0.000	1	1.000	1.000
Black	0.322	0.488	0.435	1	0.510	1.380
Hispanic	0.366	0.492	0.552	1	0.457	1.442
Male	0.399	0.264	2.288	1	0.130	1.490
Graduate	-0.460	0.163	7.927	1	0.005	0.631
Extended Day/After School	0.100	0.370	0.073	1	0.787	1.105
Step 1 <sup>a</sup> ELL Programs	-0.696	0.411	2.865	1	0.091	0.498
Restorative Practice	-0.187	0.334	0.315	1	0.574	0.829
Student Counseling	-0.014	0.377	0.001	1	0.971	0.986
School Performance			0.123	2	0.940	
School Performance	0.198	0.654	0.092	1	0.762	1.219
School Performance	0.121	0.746	0.026	1	0.871	1.129
Graduate	0.084	0.047	3.214	1	0.073	1.088
School Minority Ratio	0.002	0.001	3.542	1	0.060	1.002
Graduation Rate % by	-0.001	0.002	0.113	1	0.736	0.999
Constant	2.111	1.093	3.728	1	0.054	8.258

a. Variable(s) entered on step 1: race, gender, graduate, Extended Day/After School, ELL Programs, Restorative Practice, Student Counseling, School Performance, Graduate, School Minority Ratio, Graduation Rate.

The log of all continuous variables was computed using the LN function in SPSS, then an interaction between the computed log variable and the original variable was included in the logistic regression model. To assess for linearity, the researcher compared the *p* value of the interaction term to 0.05. If the *p* value is lower than 0.05, then we have violated the assumption of linearity. If the *p* value is > 0.05, then the researcher did not violate the assumption of linearity. Given that all the *p* values for the 3 continuous variables were >0.05, the researcher concluded that they did not violate the assumption of normality.

#### ***Verification of hypothesis using Hierarchical logistic regression***

Table 5 displays the classification table of the logistic regression. Although the researcher did not specify a predicted percentage, the model correctly predicted 100% of



the students who did not earn a high school diploma and the overall model had a 74.1% accuracy.

**Table 5. Classification Table**

		<u>Predicted</u>			
		<u>Observed</u>		<u>Diploma attainment</u>	
		<u>No</u>	<u>Yes</u>		
Step 0	Diploma attainment	No	3804	0	100.0
		Yes	1327	0	.0
Overall Percentage					74.1

Block 0 represents the null model and it is the baseline model where the researcher compared all the other models. It is also referred to as the intercept only model.

Table 6 showed that in the absence of all the predictors used in the model, there will still be a significant level of attrition ( $\beta = 1.053, p < 0.01, \exp(B) = 0.349$ ).

**Table 6. Variables in the Equation Block 0**

		<i>B</i>	S.E.	Wald	<i>df</i>	Sig.	Exp( <i>B</i> )
Step 0	Constant	-1.053	.032	1091.127	1	.000	.349

### Summary

In this chapter, an overview of the research methodology that was employed in this study is supplied. Using a five-year academic year time-frame, students enrolled in NYCTS will be examined to determine the attrition of the cohort. In addition, the variables that determined attrition and diploma attainment for Hispanic males, specifically, will be studied. Chapter 4 will present the findings of the study and Chapter 5 will provide the summary, discussion, implications, recommendations, and limitations of the study.

## CHAPTER IV

### RESULTS

The purpose of this chapter is to report the results of the factors that promote diploma attainment and decrease attrition of Hispanic males in NYCTS, examining effects of school minority ratio, school performance, and graduation rate, as well as the effect of restorative practice, student counseling, extended-day programming, and English Language Learner (ELL) programming on the diploma attainment of Hispanic males enrolled in NYCTS, for the 2015-2020 cohort.

The analysis of this study focused on answering the following questions:

- (1) Do at-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups?
- (2) What following NYCTS characteristics predict attrition of at-risk Hispanic males in NYCTS during the period of 2015-2020? The study examined school minority ratio, school performance, and graduation rate as NYCTS characteristics.
- (3) What are the following school programs and policies that predict diploma attainment of at-risk Hispanic males in NYCTS during the period of 2015-2020? The study will explore the effect of restorative practice, student counseling, extended-day programming, and ELL programming on the diploma attainment of Hispanic males.

#### **Question 1**

The results for question one, do at-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups, are formulated in the following tables and figures. At-risk Hispanic males do have the highest attrition amongst all groups, race and gender; at a rate

of 26.3% who were enrolled in NYCTS during the 2015-2020 academic years (Table 7).

The next largest group was Hispanic females, 24.7%.

**Table 7. Crosstabulation of Attrition based on Race and Gender**

<u>Graduate</u>				<u>Gender</u>		<u>Total</u>
				<u>Female</u>	<u>Male</u>	
<b>No</b>	Race	Asian	Count	68	129	197
			% of Total	1.8%	3.4%	5.1%
	Black	Count	710	887	1597	
		% of Total	18.5%	23.2%	41.7%	
	Hispanic	Count	944	<b>1008</b>	1952	
		% of Total	24.7%	<b>26.3%</b>	51.0%	
	White	Count	32	50	82	
		% of Total	0.8%	1.3%	2.1%	
	Total	Count	1754	2074	3828	
		% of Total	45.8%	54.2%	100.0%	
<b>Yes</b>	Race	Asian	Count	78	72	150
			% of Total	5.9%	5.4%	11.3%
	Black	Count	306	243	549	
		% of Total	23.0%	18.3%	41.2%	
	Hispanic	Count	346	216	562	
		% of Total	26.0%	16.2%	42.2%	
	White	Count	35	35	70	
		% of Total	2.6%	2.6%	5.3%	
	Total	Count	765	566	1331	
		% of Total	57.5%	42.5%	100.0%	
Total	Count	2519	2640	5159		
	% of Total	48.8%	51.2%	100.0%		

In terms of attrition, 51% of Hispanics enrolled in NYCTS did not earn a high school diploma during the 2015-2020 academic years. This represents 77.6% of all Hispanics enrolled in NYCTS during the period (See Table 8).

