

Immigrant Educational Attainment in the United States: Differences by Age-at-  
Immigration, Place of Origin and Race

by  
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## DEDICATION

I dedicate this thesis to my mother, Jessicah Musili.

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I would like to thank Dr. Amey and Dr. Mertig for their knowledge and support on this thesis. I would also like to thank my family and friends for their endless support.

## ABSTRACT

This thesis presents a theoretical and empirical analysis of the odds of immigrants attaining a high school diploma, associate's degree, bachelor's degree, and graduate and professional degrees in comparison to the native-born population. Using the 2012-2016 American Community Survey (ACS) data, the odds of educational attainment are analyzed based on region of immigrants, sex, race, age at entry, period of entry, duration of stay, and citizenship status. Excluding high school, immigrants from all regions, except Latin America, have greater odds of educational attainment than the Native-born population at all other levels of education tested. In addition, this study finds that women are more likely than men to attain a bachelor's degree while men still lead in attainment at the graduate and professional degree levels. The odds for Africans attaining bachelor's degrees as well as graduate and professional degrees are also significantly greater than that of the native-population. Similarly, Asians have greater odds of educational attainment than the U.S. native population while Latin Americans have lower odds of attainment than those from any other immigrant regions and the native-born population. This study also finds that age at arrival for immigrants plays a crucial role in the odds of educational attainment, with immigrants arriving to the U.S. before the age of 12 having greater odds of educational attainment than immigrants arriving later and the native-born population as well. Citizenship in the U.S. also increases the odds of educational attainment among immigrants.

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## **Introduction**

Immigration is a contentious social and labor issue in the United States with an impact on the present and future of the country's economy and educational systems. With recent policy debates such as the ones pertaining to the travel ban, which placed a restriction on immigrants arriving from certain nations, many questions have been raised as to the type of immigrant the United States should be allowing into the country. The United States is faced with the issue of deciding whether immigrants should be able to live up to the standards set by the native population of the United States (especially pertaining to their contribution to the economy) in order for them to deserve a place in this country. Because of this political debate and many others, examining the educational attainment of immigrants is imperative due to the central role it plays in employment, which directly affects the labor force and economy. In fact, a high school diploma is presumably the lowest level of educational attainment that a person can achieve in the United States since a k-12 education is funded by the states and offered to students for free. In addition, the 2015 Current Population Survey (CPS) found that almost 9 out of 10 adults (88 percent) had at least a high school diploma or GED, while nearly 1 in 3 adults (33 percent) held a bachelor's or higher degree (Ryan, Bauman & U.S. Census Bureau, 2016). In order to be contributing members to the United States labor force and economy, it is implied that immigrants must live up to the standards set by the native population.

Over the last few decades, changes to United States immigration policies have sparked shifts in the primary regions immigrants are arriving from, which has changed the racial and ethnic composition of the United States (DeBurman, 2005). In the mid-1960s, the U.S. Congress eliminated the admission criterion that was introduced in the

1920s. The old criterion was based on a quota system, and it sought to maintain the national origins of the population, therefore it favored European and white immigrants and discriminated against most Asian and non-white prospective immigrants (Riche, 2000). The elimination of this quota system sparked new immigration flows from less-developed countries, and the United States experienced a large number of racially diverse immigrants seeking both political and economic freedom. In fact, nearly three-quarters of all immigrants in the U.S. came from Latin America and Asia between 1980 and 1998 in contrast to the two out of every three immigrants who came from Europe or Canada in 1950 (Riche, 2000).

The Diversity Visa is another policy that has impacted the primary regions from where immigrants in the United States are arriving. When the Visa was first introduced, many Irish people looking to immigrate to the U.S. did not have the right job skills or immediate relatives in the U.S. to host them. In contrast, Italians had immediate relatives in the U.S. who could host them, but there was a backlog in applications for Italian immigrants to the U.S. In order to alleviate these problems and make it easier for more Irish and Italian immigrants to come to the U.S., Congress created a Visa on the basis of “Diversity” in order to avoid any criticism for allowing immigrants with no job skills or close family relationships in the U.S. into the country.

