

**UNDERSTANDING THE ACADEMIC ACHIEVEMENT GAP:  
AN EXPLORATION OF THE ROLE OF PARENTAL EDUCATIONAL  
ASPIRATIONS, ADOLESCENT ASPIRATIONS, AND PARENTAL  
IMMIGRANT STATUS**

by

Fatoumata Binta Bah

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Science in Human Development and Family Studies.

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to see where my fiery passion for advocating for immigrant and underrepresented groups in this country, through research was ignited. To them, I will forever be indebted because without them, I would not be who and where I am today.

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## **ABSTRACT**

Educational achievement is a rather complex concept to understand, particularly as it relates to understanding the factors that influence the academic outcomes of youth, as a means of uncovering deeper understanding of achievement disparities that exist between Latino youth and youth from various other ethnic groups. This study looked at the relationship between parental educational aspirations and academic achievement outcomes, the moderating effects of immigrant status on the association between parental educational aspirations and adolescent academic achievement outcomes, and lastly the mediating impact of adolescent educational aspirations on the relationship between parental educational aspirations and adolescent academic achievement outcomes. These associations were tested among a Hispanic sample and a general population sample. Data from the National Education Longitudinal Study of 1988 were analyzed using Ordinary Least Squares regression. Findings from analyses demonstrated non-significant findings on all associations tested for the Hispanic sample. Analyses on the general population sample yielded significant and positive relations between parental educational aspirations and standardized reading and math scores. Immigrant status of parents was not found to be a moderator of the relationship between parental educational aspirations and academic achievement outcomes of youth in the 10<sup>th</sup> grade. Adolescent educational aspirations were found to mediate the relationship between parental educational aspirations and academic achievement outcomes. Strengths, limitations and implications are discussed.



**Chapter 1**  
**INTRODUCTION**  
**Background**

Latino populations comprise the largest immigrant group within the United States (Hoffer, Rytina & Baker, 2012). This number is greater than other underrepresented groups, such as African Americans. Further when examining the youth demographics of the country, while there are over 75 million youth in the United States, almost 25% of this population is comprised of immigrant youth (Passel, 2011). Hispanic immigrant youth make up the greatest percentage of all immigrant youth, nearing almost 50% (Passel, 2011). With such astronomical numbers that are projected to only continue to rise of Latino immigrant youth within the country, it is imperative to understand the experiences of these youth and their families, particularly as it relates to their adjustment to the United States and its culture.

Despite the growing numbers of Latinos within the country, there are some disparities that exist in the academic outcomes of this population compared to students of other ethnic groups within the United States. For instance, Latino high school students have lower retention rates and also graduate from high school at rates that are significantly lower than their counterparts of other ethnicities (Aguayo, Herman, Ojeda, & Flore, 2011). In 2007, Mexican origin and Puerto Rican students had lower critical reading and mathematics SAT scores than Asian origin students (NCES, 2013). Further, when compared to their White and African American counterparts, Latino students dropped out of high school at significantly higher rates (NCES, 2002).

While the discrepancies in achievement between Latino and students of various other ethnic backgrounds are apparent, the causes and implications are not. Perhaps this is because of the many variables that must be considered when looking at the learning process amongst individuals living and learning in a culture that is different than the one they were born in or are being raised in.

Many factors have been identified as influencing factors in the academic achievement of adolescents. One of the factors includes parents, specifically the educational expectations they have for their adolescents (Zhang, Haddad, Torres & Chen, 2010). Another contributing factor to adolescent achievement explored within the literature is the adolescent's educational aspirations (Beal & Crockett, 2010). Immigrant status is another factor that has been explored within the literature as contributing to a deeper understanding of adolescent academic achievement. This research study focuses specially on the variables parental educational aspirations for adolescents, adolescent's own educational aspirations, and the immigrant status of parents, and examines the impact these variables in their interaction has on the academic achievement of Latino youth.

The purpose of the present study is to explore various factors that could be impacting the academic achievement of Latino youth within this country. The study explores the relationship between parental educational aspirations for their children and adolescent academic achievement, the moderating effect of immigrant status on the relationship between parental aspirations and academic achievement, and lastly the mediating impact of adolescent educational aspirations on the relationship between parental aspirations and academic achievement. This study is primarily exploring the role of parents in the academic outcomes of adolescents and as such, is guided by

Social Learning Theory (Bandura, 1971) and Ecological theory (Bronfenbrenner, 1986). Data for this study is drawn from the National Education Longitudinal Study (NELS) of 1988. This dataset was selected because of its access to questions and constructs of interest in the study.

## **Theoretical Constructs**

### Social Learning Theory

As this study largely focuses on the role of parents on the educational experiences and academic achievement of Latino youth, it is pertinent to identify a contextual lens through which the foundation of the everyday interactions between parents and children, and education can be approached and perhaps understood. Social Learning Theory outlines a relationship between behavior and cognitive strategies. This theory posits that individuals learn behaviors by observing others without the need of reinforcement (Bandura, 1971). A key tenet of this theory is centered on the influence of individuals in the learning process. It posits that individuals learn cultural, religious, educational practices, values and beliefs from others through a model concept (Bandura, 1971). There are individuals who model the appropriate behaviors within a cultural context and through repeated observation; other individuals come to acquire and internalize behaviors and values without them being explicitly taught. Individuals, who are learning, have the ability to anticipate whether a performed behavior will result in positive or negative outcomes and make choices to perform those leading to more desirable outcomes. Under these theoretical constructs parents have great potential to influence developing individuals, particularly youth. This theory is beneficial in the exploration of the relationship between parental educational

aspirations for their child and the academic achievement of the student. Through the use of this theory, the very premise of this study places parents as the primary models of appropriate behavior and values and the children/adolescents as the observers and absorbers of this behavior. Thus, this study places great emphasis on the role of parents in shaping the educational experiences and thus academic achievement of students. This theory provides the grounds upon which to explore the association between parents' beliefs and values regarding education by measure of the educational aspirations they have for their children can be explored.

### Human Ecological Theory

Human Ecological theory focuses on the relationship between individuals and their environments (Smith & Hamon, 2012). Specifically as it relates to the context of families and child development, this theory outlines an interaction between children and their environments. As a part of this theory, there are five systems that encompass these environments: the microsystem, mesosystem, exosystem, macrosystem and finally the chronosystem (Smith & Hamon, 2012). Of most significance to the research study at hand as it relates to the experiences of Latino youth and the potential impact of parents in this educational experience is the microsystem. This system represents the most immediate environment of children and includes the family (Smith & Hamon, 2012). It is within this environment that the role of parents as primary socializing agents can be best understood. Thus, the microsystem provides a medium in which parental values and beliefs about the importance of education may become transferred from parents to children. The mesosystem is another context that has great influence on youth. This mesosystem is comprised of the interaction between the

microsystems. The interaction between parents, children and schools is an example of the mesosystem. For Latino families, in particular, this mesosystem can be quite a unique interaction. For example, due to cultural differences and possible language barriers, Latino parents may have unique interactions with schools, particularly as it may leave the child as the primary connection between the two worlds. For these families, navigating the worlds of home and school can present some challenges that may result from cultural dissonance or other barriers. It is precisely due to the possible dynamic relation between students, parents and schools that this theory lends itself to the aims of this study.