**Table 8. Total Diploma Attrition of the Five Cohorts**

			Diploma Attrition		Total
			Yes	No	
Race	Asian	Count	197	150	347
		% within Race	56.8%	43.2%	100.0%
		% within Diploma Attrition	5.1%	11.3%	6.7%
	Black	Count	1597	549	2146
		% within Race	74.4%	25.6%	100.0%
		% within Diploma Attrition	41.7%	41.2%	41.6%
	Hispanic	Count	1952	562	2514
		% within Race	77.6%	22.4%	100.0%
		% within Diploma Attrition	51.0%	42.2%	48.7%
	White	Count	82	70	152
		% within Race	53.9%	46.1%	100.0%
		% within Diploma Attrition	2.1%	5.3%	2.9%
Total	Count	3828	1331	5159	

A chi-square analysis was conducted to determine the relationship between race and diploma attainment. The results in Table 9 demonstrate that there is a significant relationship between race and diploma attainment ( $\chi^2 = 103$ ,  $df = 3$ ,  $p < 0.01$ ).

**Table 9. Chi Square of Race and Diploma Attainment**

Chi-Square Tests			
	Value	<i>df</i>	Asymptotic Significance sided
Pearson Chi-Square	103.262 <sup>a</sup>	3	.000
Likelihood Ratio	94.325	3	.000
Linear-by-Linear Association	5.402	1	.020
Number of Cases	5159		

0 cells (0.0%) have expected count less than 5. The minimum expected count is 39.22.

Table 10 displays the results between gender and diploma attrition. Males represented 51.1% of the students enrolled in NYCTS and 48.9% are females.

Furthermore, 45.8% of respondents who did not graduate are females as opposed to 54.2% of non-graduates are male.

**Table 10. Diploma Attrition by Gender**

			Diploma Attrition		Total
			Yes	No	
Gender	Female	Count	1770	773	2543
		% within Diploma Attrition	45.8%	57.6%	48.9%
	Male	Count	2092	570	2662
		% within Diploma Attrition	54.2%	42.4%	51.1%
Total	Count	3862	1343	5205	

Associations between gender and diploma attainment were assessed with the use of the chi-square test. The results showed that there is an association between gender and diploma attainment ( $\chi^2=54.840$ ,  $df = 1$ ,  $p < 0.01$ ), Table 11.

**Table 11. Association between Gender and Diploma Attainment**

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided )
Pearson Chi-Square	54.840 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	54.371	1	.000		
Likelihood Ratio	54.960	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	54.829	1	.000		
N of Valid Cases	5205				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 656.15.

b. Computed only for a 2x2 table

Table 12 presents the Omnibus tests of Model Coefficients. The Chi Square

test was used to show if the variables added to the model bring a significant amount of information in explaining the rate of retention better than the intercept only model. This model signifies that degree attainment takes up significantly a lower proportion compared with no degree attainment.

**Table 12. Omnibus Tests of Model Coefficients block 1**

		Chi-square	<i>df</i>	Sig.
Step 1	Step	146.949	4	.000
	Block	146.949	4	.000
	Model	146.949	4	.000

The -2log likelihood is a statistic used to assess model fit in logistic regression, Table 13. The closer the value is to 0, the better fitting the model is and vice versa, given that the -2log likelihood of the first block is 5718.941, it can be concluded that the model fit is less than perfect. Furthermore, the Nagelkerke *R* square of 0.041 shows that the amount of variance in dependent variable with this model was about 4.1 percent. Using Cox and Snell *R* square index, the amount of variance in the dependent variable in this model was 2.8 percent.

**Table 13. Model Summary block 1**

Step	-2 Log likelihood	Cox & Snell <i>R</i> Square	Nagelkerke <i>R</i> Square
1	5718.941 <sup>a</sup>	.028	.041

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

The Hosmer and Lemeshow test was used to determine if the poor predictions are significant, Table 14. Given a *p* value of 0.974, this indicated that the model was not able to predict the model significantly.

**Table 14. Hosmer and Lemeshow Test**

Step	Chi-square	df	Sig.
1	.224	3	.974

The classification tables evaluated how well the model is doing in predicting group membership correctly. The overall accuracy of the model was 74.2%. This means that the model correctly classified 74% of the observations into the right class. Specifically, the model was able to correctly predict 99.2% of failure and 2.6% of success. The model is more accurate in predicting failure than success, Table 15.

**Table 15. Classification Table block 1**

	<u>Observed</u>	<u>Predicted</u>		Percentage Correct	
		<u>Diploma</u>			
		<u>Attainment</u>			
Step 1	Diploma	No	<u>No</u> 3772	<u>Yes</u> 32	99.2
	Attainment	Yes	1292	35	2.6
	Overall Percentage				74.2

a. The cut value is .500

Table 16 presents the regression coefficients from the first block of the model. The reference category for race is White and for gender, the reference category is females. Inferring from the table above, Asians have a lower diploma attainment rate compared to Whites ( $\beta = -0.130, p = 0.510$ ). Blacks have a significantly lower level of diploma attainment than Whites ( $\beta = -0.939, p < 0.01$ ),  $Exp(B) = 0.391$ . Similarly, Hispanics have a significantly lower level of diploma attainment compared to Whites ( $\beta = -1.128, p < 0.01$ ), thus a higher attrition level. The researcher would be taking a lower than 1% risk in assuming that there is a significant difference in the level of attrition between Hispanics and Whites. In terms of gender, males have a significantly

lower level of diploma attainment compared to females ( $\beta = -0.498, p < 0.01$ ),  $Exp(B) = 0.482$ . From the above analysis, the researcher therefore concluded race and gender were significant determinants of diploma attainment for students enrolled in NYCTS for the 2015-2020 cohort.

**Table 16. Variables in the Equation**

	<i>B</i>	S.E.	Wald	<i>df</i>	Sig.	<i>Exp(B)</i>
Race			100.901	3	.000	
Asians	-.130	.197	.433	1	.510	.878
Black	-.939	.171	29.981	1	.000	.391
Hispanic	-1.128	.171	43.430	1	.000	.324
Male	-.498	.065	58.077	1	.000	.608
Constant	.118	.168	.494	1	.482	1.125

a. Variable(s) entered on step 1: Race, Gender.