Although the Diversity Visa wasn’t originally created to promote cultural and racial diversity in the U.S., it took a different approach to awarding visas to immigrants in the 1996 Immigration Act. The Act introduced the Green Card Lottery System to the Diversity Visa, which gives opportunities to people from countries that do not send a lot of immigrants to the United States. The Diversity Visa has very few basic eligibility

criteria. In order to be eligible for this program, a person must be born in a country that has had fewer than 55,000 immigrants to the United States in the last five years, and the person must also have a high school education or two years of work experience in a required field. The Diversity Visa Program awards 55,000 U.S. green cards to people from all around the world through a random selection from a computer-generated list held by the U.S. government (“United States of America Green Card Lottery”). The Program also allows those people that are selected to bring their spouses and any unmarried children under the age of 21 with them to the United States. Due to the minimal criteria and random selection process, the Diversity Lottery Program is the easiest way for an immigrant to obtain a U.S. green card (“United States of America Green Card Lottery”).

Both the elimination of the admission criterion in 1920 and the implementation of the Diversity Visa in 1986 have yielded a surge of immigrants to the United States. In fact, since 2000, the United States has been receiving approximately 1,000,000 immigrants every year, and projections suggest that immigration will continue to increase the minority population of the country, which is projected to represent 47 percent of the population by 2050 (Riche, 2000). As a result of the high percentage of immigrants in the United States, around a third of all children in the country are expected to be raised in immigrant families by 2040, which will ultimately alter the demographics in all levels of education (Feliciano, 2006).

The patterns of immigration in the last few decades along with the tendency for ethnic differences has led to educational attainment differences between immigrant groups and the native population. Due to this, studies on the educational attainment of

immigrants could have an impact on policies that could help to close any gaps between the educational attainments within different ethnic groups.

## **Literature Review**

Literature on immigrant educational attainment can be categorized into two broad fields. Anthropologists and sociologists are the primary leaders in the study of immigrant education, and they account for the first field; economists account for the second field, as they have become more engaged in the research of immigrants due to their increasing impact on the economy. One theory has dominated the research on immigrant educational attainment among both sociologists and anthropologists. The theory is the cultural discontinuity theory, which believes that immigrant youth are disadvantaged in education due to conflicts between home and school pertaining to language, culture, and social interactions (Carter & Segura, 1979; Trueba, 1987; Perlmann, 1988). This theory implies that immigrants are expected to achieve less success in their educational careers compared to the native population. However, this theory also suggests that the earlier immigrants move to their host country, the less of an effect language, cultural, and social differences will have on them since they would have a longer period of adjustment. Younger immigrants are also more impressionable compared to older immigrants, thus making them more likely to follow the trend of the native-born population. Cultural discontinuity theory also supports studies that have found that educational attainment among immigrant youth increases throughout the years spent in the United States as the integration and assimilation process occurs, which further supports the idea that the

younger immigrants are when they immigrate to the United States, the greater their educational attainment will be (Carter & Segura, 1979; Trueba, 1987; Perlmann, 1988).

Economists represent the second field to have made contributions to the study of the educational attainment of immigrants. They have maintained a focus on two aspects of immigrant educational attainment, namely, post-migration schooling of immigrants (Schultz, 1984; Khan, 1997); and patterns of immigrants' educational attainment in their countries of origin (Funkhouser & Trejo, 1995; Cohen, Zach & Chiswick, 1997). Studies on post-migration schooling found that the age at immigration along with the duration of residence in the host country is one of the factors that indicate potential investment in education (Funkhouser & Trejo, 1995; Cohen, Zach & Chiswick, 1997). These studies also found that immigrants tend to make their largest human capital investments, (especially in education) within the first few years of residing in a host country (Funkhouser & Trejo, 1995; Cohen, Zach & Chiswick, 1997). In addition, the years of migration schooling also increase as the duration of residence in the host country increases (Chiswick & Miller, 1994; Khan, 1997). However, these studies fail to mention citizenship status, which is a very important distinction to make especially when examining the duration of time immigrants spend in the United States. The effects of citizenship status on educational attainment can be explained through the assimilation theory, which conceptualizes native-born White people in metropolitan areas as the group immigrant's adaptation in the United States is compared to (Garcia & Schmalzbauer, 2017). Based on the assimilation theory, immigrants seeking to assimilate would become citizens in order to become more like the native-born and thus they would also attempt to match the educational levels of the White native-born population.