A primary construct of interest of the present study was the association between parental educational aspirations for adolescents and academic achievement, specifically as it might relate to the impact of parent's aspirations on their children's own educational aspirations. Using Social Learning and Human Ecological theory provided a rationale for the exploration of the ways in which parents provide one of the most primary environments for shaping children's values regarding the importance of education. Further this study explored the role of immigrant status of parents in understanding the relation between parental aspirations and the academic achievement of youth. Immigrant status of parents may act as an important influence on the development of parental educational aspirations for their children thus, it may have an impact on the relationship between parental aspirations and academic achievement. Immigrant status was thought to be important because it may be shaping the values and beliefs parents may have regarding education, which may influence their aspirations for their child, which may be related to the aspirations adolescents have for

themselves. Social Learning and Human Ecological theory provide a lens through which immigrant status, as a variable, can be explored and understood.

### **Research Questions and Hypotheses**

Social Learning theory and Ecological theory have provided a foundation for the following analysis. When examining the academic achievement outcomes of youth, it is imperative to consider the many variables that play a role. This study focused on the important role of parents in the educational experiences of Hispanic youth, while also exploring other variables that interact or arise with parents. The present study explores the following research questions.

#### **Research Questions**

1. Do parental aspirations predict achievement?
2. Does the association between parent aspirations and achievement differ by parental immigrant status?
3. Do adolescent aspirations mediate the relation between parental aspirations and academic achievement?

#### **Hypotheses**

1. Parental educational aspirations will be positively associated with adolescents' educational aspirations.
2. The association between parent aspirations and academic achievement will vary based on the immigrant status of parents.
3. Adolescent aspirations will mediate the relationship between parental aspirations and academic achievement of adolescents.

## **Chapter 2**

### **REVIEW OF LITERATURE**

Prior research studies exploring disparities in the academic achievement outcomes have identified many variables that play a role in the academic outcomes of youth. The following review of literature outlines some of the findings within the existing literature. It provides information on the role of parental aspiration on the academic outcomes of youth. Further, some findings on the significance of adolescent aspirations in their own academic outcomes are detailed. Additionally, findings regarding the impact of immigrant and foreign status of families has on the academic outcomes of youth are outlined.

#### **Parental Educational Aspirations**

As primary socializing agents of children, parents are influential in many aspects of a child's life. One area in which parents play a significant role is within the educational attainment and achievement of children. Parental involvement has been studied extensively in the context of child educational achievement. Relationships between parental involvement activities at home, such as discussing school activities and helping children plan out their academic programs, and academic achievement have been documented (Sui-Chu & Willms, 1996; Kao, 2004). Further, studies show that when parents are involved in their child's educational experiences, such as when they communicate with teachers and participate in school activities, they have a strong influence on the academic achievement of children (Reynolds, 1992).

In addition to the findings that have pointed to the positive relationship between parental school specific involvement and the academic achievement of students, parental aspirations have also been shown to play a salient role in the educational experiences of students. One study by Cassanova, Garcia-Linares, de la Torre, and de la Villa Carpio (2010) illustrates this relationship with findings that highlight parental expectations for their children's educational success as the difference between students who were considered low achievers and those of average or high achievers. This study found that students who were normal achievers in school, had parents who were more likely to report having higher hopes for their student's educational attainment and achievement (Cassanova et al, 2010). Kirk, Lewis-Moss, Nilsen, Colvin and Detha (2010) provide further support for the association between parental educational aspirations and the academic outcomes of students. In their study exploring the relationship between parental aspirations and child achievement, it was found that high parental aspirations for children was correlated with the higher GPA's of students (Kirk, et al, 2010). This relation can be seen when looking at Latino populations. Aldous (2006) explored the relationship between parents and their children's educational achievement using secondary data from the 1988 National Educational Longitudinal Study (NELS). This study found that Latino students tend to perform better in school when they have high educational aspirations placed on them (2006). Further, when parents have high educational expectations for adolescents, they score higher on standardized reading and mathematics examinations (Aldous, 2006). Other studies have supported such findings. Henry, Merten, Plunkett and Sands (2008) found that Latino children's perception of their parent's, particularly their mother's, educational aspirations for



them are associated with higher GPA's of students. Higher educational aspirations of parents for their children had an indirect influence on both children's academic motivation and academic achievement (Henry, et al, 2008). Given the educational achievement disparities that exist between Latino origin students, it becomes even more important to further understand the relationship between mother and father academic aspirations and academic achievement. It may be important to explore if there are any differences in the relation between parental aspirations and academic achievement based on which parent is being examined.

In summary these studies have illuminated the impact that parents have on their adolescents. While it is certainly beneficial to know that parental aspirations are associated with academic achievement, it is just as necessary to understand what may cause certain parents to have lower aspirations for adolescents than others.

### **Adolescents' Educational Aspirations**

In addition to parent aspirations, there exists some literature that highlights the important role that adolescents themselves can play in their educational experience and attainment. Studies show that adolescents' own educational aspirations and motivations can be influential to their academic achievement. One study shows that high school students of Mexican origin who were more academically motivated, meaning that they were likely to demonstrate effort in school and value grades, were more likely to complete homework and like school (Plunkett & Bamaca-Gomez, 2003). Further, a positive relationship has been found between academic motivation, operationalized as a desire to try hard in school, and higher GPA's of Latino high school students (Henry et al, 2008). Similarly, Beal and Crockett (2010) found that

adolescents' cognitions of the future, specifically as it relates to their educational aspirations, predict educational attainment. This relationship between adolescent aspirations and academic achievement indicates a rather dynamic interaction between aspirations, both of parents as well as adolescents, and academic outcomes.

The relationship does not seem to be a simple one; it may indeed be one that is layered. More research is necessary to gain a deeper understanding of the role of adolescent aspirations of Latino youth on their academic achievement. The exploration of the association between parental aspirations in the development of adolescent aspirations becomes of particular significance when taking into the consideration that Mexican Origin and Puerto Rican students tend to have lower aspirations to pursue post-secondary education (Bohon, Johnson, & Gorman, 2006).

Examining the role of adolescent aspirations in the existing relationship between parental aspirations and academic outcomes of youth may help provide further understanding of the way in which parents impact their children and how that translates into the academic performance of students. Particularly, when taking into consideration that Mexican origin and Puerto Rican students have lower aspirations and tend to be on the lower end of academic achievement measures, it becomes important to explore the role of parents in this variable. The present study explored the mediating impact of adolescent aspirations in understanding the correlation between parental educational aspirations and academic achievement.

### **Immigrant Status**

When exploring the topic of academic achievement and attainment among Latino populations, an important variable is status of being an immigrant. The

literature has identified the salient role of parents in the educational process of adolescents. Parental educational aspirations for adolescents are linked to both adolescent aspirations and academic achievement. Given these relationships, it becomes important to further understand the mechanisms which may be at play when understanding the development of parental educational aspirations as well as adolescent aspirations for themselves. In the same way that race and ethnicity are factors to be considered when exploring a specific outcome variable, immigrant status may be as well.