**Question 2**

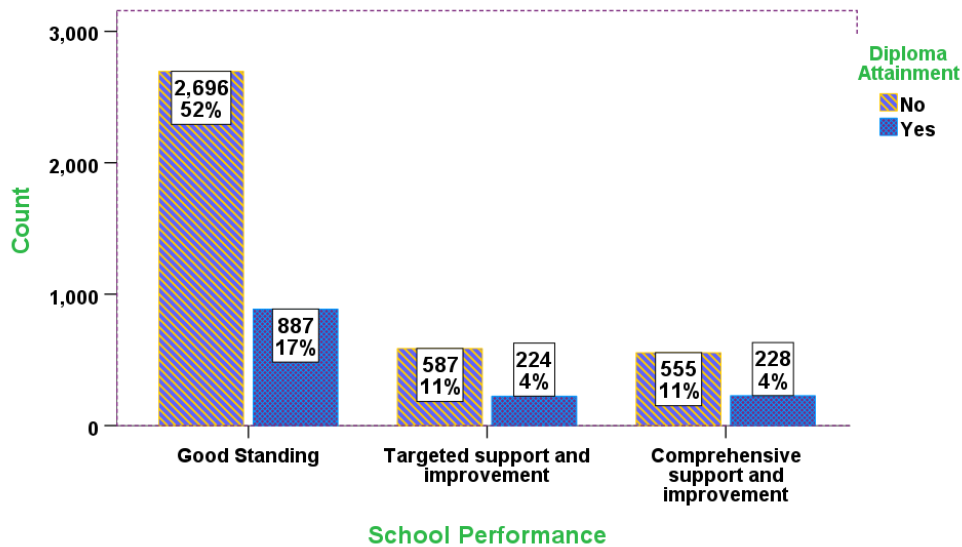
The results to answer Question 2, what following NYCTS characteristics predict attrition of at-risk Hispanic males in NYCTS during the period of 2015-2020, is presented in this section. The study examined school minority ratio, school performance, and graduation rate as NYCTS characteristics.

Table 17 presents the crosstab between school performance and diploma attainment. From the table, 69.2% of school performance was under the category good standing, 15.7% was targeted support and improvement and 15.1% was comprehensive support and improvement. In total, 24.8% of students in schools with good standing graduated, 27.4% of students in schools with targeted support and improvement graduated and 29% of students in schools with comprehensive support and improvement graduated. From the foregoing analysis, a greater number of graduates came from schools with comprehensive support and improvement programs.



**Table 17. School Performance by Diploma Attainment crosstab**

		<u>Retention</u>		<u>Total</u>	
		<u>No</u>	<u>Yes</u>		
School Performance	Good Standing	Count	2696	887	3583
		% within School Performance	75.2%	24.8%	100.0%
		% within Retention	70.2%	66.2%	69.2%
	Targeted support and improvement	Count	587	224	811
		% within School Performance	72.4%	27.6%	100.0%
		% within Retention	15.3%	16.7%	15.7%
	Comprehensive support and improvement	Count	555	228	783
		% within School Performance	70.9%	29.1%	100.0%
		% within Retention	14.5%	17.0%	15.1%
	Total	Count	3838	1339	5177
		% within School Performance	74.1%	25.9%	100.0%
		% within Retention	100.0%	100.0%	100.0%



**Figure 1. School Performance by Retention**

Figure 1 gives us a graphical representation of the relationship between diploma attainment and school performance. From the graph, we can deduce that a higher proportion of students with comprehensive support and improvement programs graduated from the program than in any other school performance category.

To determine if school performance is related to diploma attainment, the Chi-Square test was used, Table 18. Given  $\chi^2 = 7.925$ ,  $df = 2$ ,  $p = 0.019$ , there is a significant relationship between school performance and diploma attainment. Therefore, diploma attainment depends on school performance. Schools with comprehensive support and improvement programs graduated a higher proportion of students than schools with good standing and targeted support and improvement.

**Table 18. School Performance by Diploma Attainment Chi Square test**

<b>Chi-Square Tests</b>			
	Value	<i>df</i>	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.925 <sup>a</sup>	2	.019
Likelihood Ratio	7.819	2	.020
Linear-by-Linear Association	7.774	1	.005
N of Valid Cases	5177		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 202.52.

Table 19 presents the Omnibus tests of Model Coefficients for block 2. Given a Chi-Square value of 158.970 and a  $p$  value  $< 0.01$ , the researcher concluded that school minority ratio and school performance bring a significant amount of information on predicting diploma attainment. The addition of gender, race, school minority ratio and school performance significantly explain diploma attainment better than the intercept only model and the variables added to block 2 brings an increment in fit better than the model in block 1 ( $X^2 = 12.021, p = 0.017$ ).

**Table 19. Omnibus Tests of Model Coefficients Block 2**

		<u>Chi-square</u>	<u><i>df</i></u>	<u>Sig.</u>
Step 1	Step	12.021	4	.017
	Block	12.021	4	.017
	Model	158.970	8	.000

The Cox & Snell  $R$  Square and Nagelkerke  $R$  Square from block 2 have increased relative to the values in block 1. This means that the variables in block two improves on the fit of the overall model, Table 20.

**Table 20. Model Summary block 2**

<u>Step</u>	<u>-2 Log likelihood</u>	<u>Cox &amp; Snell R Square</u>	<u>Nagelkerke R Square</u>
1	5706.921 <sup>a</sup>	.031	.045

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

The Hosmer and Lemeshow test was used to determine if the poor predictions were significant, Table 21. Given a  $p$  value of 0.000, this indicates that the model significantly improved with the addition of the new variables

**Table 21. Hosmer and Lemeshow Test block 2**

<u>Step</u>	<u>Chi-square</u>	<u>df</u>	<u>Sig.</u>
1	45.594	8	.000

. The overall accuracy of the model is 74%, Table 22. The model correctly classified 74% of the observations into the right class. Specifically, the model was able to correctly predict 98.5% of failure and 3.6% of success. The model is more accurate in predicting failure than success. With the addition of the two variables, the model ability to predict success increased from 2.6% to 3.6%.

**Table 22. Classification Table<sup>a</sup>**

		<u>Observed</u>	<u>Predicted</u>		Percentage Correct
			<u>Retention</u>	<u>No</u>	
Step 1	Retention	No	3747	57	98.5
		Yes	1279	48	3.6
		Overall Percentage			74.0

a. The cut value is .500

From block 1, the effects of gender and age remain approximately the same. School minority ratio does not have a statistically significant effect on attrition ( $\beta =$

0.000,  $p = 0.891$ ,  $Exp(b) = 1.0$ ), Table 23. The reference category for a school’s academic performance was good standing and it was significant in that students who attended a NYCTS with that performance level had lower attrition compared to those who did not. In addition, schools with comprehensive support and improvement have a significantly higher level of diploma attainment ( $\beta = 0.281$ ,  $p = 0.003$ ). Students who attended schools with high graduation rate had lower attrition; the higher the graduation rate, the higher the probability of diploma attainment ( $\beta = 0.005$ ,  $p = 0.048$ ,  $Exp(b) = 1.005$ ).

