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## **Income Attainment and Hispanic Female Householders: Examining Educational Attainment, Labor Attachment and Geographic Region**

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

INCOME ATTAINMENT AND HISPANIC FEMALE HOUSEHOLDERS:  
EXAMINING EDUCATIONAL ATTAINMENT, LABOR ATTACHMENT  
AND GEOGRAPHIC REGION

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

SOCIAL WELFARE

by

Lillian Anne Abreu

2021

To: Dean Tomas R. Guilarte  
R.Stempel College of Public Health and Social Work

This dissertation, written by Lillian Anne Abreu, and entitled Income Attainment and Hispanic Female Householders: Examining Educational Attainment, Labor Attachment, and Geographic Region, having been approved in respect to style and intellectual content, is referred to you for judgment.

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

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Date of Defense: November 2, 2021

The dissertation of Lillian Anne Abreu is approved.

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R.Stempel College of Public Health and Social Work

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Andrés G. Gil  
Vice President for Research and Economic Development  
and Dean of the University Graduate School

Florida International University, 2021

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## DEDICATION

I would like to dedicate this body of work to my mother, Esther Abreu, the most brilliant woman I know. Gracias Mami por tu sacrificios. Sin duda, siempre seras la mujer mas inteligente que conosco, esta publicacion academica te la dedico a ti. To my hero, my late aunt, Marcia J. Casañas, thank you for teaching me how to woman up and succeed in the face of adversity. To my late father, Juan Abreu, and sister Lourdes E. Huguet, your absence and memory have fueled my desire to live my life to the fullest, and since I know you are watching me from above, I dedicate this to you.

## ACKNOWLEDGMENTS

I wish to express my deepest gratitude to my dissertation committee for their continued support of my academic endeavors. I am especially indebted to Dr. Mario De La Rosa, my dissertation chair and mentor, whose support and guidance made my academic dream a reality, your brilliance is unrivaled, and I will always be indebted to you. And last but not least, I would like to thank Dr. Lillian Lodge Kopenhaver for her continued support of my academic trajectory and professional journey. Thank you for believing in me; your words of wisdom and encouragement will never be forgotten.

ABSTRACT OF THE DISSERTATION

INCOME ATTAINMENT AND HISPANIC FEMALE HOUSEHOLDERS:  
EXAMINING EDUCATIONAL ATTAINMENT, LABOR ATTACHMENT, AND  
GEOGRAPHIC REGION

by

Lillian Anne Abreu

Florida International University, 2021

Miami, Florida

Mario De La Rosa, Major Professor

This investigation contributed to the literature by advancing scientific inquiry and addressing the gap in the literature related to social and economic mobility among Hispanic female householders living in the United States. The dissertation achieved its proposed aims by conducting secondary data analysis of the Integrated Public Use Microdata Series – Current Population Survey, Annual Social and Economic Supplement dataset (Flood, Kind, Rodgers, Ruggles, & Warren, 2020). The investigator applied repeated cross-sectional design to make inferences at the aggregate population level and conceptually frame analysis of a nationally representative sample of Hispanic female householders' a decade after the Great Recession by analyzing ten years of data from 2009-2019.

All interpretations and inferences of results are based on an aggregated view of the target population. Findings were tested at a minimum of the .05 level of significance and 95% confidence intervals. Total sample for analysis includes (N= 58,135,354)

participants, (N=33,323,878) Native-born, and Foreign-born (N=24,811,476). The framework for analysis includes descriptive analysis, univariate analysis of sociodemographic predictor variables, bivariate regression analysis, multivariate linear regression analysis, and moderation analysis to determine the impact of sociodemographic predictors (i.e., educational attainment, labor attachment, and geographic region of residence) and moderating variables (i.e., presence of children and presence of disability) on total pre-tax personal income (i.e., income attainment), the outcome variable.

Bivariate regression analysis of education and labor correlates on the total pre-tax income revealed significant ( $P < 0.001$ ) income differences among the cohorts of female householders, showing a mean total pre-tax annual income for the Native-born cohort of \$27,902 and \$20,937 for the Foreign-born cohort. Multivariate linear regression analysis significantly ( $P < 0.001$ ) revealed that for the Native-Born cohort, higher educational achievement across all academic levels and slightly higher attachment to the labor market than the Foreign-Born cohort. Findings also significantly suggest ( $P < 0.001$ ) that participants in the West region obtained a high school degree and were employed, having the highest prevalence rates and a positive relationship with income attainment. Findings for the two-way moderation analysis also significantly suggest ( $P < 0.001$ ) high moderation interactions for householders with a bachelor's degree who reported disability and householders who were unemployed and reported a disability.



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## ABBREVIATIONS AND ACRONYMS

Annual Social and Economic	ASEC
Bureau of Labor Statistics	BLS
Current Population Survey	CPS
Deferred Action for Childhood Arrivals	DACA
Earned Income Tax Credit	EITC
Equal Pay Act	EPA
Federal Poverty Line	FPL
Integrated Public Use Microdata Series	IPUMS
Official Poverty Measure	OPM
Supplemental Poverty Measure	SP

## **1. Introduction**

For this dissertation, the investigator draws on the insights of existing scholarly literature to examine the problem of economic insecurity among Hispanic female-headed households living in the United States. The investigator seeks to address the proposed aims of this study by examining the socioeconomic position of these women ten years after the Great Recession, by examining data years 2009 – 2019. Addressing the literature gap requires framing the problem of economic insecurity for Hispanic women from a perspective that considers the sociocultural systems navigated by Hispanic women and the cumulative disadvantage experience that has historically defined the economic narrative for women in the U.S. The investigator will examine the target population through the conceptual lens of their social and cultural experiences to better understand the risk and protective factors associated with income attainment and mobility. From the onset, female-headed households are disadvantaged by the very nature of their gender. This study will expand the knowledge by investigating how Hispanic women are faring across multiple socioeconomic indicators and geographic regions across the United States to determine better their entrance or exit from poverty and economic insecurity. This manuscript will be composed of five chapters, which are the following: (1) Introduction (2) Background (3) Research Methods (4) Results (5) Discussion.

### **1.1 Problem Statement**

Women in all racial and ethnic groups were more likely than white, non-Hispanic men to be in poverty. To counteract the experience of poverty, women must strive toward economic security. They must educate themselves for today's labor market, obtain work, and earn enough income to meet basic needs. Moreover, they must have the financial

ability to contribute to their household, save for emergencies, and prepare themselves for advanced aging and retirement. Ultimately, being poor or financially insecure is a series of events that build upon each other, altering social conditions and lifespan trajectories. The gender attainment gap for women has lasting consequences for families and the economy, specifically for women of color and Hispanic origin who face disproportionate attainment gaps in education, labor, and income compared to other racial and ethnic groups.