Immigrant status of families within the United States presents with it some barriers and challenges as well as advantages to successfully navigating life and society of the foreign land. The challenges and advantages are largely related to the process of acculturation that many immigrant families take part in upon arrival. The process of acculturation refers to the process of shifting ones cultural identity by adopting features such as language and cultural practices of the new dominant culture in which they reside (Berry, 1997). This process also refers to the retention of native cultural aspects in addition to the adoption of the new dominant cultures functions (Berry, 1997). While acculturation, as an individually operationalized concept, is not a measure immigrant status, this paper uses the understanding of the process of acculturation to justify the importance of examining the role of immigrant status as a potential moderator of the relationship between parental aspirations and academic achievement. The immigrant status of an individual within a country makes that individual a foreigner within that country. It is precisely in this foreigner label that individuals will find themselves in need of making adjustments a way to navigate this new world. Thus, it becomes the case that the initial label of immigrant or foreigner

acts a pre-requisite to an individual possibly engaging in the process of acculturation. Specifically for immigrant parents with children actively immersed in the educational system, immigrant status can be telling of a rather unique and dynamic experience with their child's educational experiences. The ability to understand and speak English or have some working knowledge of the English becomes important particularly as it pertains to their involvement in various aspects of their child's life, in particular their educational experience. Research has shown that immigrant parents report having to confront substantial barriers to their child's school involvement (Turney and Kao, 2010). Specifically, those parents who do not speak English are less likely to be involved in their child's school than those who do (Turney and Kao, 2010).

Immigrant parents are not the only individuals who endure challenges related to language. The children of immigrants or immigrant children themselves face challenges. Particularly one of these challenges is related to their parents' inability to understand or speak English. When the children in a family are the ones who understand the dominant language, they are relied upon as language brokers by their parents, which has negative effects for the child. A study conducted by Weisskirch & Alatorre Alva (2002) showed that children find the task of having to be the language broker for parents as not being enjoyable. In fact, language brokering was found to be associated with negative feelings about one's self, and students felt language brokering was disruptive to their own acculturative process of learning the U.S culture (Weisskirch et al, 2002). Such findings help illustrate the need to explore immigrant status as a variable as it illuminates some indirect implications for both parents and children.

The literature discussed thus far has shown that immigrant status presents some challenges for parents and children when there is a break in the acculturation process. There exists literature that explores the advantages that exist for immigrants who manage to successfully navigate the acculturation process that involves the acquisition of culture skills of the dominant culture. Of particular interest in this study is the impact of immigrant status on the educational experiences of youth. An association between greater association with the host culture, such as language proficiency, and youth's educational outcomes has been illustrated (Plunkett, & Bamaca-Gomez, 2003). In their study they found that students who spoke more English and less Spanish at home had higher academic motivation and aspirations. Studies support this finding, showing that high English proficiency is associated with a predicted lower risk of dropping out of school for Latino youth (Martinez, DeGarmo & Eddy, 2004).

While studies have shown that Anglo orientation among Latino youth has positive benefits in terms of academic achievement, there is some research that suggests that there are benefits of the retention of native cultural values. Some of the studies indicate that Anglo orientation alone is not enough to predict or explain academic success, and that it is instead the combination of acculturation to the host culture as well as the retention of the native culture that impacts academic outcomes in a positive way. In their study exploring the ways in which immigrant youth navigate and engage their existence in between two cultures, Berry, Phinney, Sam, and Vedder (2006) found that most youth fit into more of an integration profile. Immigrant youth find ways to integrate values, beliefs and characteristics of both cultures they are negotiating (Berry et al, 2006). Additionally another study found that students who

were more integrated and identified with the host culture but were able to retain some aspects of their native culture had better academic success (Lopez, Ehly, & Garcia-Vasquez, 2002). Gonzales, German, Kim, George, Fabrett, Millsap, and Dumka (2008) echo these findings, as they report that orientation towards native values in addition to the Anglo values lead to an increase in youth academic engagement in school.

The immigrant status of families within this country has an impact on their lived experiences. It has been shown to be associated with the language ability, which in turn has influences on various aspects of the lives of parents as well as their children. Thus, while it may be indirectly related, immigrant status is associated with the role that parents play in the educational process of their children. Additionally immigrant status is associated with the academic outcomes of children. These relationships warrant the exploration of immigrant status within this study. One aspect of parental role in their child's educational processes is the educational aspirations of parents for their children. Just as there have been relationships established between immigrant status and parental school involvement, it is necessary to examine the role that immigrant status plays on the relationship between parental educational aspirations and academic achievement of adolescents.

### **The Present Study**

The present study further explored the educational attainment and achievement disparities between Latino students and their counterparts. In efforts to get a better understanding of how the educational aspirations of parents and children, and parental immigrant status influence the educational experiences and academic achievement of

Latino adolescents in negative or positive ways, this study explored the role of educational aspirations in predicting academic achievement. Specifically, the relationship between parental educational aspirations and adolescent academic achievement are explored. Immigrant status of parents was examined as a possible moderator of the relationship between parental educational aspirations and adolescent academic achievement. Lastly, this study examined adolescent educational aspirations and tested the mediating effect of this variable on the association between parental educational aspirations and adolescent academic achievement.

Social learning and ecological theories provided a theoretical perspective through which the topic of interest in this study could be explored and understood. A review of some of the literature exploring the impact of parental and adolescent aspirations, on the academic achievement outcomes of youth, provided a rationale for the study. With the topic, associations, theoretical framework and literature review completed, a dataset (The NELS of 1988) was selected to conduct the study. This dataset proved to be adequate because it provided access to information regarding parental aspirations, adolescent aspirations, immigrant status, and academic outcomes of students. This dataset is nationally recognized and much research has utilized the data that came from this nationally representative longitudinal study. The methodology and measures employed through the compilation of NELS, as well as for the variables of interest in this study, are outlined below.

### **Chapter 3**

## **METHODS**

The following section outlines the methodology employed in the execution of the present research study. Information on the sample, instrumentation and procedures are delineated. Additionally, the statistical plans of analysis are discussed.

### **Participants**

The sample of participants in this study are part of the National Educational Longitudinal Study of 1988 (NELS). NELS utilized a two-stage probability sampling design. A nationally representative sample of 24,599 students from over 1,000 schools was randomly selected from the U.S. NELS included surveys from parents, students, teachers and school administrators. For the purposes of this study, only information collected from parents and students is used. The final sample of participants within this study was 914. This drop in sample size from the total sample is because any participants who did not have information for the variables of interest in this study were excluded from the study. Additionally only participants who identified as Hispanic were included. Fifty-three percent of the sample was female and 45% was male. In 1988, the base year of the study, students were in the 8<sup>th</sup> grade. These students were followed at 2-year intervals from 1988 until 1992 when the students were in the 12<sup>th</sup> grade. All of the data utilized in this study is from wave 1 and wave 2, when participants were in the 8<sup>th</sup> and 10<sup>th</sup> grade.



## Measures

### *Parental Aspirations.*

Measures of parental educational aspirations were attained during wave 1 of the NELS study. Responding mothers and fathers reported on the level of education they expected their child to achieve. Mothers and fathers answered the following questions: “How far in school does mother want child to go?” and “How far in school does father want child to go?” A 9-item scale was used to measure this. Values ranged from, *1=less than high school graduation, 2=graduate from high school but not go any further, 3=go to vocational trade, or business school after high school, 4=attend two year college, 5-attend 4 year college, 6-graduate from college, 7-attend a higher level of school after graduating from college 8=attend a higher level of school after graduating from college, 9=doesn’t care.* This item was recoded for both mothers and fathers in order to group like responses together. Responses in the recoded variable ranged from *1-less than high school, 2-H.S diploma, 3- some post-secondary school, 4- bachelor’s degree, 5-graduate/professional degree.*

### *Adolescent Aspirations.*

Adolescent measures of educational aspirations utilized in this study were attained during the base year of the study (wave 1). Responding students reported on the level of education they aspired to attain. One question was used in assessing this variable, “How far in school do you think you will get?” A 6-item scale was used to measure responses. Values include *1=less than high school graduation, 2=high school graduation only, 3=vocational, trade, or business school after high school: less than two years, two years or more, 4=college program: less than two years of college, two*

*or more years of college (including 2 year degree), 5=finish college (four or five year degree), 6=master's degree or equivalent, Ph.D., MD or other advanced degree. This item was recoded in order to group like responses together. Recoded responses ranged from 1= won't finish H.S, 2=will finish H.S, 3=some post-secondary school, 4=bachelor's degree, and 5=graduate/professional degree.*

#### *Immigrant Status of Parents.*

The birthplace of parents was attained during the base year survey of parents. To measure the immigrant status of parents one item was used. This item asks the birthplace of the respondent. Response options were *Born in the U.S*, *Born in Puerto Rico*, or *Born in Another Country*. This item was recoded to accurately represent immigrant status. Responses of being born in the U.S were coded as 0, to represent nonimmigrant status, and those responses of being born in Puerto Rico or another country were recoded as 1, to represent immigrant status.