**Table 23. Variables in the Equation**

	<u>B</u>	<u>S.E.</u>	<u>Wald</u>	<u>df</u>	<u>Sig.</u>	<u>Exp(B)</u>
Race			87.997	3	.000	
Asian	-.165	.202	.667	1	.414	.848
Black	-.903	.176	26.464	1	.000	.405
Hispanic	1.115	.176	40.126	1	.000	.328
Male	-.503	.066	58.921	1	.000	.604
School Minority Ratio	.000	.001	.019	1	.891	1.000
School Performance			10.441	2	.005	
Step 1 <sup>a</sup> School Performance (Targeted support and improvement)	.162	.093	3.065	1	.080	1.176
School Performance (Comprehensive support and improvement)	.281	.096	8.640	1	.003	1.325
Graduation Rate %	.005	.002	3.920	1	.048	1.005
Constant	-.080	.186	.184	1	.668	.923

a. Variable(s) entered on step 1: School Minority Ratio, School Performance, Graduation Rate %.

### Question 3

The results to answer question 3, what are the following school programs and policies significantly associated with higher Diploma Attainment among at-risk Hispanic males in NYCTS during the period of 2015-2020, are presented in this section.

A summary of the relationship between extended day/after school and diploma attainment is given in Table 24. From the table, 69.4% of respondents engaged in extended day/after school, while 30.6% did not. Within these categories, 26.0% of respondents who engaged in extended day/after school graduated from the program, while 25.4% of those who did not engage in extended day/after school graduated. Thus, there is not a significant relationship between extended day/after school and diploma attainment.

**Table 24. Extended Day/After School by Diploma Attainment**

			<u>Diploma Attainment</u>		Total
			<u>No</u>	<u>Yes</u>	
Extended Day/After School	No	Count	1187	404	1591
		% within Extended Day/After School	74.6%	25.4%	100.0%
		% within Diploma Attainment	30.7%	30.1%	30.6%
	Yes	Count	2675	939	3614
		% within Extended Day/After School	74.0%	26.0%	100.0%
		% of Total	51.4%	18.0%	69.4%
Total	Count	3862	1343	5205	

Chi-square analysis was performed to assess the association between extended day/after school and diploma attainment. As noted in Table 25, no statistically significant association was found,  $\chi^2 = 0.200, df = 1, p = 0.654$ , indicating that engaging in extended day/after school has no effect on graduation at the end of the period.

**Table 25. Chi-Square Tests**

<b>Chi-Square Tests</b>					
	Value	<i>df</i>	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	.200 <sup>a</sup>	1	.654		
Continuity Correction <sup>b</sup>	.171	1	.679		
Likelihood Ratio	.201	1	.654		
Fisher's Exact Test				.680	.340
Linear-by-Linear Association	.200	1	.654		
N of Valid Cases	5205				

0 cells (0.0%) have expected count less than 5. The minimum expected count is 410.51.

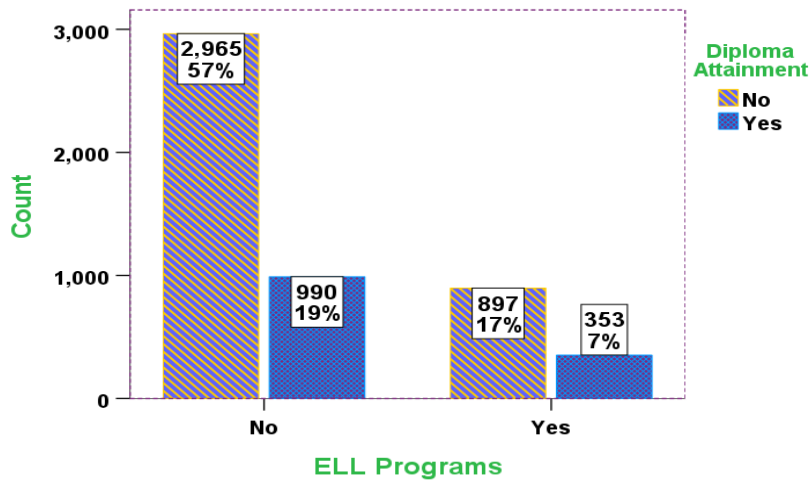
Computed only for a 2x2 table

Table 26 presents the crosstabulation of English Language Learner Programming (ELL) and diploma attainment. From Table 26, 76% of all respondents subscribed to the ELL program, while 24% did not subscribe to the program. Amongst those subscribed to the ELL program, 28% of them graduated, while 72% of them did not graduate. Amongst those who were not subscribed, 25% of them graduated at the end of 2020, while 75% did not graduate. 57% of the respondents did not subscribe to the program and also did not graduate, while 6.8% of respondents subscribed to the program and graduated.

**Table 26. Diploma Attainment by ELL Programs**

			<u>Diploma Attainment</u>		Total
			<u>No</u>	<u>Yes</u>	
ELL Program	No	Count	2965	990	3955
		% within ELL Programs	75.0%	25.0%	100.0%
		% within Diploma Attainment	76.8%	73.7%	76.0%
	Yes	Count	897	353	1250
		% within ELL Programs	71.8%	28.2%	100.0%
		% within Diploma Attainment	23.2%	26.3%	24.0%
Total	Count	3862	1343	5205	
	% within ELL Programs	74.2%	25.8%	100.0%	

In Figure 2 below, the effect ELL programs have on diploma attainment are given. The ELL program did not have a significant effect.



**Figure 2 ELL Programs, Diploma Attainment Crosstabulation**

Restorative practice is a practice where educators work on preventing conflict before it manifests, Table 27. Generally, 32.9% of respondents are in schools where



educators practice restorative practices, while 67.1% of the respondents are in schools that do not practice restorative practice. Furthermore, only 23.9% of students in schools that have restorative practices graduated at the end of 2020 as opposed to 26.7% of students in schools that do not practice restorative practices who graduated. This shows that there is a higher likelihood of graduating if your school does not practice restorative practices. This is in addition to the fact that 69.5% of students who graduated at the end of 2020 were from schools that did not practice restorative practices - as opposed to only 30.5% of students who graduated that were from schools that practice restorative practices.

**Table 27. Restorative Practice by Diploma Attainment Crosstab**

		<u>Diploma Attainment</u>		Total	
		<u>No</u>	<u>Yes</u>		
Restorative Practice	No	Count	2559	934	3493
		% within Restorative Practice	73.3%	26.7%	100.0%
		% within Diploma Attainment	66.3%	69.5%	67.1%
		Count	1303	409	1712
	Yes	% within Restorative Practice	76.1%	23.9%	100.0%
		% within Diploma Attainment	33.7%	30.5%	32.9%
		Count	3862	1343	5205
		% within Restorative Practice	74.2%	25.8%	100.0%

Figure 3 shows the distribution of retention by restorative practice. From the figure, a greater proportion of students whose schools did not practice restorative practices graduated more than those who practiced restorative practices.