The studies previously mentioned (Chiswick & Miller, 1994; Funkhouser & Trejo, 1995; Cohen, Zach & Chiswick, 1997; Khan, 1997) all relied on a common theory used by economists to study immigrants' trajectory of social and economic success. The theory is the investment in human capital developed by Schultz (1961) and Becker (1964). The theory of human capital investment views humans and individuals as economic entities who act as their own economies, thus they invest in human capital in order to capitalize on their net worth (Becker, 1964). Becker used the human capital investment theory specifically to analyze educational attainment and the rate at which individuals returned to education.

Becker's study on the human capital investment was revolutionary, and it inspired Chiswick, who extended on the human capital investment framework by using it to study one aspect of immigration, the labor market. Chiswick's modified model on human capital investment has since been a catalyst in dissecting the process of immigrant assimilation in the host country's labor market. He was the first to note a possible difference in earnings between immigrants and native-born citizens even if both parties have the same number of schooling years (Chiswick, 1978). This discovery implied that immigrants would be unable to fully transfer the human capital accumulated in their native country to the labor market of their host country. Chiswick also developed the phrase "international transferability of skills," which examines the similarities in the labor markets of an immigrant's native country to the immigrant's host country. He concluded that schooling and language were two of the biggest indicators in the transferability of human capital (Chiswick, 1978).

Due to the interdependence of education and the labor market, the United States has seen a spike in the demand for higher education, making the human capital investment theory even more apparent. In fact, 20.4 million students attended a college or university in the United States in the fall of 2015, which was an increase of about 5.1 million since the fall of 2000 (Ryan, Bauman & U.S. Census Bureau, 2016). The minority population in universities has also increased as more minority students seek higher education. Between the years of 2000 and 2015, the percentage of college students identifying as African American rose from 11.7 percent to 14.1 percent and the percentage of students identifying as Hispanic rose from 9.9 percent to 17.3 percent (Ryan, Bauman & U.S. Census Bureau, 2016). The growth of the numbers of students in Universities and colleges in the United States can be explained by a 2011 study that found that the higher the academic degree a person achieved, the higher the earning potential the person would have over the course of their lifetime (Julian, Kominski & U.S. Census Bureau, 2011). The study also found that professional degree holders, specifically people with medical or law degrees, have an income potential of about \$3,013,000 over a lifetime in comparison to bachelor's degree holders who only have a lifetime income potential of \$1,421,000 (Julian, Kominski & U.S. Census Bureau, 2011). Unemployment rates for people with a bachelor's degree or higher also tend to be lower than rates of people who have less education (Julian, Kominski & U.S. Census Bureau, 2011). For example, in 2015 the unemployment rate for young adults with a bachelor's degree or higher was only 5 percent in contrast to the unemployment rate for young adults who only had a high school diploma, which was 12 percent (Ryan, Bauman & U.S. Census Bureau, 2016).

There are limited studies that highlight the effects of race and place of origin on the educational attainment of immigrants. The studies that do exist also fail to make a distinction between males and females (sex). The effects of race, place of origin and sex on the educational attainment of immigrants are important because of the cultural and social role that these facts play in the United States. Most of the studies pertaining to these subjects tend to specifically focus on the effects for immigrants from Asian and Hispanic regions. (Arias, 1986; Velez, 1989; Rong & Grant, 1992; Kao, Tienda, & Schneider, 1996). However, they fail to examine race by not differentiating between Black Hispanics, White Hispanics, and so on. These studies find that Asian immigrants tend to be the “model immigrant” and consistently outperform other groups in school, achieving the highest levels of educational attainment among immigrants (Hirschman & Wong, 1986; Lee & Rong, 1988). In fact, 54 percent of Asians in the United States had at least a bachelor’s degree in 2015 (Ryan, Bauman & U.S. Census Bureau, 2016). The national average for the same year was only 33 percent. In contrast, Hispanic students tend to have lower performance rates in school, higher dropout rates, and an overall lower level of educational attainment compared to their Asian and non-Hispanic white counterparts (Arias, 1986; Velez, 1989).