#### *Academic Achievement.*

Measures of adolescent academic achievement for this study were attained during the first follow up (wave 2) when students were in the 10<sup>th</sup> grade. To measure achievement, students took subject-specific cognitive tests administered at their respective schools. In the current study, students' scores for reading and math were analyzed. Possible scores ranged from 0 - 100 for both reading and math. Additional information about the rationale, development, and psychometric properties of the tests can be found in Rock et al. (1991).

### *Covariates*

#### *Gender*

Gender was coded as 0 if the child was a female and as 1 if the child was a male.

#### *SES*

Socioeconomic status of participants was measured using the reports of annual family income in dollars. Responses ranged from *1=none*, *2=less than \$1,000*, *3=\$1,000-\$2,999*, *4=\$3,000-\$4,999*, *up to 15-\$200, 000* or more.

#### *Age*

Student's age was measured using the year they were born ranging from *1972 or before* up to *1975 or after*.

#### *Highest Parental Educational Attainment*

Measures of both mothers' and fathers' highest level of educational attainment were drawn from their reports during the base year of the study (Wave 1). Responses to this question ranged from *1= not finish H.S*, *2= graduated H.S*, *3= junior college*, *4= college LT 4 years*, *5= graduated college*, *6= master's degree*, *7= Ph.D, M.D, Etc.* This item was recorded in order to group responses together. Recoded responses include *1= less than H.S*, *2= H.S graduate*, *3= some college*, *4= bachelor's degree*, and *5= graduate/professional degree*.

### **Analytic strategy**

Ordinary Least Squares regression analyses were used in this study. Because this study explored the linear relationship among a dependent variable and several independent variables, this mode of analysis proved fitting. Thus regressions were used to examine the relation between parental aspirations, adolescent aspirations and parent immigrant status on adolescents' reading and math standardized test scores. IBM SPSS Statistics was used to conduct the analyses. It is important to note that the following covariates were included in all analyses: age, gender, SES, and mothers' and fathers' highest educational attainment.

First, to test the association between mothers' and fathers' educational aspirations and adolescent academic achievement, a regression was used in which parental aspirations was the predictor and adolescent scores on reading and math cognitive tests during the 10<sup>th</sup> grade were the outcome variables (all covariates were included). Second, to test the moderating effect of mothers' and fathers' immigrant status on the association between mothers' and fathers' aspirations and adolescent academic achievement outcomes in the 10<sup>th</sup> grade, the first regression model was re-run and included each parent's immigrant status and the interaction between each parent's immigrant status and each parent's aspirations. Finally to test whether adolescent aspirations mediated the relationship between parent aspirations and adolescent achievement in the 10<sup>th</sup> grade, a series of linear regressions proposed by Baron and Kenny (1986) were conducted. There are 3 steps involved in testing for mediation using this method. The first step tests the effect of the independent variable on the mediator. The second step tests the effect of the independent variable on the dependent variable. The third step tests the effect of the mediator on the dependent

variable. All of the steps were repeated a total of 4 times. The steps were conducted to test mediation for reading and math scores in the 10<sup>th</sup> grade for both mothers and fathers. As posited by Baron and Kenny (1986), if all the tested relationships in steps 1-3 are significant, mediation is indicated. The final step involved performing a Sobel test to determine whether the mediation is statistically significant. This was done using the online Sobel Test Statistic calculator (Preacher, 2016).

## **Chapter 4**

### **RESULTS**

This section outlines the findings from the analyses conducted in the present study. The descriptive summary of the sample will outline the demographics of the participants in the study as well as give general descriptors for covariate variables as well as predictor variables. Additionally, findings from the analyses testing the primary relations are reported.

#### **Hispanic Sample**

##### *Parent Characteristics*

Parents in this sample generally had high educational aspirations for their children. Mothers and fathers tended to score similarly on aspirations with 41% of fathers and 42% of mothers wanting their adolescent to attain at least a bachelor's degree. Over 30% of both mothers and fathers wanted their child to obtain graduate and or professional degrees. Forty-five percent of mothers in this sample were immigrants and 48% of fathers were immigrants. Parental educational attainment was moderate in this sample. Thirty-three percent of fathers had between a high school diploma and some post-secondary education. Further, only 15% of fathers held between a bachelor's degree and a Ph.D./professional degree. Forty-three percent of mothers had between a high school diploma and some post-secondary education.

Further, only 11% of mothers held between a bachelor's degree and a Ph.D. / graduate degree. These sample descriptors are displayed in Table 1.

### *Adolescent Characteristics*

Adolescents in this sample had high educational aspirations for themselves. About 38% of adolescents aspired to attain a bachelor's degree. Over 25% of adolescents aspired to attain a graduate or professional degree. The mean scores for the standardized reading and mathematics-standardized tests was a 53. These sample descriptors are displayed in Table 1.

Table 1 Latino Sample Descriptives

Variables	%	
<b>Student Characteristics</b>		
<i>Gender</i>		
Males	45.	3
Females	53.	8
<i>Age (Mean)</i>		
<i>Race</i>		
Hispanic	100	
<i>Adolescent Aspirations</i>		
Won't finish H.S	2.	0
Will finish H.S	9.	8
Some Post-secondary schooling	25.	3
Bachelor's degree	37.	9
Graduate/professional degree	25.	1
<b>Parent Characteristics</b>		
<i>Mother's Aspirations</i>		
Less than H.S	1.	5
H.S diploma	5.	7
Some post-secondary schooling	18.	5

Table 1 Continued

Variables	%	
Bachelor's degree	42.	2
Graduate/professional degree	32.	1
<i>Father's Aspirations</i>		
Less than H.S	2.	0
H.S diploma	9.	8
Some post-secondary schooling	25.	3
Bachelor's degree	37.	9
Graduate/professional degree	25.	1
<i>Mother's Highest Education</i>		
Not finish H.S	31.	8
H.S diploma	28.	2
Some post-secondary schooling	15.	1
Bachelor's degree	5.	8
Master's degree	3.	1
Ph.D, Md, etc	2.	1
<i>Father's Highest Education</i>		
Not finish H.S	36.	1
H.S diploma	19.	4
Some post-secondary schooling	14.	3
Bachelor's degree	7.	8
Master's degree	5.	1
Ph.D, Md, etc	2.	1
<i>Immigrant Status of Mother</i>		
Immigrants	54.	4
Non-immigrants	45.	6
<i>Immigrant Status of Father</i>		
Immigrants	51.	2
Non-immigrants	48.	8
<i>SES</i>		
NONE	.	8
LESS THAN \$1,000	1.	2