**Figure 3. Restorative Practice**

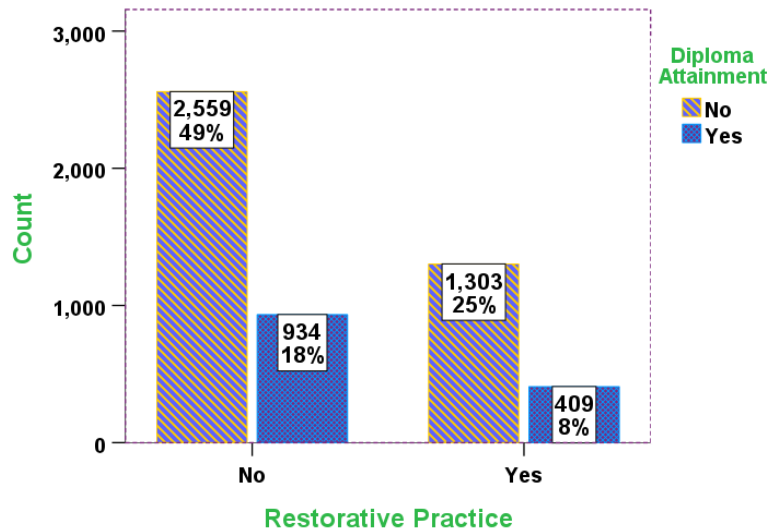


Table 28 below presents the results of the Chi-Square test used to test the interdependence between retention and restorative practice. Given  $\chi^2 = 4.871$ ,  $df = 1$ ,  $p = 0.027$ , this means that there was a 2.7% chance in assuming that retention depends on restorative practice.

**Table 28. Restorative practice by Diploma Attainment crosstab**

	Chi-Square Tests				
	Value	<i>df</i>	<u>Asymptotic</u> <u>Significance</u> (2-sided)	<u>Exact Sig.</u> (2-sided)	<u>Exact Sig.</u> (1-sided)
Pearson Chi-Square	4.871 <sup>a</sup>	1	.027		
Continuity Correction <sup>b</sup>	4.723	1	.030		
Likelihood Ratio	4.914	1	.027		
Fisher's Exact Test				.028	.015
Linear-by-Linear Association	4.870	1	.027		
N of Valid Cases	5205				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 441.73.

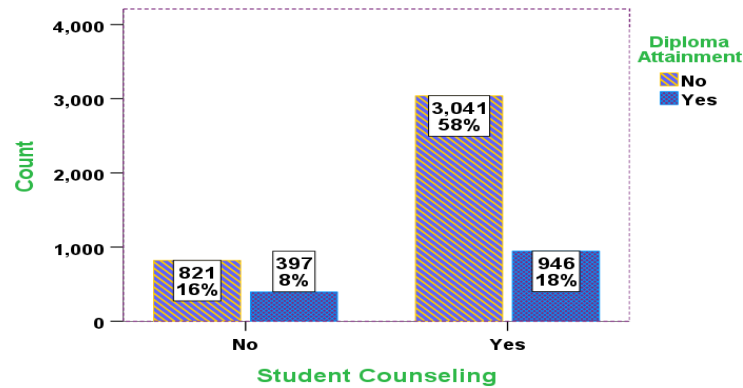
Because the p value is lower than 0.05, the researcher therefore concluded that diploma attainment depends on restorative practice. A greater amount of students from schools that did not implement restorative practices graduated by 2020, more than students from schools that implemented restorative practice.

Table 29 demonstrates that amongst the students that who did not receive student counseling, 25.8% students graduated. Whereas 23.4% of the students who receive student counseling graduated. This indicates that a greater number of students who graduated did not receive student counseling, Figure 4.

**Table 29. Student Counseling by Diploma Attainment Crosstab**

			<u>Diploma</u>		Total
			<u>Attainment</u>		
			<u>No</u>	<u>Yes</u>	
Student Counseling	No	Count	821	397	1218
		% within Student Counseling	67.4%	32.6%	100.0%
	% within Diploma Attainment		21.3%	29.6%	23.4%
	Yes	Count	3041	946	3987
% within Student Counseling		76.3%	23.7%	100.0%	
% within Diploma Attainment		78.7%	70.4%	76.6%	
Total	Count		3862	1343	5205
	% within Student Counseling		74.2%	25.8%	100.0%

**Figure 4. Student Counseling by Diploma Attainment Crosstab**



In Table 30, the Chi-Square test was used to verify the relationship between student counseling and diploma attainment. Given  $\chi^2 = 38.319, df = 1, p < 0.01$ , concluding that diploma attainment significantly depends on student counseling. A greater amount of students who graduated did not receive student counseling compared to students who graduated that received counseling.

**Table 30. Student Counseling by Diploma Attainment Chi-Square Tests**

	<u>Value</u>	<u>df</u>	<u>Asymptotic</u> <u>Significance</u> <u>(2-sided)</u>	<u>Exact</u> <u>Sig.</u> <u>(2-</u> <u>sided)</u>	<u>Exact Sig.</u> <u>(1-sided)</u>
Pearson Chi-Square	38.319 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	37.857	1	.000		
Likelihood Ratio	37.032	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	38.311	1	.000		
N of Valid Cases	5205				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 314.27.

b. Computed only for a 2x2 table

### **Regression**

Table 31 presents the Omnibus tests of Model Coefficients for block 3. Given a Chi-Square value of 194.970 and a  $p$  value  $< 0.01$ , the researcher concluded that gender,

race, school minority ratio, school performance, extended day/after school, ELL Programs, restorative practice and student counseling bring a significant amount of information in explaining diploma attainment better than the intercept only model. The variables added to block 3 (Extended Day/After School, ELL Programs, Restorative Practice and Student Counseling) fit better than the model in block 2 ( $X^2 = 35.612, p < 0.01$ ).

**Table 31. Omnibus Tests of Model Coefficients Block 3**

		Chi-square	<i>df</i>	Sig.
Step 1	Step	35.612	4	.000
	Block	35.612	4	.000
	Model	194.581	12	.000

The Cox & Snell *R* Square and Nagelkerke *R* Square from block 3 have increased relative to the values in block 2, Table 32. The variables in block 3 improves on the fit of the overall model.