Although there are limited studies on immigrants that highlight the effects of place of origin and race on educational attainment, this specific issue can also be explored through examining the impact of education level on income potential because of the impact educational attainment has on economic attainment. There have been studies that have examined the economic attainment of immigrants based on place of origin and race that have concluded the economic attainment of immigrants differs by ethnicity and

race (Arias, 1986; Velez, 1989; Moore, Amey, & Bessa, 2009). These studies also find that immigrant economic attainment generally tends to lag behind the native population in the United States (Arias, 1986; Velez, 1989; Moore, Amey, & Bessa, 2009). In addition, inequality in economic attainment among black male immigrants from Africa tends to be greater than any other immigrant group (Moore, Amey, & Bessa, 2009). However, the reason for the earning disadvantage of black African immigrants is not clear and there is minimal research that reveals if the same disadvantage exists for female black African immigrants.

In order to fully understand educational attainment, the distinction in sex is useful in revealing trends specific to both men and women. Historically, a higher percentage of men have attained a bachelor's degree or higher compared to their female counterparts. In 1967, 13 percent of men ages 25 and older held a bachelor's degree or higher in comparison to only 8 percent of women who lived up to the same standard (Ryan, Bauman & U.S. Census Bureau, 2016). However, as women have gained more rights and social norms have changed, the educational gap between men and women is closed. In fact, the percentage of women enrolled in universities is higher than that of men and in 2015, 33 percent of women ages 25 and older had a bachelor's degree or higher in comparison to 32 percent of men who lived up to the same standard (Ryan, Bauman & U.S. Census Bureau, 2016).

Based on the literature review, the following hypotheses have been developed:

- **Hypothesis 1:** Immigrant educational attainment will differ by region of origin with immigrants from Asia having the highest odds of educational attainment and Hispanics having the lowest odds of educational attainment.
- **Hypothesis 2:** Immigrant educational attainment will differ by sex with women having greater odds of educational attainment at the bachelor's level.
- **Hypothesis 3:** Immigrant educational attainment will differ by race with White immigrants having the highest odds of educational attainment.
- **Hypothesis 4:** Immigrant educational attainment will differ by age of entry. Immigrants who moved to the United States at a younger age will have greater odds of educational attainment than immigrants who immigrated at a latter age.
- **Hypothesis 5:** Immigrant educational attainment will differ by period of entry, with immigrants who came to the United States after 1965 exhibiting higher odds of educational attainment than those who came before. This hypothesis is based on the fact that policy changes have made it easier for immigrants to attain education and also based on the interdependence of education and the labor force.
- **Hypothesis 6:** Immigrant educational attainment will differ by duration of stay, with immigrants who have been in the country longer having higher odds at educational attainment.
- **Hypothesis 7:** Immigration educational attainment will differ by citizenship status, with immigrants who are citizens having greater odds of educational attainment than non-citizens.

## **Approach and Methods:**

This research uses data from the 2012-2016 American Community Survey (ACS). The American Community Survey is a yearly survey conducted by the United States Bureau of the Census. The information collected by the ACS is used to help local officials, community leaders, and businesses understand their communities in order to better cater to their needs. The ACS interviews adults 18 years and older and collects detailed data on educational attainment among several other demographic characteristics of the population. This study analyzes data on respondents 25 years and older because it is assumed that persons should have finished their schooling career by this stage in their life.

### *Dependent Variable*

The dependent variable for this study is educational attainment. Specifically, this study aims to find the odds immigrants have in attaining education (in comparison to the native-born population) at four different levels: high school diploma, associate's degree, bachelor's degree, and graduate or professional degree.

### *Independent Variables*

There are seven independent variables in this study. The first variable is region of origin, which includes six categories: Latin America, Asia, Europe, Africa, Other (Northern America and Oceania), and there is a category for native-born people because they are essentially the standard to which the immigrants will be compared. The second variable in this study is sex and it has two categories: Male and Female. The third variable is race and it is divided into five categories: Hispanic, Black, other (people who are more than two races), Asian, and White. The fourth variable is age at entry and it is

divided into six categories: under 6, 6-11, 12-18, 25 & older and native born. The categories for this variable are based on the age people are at specific education levels. For example, the under 6 category represents children in pre-school, the 6-11 category represents students in elementary school, 12-18 represents students in middle and high school and 25 & older represents students post an associate's and bachelor's degree (assuming that by the age of 25 someone should have attained at least a bachelor's degree). This category also includes graduate and professional degrees. The fifth variable is period of entry and it is divided into two categories. The first category represents people who came to the United States after 1965 and the second category represents people who came before 1965 and the native-born population. The distinction between immigrants who came before 1965 and thereafter is made to reflect the policy changes that happened after 1965 (elimination of the quota system, and the Diversity Visa). Immigrants who came before 1965 were very ethnically similar to the native-born population at that time, so they were grouped into one category assuming that their ethnic similarities and long period of stay in the country (more than 30 years) makes them almost the same as the native-born population. The sixth variable is duration of stay and it is divided into in 10-year increments: under 10 years, 10-19 years, 20-39 years, 30 years and more. There is also a category for the native-born since they are the standards the immigrants are compared to. The final variable is citizenship status and it is divided into two categories: not citizen, and citizen.