Table 1 Continued

Variables	%	
\$1,000 - \$2,999	2.	4
\$3,000 - \$4,999	2.	4
\$5,000 - \$7,499	4.	8
\$7,500 - \$9,999	6.	1
\$10,000 - \$14,999	11.	4
\$15,000 - \$19,999	10.	3
\$20,000 - \$24,999	11.	2
\$25,000 - \$34,999	17.	8
\$35,000 - \$49,999	16.	8
\$50,000 - \$74,999	8.	4
\$75,000 - \$99,999	2.	0
\$100,000 - \$199,999	1.	2
\$200,000 OR MORE	.	3

### Q1: Do parental aspirations predict achievement?

Tables 2 and 3 presents the results of the regression analyses testing the association between mothers' and fathers' aspirations and adolescents' reading and math cognitive test scores during the 10<sup>th</sup> grade. The first hypothesis tested in this study was that parental educational aspirations would be positively associated with the standardized math and reading scores of adolescents in high school. Results did not support this hypothesis. The relationship between both mothers' and fathers' educational aspirations for their child was not significantly associated with the children's cognitive reading and math scores in the 10<sup>th</sup> grade.

Table 2 Latino Parental Aspirations Predicting Reading Scores (n = 914)

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Aspirations	.85	1.20	.04
Mother Aspirations	-.13	1.20	-.00
<i>Covariates</i>			
Child's Year of Birth	.02	.31	.00
Child's Sex	-2.92	1.30*	-.08
Family SES	.12	.04**	.09
Father Highest Education	.44	.60	.03
Mother Highest Education	.15	.66	.01
<i>F statistic (df)</i>	2.10 (7)		
<i>R<sup>2</sup></i>	.02		

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 3 Latino Parental Aspirations Predicting Math Scores (n = 914)

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Aspirations	.16	1.28	.00
Mother Aspirations	.93	1.29	.05
<i>Covariates</i>			
Child's Year of Birth	-.21	.30	-.02
Child's Sex	-.70	1.31*	-.02
Family SES	.12	.04**	.09
Father Highest Education	1.10	.60	.08
Mother Highest Education	-.65	.66	-.04
<i>F statistic (df)</i>	2.10 (7)		
<i>R<sup>2</sup></i>	.01		

\*p<.05, \*\*p<.01, \*\*\*p<.001

**Q2: Does the association between parent aspirations and achievement differ by parental immigrant status?**

Table 4 and 5 presents the results of the regression analyses testing whether mothers' and fathers' immigrant status moderated the association between mothers' and fathers' aspirations and adolescents' reading and math cognitive test scores during the 10<sup>th</sup> grade. This study tested the moderating effect of immigrant status of parents on the relationship between parental educational aspirations and standardized reading and math test scores of adolescents. Results showed that immigrant status of neither mothers nor fathers impacted the relationship between parental aspirations and academic achievement of students, thus indicating that the association between parental aspirations and adolescents' achievement does not vary based on whether parents were born in the U.S.

Table 4 Latino Parental Aspirations Predicting Reading Scores With Parental Immigrant Status as a Moderator (*n* = 914)

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Immigrant Status x Aspirations	2.68	1.78	-.05
Mother Immigrants Status x Aspirations	-1.33	1.75	.10
<i>Covariates</i>			
Father Aspirations	-.37	1.49	-.02
Mother Aspirations	.38	1.51	.02
Child's Year of Birth	1.97	1.10	.07
Child's Sex	-2.48	1.33	-.07
Family SES	.15	.28	.02

Table 4: Continued

Variables	B	(se)	b
Father Highest Education	.39	.64	.03
Mother Highest Education	.02	.68	.00
Father Immigrant Status	2.89	1.85	.82
Mother Immigrant Status	-2.03	1.85	-.05
<i>F</i> statistic ( <i>df</i> )	1.63 (11)		
<i>R</i> <sup>2</sup>	.02		

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

Table 5 Latino Parental Aspirations Predicting Math Scores With Parental Immigrant Status as a Moderator (*n* = 914)

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Immigrant Status x Aspirations	-1.76	1.73	.06
Mother Immigrants Status x Aspirations	-1.54	1.76	.05
<i>Covariates</i>			
Father Aspirations	-.73	1.48	.04
Mother Aspirations	1.61	1.49	.08
Child's Year of Birth	1.51	1.10	.05
Child's Sex	-.33	1.32	.01
Family SES	.32	.28	.05
Father Highest Education	.98	.63	.78
Mother Highest Education	-.80	.67	.05
Father Immigrant Status	3.96	1.84	.06
Mother Immigrant Status	-1.54	1.76	.05
<i>F</i> statistic ( <i>df</i> )	1.73 (11)		
<i>R</i> <sup>2</sup>	.02		

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001

**Q3: Do adolescent aspirations mediate the relationship between parental aspirations and academic achievement?**

A series of regression models were run in order to test for mediation using the steps outlined in Baron and Kenny (1986). As outlined in Baron and Kenny (1986), there are three steps involved in testing for mediation. The first step in the 3-step regression tested the relationship between mothers' and fathers' aspirations and the outcome variables, which are math and reading scores in the 10<sup>th</sup> grade. The second step tested the relationship between parent aspirations, both mothers' and fathers', and adolescents' aspirations. The final step tested the relationship between adolescents' aspirations and math and reading scores. In order for mediation to occur, all of the tested relations in the mediation had to be significant. For this specific Hispanic sample, mediation was not found, as none of the relationships tested were significant, indicating that adolescents' aspirations did not mediate the association between parental aspirations and adolescents' achievement. Adolescents' aspirations were not found to mediate the association between mothers' aspirations and adolescents' reading scores (Sobel test statistic of 1.108, se=. 969, p=. 15) or math scores (Sobel test statistic of 1.41, se=1.22, p=15). Additionally, adolescent aspirations did not mediate the relationship between fathers' aspirations and adolescents' reading scores (Sobel test statistic of 1.09, se=. 991, p=. 27) or math scores (Sobel test statistic of 1.41, se=1.17, p=.15). Thus, results indicate that adolescents' aspirations did not significantly mediate the relationship between parents' aspirations and adolescents' math or reading cognitive test scores.

Results from analyses exploring the primary relationships in a Hispanic sample did not prove to be significant. These findings were not in line with previous findings within the literature that have shown associations between parental aspirations,

adolescents' aspirations and parental immigrant status on adolescents' academic achievement. Given the inconsistent findings with this specific sample, the decision was made to conduct further analyses on a general sample, including those participants who identified as Hispanic. This decision was made as a way to gain some deeper understanding about the Hispanic sample and perhaps gain a more holistic narrative of the interactions between the variables of interest in this study. Thus, all of the models discussed above were re-run with the full sample rather than just the Hispanic subsample (with race included as a covariate). Table 5 presents the sample descriptors for the general sample. Further, the results of these additional analyses are reported below.