**Table 32. Model Summary Block 3**

<u>Step</u>	<u>-2 Log likelihood</u>	<u>Cox &amp; Snell <i>R</i> Square</u>	<u>Nagelkerke <i>R</i> Square</u>
1	5671.309 <sup>a</sup>	.037	.055

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

**Table 33. Hosmer and Lemeshow Test Block 3**

<u>Step</u>	<u>Chi-square</u>	<u><i>df</i></u>	<u>Sig.</u>
1	21.412	8	.006

Despite the suggestion of improving fit, the overall accuracy of the model in correctly classifying respondents into their respective groups remain at 74%, Table 34.

**Table 34. Classification Table**

		<u>Predicted</u>			
		<u>Observed</u>	<u>Retention</u>		Percentage Correct
			<u>No</u>	<u>Yes</u>	
Step 1	Retention	No	3757	47	98.8
		Yes	1287	40	3.0
	Overall Percentage				

a. The cut value is .500

Table 35 presents the regression coefficients of the variables in the model. The effects of variables from block 1 and 2 remain relatively the same. Extended Day/After School, ELL Programs, Restorative Practice does not significantly effect diploma attainment. They do not bring additional information in explaining the level of diploma attainment. Student counseling is significant, however, it reduces the probability of graduation at the end of the program ( $\beta = -0.492, p < 0.01, Exp(B) = 0.612$ ). Students who attended schools that provided counseling have a lower level of diploma attainment than students who did not.

**Table 35. Variables in the Equation**

	<i>B</i>	S.E.	Wald	<i>df</i>	Sig.	Exp( <i>B</i> )
			84.831	3	.000	
Asian	-.123	.206	.355	1	.551	.884
Black	-.913	.178	26.392	1	.000	.401
Hispanic	-	.178	38.706	1	.000	.331
Male	-.487	.066	54.585	1	.000	.614
Extended Day/After School(Yes)	.081	.084	.947	1	.331	1.085
ELL Programs(Yes)	.092	.089	1.064	1	.302	1.096
Restorative Practice(Yes)	.101	.077	1.704	1	.192	1.106
Student Counseling(Yes)	-.492	.093	28.090	1	.000	.612

Constant	.251	.202	1.550	1	.213	1.286
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a. Variable(s) entered on step 1: Extended Day/After School, ELL Programs, Restorative Practice, Student Counseling.

## **CHAPTER V**

### **DISCUSSION**

Chapter 5 presents a summary of this investigation and a subsequent discussion of the results. In addition, the implications for future research and practice and the limitations of the study is included in this chapter.

#### **Summary of the Study**

While predicting attrition among all students enrolled in the NYCTS 2015- 2020 cohort, the researcher focused primarily on minority subgroups (e.g., Hispanic males) because of the pronounced need for much more educational research with these under-represented groups. This study also examined the school characteristics closely associated with high attrition of Hispanic male students, as well as the school programs and policies that contributed to higher levels of diploma attainment among Hispanic males in NYCTS. Thus, the purpose of this research was to examine attrition and diploma attainment of Hispanic males in NYCTS and provide policy suggestions to foster their diploma attainment.

The first theoretical framework relied on to make sense of the data and analyses generated from testing the hypotheses was Finn's (1989) Participation-identification model. Participation-identification is a system that monitors the behaviors that cultivate learner detachment and stymie a student's attachment while on their learning track (Finn, 1989). Participation-identification outlines how students value or, more importantly, devalue their participation, and decreases their attachment to an educational program (Demant & Van Houtt, 2014).



Second, Bean (1980) addressed predictors of student attrition in the context of GPA, development of the learner, the quality of the school and its “practical value” (Aljohani, 2016, p. 3) to inform education stakeholders in their approach to programming and policy(s) for learning. As the researcher focused on school characteristics and policy-informed programmatic factors that may foster diploma attainment in NYCTS, Bean’s model also served as a theoretical lens of this research.

Both Finn (1989) and Bean’s (1980) models supported this research in terms of guided frameworks for this study. These models both proved efficient to inform the determination of NYCTS Hispanic male students’ standing in terms of attrition and diploma attainment or, rather, the lack thereof. Whereas for other minority subgroups, learner attachment (Finn, 1989) and low student attrition could be considered in terms of school quality and value (Bean, 1980) with the help of these models; the high attrition and low graduation (completion) among Hispanic males in NYCTS could not.

The study consisted of at-risk Hispanic male and female student data from the 2015-2020 New York City Transfer School cohort. This is in addition to 2015-2020 cohort data of Asian, Black, White and male and female students. However, it was the at-risk Hispanic male students from this cohort that faced a barrage of challenges that the current educational and institutional framework of the NYCTS could not assuage sufficiently enough to deter their attrition and foster their graduation (completion) (López & Foster, 2021). This particular population lives below urban poverty lines, which in New York City continues to be a discerning factor in the reality of the lives of this learner population. Moreover, an additional discerning reality for these learners is that in spite of

the NYCTS policy implementations thus far, Hispanic males from the 2015-2020 are not graduating from NYCTS at a comparable and acceptable rate.

This study was designed to answer three questions:

- (1) Do at-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups?
- (2) What following NYCTS characteristics predict attrition of at-risk Hispanic males in NYCTS during the period of 2015-2020? The study examined school minority ratio, school performance, and graduation rate as NYCTS characteristics.
- (3) What are the following school programs and policies that predict diploma attainment of at-risk Hispanic males in NYCTS during the period of 2015-2020? The study will explore the effect of restorative practice, student counseling, extended-day programming, and ELL programming on the diploma attainment of Hispanic males. Three hypotheses were examined:

*H<sub>1</sub>*: At-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups.

*H<sub>2</sub>*: School minority ratio, school performance, and graduation rate predict attrition of at-risk Hispanic males in NYCTS during the period of 2015-2020.

*H<sub>3</sub>*: Restorative practice, student counseling, extended-day programming, and ELL programming predict diploma attainment of at-risk Hispanic males in NYCTS during the period of 2015-2020.

This quantitative study consisted of analyses of the 2015 NYCTS cohort ( $N = 5,205$ ). Logistic regression, chi-squares and crosstabulations revealed that Hispanic male students enrolled in NYCTS from the 2015 cohort have higher attrition than other

enrolled female and racial groups; 82.4% did not attain their high school diploma.

Hispanic males experience lower attrition when they attend a NYCTS whose graduation rate percent is high and whose performance is assigned *good standing* or *comprehensive support and improvement*. However, school minority ratio does not have a statistically significant effect on attrition of Hispanic males.

NYCTS who provided student counseling as a service to students was significant in predicting diploma attainment of Hispanic males. However, Hispanic males' diploma attainment decreased if they attended schools who provided student counseling. Schools that provided extended day/after school, restorative practice, and English Language Learner (ELL) programming were not statistically associated with diploma attainment for Hispanic males.