### *The Sample*

A ten percent sample was derived from the 2012-2016 ACS years. The ten percent sample is sufficient for the study because it reflects identical percentages to the

entire data set. For example, the 2012-2016 CPS data reflected that 91.5% of the respondents were native-born and 8.5% of the respondents were immigrants. After conducting a ten percent sample, the data retained the same exact percentages for the native-born population (91.5%) and the immigrant population (8.5%). The study is composed of only people who are ages 25 and older because it is assumed that individuals should have completed their educational career by this point; thus, examining people ages 25 and older allows for a more accurate representation of educational attainment, especially at the higher levels of education. The ten percent sample taken includes both immigrants and native-born people because the study aims to compare the odds of immigrants living up to the same educational standards set by the native population.

#### *Data analysis*

The data in this study is analyzed through binary logistic regression. Binary logistic regression is useful for analyzing a dataset where the outcome of interest has one of two potential outcomes. The goal of logistic regression is to find the best model to describe the relationship between the dependent variable and independent variables. In this study, logistic regression reveals the odds of immigrants attaining a high school diploma, associate's degree, bachelor's degree, and graduate or professional degree in comparison to the native-born population. In other words, the models help to reveal the odds immigrants have in living up to the standard set by the native-population at each level of educational attainment. This method of analysis is also useful because it controls for other variables at every level of education; thus making it clear the impact each specific variable has on educational attainment. For example, region of origin and race

are similar variables in the sense that certain regions tend to be more racially homogenous than others. Thus immigrants coming from a specific region will be racially similar. By running a logistic regression on each independent variable separately, we can see the direct influence each independent variable has on the dependent variables. Table 1 on Page 20 shows the variable coding and descriptive statistics.

Table 1. Variable Coding and Descriptive Statistics

Variables	Code	Percent
<i>DEPENDENT VARIABLES</i>		
Educational Attainment	0= No Schooling	1.6%
	1=Less than High School	11.1
	2=High School and Equivalent	48.6%
	3=Associate's Degree	8.2%
	5=Bachelor's Degree	18.5%
	6=Graduate & Professional Degrees	12.0%
<i>INDEPENDENT VARIABLES</i>		
Region of Origin	1=Latin America	7.0%
	2=Asia	4.8%
	3=Europe	2.4%
	4=Africa	.6%
	5=Other	.5%
	6=Native-Born	84.7%
Sex	1=Male	47.7%
	2=Female	52.3%
Race & Ethnicity	1=Hispanic	11.6%
	2=Black	9.8%
	3=Other	2.5%
	4=Asian	4.9%
	5=White	71.3%
Age at Entry	1=Under 6	.9%
	2=6 - 11	1.0%
	3=12 - 18	2.1%
	4=19 - 24	3.2%
	5=25 & Older	7.2%
	6=Native-Born	85.6%
Period of Entry	1=After 1965	13.3%
	2=Before 1965 & Native-Born	86.7%
Duration of Stay	1=Under 10 years	2.4%
	2=10 -19 years	3.7%
	3=20 - 39 years	3.3%
	4=30 years and more	4.9%
	5=Native-Born	85.8%
Citizenship Status	1=Not Citizen	6.5%
	2=Citizen	93.5%

## **Results and Discussion**

Four different regression models were run to estimate the odds of immigrants attaining a high school diploma, associate's degree, bachelor's degree, and graduate or professional degree in comparison to the native-born population. Each level of education modeled is considered the terminal level for respondents at the time of data collection. Results for the regression models are shown in Table 2 on Page 28.