## General Population Sample

### *Sample Descriptives*

Table 6      General Sample Descriptives

Variables	%	
<b>Student Characteristics</b>		
<i>Gender</i>		
Males	47.	5
Females	42.	
<i>Age (Mean)</i>		
<i>Race</i>		
API	6.	6
African American	8.	1
American Indian	3.	2
Hispanic	10.	6
White	70.	6
<i>Adolescent Aspirations</i>		
Won't finish H.S	1.	0
Will finish H.S	7.	5

Table 6 Continued

Variables	%	
Some Post-secondary schooling	20.	
Bachelor's degree	45.	1
Graduate/professional degree	26.	4
<b>Parent Characteristics</b>		
<i>Mothers' Aspirations</i>		
Less than H.S	.	6
H.S diploma	4.	9
Some post-secondary schooling	15.	3
Bachelor's degree	50.	7
Graduate/professional degree	28.	6
<i>Fathers' Aspirations</i>		
Less than H.S	.	8
H.S diploma	5.	4
Some post-secondary schooling	15.	8
Bachelor's degree	49.	6
Graduate/professional degree	28.	4
<i>Mother's Highest Education</i>		
Not finish H.S	13.	1
H.S diploma	33.	
Some post-secondary schooling	19.	1
Bachelor's degree	14.	6
Master's degree	7.	7
Ph.D, Md, etc	2.	3
<i>Father's Highest Education</i>		
Not finish H.S	13.	9
H.S diploma	27.	3
Some post-secondary schooling	18.	1
Bachelor's degree	15.	1
Master's degree	8.	6
Ph.D, MD, etc.	6.	0

Table 6 Continued

Variables	%	
<i>Immigrant Status of Mother</i>		
Immigrants	13.	8
Non-immigrants	86.	2
<i>Immigrant Status of Father</i>		
Immigrants	13.	1
Non-immigrants	86.	9
<i>SES</i>		
NONE	.	3
LESS THAN \$1,000	.	6
\$1,000 - \$2,999	1.	1
\$3,000 - \$4,999	1.	3
\$5,000 - \$7,499	2.	3
\$7,500 - \$9,999	2.	7
\$10,000 - \$14,999	6.	5
\$15,000 - \$19,999	6.	8
\$20,000 - \$24,999	9.	7
\$25,000 - \$34,999	18.	8
\$35,000 - \$49,999	21.	5
\$50,000 - \$74,999	14.	9
\$75,000 - \$99,999	4.	2
\$100,000 - \$199,999	4.	2
\$200,000 OR MORE	1.	6

### Q1: Do parental aspirations predict achievement?

Tables 7 and 8 presents the results of the regression analyses testing the association between mothers' and fathers' aspirations and adolescents' reading and math cognitive test scores during the 10<sup>th</sup> grade. Results support this hypothesis, with both mothers' and fathers' educational aspirations for their child being positively and significantly associated with cognitive reading scores, with mothers' aspirations proving to be more strongly associated with reading scores than fathers' aspirations. In



regards to fathers' aspirations, for every one unit increase in aspirations, a .65 (se = .236,  $p < .01$ ) point increase in cognitive reading scores was predicted, holding all other variables constant. Similarly, for every unit increase in mothers' aspirations, a 1.52 (se = .238,  $p < .001$ ) point increase in cognitive reading scores in the 10<sup>th</sup> grade was predicted, holding all other variables constant.

There was also a significant and positive relationship between both mothers' and fathers' educational aspirations for their child and the cognitive math score of the adolescent during their sophomore year in high school. For every unit increase in fathers' educational aspirations, a .58-point increase in cognitive math score during the 10<sup>th</sup> grade was predicted (se = .232,  $p < .01$ ). Further, for every one-unit increase in measures of mothers' educational aspirations, a 1.62-point increase in cognitive math scores during the 10<sup>th</sup> grade was expected (se = .234,  $p < .001$ ). This relationship between mothers' aspirations and child's math scores was stronger than the association between fathers' aspirations and child's math scores.

Table 7 Parental Aspirations Predicting Reading Scores ( $n = 8631$ )

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Aspirations	.05	.23**	.65
Mother Aspirations	.12	.23***	1.52
<i>Covariates</i>			
Child's Year of Birth	.14	.19***	2.57
Child's Sex	-.06	.20***	-1.20
Family SES	.11	.05***	.45
Father Highest Education	.13	.10***	.93
Mother Highest Education	.09	.11***	.71
Student is Asian	.00	.44	.30
Student is Hispanic	-.08	.35***	-2.75
Student is Black	-.12	.41***	-4.56
Student is American Indian	-.04	.10***	.93
<i>F</i> statistic ( <i>df</i> )	199(11)		
<i>R</i> <sup>2</sup>	.24		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 8 Parental Aspirations Predicting Math Scores ( $n = 8631$ )

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Aspirations	.05	.23***	.58
Mother Aspirations	.13	.23**	1.62
<i>Covariates</i>			
Child's Year of Birth	.17	.23***	3.05
Child's Sex	.05	.20***	1.04
Family SES	.12	.05***	.51
Father Highest Education	.15	.10***	1.09
Mother Highest Education	.08	.10***	.66
Student is Asian	.05	.43***	2.38
Student is Hispanic	-.09	.34***	-3.12
Student is Black	-.15	.40***	-5.88
Student is American Indian	-.06	.56***	-3.72
<i>F</i> statistic ( <i>df</i> )	267.5 (11)		
<i>R</i> <sup>2</sup>	.30		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Q2: Does the association between parent aspirations and achievement differ by parental immigrant status?**

Tables 9 and 10 presents the results of the regression analyses testing whether mothers' and fathers' immigrant status moderated the association between mothers' and fathers' aspirations and adolescents' reading and math cognitive test scores during the 10<sup>th</sup> grade. Results showed that immigrant status of neither mothers nor fathers impacted the relationship between parental aspirations and academic achievement of students. This indicates that the association between parental aspirations and adolescents' achievement does not vary based on whether parents were born in the U.S.

Table 9 Parental Aspirations Predicting Reading Scores With Parental Immigrant Status as a Moderator ( $n = 8631$ )

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Immigrant Status		.52	-.28
x Aspirations	-.00		
Mother Immigrants		.53	-.50
Status x Aspirations	-.16		
<i>Covariates</i>			
Father Aspirations	.70	.25	.06
Mother Aspirations	1.40	.25	.11
Child's Year of Birth	.14	.19	2.60
Child's Sex	-.06	.21	1.21
Family SES	.10	.05	.44
Father Highest Education		.10	.90
	.13		
Mother Highest Education	.09	.11	.74
Student Is Asian	.01	.57	1.21
Student is Hispanic	-.08	.41	2.89
Student is Black	-.12	.42	4.67
Student is American Indian	-.04	.59	2.57
<i>F</i> statistic ( <i>df</i> )	234.2 (8)		
<i>R</i> <sup>2</sup>	.23		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 10 Parental Aspirations Predicting Reading Scores With Parental Immigrant Status as a Moderator ( $n = 8631$ )

Variables	B	(se)	b
<i>Main Predictors</i>			
Father Immigrant Status		.51	-.16
x Aspirations	-.00		
Mother Immigrants		.52	-.77
Status x Aspirations	-.02		
<i>Covariates</i>			
Father Aspirations	.53	.25	.04
Mother Aspirations	1.45	.25	.12
Child's Year of Birth	.71	.19	3.08
Child's Sex	.05	.20	1.06
Family SES	.12	.05	.51
Father Highest Education		.10	1.05
	.15		
Mother Highest		.10	.71
Education	.09		
Student Is Asian	.03	.56	1.55
Student is Hispanic	-.11	.40	-3.85
Student is Black	-1.57	.41	-6.04
Student is American		.58	-3.44
Indian	-.06		
<i>F</i> statistic ( <i>df</i> )	296.7 (8)		
<i>R</i> <sup>2</sup>	.26		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Q3: Do adolescent aspirations mediate the relationship between parental aspirations and academic achievement?