In the United States, Hispanic women continue to be overrepresented among the population in poverty. In 2017, the United States Census Bureau, American Community Survey, reported an estimated 6.2 million Hispanic women were living below the poverty level (Fontenot, Semega & Kollar, 2018). Five-year estimates of the data suggest that from 2013 to 2017, 6.7 million Hispanic women were living below the poverty line, an aggregate increase in the number of Hispanic women living in poverty over a five-year period (Fontenot et al., 2018). In 2018, Poverty rates for Hispanics in female-householder families were 31.1% (U.S. Census Bureau, Current Population Survey - Annual Social and Economic Supplements, 2018). Female householders with lower educational attainment, higher unemployment, and lower wages are predisposed to higher poverty rates and decreased economic mobility (Blau & Winkler, 2017). Moreover, the cumulative effects of these factors lead to a reduced capability to accumulate lifetime assets and wealth, thus hindering female householders from transferring generational wealth and paving a future of economic security for their families. According to the report, *Poverty in the United States in 2018: In Brief*, female householder families with no spouse present have historically had higher poverty rates than married-couple families

and families with a male householder and no spouse present. This information holds in 2018, where female householder families experienced a poverty rate of 24.9%, compared with 4.7% for married-couple families and 12.7% for male householder families (Dalaker, 2018).

## **1.2 Significance of the Study**

Meaningful contributions have been made in the past decade to identify and explain increased income inequality and the reduction in income mobility for the general population. However, none of that work has focused on differences by individual race or ethnicity (Piketty and Saez, 2003; Chetty et al., 2014; Kopczuk et al., 2010). This study looks to remedy this problem and make several novel contributions to social welfare to address the problem of poverty and economic mobility among Hispanic female heads of households. The study will examine multiple areas that have previously been studied and integrate new investigative components to create an aggregate understanding of the complexities that emerge for Hispanic women who are solely financially responsible for their households.

At the core of this study is the notion that social welfare researchers must tackle the complexities of "ethnocentric" research of governmental administrative data to effectively improve overall outcomes for a growing segment of the United States population. Many large-scale poverty and economic mobility studies tend to generalize Hispanic households and make inferences from non-representative samples. Economic mobility studies such as the one conducted by Akee, Jones, and Porter (2019) are pioneering how researchers investigate income mobility across all races in the U.S. Nevertheless, Akee and colleagues (2019) caution that treating the large race and ethnic

groups as homogeneous may ignore significant changes at the extreme ends of these populations and hide emerging concerns or successes. To address this issue, this study will operate as an in-depth examination into the households of Hispanic female heads of households in the United States.

A central tenet of this novel baseline study is that aggregate household incomes yield essential information about income attainment, mobility, and poverty. Moreover, examining intrahousehold characteristics and socioeconomic indicators is vital for understanding economic vulnerability and security. Particularly for Hispanic women who are a severely understudied population in poverty and income mobility. Research by Chetty and colleagues (2018) contend that racial and ethnic disparities and their association to income levels have been heavily studied and debated, with proposed explanations ranging from residential segregation (e.g., Wilson 1987; Massey & Denton 1993) and discrimination (e.g., Pager 2003; Eberhardt et al. 2004; Bertrand and Mullainathan 2004) to differences in family structure (e.g., McAdoo 2002; Autor et al. 2016) and even genetics (e.g., Rushton and Jensen 2005). Additionally, the low rate of intergenerational upward mobility has also become a public policy concern (Mazumder, 2014) since upward mobility is related to education, income equality, social capital, and family structure (Black & Devereux, 2011; Chetty et al., 2014), economic mobility for the most vulnerable populations should be investigated in consideration of demographics and socioeconomic status.

Scholarly contributions have established a direct link between education and economic outcomes (Chetty, Friedman, & Rockoff, 2014; Farinde, Adams, & Lewis, 2014), affirming interactions between these two systems. Scholars also contend that



racial and ethnic disparities in educational attainment during a period of rising returns in education are primarily due to increased wage and income disparities among women (Bound & Dresser, 1998; Anderson & Shapiro, 1996; Blau & Kahn, 1997), thus affirming the notion that the path to educational attainment is by way of increased income mobility. It has also been established that differences in job mobility patterns among women of different racial/ethnic groups (Alon & Tienda, 2005), as well as differences in the size of the motherhood wage penalty by race/ethnicity (Budig & England, 2001, Glauber, 2007, Waldfogel, 1997), have further established the widening of the gender gap among women from certain racial/ethnic groups, making the case that income mobility by gender and racial/ethnic background as the presence of children in the household is an area of research that needs further examination. To address this issue, this study will explore the effects of education, labor, and geographic region of residence on income attainment to create a baseline and understand how these households have fared ten years after the Great Recession. Providing a current observation of the economic state of Hispanic female heads of households in the United States.

### **1.3 Study Purpose**

This study aims to address the understudied body of knowledge regarding economic insecurity and income attainment among Hispanic female heads of households. The application of a repeated cross-sectional study design will examine pre-tax income, education, employment, and geographic region correlates over ten years to explore the sociodemographic risk and protective factors associated with income attainment among Hispanic female householders living in the United States.

The study purpose is grounded on the following aims: 1) To examine the relationship between (a) educational attainment, (b) labor attachment, (c) geographic region of residence on income attainment, the outcome variable while controlling for age, citizenship status, and Hispanic origin among Native-Born and Foreign-Born female heads of households. 2) To examine the moderating effects of the presence of children in households on (a) educational attainment, (b) labor attachment while controlling for age, citizenship status, and Hispanic origin on income attainment, the outcome variable while controlling for age, citizenship status, and Hispanic origin. 3) To examine the moderating effects of household head disability status on (a) educational attainment, (b) labor attachment on income attainment, the outcome variable while controlling for age, citizenship status, and Hispanic origin.

This study achieved its proposed aims by conducting secondary data analysis of the Integrated Public Use Microdata Series – Current Population Survey (IPUMS-CPS), Annual Social and Economic Supplement (ASEC) dataset (Flood, Kind, Rodgers, Ruggles, & Warren, 2020). The investigator examines a subset of Hispanic female heads of households during the post-Great Recession period, between 2009 and 2019, and will frame an analysis investigating the socioeconomic position of both Native-Born and Foreign-Born cohorts of Hispanic female heads of households living in the United States. This will be done by examining pre-tax income, education, employment, and geographic region correlates over a ten-year period.