*Region of Origin:* Results reveal that all regions (except Latin America) have higher or equal odds of educational attainment at all levels beyond high school in comparison to the native-born population. Although all immigrant groups have significantly lower odds at the high school level, their odds of higher educational attainment are higher than those of native-born (with the exceptions noted above). In many cases, the odds of immigrants from all the regions (except Latin America) are significantly greater. For example, African immigrants are about 2.5 times more likely than the native born population to attain a bachelor's degree. In addition, they also lead in the attainment of graduate and professional degrees when compared to not only the native-born population but also all other immigrant groups. Asian immigrants also have greater odds of attaining bachelor's degrees along with graduate and professional degrees when compared to the native-born population.

The phenomenon of immigrants having greater odds of educational attainment (at higher levels of education) was explored in a 2006 study that suggests that because of migration selectivity, many immigrants that come to the United States possess traits that help them and their children work their way into positions almost equivalent to the ones they belonged to in their countries of origin (Feliciano, 2006). In addition to that, a lot of

immigrants move to the United States on specific visas (such as the Diversity Visa, work visas, student visas) that require some education prior to coming to the United States.

The results for this variable can also be confirmed by the assimilation theory, which conceptualizes native-born White people in metropolitan areas as the group to which immigrant's adaptation in the United States is compared (Garcia & Schmalzbauer, 2017). The desire to assimilate encourages immigrants to find themselves striving to match the native-born White population that they end up surpassing the native group to which they are compared. Lastly, many immigrants move to the United States to find better economic opportunities and due to the interdependence of education and the labor force, immigrants from all regions make efforts to attain higher education in search of economic prosperity.

Latin American immigrants are the only group that consistently has lower odds of educational attainment when compared to the native-born population at most of the levels. For example, they have about 70% the odds the native-born population would have at attaining a high school diploma. In other words, Latin American immigrants have about 30% lower odds of attaining a high school education compared to the native-born population. Interestingly enough though, Latin Americans have the same odds as the native-born population at attaining a bachelor's degree. However, at the graduate and professional level Latin Americans have 26% less odds than the native-born population of attainment.

Interestingly, Latin American immigrants are the largest growing immigrant group in the country, yet they are lagging behind all other groups in educational attainment. This result supports other studies that have found that Latin Americans tend

to have lower odds of educational attainment when compared to other immigrant groups and the native-born population as well (Arias, 1986; Velez, 1989; Rong & Grant, 1992; Kao, Tienda, & Schneider, 1996). One of the main reasons why Latin American immigrants have lower odds at educational attainment is the language barrier. This disadvantage is even more pronounced due to the increasing residential segregation of certain groups such as Mexicans and Puerto Ricans who are isolated in urban neighborhoods with poorly funded schools (Arias, 1986). The residential isolation of Latin Americans results in a complex web of social, economic, and educational conditions that yield poor odds of educational attainment. Immigrants coming from former British colonies are already exposed to English and many of them emigrate from nations who have English as their first or second official language.

**Sex:** When comparing men and women, results reveal that men are more likely than women to attain a high school diploma. However, at the associate degree level men have 20% less odds that women do and at the bachelors level, they only have 3% less odds, however, these results are statistically significant. When it comes to graduate and professional degrees, men's odds of attainment are greater than women's.

The results for the effect of sex on the educational attainment of immigrants are very similar to results found in a 2016 study that found that 33 percent of women ages 25 and older had a bachelor's degree or higher when only 32 percent of men did (Ryan, Bauman & U.S. Census Bureau, 2016). The results confirm that women are attaining education at the bachelor's level at greater odds than men are. The shift in women having greater odds at attaining higher education is partially due to a push towards an equal society between both men and women.

**Race:** Hispanics, Blacks, and respondents who identify as multi-racial (“other”) are more likely to end their educational careers at high school in comparison to the White population. In contrast, Asians are less likely to end their educational careers at high school and they are actually more likely to continue with their educational careers than white people. For example, at the bachelors level, Asians have 66% greater odds of attainment higher than whites. They also lead in the graduate and professional degrees by 43% greater the odds of the White population.