A series of regression models were run in order to test for mediation using the steps outlined in Baron and Kenny (1986). As outlined in Baron and Kenny (1986), there are three steps involved in testing for mediation. These three steps were performed a total of four times. The first step in the 3-step regression tested the relation between mothers' and fathers' aspirations and the outcome variables, which are math and reading scores in the 10<sup>th</sup> grade. The second step tested the relation

between parents' aspirations, both mothers' and fathers', and adolescents' aspirations. The final step tested the relation between adolescents' aspirations and math and reading scores. Every step in the mediation was significant. Adolescents' aspirations were found to mediate the association between mothers' aspirations and adolescents' reading scores in the 10<sup>th</sup> grade (Sobel test statistic of 20.63, se=0.62, p=0). Additionally adolescents' aspirations were found to mediate the relation between mothers' aspirations and adolescents' math scores in the 10<sup>th</sup> grade (Sobel test statistic of 22.36, se=0.70, p=0). Adolescents' aspirations were also found to mediate the relation between fathers' aspirations and reading scores in the 10<sup>th</sup> grade reading (Sobel statistic of 20.39, se=0.63, p=0) and math scores (Sobel statistic of 22.15, se=0.70, p=0) scores of adolescents. Thus, results indicate that adolescents' aspirations significantly but partially mediated the relationship between mothers' and fathers' aspirations and adolescents' math cognitive test scores as well as adolescents' cognitive reading scores.

## **Chapter 5**

### **DISCUSSION, IMPLICATIONS AND CONCLUSION**

#### **Discussion**

The literature has demonstrated the critical role of parents in the educational experiences and outcomes of adolescents. Variables such as parental educational aspirations have been explored. This study examined several associative relations. The first analysis explored the association between mother and father measures of educational aspirations and adolescents' academic achievement outcomes, operationalized as 10<sup>th</sup> grade reading and math cognitive test scores. The second analysis examined the moderating effect of mothers' and fathers' immigrant status on the association between parents' aspirations and adolescents' achievement in the 10<sup>th</sup> grade. Lastly, adolescents' educational aspirations were examined as a mediator of the relation between parents's aspirations and adolescents' academic achievement in the 10<sup>th</sup> grade.

#### **Q1: Do parental aspirations predict achievement?**

##### *Hispanic Sample*

Findings from this study did not indicate a significant relation between mothers' and fathers' educational aspirations and the academic outcomes of youth in the 10<sup>th</sup> grade. The findings with the Hispanic sample were not aligned with previous research that has found significant associations among the variables explored in this

study. Given the differences between previous research and the findings of this study, it is important to work through the possible reasons for non-significant results. It is worth acknowledging that the parents within the sample did indeed have moderate educational aspirations for their children. These aspirations did not translate to greater academic achievement for their children. Perhaps there is something else going on with this particular sample. It is possible that parental aspirations, on their own, are not enough. Social Learning and Human Ecological theory point to the significant interaction between parents and their children. It is possible that from this theoretical perspective, there needs to be more going on between the parent-child relationship and interaction than just the existence of parental aspirations. It may be imperative that these aspirations be transferred from parents to students through active engagement and involvement in the academic experience of the child. A study conducted by Eamon (2005) found that within Latino families, parenting practices within the home, such as providing intellectually stimulating environments where parents engage their children academically through activities such as discussing school related issues, is associated with higher student reading and math test scores. Additionally, Kuperminc, Darnell and Alvarez-Jimenez (2008) found that parental involvement, such as assisting students with homework, attending extracurricular activities and helping with class selection, are all important for the promotion of academic achievement for Latino adolescents, especially during the high school years.

The emphasis on active engagement of parents may be even more important for Hispanic families because of added social stigma they are subject to as a result of their minority status within the United States. Stereotype threat is one factor that needs to be considered when trying to understand why there was no relation observed



between parental aspirations and students' academic achievement. Stereotype threat posits that negative stereotypes play a role in academic experiences by contributing to academic underperformance among minority students (Spencer, Steele, & Quinn, 1999). Hispanic individuals and families are faced with negative stereotypes such as being lazy and unintelligent. For Hispanic Families, stereotype threat may require that there be more than just the mere existence of high aspirations of parents for their students but rather there needs to more direct school engagement and involvement on the part of the parents in order to buffer the possible negative impact of stereotype threat.

#### *General Population Sample*

Consistent with Social Learning and Ecological theory, the analyses conducted with the general sample using race as a covariate, illustrated a positive and significant relation between measures of mother and father educational aspirations and academic achievement of adolescents. For both mothers and fathers, higher measures of educational aspirations for their children were associated with higher scores on adolescents' cognitive reading and math tests administered during the adolescents' 10<sup>th</sup> grade year in high school. This finding is consistent with previous studies (Gordon & Cui, 2012). Findings suggest that the role of parents, particularly in the form of educational aspirations, has a positive impact on adolescents. Spera and Wentzel (2008) support this finding as they found an association between parental aspirations and student academic achievement. In their study, findings suggest that students with higher GPA's were found to also have parents with high educational aspirations for them (Spera & Wentzel, 2008).

**Q2: Does the association between parent aspirations and achievement differ by parental immigrant status?**

*Hispanic Sample & General Population Sample*

Immigrant status of parents was not found to be a moderator of the association between mothers' and fathers' educational aspirations and academic achievement of students in the 10<sup>th</sup> grade. Thus, the relationship between parents' aspirations and the cognitive reading and math scores of adolescents during the 10<sup>th</sup> grade did not vary based on the immigrant status of mother or fathers. This finding does not support the hypothesis. Further there exists some literature that contradicts this finding. Bankston (2002) found that coming from a home with immigrant parents was predictive of students' school outcomes. Another study supports such findings. Georgiades, Boyle and Duku (2007) found that the immigrant status of parents, specifically recent immigrant status, was associated with higher levels of school performance for children. While this finding was not expected, speculation regarding why this was the case can be provided.

For the general sample, it is possible that parental educational expectations are such a significant predictor of academic achievement among youth that it does not matter whether parents are immigrants or not. Perhaps parental aspirations of their own are strong enough predictors of academic achievement regardless of where parents are from.

The non-significant findings of the Hispanic sample require a slightly different conceptualization. Because the primary association between parental aspirations and students' academic achievement was not found to be significant within the Hispanic sample, it may be the case that with this specific sample, that because the immigrants

were grouped together (not distinguished ethnically) any variance that may have been present washed out.

**Q3: Do adolescent aspirations mediate the relationship between parental aspirations and academic achievement?**

*Hispanic Sample*

Through analyses of the Hispanic sample, it was found that adolescents' aspirations do not mediate the relation between parental aspirations and students' academic achievement outcomes of youth in the 10<sup>th</sup> grade. This finding is not surprising considering the primary relation between parental aspirations and students' academic achievement was also found to be non-significant. As in the case with the primary relation tested, speculation regarding the possible explanation of this insignificant finding is brought back to the relationship between parents and their children. While both parents and students had moderate to high educational aspirations, these aspirations did not predict students' academic achievement. It may be that it is not enough for parents and students to simply have high aspirations for their children and for themselves. Another variable that comes into play when exploring the factors that impact the educational outcomes of youth is social capital (Kao & Rutherford, 2007). School specific social capital such as parental involvement with children's schooling through interacting with their children's friends, involvement in school PTO's and volunteering at school is related to positive academic achievement outcomes (Kao & Rutherford, 2007). Despite the evidence of school-specific social capital being significant, it is also the case that Hispanic students have lower capital than other ethnicities and this is true throughout all Hispanic generational statuses (Kao & Rutherford, 2007). The evidence points to

Hispanic individuals being more disadvantaged than other ethnic groups. Thus, it is possible that perhaps a more accurate mediator of the relation between parental aspirations and adolescents' academic achievement is access to social capital for Hispanic families specifically. It may be the case that other important variables, such as school specific social capital that students have access to plays a greater role in predicting academic achievement outcomes despite the presence of educational aspirations of both parents and students.