The 2015-2020 cohort data from all 54 NYCTS was studied and analyzed. The researcher relied on published literature, both current and longstanding to guide the study. The literature was relied on for a foundational framework that could provide structure while appropriately informing the research lens enough to execute this study. Cross-tabulation and chi-square analysis and logistic regression was used to apprise the hypotheses.

### **Discussion of the Results**

This section was informed by the theories of Bean (1980) and Finn (1985) and research on attrition, diploma attainment, minority students, NYCTS history and learning frameworks to say the least. This section illuminates the three hypotheses created for this research. The results proved to be of statistical importance. Hypothesis 1 will be explored first, then Hypothesis 2 and Hypothesis 3.

## **Hypothesis 1**

The first hypothesis stated that at-risk Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups. Results from the chi-square test and cross-tabulation showed that Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort had higher attrition than other enrolled female and ethnic subgroups. The findings supported  $H_1$ ; thus, the hypothesis was supported.

This finding supports the literature that argues Adult Basic Education learner attrition, specifically in Transfer Schools, is extremely high; with less than a 50% rate of learner diploma attainment for Hispanic males (James, 2020; Sparks, 2013). In the case of Hispanic males, this study served as an addition to the research literature that argues voluntary withdrawal from ABE programs, like Transfer Schools (Anderson, 2011), is prevalent among young men, specifically Black and Hispanic males – with Hispanic males having higher attrition rates (Bloom, 2010). The higher the attrition, the more likely Hispanic males will face economic hardships, and, unfortunately a possible criminal record (Carnevale & Desrochers, 2003; Pickard, 2021; Sum et al., 2009).

It is this predominant and premature withdrawal of Hispanic males that prevents NYCTS meeting the Every Student Succeeds Act (ESSA) 67% diploma attainment requirement. With NYCTS facing closure and/or being merged with other NYCTS, students will most likely be displaced (Baum-Tuccillo et al., 2020).

## **Hypothesis 2**

Results from the logistic regression analysis showed that school minority ratio was *not* significantly associated with higher diploma attainment among at-risk Hispanic

males in NYCTS during the period of 2015-2020. The findings did support, however, that high graduation rate was linked to lower attrition rates among Hispanic males; thus, that part of the H<sub>2</sub> was supported.

These findings support that female and other subgroups have higher diploma attainment when it comes to school minority ratio, school performance, and graduation rate. Thus, these findings suggest that Hispanic male students in NYCTS remain an underserved group and future programming and policy initiatives, when devised by education stakeholders, should prioritize this group in their planning and counter-attrition policies.

With there being a shortage on research concerning the profiles of Hispanic learners (Excelencia in Education, 2018) this study provided additional insight to this lack of information.

#### *School Minority Ratio*

A section of this study concluded that Hispanic male NYCTS students enrolled in the 2015-2020 cohort did not have higher diploma attainment whether or not there were more or less White students enrolled at their school at the time of their studies. School minority ratio does not have a statistical significant effect on attrition ( $\beta = 0.000, p < 0.891$ ). With the Hispanic population on the rise in the United States (Grawe, 2018), knowing which factors do not influence their diploma attainment are just as good as understanding which do – especially for an ABE program that is an alternative solution to an already existing Hispanic male attrition crisis in learning institutions across the U.S. in general (NCES, 2016).

### *School Performance*

The performance of NYCTS is placed into their three respective categories: (a) Good Standing (GS), (b) Targeted Support and Improvement (TSI), (c) Comprehensive Support and Improvement (CSI). Comprehensive Support and Improvement are the schools in dire need of restructuring and reorganization and Good Standing schools are considered at par with meeting standards of the Every Student Succeeds Act. The New York State Department of Education approaches schools labeled as TSI and SCI with intensive retooling strategies.

### *Graduation Rate*

Graduation rate significantly reduces the level of attrition. The higher the graduation rate, the lower the probability of attrition ( $\beta = -0.005, p < 0.048$ ).

### **Hypothesis 3**

The third hypothesis stated restorative practice, student counseling, extended-day programming, and ELL programming are not significantly associated with higher diploma attainment among at-risk Hispanic males in NYCTS during the period of 2015-2020. The results from the logistic regression analysis suggested that there was no significant association with these institutional programmatic practices and higher diploma attainment among at-risk Hispanic males in NYCTS during the period of 2015-2020, including student counseling. The findings did not support H<sub>3</sub>; the hypothesis was not supported.

### *Student Counseling*

Student counseling bridges students of color with their diploma completion and academics (Astin, 1985; Durodoye, Harris, & Bolden, 2000). However, Hispanic male

students in the 2015-2020 NYCTS cohort who received counseling had a lower level of diploma attainment ( $\beta = 0.492, p < 0.01$ ). It would be relevant to determine how Hispanic males enrolled in NYCTS use and perceive student counseling services in their respective learning institutions.

#### *Extended-day Programming*

Extended-day or After-School programming is intended to encourage NYCTS students to engage with their learning institution beyond academics; through developed extracurricular practices designed to foster diploma attainment, NYCTS have the option to participate in this opportunity (Marrero, 2016). In this study, there was not enough of a significance in the analysis to argue Hispanic males in NYCTS have a better chance at completing their high school diploma when participating in extended-day programming. These results may coincide with the argument that extended-day programming may not have a direct, succinct correlation to higher diploma attainment rates as once thought (Lester, Chow, & Melton, 2020).

#### *English Language Learner Programming*

English Language Learner Programming (ELL) is a diploma attainment policy devised to support the needs of non-native English speakers enrolled in NYCTS. Students are placed into a dual language, transitional bilingual program or an English as a New Language program. Although the NY State English as a Second Language Achievement Test is used to determine continuity in the program, it has been argued that Hispanic learner diploma attainment is only successful when programs take into consideration each of their learning styles (Torres, 2013). Based on this study's findings, a reassessment of Hispanic male learners and their challenges would benefit ELL programming in NYCTS

considering how their diploma attainment is not fostered by their participating in ELL programs.

### **Implications for Theory**

Finn's (1989) Participation-identification model and Bean's (1980) predictors of student attrition guided this study. The findings primarily challenged these models' foundational claims. Hispanic male high school students enrolled in NYCTS during the 2015-2020 cohort have higher attrition than other enrolled female and ethnic subgroups and school characteristics and policies do not foster their diploma attainment as these theoretical models suggest. Granted, Finn or Bean neither address Hispanic male attrition and diploma attainment in NYCTS. Nonetheless, the non-extensive review of the literature posits that these theories have included all students. Though very little research has been conducted on the Hispanic male student's in NYCTS, this study more broadly confirms that the attrition and diploma attainment of Hispanic male students remains a phenomenon and requires more scrutiny. In addition, the results support earlier work that claims this demographic would benefit from more in-depth research.