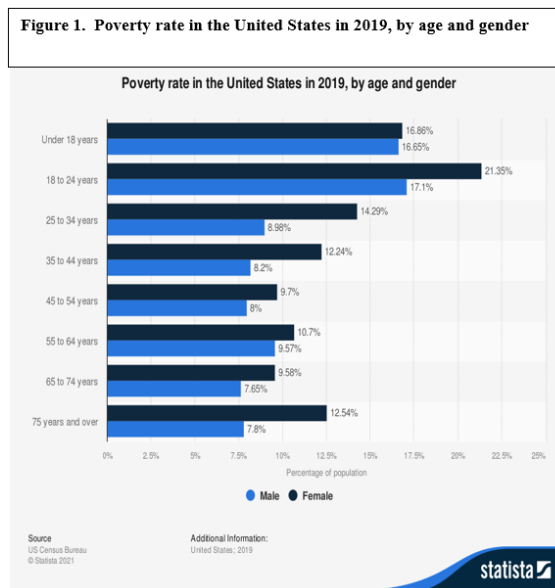
## **2. Background**

The comprehensive review of the literature presented in this study addresses the rising problem of economic insecurity for Hispanic female householders in the United States post-Great Recession. The objective of the literature review and presentation of the conceptual framework of the study is to provide a broad context for which to understand the predictor variables (i.e., educational attainment, labor attachment, and geographic region of residence); outcome variable (i.e., income attainment); and moderating variables (i.e., presence of children and presence of disability) for this study. This will be accomplished through the following areas of examination in the literature review: 1) Poverty in the United States; 2) Poverty Measurement; 3) The Great Recession; 4) Target Population: Hispanic Female Heads of Household; 5) Underlying Factor Responsible for Income Mobility; 6) Educational Attainment; 7) Labor Attachment; 8) Geographic Region 9) Income Attainment; 10) Presence of Children; 11) Presence of Disability, and 12) Citizenship Status and Hispanic Origin. This study will also use the word Hispanic and Latino interchangeably.

### **2.1 Poverty in the United States**

Since the War on Poverty in 1964, the problem of poverty has evolved into a new set of challenges as the United States has rapidly become an unequal nation. This increasing economic inequality is primarily due to the increase in the gap in earnings between America's most affluent and the rest of the country. Longstanding structural economic policies have created and fueled significant income disparities amongst groups living in the U.S., and research has consistently shown (Harrington, 1962); (Edelman,

2012); (Edin & Shaefer, 2015) persistent poverty as the root problem of America's inequalities. The (U.S. Census Bureau, Income and Poverty in the United States, 2018) estimates the official poverty rate for 2018 as 11.8%, with approximately 38.1 million living in poverty in the United States. Furthermore, the overall national poverty rate by gender was 10.6.% for males and 12.9% for females. As seen in Figure 1, the illustration shows the poverty rate by age and gender in 2019, demonstrating that women outnumber men across all age groups.



The literature points to a backdrop of a demographically complex nation where poverty does not strike all racial and ethnic groups equally. According to the (U.S. Census, 2018) *Income, Poverty, and Health Insurance Coverage in the United States*, Native Americans have the highest poverty rate in the U.S. at 25.4%, followed by Blacks at 20.8%, and Hispanics (of any race) at 17.6%. These rates are much lower than those reported of non-Hispanic white at 8.1% and Asians at 10.1% (Berchick, Barnett, & Upton, 2019). Burton, Mattingly, Pedroza & Welsh (2017) suggest that looking back

over the past 35 years at trends in poverty by race and ethnicity, one can make a case for two Americas, one composed of Blacks, Hispanics, and Native Americans experiencing high-poverty America, and another made up Asians and non-Hispanic white experiencing (relatively) low-poverty rates.

## **2.2 Poverty Measurement**

Several studies have also shown that individuals in households headed by females are less likely to exit poverty (Eller 1996; McKernan & Ratcliffe 2002, 2005; Naifeh, 1998; Ribar & Hamrick 2003; Stevens 1994), and households with more children have a lower probability of exiting poverty. The United States official poverty measure (OPM) guides government poverty policy, developed in the 1960s, and programs are now widely recognized as outdated. Many critics claim that the measure does not consider rising living standards, geographic differences in the cost of living, and variations in household budgets with tax obligations. Based on these standards, federal poverty thresholds (FPL) are determined as a function of annual income vs. family (household) size; the 2021 guidelines range from \$12,880 per year for a single-person household to \$44,660 for a household of eight.

The study will examine poverty data by family structure using the official poverty measure (OPM), along with a definition of "family" that the Census Bureau has used in the Current Population Survey (CPS) for four decades. The OPM is the U.S. assessment of economic disadvantage based on household income and the cost of basic necessities, as determined by an absolute standard of living. It does not consider non-cash government benefits, nondiscretionary spending, or variation in living costs across regions.

The OPM is often criticized for defining pre-tax money income, not accounting for all the resources at a family's disposal. It is argued that pre-tax money income does not include taxes or non-cash public benefits or health insurance, claiming these benefits should be included as part of family income. In the early 1990s, in response to continued criticism of the poverty threshold, congressional hearings led to the establishment of the National Academy of Sciences Panel on Poverty (Short & Garner, 2002). Thirty-six years later, in 2010, the supplemental poverty measure (SPM) was designed, and unlike the OPM, the SPM was intended to advance our understanding of poverty, not to determine eligibility for government benefits. The supplemental poverty measure (SPM) is now another form of economic disadvantage assessment that considers household income, non-cash government benefits, nondiscretionary expenses (healthcare, childcare, and work-related expenses), and regional differences in the cost of living.

### **2.3 The Great Recession**

The study is a retrospective analysis of data from the Current Population Survey (CPS) post-Great Recession between 2009 and 2019. The Great Recession began as a fiscal crisis but advanced into a prolonged employment crisis. At the start of the recession, in December 2007, the median duration of unemployment was 8.4 weeks. By June 2009, the median duration had risen to 17.4 weeks, and it continued to rise beyond the end of the recession, peaking at 25.5 weeks in June 2010 (Taylor, Kochhar, Fry, Velasco & Motel, 2011 pg. 12). Van Treek's (2012) analysis and discussion of *Income Inequality as a Cause of the Great Recession* suggests rising inequality contributed to the

fall in the personal saving rate in U.S. households, which later led to the rise in personal debt that triggered the Great Recession.

During the Great Recession, households experienced severe material hardship and an overall decline in asset ownership and net worth. Sustained increases in expenditures coupled with unemployment and wage gaps inequities led to the crippling of the middle-class and lower-income households during the Great Recession. In the aftermath of the Great Recession, the poor were now a cross-section of urban, suburban, and rural populations across all racial and ethnic populations. According to the report *Black and Hispanic Women Lag in Recovering from the Recession*, many women and girls have not yet recovered from the impact of the Great Recession, referring to how the unemployment rate in 2016 was higher than the pre-recession rate for all women (of all racial and ethnic groups) in all age cohorts (Institute for Women Policy Research, 2017). Leigh and Blakely (2017) also hold the position that while the recession was officially declared to have ended in the United States in mid-2009, the U.S. and the rest of the global economy has not yet fully recovered.

#### **2.4 Target Population: Hispanic Female Heads of Household**

As of June 2020, the Hispanic population of the United States is 60.5 million, constituting 19% of the nation's total population, making people of Hispanic origin the nation's largest ethnic or racial minority (U.S. Census Bureau, Population Division, 2020). Hispanics of Mexican descent, followed by Puerto Ricans, Cubans, Salvadorans, and Colombians, are the largest Hispanic origin groups. In 2019, the last year being examined in this study, there were an estimated 29 million Hispanic women in the United States, of which 7 million are under the age of 15, and 22 million are 15 years and over

according to (U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2019). From this group, 85.8 % are native-born, 14.2 % are foreign-born, 7.2 % are naturalized citizens, and 7% are not a citizen. Hispanic girls and women are one in five women in the U.S. and will comprise nearly one-third of the country's female population by 2060 (Gandara, 2015). Gandara proposes that many barriers that hold Hispanic women back are related to poverty, suggesting that one-fourth of Hispanic women live below the poverty line. More than half live in near-poverty due to low levels of education that lead to a lack of opportunity in the job market, where Latinas make only 56 cents for every dollar earned by white males.