Other studies that have found similar results to this study. These studies find that Asian immigrants tend to be the “model immigrant” and consistently outperform other groups in school, achieving the highest levels of educational attainment among immigrants (Hirschman & Wong, 1986; Lee & Rong, 1988). Other studies have also found that Hispanic students tend to have lower performance rates in school, higher dropout rates, and an overall lower level of educational attainment compared to their Asian and non-Hispanic white counterparts (Arias, 1986; Velez, 1989). The reason for the phenomenon of Hispanics, Blacks, and people who are multi-racial having lower odds at educational attainment can be attributed to the socio-economic inequalities among races in the United States that leave these races at a disadvantage in many areas of life including educational attainment.

**Age at Entry:** At all levels, immigrants who come to the United States before the age of 12 have higher odds of educational attainment than the native-born population and immigrants that arrive at a later age. For example, immigrants who entered the United States under the age of 6 have 18% greater odds of attaining a high school education than the native-born population. The odds are even greater at the bachelors level with

immigrants who arrive in the country under the age of 6 having 92% greater odds than the native-born population. Immigrants who arrive under 6 years old are also over 2 times more likely to attain a graduate or professional degree relative to the native-born population. Interestingly, immigrants who arrive in the country between the ages of 12 to 24 have lower odds at educational attainment at every level below graduate and professional degrees as the native born. For example, immigrants who entered the United States between the ages of 19 to 24 have an 87% chance of attaining a high school diploma compared to the native-born population. However, immigrants who moved to the United States when they were 25 years and older have odds that are about 79% greater at attaining a graduate or professional degree than the native-born population.

The results for age at entry can best be explained by the cultural discontinuity theory, which believes that immigrant youth are disadvantaged in education due to conflicts between home and school pertaining to language, culture, and social interactions (Carter & Segura, 1979; Trueba, 1987; Perlmann, 1988). In other words, when immigrants move to the United States at a younger age, specifically before the age of 12, they have more time to deal with the adjustments between language, culture, social interactions, and other factors that greatly influence educational attainment. Assimilation and adaptation are major issues for immigrants who come between the ages of 12 to 24. This age range represents some of the most pivotal years of a person's life and in addition to dealing with hormonal changes, peer pressure, and possibly bullying; immigrants who come to the U.S. at this stage of life have the added stress of being an immigrant, which further exaggerates the effects of language, cultural, and social differences (Kao, Tienda, & Schneider, 1996). In fact, immigrants who arrive to the country after the age of 25

have greater odds of educational attainment than those in the 12 to 24-age range. This group of immigrants is generally more mature, emotionally stable, and better equipped to handle the stress of adjusting to a new culture, language, and society.

***Period of Entry:*** Immigrants entering the country after 1965 have lower odds of ending their educational careers at high school in comparison to immigrants who came before 1965 and the native-born population. In fact, immigrants who arrived to the United States after 1965 have 63% greater odds at attaining a bachelor's degree than those who came before then.

These results are best explained by the theory of human capital investment along with the shift in the interdependence of education and the labor market throughout the years. Because more and more jobs are requiring people have an education or some form of training, more and more people are forced to get higher education in order to compete in the job market. In addition there are simply more educational opportunities for immigrants who moved to the United States after 1965 because the political and social times have shifted to accept a more diverse society.

***Duration of Stay:*** According to the results of this study, duration of stay has a negative effect on educational attainment. In other words, the longer an immigrant stays in the United States, the less likely their odds are at attaining higher levels of education. These results have been found to be true by several other studies. (Carter & Segura, 1979; Trueba, 1987; Perlmann, 1988). In fact, these studies found that immigrants tend to make human capital investments, especially in education, during the beginning years of their stay in their host countries. This explains why immigrants who had been in the country for ten years or less exhibited the highest odds of educational attainment than immigrants

who had been here longer. However, It is important to note that there have been studies that have studied the effects of age at immigration combined with the effect of duration of residence in the host country that have yielded resulted indicating a high potential investment in education (Funkhouser & Trejo, 1995; Cohen, Zach & Chiswick, 1997).

*Citizenship Status:* Immigrants who are not citizens have lower odds of educational attainment at every level. Examining citizenship status helps to reveal the motives of immigrants. The findings imply that immigrants that seek citizenship are probably more interested in becoming as similar to the native-population as possible based on the assimilation theory. In addition, immigrants that are citizens simply have more educational opportunities when it comes to grants, scholarships, and other opportunities that may be reserved solely for citizens.

Table 2. Logistic Results: Estimates of Odds Ratios.