#### *General Population Sample*

Additionally, this study found that adolescents' educational aspirations mediated the relationship between parental educational aspirations and students' academic achievement. The introduction of adolescents' aspirations into the model exploring the main relationship between parental aspirations and adolescents' achievement was found to explain more of the variance. Adolescents' aspirations account for the seemingly direct relationship between parental aspirations and measures of reading and math scores. Findings of the present study appear to be consistent with prior studies that have found adolescents' aspirations to be a significant predictor when examining students' academic achievement and educational attainment (Messersmith & Schulenberg, 2008). Similarly, Ou and Reynolds (2008) found that youth academic expectations for themselves was one of the most significant predictors of students' educational attainment. The finding of the present study, as well as those of the existing literature, suggests that there is some dynamic and complex relationship between parents and adolescents. Perhaps parental aspirations translate into messages and values regarding the importance of education, leading to adolescents adapting and internalizing these values which leads to them having higher

aspirations for their education. From this perspective, it is not difficult to understand the mediating impact of adolescents' aspirations on the association between parental aspirations and adolescents' academic achievement outcomes on standardized reading and math scores.

### **Limitations**

This study has identified some significant strengths. The first is the large nationally representative samples that were utilized in this study. Both the Hispanic and general sample consisted of large samples that allow for the ability to make generalizable statements regarding findings. Additionally, the data used in this study, for both the Hispanic and general samples, were holistic. Data was attained from parents, both mothers and fathers, as well as adolescents. These data allowed for the ability to grasp the multiple perceptions of education that exist within families as opposed to simply getting data from only parents or students.

While some of the strengths of this study have been identified, it is not without its limitations. Any research study that relies on the use of preexisting data runs into some limitations with the data that are available for analysis. This proved to be the case within this study. One of the limitations of the present study was the use of the variable for immigrant status. The variable, immigrant status was operationalized using very limited information that was available. The immigrant status of parents was attained by simply asking whether respondent were born in the U.S or outside of the U.S. The variable did not provide any additional information regarding where individuals were born if outside of the U.S which was a limitation because there was no way to determine where participants were originally from, whether or not they were from more or less developed countries, or what their socioeconomic status was

within their native country. This variable as an indicator of immigrant status was limited and did not allow for the inclusion or investigation of the many acculturative processes individuals participate in as they adjust and navigate life in a new country. This measure also did not allow for data on years since they arrived in the U.S, and where they are specifically from. There is potentially very valuable information in understanding all of the additional factors involved in being an immigrant that this study was unable to explore. It is possible that the impact of immigrant status on academic achievement outcomes is mediated by some of processes and experiences that foreigners take part in when they come to the U.S and the item available within the dataset simply did not allow for the exploration of these processes and experiences.

Another limitation of the present study is the age of the dataset used. The NELS data was started in 1988 which is quite some time ago. However, despite the age of the data, the information is still useful today. When considering educational attainment and achievement, there are ethnic disparities that continue to persist even today. For example, underrepresented groups, such as African Americans and Latinos, have less educational attainment than their white counterparts (Cameron & Heckman, 2001). Thus, information such as the NELS is still relevant today especially as researchers and practitioners continue to explore and understand the factors contributing to the achievement and attainment gap. Further looking at the educational experiences of the youth surveyed in the NELS provides a great foundation for understanding family dynamics and experiences.

### **Implications & Recommendations**

Despite some of the existing limitations, and the non-significant findings of analyses, this study does indeed provide insight into the role of parents in the educational experiences of their adolescents. The primary Hispanic sample used within this study has brought up room for further understanding. The associations that have been tested in the present study, specifically with a Hispanic sample, have not been found to be significant. Despite these findings, there is some room to speculate as to what other variables may be important but were not tested. One of these variables is school specific parental involvement. One study conducted by Ramirez (2003) outlines some of the Hispanic families. Hispanic parents cite having language barriers to their school involvement, which sometimes even resort to them bringing a translator to open houses (Ramirez, 2003). Other parents feel that schools and teachers do not take into account their work schedules when scheduling meetings, with some parents having conflicts with their work schedules (Ramirez, 2003). Another qualitative study supports this finding by Ramirez; in their study examining the parents' perspectives on school involvement, Quiocho and Daoud (2006) found that parents want to become more engaged and involved with their child's school but face some barriers in doing so (Quiocho & Daoud, 2006). Further, parents stated that schools should offer "workshops that help parents understand the work that their children are doing in classes" (p. 261) as one way to assist them become more involved. Findings such as this illuminate the need to further explore the role of parental school involvement in understanding the academic achievement of Hispanic youth. From this sample, it was found that neither parental aspirations nor adolescents' educational aspirations were enough to predict academic achievement of students in the 10<sup>th</sup> grade and it is possible that parental school specific involvement is an important variable even though it was

not tested in this study. Future research could explore this variable within the context of academic achievement of youth.

From a practical standpoint, the findings can be used to inform best practices for schools as they work to engage families, particularly underrepresented groups, within the educational experience of students. Efforts from schools and administrators can be made to ensure that there are few barriers to the involvement of parents in their child's education. Schools can foster communities that value the role of parents in the educational process of students by creating various opportunities for parents to become active members of the learning process.

Additionally, future research can perhaps expand the analyses to look further into immigrant status. It may be beneficial to examine whether the number of immigrant parents, whether one or two are immigrants, plays a role in the relationship between parental educational aspirations and academic achievement outcomes. Additionally, ethnic differences in immigrant status provide a great foundation upon which research can examine any differences that may come up when examining the role of immigrant status on the association between parent aspirations and adolescents' academic achievement.

Perhaps of greatest importance in terms of future research is the need for the use of qualitative methods of analysis. Much of the research exploring the academic achievement of underrepresented groups, including immigrants, has relied on quantitative approaches of analysis using existing sets of data. While these methods prove to be useful in understanding relationships and associations of predictor variables and outcome variables, they are limited in the scope to which the lived experiences of participants can be understood. There exists a need for research that



aims to understand the cultural nuances of lived experiences of minorities within this country. Allowing for the space to give the observed the opportunity to tell their narratives and experiences with the education system will prove to be extremely beneficial to understanding the racial/ethnic academic achievement gaps that currently exist. It is through research that gives voices to marginalized groups that practices and efforts to close the achievement gap can be informed.

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## Appendix A

### IRB EXEMPTION

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DATE:	January 25, 2016
TO:	Fatoumata Bah
FROM:	University of Delaware IRB
STUDY TITLE:	[856917-1] Understanding the Achievement Gap: The Role of Parental Aspirations in the Academic achievement of Latino Youth
SUBMISSION TYPE:	New Project
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	January 25, 2016
REVIEW CATEGORY:	Exemption category # (4)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or [nicolefm@udel.edu](mailto:nicolefm@udel.edu). Please include your study title and reference number in all correspondence with this office.