### **3. Underlying Factors Responsible for Income Mobility**

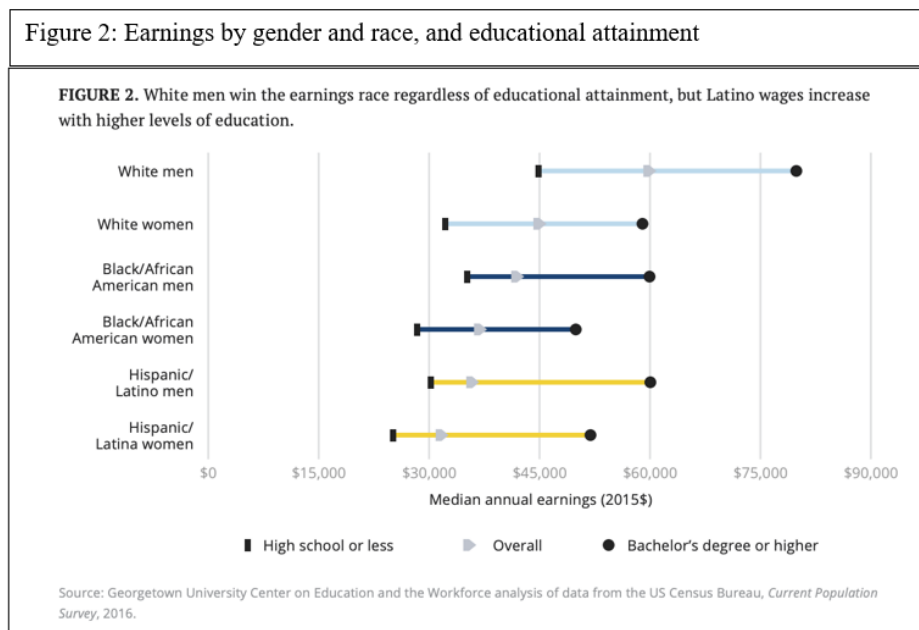
#### **3.1 Educational Attainment**

This study will examine educational attainment to explore how educational attainment or lack of thereof affects income attainment for the target population. The well-documented gap in academic achievement between Hispanic children and their non-Hispanic peers is one area of great concern. Hispanic students navigate the educational system, positioned at a disadvantage and with inadequate resources, undermining their academic success resulting in low rates of preschool, high school, and college educational attainment. Hispanic children score lower than their non-Hispanic White peers by early elementary school on reading and mathematics assessments (Hempill & Vanneman, 2011). In 2013, more than one in five Hispanic women between 25 and 29 years of age had not graduated from high school (Gandara, 2015). Fewer than one in 12 women are



not graduating from high school for all other ethnic groups (National Center for Education Statistics, Digest of Education Statistics, 2014).

Overall, there are significant differences in educational attainment when comparing Hispanic women to Hispanic men and the general population. The Georgetown University Center on Education and the Workforce analysis of data from the (U.S. Census Bureau - Current Population Survey, 2016) suggests that Hispanic women end up last in the earnings pecking order of those with degrees in higher education, suggesting Hispanic women with a bachelor's degree are still lagging among most groups. The highest earners are White men, followed by White women, Black men, Black women, Latino men, and Latina women (See Figure 2).



Carnavale and Fasule (2017) penned the executive summary *Latino Education and Economic Progress: Running Faster but Still Behind*, in where they capture the experience of ethnic women by explaining that, like all minorities, the working class, the poor, women in general, and Hispanic women have used education as their primary

strategy to escape patriarchy, as well as class and racial and ethnic disadvantages. They emphasize that Hispanic women have higher completion rates at all levels of postsecondary attainment compared to Hispanic men and, in the case of certificates and associate degrees, higher completion rates than White men. However, Hispanic women tend to dominate in lower-paying fields of study, and even in high-paying fields of study, they earn less than Latino men. Moreover, for Hispanic women to have similar median earnings to White men, Hispanic women need to earn two additional degrees.

### **3.2 Labor Attachment**

This study will examine labor attachment to understand how job placement affects income attainment among the target population. Ensuring the U.S. population has access to employment is essential to addressing poverty and economic insecurity. Mounting economic research corroborates that Hispanic women face weaker labor sector outcomes than other groups, including lower earnings, higher occupational segregation, and lower labor force participation—all of which ultimately produce greater economic risk for their families and diminish economic growth. For the women who do have paid employment, occupational segregation and earnings gaps are a continuing problem (Anderson, Bauer, Nunn & Shambaugh, 2019). Anderson and colleagues (2019) suggest that more than half of prime-age women outside the labor force list caregiving as their reason for non-participation. Many of these women would take employment if employment and childcare were easier to balance.

Growing evidence suggests that poor labor market attachment may be associated with Hispanic poverty (Garcia 2011; Lopez 2013). Black and colleagues (2017) suggest that since the early 1970s, women across all ethnic groups have seen significant increases

in labor force participation. However, in 2000, labor force participation for Black and White women declined, from an 80 percent peak in 2000 to about 77 percent in 2016. Hispanic women's participation declined in parallel, with rates about ten percentage points lower than the two other groups. In 2017, the working-poor rate was also higher for women at 5.3% than for men at 3.8% (U.S. Bureau of Labor Statistics, Current Population Survey, Annual Social and Economic Supplement, 2017).

Black, Hispanic, and Native American women are more likely than white or Asian women to be among the working poor. The Bureau of Labor Statistics (BLS) report, *A Profile of the Working Poor, 2017*, estimates that in 2017 the number of women classified as working poor were 3.8 million amongst those who were in the labor force for 27 weeks or more, and was higher than that of men at 3.1 million. Mounting research suggests that while labor productivity has been increasing, this has not translated into increasing wages (Bivens & Mishel, 2015; DeNavas-Walt, Proctor, & Lee, 2006). Hispanics are more likely than any other racial and ethnic group to be in the labor force, yet they are concentrated in low-wage jobs and are more than twice as likely to live in poverty as Whites (Stepler & Brown, 2016).

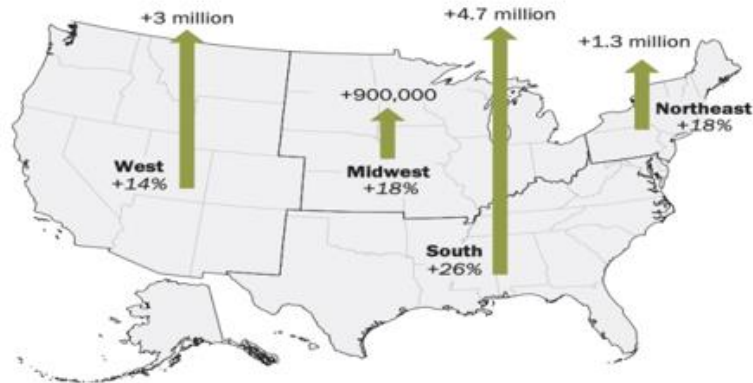
### **3.3 Geographic Region**

Between 2010 and 2019, the Hispanic share of the total U.S. population increased, accounting for slightly more than half (52%) of all U.S. population growth (Noe-Bustamante, Lopez & Krogstad, 2020). According to Pew Research Center analysis of government data, by region, the South saw the fastest growth in Latino population, increasing by 26% from 2010 to 2019, followed by the Northeast (18%), Midwest (18%), and West (14%) as seen in Figure 3.