Independent Variable	Model 1 High School	Model 2 Asso. Degree	Model 3 Bachelor's	Model 4 Grad & Prof
<b>Region of Origin</b>				
L. America	0.699***	0.786***	0.999	0.740***
Asia	0.732***	0.974	1.318***	1.384***
Europe	0.744***	1.128**	1.402***	1.773***
Africa	0.583***	1.442***	2.416***	2.096***
Other	0.742***	1.415***	1.775***	1.589***
Native-Born	-	-	-	-
<b>Sex</b>				
Male	1.015***	0.804***	0.975***	1.027***
Female	-	-	-	-
<b>Race &amp; Ethnicity</b>				
Hispanic	1.049***	0.913***	0.557***	0.459***
Black	1.295***	0.891***	0.513***	0.544***
Other	1.184***	1.045*	0.706***	0.627***
Asian	0.548***	0.952	1.656***	1.435***
White	-	-	-	-
<b>Age at Entry</b>				
Under 6	1.184**	1.238	1.920***	2.185***
6 - 11	1.444*	1.234	1.695***	1.926***
12 - 18	0.919	0.923	1.005	1.360***
19 - 24	0.872*	0.830	0.927	1.859***
25 & Older	0.772***	0.723**	1.004	1.785***
Native-Born	-	-	-	-
<b>Period of Entry</b>				
After 1965	0.858***	1.356***	1.634***	1.198***
All Other	-	-	-	-
<b>Duration of Stay</b>				
<10 years	1.230***	0.995	0.928	0.781***
10 - 19 years	1.196**	0.974	0.609***	0.596***
30 - 29 years	1.205**	0.857	0.460***	0.484***
30+ years	1.107	0.756*	0.397***	0.448***
Native-Born	-	-	-	-
<b>Citizenship Status</b>				
Not Citizen	0.831***	0.569***	0.553***	0.769***
Citizen	-	-	-	-
Chi-Squared	22077.1	3561.06	19664.3	17917.2
DF	21	21	21	21
* $p < .05$	** $p < .01$	*** $p < .001$		

## **Conclusion**

Given the increased diversity in the United States along with the interdependence between education and the labor force, this study sought to investigate the odds that immigrants have in living up to the educational attainment standards set by the native-born population. This study contributes to the existing literature on immigrant education by examining the effects of place of origin on educational attainment, controlling for other factors that are associated with educational attainment. Although there are several studies on the educational attainment of immigrant men, few studies made the distinction between men and women. This study was able to contribute that aspect to existing literature and it found that although immigrant men have higher odds of attaining a high school education, females have greater odds at the associate and bachelor's degree levels. However, immigrant men have higher odds of attaining a graduate or professional degree.

In addition to distinguishing between men and women when examining the educational attainment of immigrants, this study also contributed to existing literature by making a distinction between place of origin and race. This distinction is especially important because although immigrants from certain parts of the world tend to be more racially homogeneous, the history, and dynamics of the United States tend to shift the socio-economic attainments of different races, especially in education. Race dynamics play a role in educational attainment given the history of this country. In fact, this study found that Black, Hispanic, and multi-racial immigrants tend to have less odds of educational attainment at most levels of education than Asian and White immigrants who have greater odds of education than even the native-born population at most levels of education. In other words, an immigrant who is both African and White has greater odds

of educational attainment than an immigrant who is African and Black. This distinction reveals that race plays a bigger role in accessing the educational attainment of immigrants that place of origin.

Another contribution made to existing literature by this study is through the examination of the effects of period of entry on the educational attainment of immigrants. Immigrants who came to the United States after 1965 had greater odds of educational attainment than those who came before 1965. Immigrants who came after 1965 came at a time when the quota system was eliminated and after the Diversity Visa was enacted, implying that the United States was becoming more open and accepting of a diverse nation. As a consequence of these policies, the country is faced with operating with a more diverse population. Due to this, it is important for the United States to take into account specific variables such as race when making policies related to education in order to alleviate the disparities between certain racial groups.

In addition to political implications based on race, there are also political implications relating to citizenship status based on the findings of this study. The study found that citizens had greater odds at educational attainment at all levels and given the interdependence of education and the labor force, citizens are thus at greater odds of joining the labor force and becoming contributing members to the economy. In order for the United States to maximize its fullest economic potential, the country should consider various policies to improve the naturalization process for immigrants who are already in the county.

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