This researcher's findings propose that the best practices created by education stakeholders and the theoretical frameworks of Finn (1985) and Bean (1980) do not collectively benefit Hispanic male students in alternative high school diploma attainment programs such as NYCTS. What negatively affects diploma attainment and graduation rates is still questionable for this group. Added, this study determined that the needs of Hispanic males enrolled in NYCTS may be more unique in terms of their needs, thus these needs require assessment, identification and practitioner clarification. It could be



their needs are what actually put them in conflict with their own diploma attainment (diploma attainment).

In other words, the struggles, obstacles and personal situations of Hispanic males enrolled in NYCTS deserve attention, but first recognition. These young men are a minority within a minority based on this study - as it stands, education stakeholders could benefit from engaging with this population, but also advocating for the resources necessary to combat their high attrition in any way possible. Due to the timeliness of this particular crisis in NYCTS and with their funding at risk and their future uncertain, addressing the lack of diploma attainment of Hispanic males in NYCTS immediately is the highest recommendation this study affords.

### **Implications for Practice**

External obligations, specifically working, parenting, caring for a sick relative, criminal history, and psychological profile were not taken into consideration for this study to be executed. It would be worth determining if students who dropped out were faced with choosing between external obligations and attending class or doing homework and chose the former. Due to life situations associated with these young men's socioeconomic status, it could be work as their only option for immediate survival.

It would take a community, consisting of faculty, administrators, counselors, and non-school members of the community, such as parents, or guardians or mentors to devise a solid assessment tool and subsequent diploma attainment plan that fosters diploma attainment once and for all for this group of young men. This is, of course, in addition to acquiring financial and non-financial resources to sustain whatever programmatic practices will be put in place in the future that help them graduate.

## **Recommendations for Future Research**

This study focused on Hispanic male students enrolled in New York City Transfer Schools during the 2015-2020 cohort. Though the end result of this study is beneficial and supports the notion that this demographic requires attention, future research must be executed with this population as it relates to attrition and graduation (diploma attainment). This population has proven to be a fast growing one, with diverse needs and challenges, but how they maneuver through their learning pathway is something that should be understood. If NYCTS are to survive through the 21st Century, the programs and services devised to decrease attrition and increase graduation for Hispanic males must be more accurate and intentional than they currently stand.

The end results of this study were several possibilities for future research that emerged for attention and execution. To expand the breadth of this research, a more in-depth approach to understanding Hispanic male attrition and diploma attainment in NYCTS would require direct access to these young men. To engage one-on-one to understand their academic experience in a dropout recovery program funded by the New York State Department of Education is essential. Additionally, knowing how this demographic responds to their alternative high school experience, understanding how they perceive their experience and themselves is pivotal.

This study examined Hispanic male attrition and diploma attainment in the context of a New York City Transfer School educational pathway program as they move toward high school diploma attainment. It focused on school characteristics and policies that foster or did not foster attrition or diploma attainment for Hispanic males. Today, NYCTS are facing the risk of losing resources and funding. For them to continue to prove

their value locally and nationally, they must continue to evolve. Research-based initiatives to inform NYCTS stakeholders on how to move forward are essential; focusing on the demographic that struggles the most with low graduation rates is beyond helpful to the cause – it is crucial. The results of this study indicate there is a crisis and work must be done to support this population in order to offer them a better future, but also keep NYCTS ongoing. By understanding this phenomenon as a community of educators, NYCTS policymakers will be better informed when it comes time to create new policy and acquire appropriate funding.

The literature did not provide enough of a foundational platform to truly understand the Hispanic male population in NYCTS. As the Transfer School is one of several high school diploma pathway initiatives in New York State, they are not given the benefit and attention they deserve, making it challenging to find research on this type of school. With the myth that the GED is always the quick and most popular option to high school diploma attainment, NYCTS and its student population will remain on the sidelines of groundbreaking research. Thus, future research needs to study Hispanic males in NYCTS more often and with a quickening pace. What are their obstacles? Why can they not graduate at the levels of their peers and other gender groups? A more qualitative and/or mixed-methods approaches could better answer these questions and ultimately serve as the next chapter for this line of study.

Avenues for funding attrition and diploma attainment initiatives for Hispanic males in NYCST should also be considered. However, understanding and explaining more in depth the phenomena would be the most logical first step for education stakeholders. Thus, research that can centralize the issue for these young men to make it

more explainable would truly play the most pivotal part for successful outcomes for them in future.

Finally, tracking these young men from the moment they enroll in a cohort to their departure and beyond if they dropout, or their graduation and beyond if they get a diploma would benefit a more longitudinal approach to learning more about this demographic.

### **Limitations of the Study**

Limitations of the study were the fact that due to COVID restrictions the study could only be limited to the quantitative approach for what was initially to be a mixed-method study. In addition, due to the fact that data on Native Americans were so few, as well as on Multiracial students, the ability to include them in the final analysis was not possible. Other variables, such as individual external responsibilities were unable to be determined and assessed.

As this was a secondary dataset, the research did not have control of the variables. Thus, changes from one variable to another could not be proven (Creswell, 2003). Finally, in the data provided, to protect student identity, the NYCDOE used a zero to replace the results of any school that reported less than three students who obtained their diploma. Thus, leading to very minimal inconsistent *N* counts in different descriptive statistics and analysis in this study that fortunately did not alter the results.

### **Conclusions**

The literature review divulged that the Hispanic male does not do well academically; moreover, Hispanic males enrolled in NYCTS struggle to the point that they are not graduating at a level comparable to their peers. More research and attention

to this group overall are pivotal. It was made evident through the research that despite the policies and school characteristics that define these NYCTS, these young men are not surviving this academic experience long enough to attain their diploma. Thus, they remain on the margins of society, poor, or in jail or uneducated or a variety of the three.

It is valuable to mention that this study showed that Hispanic males in NYCTS struggle with attrition and diploma attainment (graduation). Moreover, it demonstrated that NYCTS as learning institutions have a crisis that is not being addressed sufficiently in the literature. The looming question is will anything be done quickly enough to save the current cohort or not. What this study ultimately suggests is that with NYCTS being pressured to meet the 67% graduation quota, their education stakeholders need to be informed through research and theory on where the issues are and the possible ways they can improve upon them.

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