**Figure 3: Latino population growth by region**

**South has seen the nation's biggest Latino population growth since 2010**

*Latino population growth, 2010-2019, by region*



Note: Population estimates are as of July 1, 2019. Hispanics are of any race.  
Source: Pew Research Center analysis of U.S. Census Bureau Vintage 2019 estimates for 2010-2019.

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This study will examine place of residence to examine the influence of geographic region of residence on income attainment. Household geographic region identifies the region where the respondent housing unit is located. William Julius Wilson (1987) suggests in the publication, *The Truly Disadvantaged: The Inner-City, the Underclass, and Public Policy*, that when the poor are residentially isolated from the non-poor, they are spatially and socially cut off from mainstream resources, opportunities, and role models. Research in this area has consistently shown that individuals who live in high-poverty areas fare worse on a wide range of economic, health, and educational outcomes (Jencks & Mayer, 1990), (Brooks-Gunn et al., 1993), (Cutler & Glaeser, 1997), (Leventhal & Brooks-Gunn, 2000), (Sampson, Morenoff, & Gannon-Rowley, 2002).

Economic security is distributed unequally across states in the United States, and women fare differently depending on where they live. Scholars have recognized the

spatial patterning of poverty in the United States and the role of place in aggravating and reproducing poverty (Adams & Duncan 1992; Glasmeier 2006; Lobao 2004; Lobao & Saenz 2002; O'Connor, 2001; Weinberg 1999). Neighborhoods with few resources, poor-quality housing, and isolated from transportation and anchor institutions impose stress upon households. The spatial dimensions of neighborhoods, such as dilapidated housing, vacant units, and distance from jobs (Ihlandfeldt & Sgoquist, 1990; Jargowsky & Bane, 1991), triggers an exodus of resources from the neighborhood that results in rising poverty levels.

Future research on ethnic group migration between neighborhoods of varying economic classes is essential for the growing population of Hispanics whose geographic mobility can help us understand the differential opportunity patterns resulting from residential placement. Prior research conducted in this area points to how little we know about the patterns of Hispanic residential mobility between neighborhoods of varying socioeconomic status compared to those of non-Hispanic whites and Black communities and to the degree to which women are persistently hindered by living in impoverished neighborhoods. Systemic disparities and economic inequality, whether captured by wages, earnings, or family income, can have long-lasting implications for generations of households who are unable to move beyond the interconnectedness of factors that contribute to economic insecurity.

The study conducted by the Institute for Women's Policy Research (*Status of Women in the United States: Employment & Earnings Index and the Poverty & Opportunity Index, 2016*) examined U.S. Census data in each of the 50 states across key indicators related to employment and earnings (i.e., earnings, wage gap, labor force

participation, and occupations), and poverty and opportunity (i.e., poverty, health insurance coverage, education, business ownership). Their study suggests that Mississippi, West Virginia, Idaho, Louisiana, and Alabama scored the worst states for women on the employment and earnings index. Mississippi, Louisiana, Kentucky, West Virginia, and Arkansas scored the lowest in the poverty and opportunity index, demonstrating that women are experiencing overwhelming disparities and spatial inequality related to their geographic region of residence.

### **3.4 Income Attainment**

This study will examine household income to better understand income attainment for this study's target population. In 2019, among women who hold full-time, year-round jobs in the United States, white, non-Hispanic women were paid 79 cents, Black women are typically paid 63 cents, Native American women, 60 cents, Latinas just 55 cents, and Asian American and Pacific Islander women are paid as little as 52 cents (Hegewisch & Tesfaselassie (2018). Their wage gap study revealed that the three most disadvantaged groups were Black women, Native Americans, and Hispanics. Suggesting that Hispanic women make disproportionately less than non-Hispanic White counterparts and women across all racial and ethnic backgrounds. These disparities exponentially affect a growing portion of our female population, making them more susceptible to poverty and its implications (Jackson, 2013).

Real median earnings for those who had worked full-time year-round was \$55,291 for men and \$45,097 for women (Semega et al., 2019). The real median income for family households was \$61,518 for a male with no wife present and \$41,703 for females with no husband present. For nonfamily households, the real median income

was \$45,128 for male households and \$30,748 for female households. Additionally, real median income by nativity of householder for native Born were \$64,423; foreign-born \$57,776; naturalized \$65,520; and non-naturalized legal residents were \$51,944.

Few observers disagree that economic inequality in America has grown since the 1970s, whether captured by wages, earnings, or family income (McCall & Percheski, 2010). Since the 1970s, economic inequality in the United States has been consistently rising, leading to adverse societal outcomes (Piketty & Saez, 2014). Data from *Income and Poverty in the United States: 2018* suggest that per racial/ethnic group, Blacks and Hispanics are overwhelmingly lagging behind in real median incomes, and so are female headed households without no spouse. Their study reported that for 2018 the real median income of Asian households was \$87,194, while the real median incomes of non-Hispanic white were \$70,642, Black was \$41,361, and Hispanics were \$51,450 (Semega, Kollar, Creamer & Mohanthy, 2019), further demonstrating the income disadvantages faced by Hispanics in the U.S.

### **3.5 Presence of Children**

This study will treat the presence of children as a moderating variable to examine how motherhood influences the relationship between predictor variables and income attainment among the target population in this study. For Hispanic families, parenthood and the significance of socially related values and defined social roles are critical for understanding how parents perceive and process the responsibility of being a parent. The concept of familism is particularly significant for Hispanic mothers as it reflects the importance of strong family ties, shared daily activities and living, and an expectation of family as a primary source of support. Hispanic mothers struggle to reconcile the

expectations of the norms of parenting with being the ideal worker who financially supports their home. Moreover, the consequences of parenthood at work differ dramatically for men and women in Hispanic families, as women are expected to raise their children and

Household income among Hispanic women remains chronically low, earnings from jobs with low wages and unreliable or irregular hours; can interfere with families' economic mobility making it challenging for female householder mothers to attain the necessary income to exit poverty or attain economic security. Mothering for Hispanic women in the United States may be embodied by mothers' limited opportunities in the U.S. labor market, given their immigration pathways to the United States, their educational backgrounds, language proficiencies, socioeconomic status, and availability of affordable, high-quality childcare options (Vesely, Goodman, Ewaida, & Kearney, 2014; Vesely, Letiecq, & Goodman, 2017).

### **3.6 Presence of Disability**

This study will treat disability as a moderating variable to examine how the presence of disability influences the relationship between predictor variables and income attainment among the target population in this study. Women with disabilities attempting to avoid poverty often face difficult choices. Being disabled creates additional costs and adversely affects employment possibilities and earnings. Limitations in working due to disabling physical, emotional, or mental conditions have significant consequences for individuals, families, and society. Women who become unemployed due to disabilities lose income and face additional risk factors, making it more challenging to become reemployed (Berchick, Gallo, Maralani, & Kasl, 2012; Kalousova & Burgard, 2014).



Increasing evidence such as poverty level and access to jobs can significantly impact disability outcomes (Tora-Rocamora et al., 2015; Young, Cinfuentes, Waskiak, & Webster, 2009; Fan, Foley, Rauser, Bonauto & Silverstein, 2013). Hispanic women living in poverty are more likely to have chronic illnesses and environmental trauma that lead to disabilities. Women who work in more physically demanding jobs are also more likely to suffer workplace illnesses and injuries. This can be especially true for Hispanic women who already have poorer education, employment, and income attainment outcomes. Moreover, limited access to high-quality medical care and chronic health conditions associated with functional impairments that can limit work, particularly diabetes and obesity, which have been linked to Hispanics, have become increasingly prevalent at all adult ages (Buchmueller & Valletta, 2017; Martin, Freedman, Schoeni, & Andreski, 2010; Pransky et al., 2016).

### **3.7 Citizenship Status and Hispanic Origin**

This study will treat citizenship status Hispanic origin as a covariate to control for and examine the effects of citizenship status and country of origin at birth. Participants in the study will be stratified into household groups according to their U.S. citizenship status. Native-born households will include all female heads of households who are native-born. Foreign-born households will include all female heads of households whose country of origin is not the United States. Hispanic origin is ancestry, lineage, heritage, national group, or country of birth.

The life trajectories of Hispanic women are not uniform and are often shaped by their personal and familial experiences of entrance and acculturation into the United States societal system. Hispanic women and their households experience significant life

events (e.g., separation from family, traumatic migration experiences, discrimination) and chronic stressors (e.g., poverty, unemployment, homelessness) (Vega et al., 1987). Studies argue that acculturation processes (e.g., altering behaviors and norms, isolation from former networks, and learning new modes of economic survival) can be stressful for migrants (Rogler, Cortes & Malgady, 1991). Findling and colleagues' (2019) findings from the 2017 national survey *Discrimination in America: Experiences and Views of Latinos* published by the Harvard T.H. Chan School of Public Health and the Robert Wood Johnson Foundation suggest that Hispanic immigrants report substantial and significant first-hand experiences of discrimination. In the context of institutional forms of discrimination, they suggested one in five Latinos (20 percent) reported experiencing discrimination in clinical encounters, while 17 percent avoided seeking health care for themselves or family members due to anticipated discrimination. A notable share of Latino's also reported experiencing discrimination with employment (33 percent applying for jobs; 32 percent obtaining equal pay/promotions), housing (31 percent), and police interactions (27 percent).

Understanding the immigrant narrative is critical to exploring the underlying factors contributing to Hispanic women's economic self-sufficiency. Immigrants are expected to integrate into the labor market, acquire human capital, including education, work experience, and language proficiency. Adult immigrants who are financially secure are in a better position to provide the resources to their families and support the overall collective well-being of the household. Borjas (2006) suggests the ultimate impact of immigration on the United States depends not only on the economic, social, political, and cultural shifts during the life cycle of the immigrant population but also on the citizenship

and immigration status of the immigrant additionally. Birthright citizenship and immigration status prescribe how individuals will be treated under the fundamental constitutional rights of citizenship and predetermine an individual's ability to navigate prominent public and private institutions, which administer access to vital resources such as healthcare, housing, education, and employment. It also determines if one can receive federal benefits and how the United States taxation laws levy taxes on resident and non-resident aliens. In this system, undocumented immigrants are vulnerable to exploitation, criminalization, and dehumanization (Menjívar & Abrego, 2012) compared to U.S. native-born and foreign-born citizens.

The relationship between immigration and economic mobility is complicated. Scholars raise the possibility of downward mobility among the post-1965 second generation (Gans 1992; Massey 1995; Portes and Zhou 1993). Suggesting that immigrants' expectation of eventual progress is thwarted by "second-generation decline" and "segmented assimilation," concluding that increasing income inequality of late-twentieth-century America has been accompanied by a growing divergence between highly paid jobs at the top and dead-end service jobs at the bottom. Moreover, continued signs of downward mobility—including high school abandonment, unemployment or underemployment, poverty, premature childbearing, and incarceration—are noticeable in all immigrant groups but are disproportionately present in some (Zhou et al., 2008).

## **4. Research Methods**

### **4.1 Secondary Data: IPUMS-CPS**

This study achieved its proposed aims by conducting secondary data of the Integrated Public Use Microdata Series of the Current Population Survey (IPUMS CPS), Annual Social and Economic Supplement (ASEC) dataset (Flood et al., 2020). Conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics, the Current Population Survey (CPS) is a monthly U.S. household survey initially designed to measure unemployment. IPUMS-CPS is an integrated set of data from 59 years (1962-2021) of the Current Population Survey's March Annual Demographic File and Income Supplement (March Supplement). The name for the March Supplement was changed to the Annual Social Economic Supplement (ASEC) in 2003. The ASEC provides the data for IPUMS-CPS, and variables in IPUMS-CPS are coded identically or harmonized. Making it compatible for linkage with the data from the U.S. decennial censuses that are part of the Integrated Public Use Microdata Series (Flood et al., 2020). IPUMS-CPS was initially conceived as a natural complement to the information provided in the decennial census data; it provided the best source of data for understanding social and economic patterns between decennial censuses (King & Tertilt, 2003).

The ASEC sample provides information about individual persons and households. The entire ASEC sample comprises households from all 50 states and the District of Columbia. A multi-stage stratified statistical sampling scheme selects about 72,000 housing units each month, and approximately 50,000 monthly interviews are completed. Sample households are selected from a complete address list of geographically delineated primary sampling units based on census addresses. The CPS sample is also a cluster sample and involves dividing each U.S. state into "primary sampling units"(PSU), most of which comprise a metropolitan area, a large county, or a group of smaller adjacent

counties. Then a systematic sample of housing units is drawn from within each chosen PSU, and ultimate sampling units (USU) are clusters of about four housing units. A third stage of sampling may be necessary when the actual USU size is extremely large.

The CPS questionnaire is a computerized questionnaire of more than 200 questions administered by Census Bureau field representatives through personal and telephone interviews. Each month during interview week, field representatives and computer-assisted telephone interviewers attempt to contact and interview the reference person/householder living in each sample unit selected to complete the CPS interview. Participants are interviewed for four months to complete the questionnaire, then removed from the sample for the next eight months, and then reinterviewed for another four consecutive months. The "Month in" Sample" for a given interview is the point in the rotation at which the reference person is interviewed.

Each full monthly sample is split into eight different subsamples called rotation groups. Each rotation group is itself a representative sample of the U.S. population. A given rotation group is interviewed for a total of 8 months, divided into two equal periods. The group is in the sample for four consecutive months, leaves the sample during the following eight months, and returns for another four months. The CPS 4-8-4 rotating panel design assures that for each month of the CPS, 50% of households are in the survey during the same month one year earlier, and the other 50% of households are in the CPS in the same month one year later.

## **4.2 Study Design**

This study is a retrospective, repeated cross-sectional analysis of Hispanic female heads of households living in the U.S. The investigator applied a repeated cross-

sectional design to make inferences at the aggregate population level and conceptually frame analysis of a nationally representative sample of Hispanic female householders' social and economic position a decade after the Great Recession of 2007-2009. CPS data years 2009 through 2019 were examined to analyze the target population for this study. Studies have shown that repeated cross-sectional designs are the primary framework for analyzing population aggregate change over time (Wang & Cheng, 2020). A longitudinal study design was ruled out since participants exited the survey after only two cycles of four-month interviews in 16 months. Since the CPS survey design only spans over 16 months, the investigator determined that additional measuring points were needed to assess the outcome variable income attainment with the specificity needed for a longitudinal analysis on income.

This study design isolated the heterogeneous experiences of a large sample of Hispanic women to measure the prevalence of varying levels of income attainment over ten years while assessing the exposure levels of predictors variables on the outcome variable. All participants included in the study were 15 years of age and over. Individuals in institutions, long-term care hospitals, nursing homes, and prisons were excluded, and only person-level data for the head of the household was collected for this study. The investigator in the design stratified the sample into two groups to differentiate between households headed by 1) Native-born U.S. citizens and 2) Foreign-born U.S. citizens and non-citizens. This grouping will help anchor and demonstrate a trajectory of analysis that stems from the respondent's birth country of origin. IPUMS CPS data is adequately suited for the proposed cross-sectional design because of its robust socioeconomic identifiers and detailed demographic information.

### **4.3 Data and Sample Collection**

A total of 11 samples from the Annual Social Economic Supplement IPUMS CPS, ASEC were extracted to capture the calendar years 2009 through 2019 and frame an analysis of Hispanic female householders' social and economic position a decade after the Great Recession of 2007-2009. The ASEC samples are not a compilation of statistics; it is composed of microdata, meaning each record is a person, with all characteristics numerically coded. A data extraction system enables users to select only the required samples and variables. Samples are organized into households, making it possible to study the characteristics of people in the context of their families or other co-residents (Flood et al., 2020). This study's data gathering methods were conducted by implementing the following procedures: 1) Data extraction from the IPUMS CPS 2) Data import into SPSS 3) Recoding variables for final analysis. First, the investigator accessed IPUMS CPS data without charge by completing the official online registration form. Once registered and agreeing to all terms and conditions for using the data set, the investigator executed the data extraction by accessing the IPUMS CPS data extracting system at <http://cps.ipums.org> with the assigned username and password.

The IPUMS CPS data extracting system prepares the variables and samples selected by the investigator. Available for extraction are person and household variables in the following subject areas: work, income, tax, poverty, migration, disability, insurance, veterans, and welfare. The extraction system also allowed the investigator to pre-select cases by gender and relation to head householder. Secondly, the extracted folder was securely downloaded to the investigator's laptop, along with a file-generated codebook and command files for importing the data into the IBM® SPSS® Statistics

statistical platform tool. Thirdly, selected files were decompressed and uploaded to the computer and onto IBM® SPSS®. The final raw data file was identified as cps\_00012.sav, and a copy was renamed LAAUser Extract cps\_00012.dat\_5621.sav for final analysis. Lastly, the variables extracted for analysis were examined to ensure the measurements presented in this study quantified the effects of the outcome, predictor, moderator, and control variables in a valid and meaningful way. A shortlist of variables was recoded to prepare the data for analysis, and a detailed explanation of the measures is provided in the next section. The total sample for this study includes (N= 58,135,354) participants. Included in the study were all participants who were female, Hispanic and heads of households. Members of the armed forces who live in off-base housing or on base with their families (N=31,593) were included in the ASEC and the study, but persons in the military who reside in military barracks are excluded. All non-Hispanic females were excluded from the study. Women who reported being legally married were also excluded from the study. A subset of the sample (N=33,323,878) identified as Native-born and was either born in the U.S., born in the U.S. outlying or born abroad of American parents. The remainder of the participants were identified as Foreign-born (N=24,811,476), and this group was comprised of foreign-born naturalized citizens and foreign-born non-U.S. citizens.

#### **4.4 Measures**

To explore the hypothesis presented in this study, the investigator examined 16 measures. Since this study was grounded on individual-level ASEC data, the investigator



included the ASECWT variable. The ASECWT is based on the inverse probability of selection into the sample and adjustments for the following factors: failure to obtain an interview; sampling within large sample units; the known distribution of the entire population according to age, sex, and race; over-sampling Hispanic persons; to give husbands and wives the same weight; and an additional step to provide consistency with labor force estimates from the basic survey. Additionally, the ASECWT person-level weight also makes adjustments for questions that were not part of the basic monthly survey questions asked every month in the CPS.

A complete listing of all measures included in the study is seen in Table 1. The measures included in this study are the following:

- Outcome Variable: (INCOT), the outcome variable specifies each respondent's total pretax personal income attainment from all sources for the previous calendar year. This measurement will quantify participant income attainment.
- This variable was recoded to (TotInc) to prepare the data for analysis and streamline values. *Predictor Variable #1*: (EDUC), a predictor variable, will be measured by the highest educational degree the head of household completes. This measurement will quantify participant educational attainment. This variable was recoded to (EducAtt) to prepare the data for analysis and streamline values. For purposes of multivariate analysis, each value for (EducAtt) was recoded into dummy variables, EducND (No Diploma), EducHS (High School Diploma), EducAA (Associates in Arts Degree), EducBA (Bachelor's Degree), and participants with a master's and doctorate (EducMD) was the last category level

for variable and the reference group for multivariate analysis. The investigator determined that participants should be compared to those with the highest level of educational attainment.

- *Predictor Variable #2:* (EMPSTAT), a predictor variable in this study, will be measured by the head of household employment status. This variable was recoded to (LaborAtt and AttLab) to prepare the data for analysis and streamline values. This measurement will quantify participant attachment to the labor market. For purposes of multivariate analysis, each value for (LaborAtt) was recoded into dummy variables, LaborE (Employed), LaborU (Unemployed), Labor R (Retired), LaborAF (Armed Forces), and all participants not in the labor force (LaborNF) is the reference group for multivariate analysis.
- *Predictor Variable #3:* Geographic Region: (REGION), a predictor variable in this study, identifies the participant's housing unit's geographic region. This variable was recoded to (RegionRe) to prepare the data for analysis and streamline values. All nine geographic divisions of the U.S. were collapsed into one of the four regions as identified by IPUMS CPS (1) Northeast Region, 2) Midwest Region, 3) South Region, and 4) West Region). For purposes of multivariate analysis, each value for (RegionRe) was recoded into dummy variables, Region\_NE (Northeast region), Region\_M (Midwest region), Region\_S (South region), and Region\_W (West region), was the variable assigned the reference group for multivariate analysis. The South region was identified as the reference group because it had the largest share of participants living in the region.

- *Moderator Variable#1: (NCHILD)*, the first of two moderator variables of interest, will be measured by the head of the household number of own children. This variable was recoded to (HHChild) to prepare the data for analysis and streamline values. The “Presence of Children” a moderator was included to evaluate how this condition probes and influences the relationship between predictor and outcome variable.
- *Moderator Variable#2: (DISABWRK)*, the second of two moderator variables of interest, will be measured by the head of household disability status. The “Presence of Disability” a moderator was included to evaluate how this condition probes and influences the relationship between predictor and outcome variable.
- *Age: (AGE)*, a control covariate, is a person's age at last birthday. This variable was recoded to (AgeRe) to prepare the data for analysis and streamline values.
- *Citizenship Status: (CITIZEN)*, a control covariate, reports people born in the U.S., Puerto Rico, or U.S. outlying areas born abroad, those born to American parents, and the citizenship status of foreign-born persons. This variable was recoded to (CitizenRe) to prepare the data for analysis and streamline values. To split the data and compare groups within the sample, the variable that examines citizenship status (CITIZEN) was recoded into a new variable (NatVSFor) to distinguish native-born and foreign-born participants and group them into the “Native-Born” and “Foreign-Born” cohorts. The Native-Born cohort includes participants born in the U.S., born in the U.S. outlying, and born abroad to American parents. The Foreign-born cohort is all other participants who identified as foreign-born and are naturalized citizens or not citizens.

- *Hispanic Origin (HISPAN)*, a control covariate, identifies and classifies Spanish/Latino origin ancestry, lineage, heritage, national group, or country of birth.
- A person-level weight (ASECWT) variable was included and is required for all investigators conducting analyses of individual-level CPS supplement data. Since the CPS relies on a complex stratified sampling scheme, it is necessary to use the provided weighting variable.

**Table 1: Measures**

<i>Variable</i>	<i>Description</i>	<i>Measurement</i>	<i>Recoded Variables</i>	<i>Dummy Variables and Values</i>
AGE	(Age)	Covariate - control	AgeRe	
ASECWT	(Annual Social and Economic Supplement Weight)	Weight Variable		
CITIZEN	(Citizenship status)	Covariate - control	TarPOP, CitizenRe, NatVFor	
DISABWRK	(Work disability)	Moderator Variable #2		
EDUC	(Educational attainment)	Predictor #1	EducAtt	EducND (No diploma), EducHS (Highschool Diploma), EducAA (Associates Degree), EducBA (Bachelor's degree), EducMD (Masters & Doctorate Degree)
EMPSTAT	(Employment status)	Predictor #2	LaborAtt	Labor_E (Employed), Labor_U (Unemployed), Labor_R (Retired), LaborAF (Armed Forces), Labor_NF (Not in the Labor Force)
HISPAN	(Hispanic origin)	Covariate - control		
INCTOT	(Total personal income)	Outcome Variable	TotINC	
MARST	(Marital status)	Demographic		
NCHILD	(Number of own children in household)	Moderator #1	HHChild	
OFFPOV	(Official Poverty Status)	Demographic		
RACE	(Race)	Demographic	RaceRe	
REGION	Geographic region of residence	Predictor #3	RegionRe	Region_NE (Northeast Region), Region_S (South Region), Region_W (West Region), Region_M (Midwest Region)
RELATE	(Relationship to household head)	Demographic		
SEX	(Sex)	Demographic		
SPMPOV	(SPM unit's poverty status)	Demographic		

*Note: All variables included in the study are included in the table.*

#### 4.5 Key Conceptual Terms

- *Disability Status* – Identifies persons who had a health problem or a disability, preventing or limiting the kind or amount of work.
- *Employment and Work Status*– Determines **whether** persons were part of the labor force and whether they were currently unemployed part-time or full-time.
- *Educational Attainment* – The highest level of education completed by the participant.
- Female-Headed Primary Families, No Spouse Present – Primary families maintained by a female householder with no husband present.
- *Household* – A household consists of all the people who occupy a housing unit.
- *Householder or Head of Household* – the person who rents or owns the residence. The designation “householder” is used in the roster to identify each household member’s relationship to the householder.
- *Income Attainment*: The highest level of total personal income for the participant.
- Labor Attachment: The share of participants who are employed regardless of part-time or full-time status.
- *Reference Person* – Head of the household participant and the person who owns or rents the housing unit.
- *Total Personal Income* – Refers to total pretax personal income or losses from all sources for the previous calendar year.

#### 4.6 Data Analysis

All analysis was performed on the IBM® SPSS® version 27 statistical analysis system and tested at a minimum of the .05 level of significance and 95% confidence

intervals. A power analysis was conducted using the G.Power 3.1 application. An a priori analysis was conducted for multiple linear regressions. The power analysis output revealed a lower critical  $R^2$  of 3.7 and upper critical  $R^2$  of 1.6. for the model effect size. Estimates from the IPUMS CPS ASEC samples were weighted to ensure an unbiased representation of the female Hispanic head of household population. The investigator used SPSS® Complex Samples, an add-on module that provides additional analytic techniques and is a comprehensive system for analyzing survey data and subpopulation assessments. Complex Samples are utilized extensively in social science, especially for large-scale surveys. This tool produces a more accurate picture to reach correct point estimates, predict numerical and categorical outcomes from non-simple random samples and multistage design. It also defines a target population that best meets the specific research question, increasing the precision of your sample to ensure a representative sample from key groups by choosing to sample within subgroups of the survey population.

Additionally, the investigator tested the interaction effect of moderator variables on the relationship between the outcome and predictor variables using a two-way moderator regression model using SPSS® PROCESS® version 4. The PROCESS® modeling tool measures interactions and estimates direct and indirect effects in two-way moderation models and simple slopes and regions of significance for probing interactions and conditional indirect effects in moderated models with multiple moderators (Hayes, 2018).

This study applied statistical analysis techniques to test the assumptions of the measurement models and to examine the effects of predictor variables (i.e., educational

attainment, labor attachment, and geographic region of residence) on the outcome variable (total personal income) while controlling for correlates (i.e., age, citizenship, and Hispanic origin). Firstly, the investigator explored the sample and variables presented in this study by conducting descriptive and univariate analysis for the entire sample using SPSS® Complex Samples on all categorical variables to measure frequencies. Secondly, the investigator performed univariate and bivariate analysis using IBM® SPSS® Complex Samples to examine the population prevalence rates for predictor variables by cohort. Thirdly, to test the hypothesis presented in this study, both SPSS® Complex Samples multivariate linear regression and SPSS® PROCESS® moderated regression models were employed to examine the association between all predictor variables and total personal income the outcome variable for both Native- and Foreign-born cohorts. The overall framework for analysis included descriptive analysis, univariate analysis of sociodemographic predictor variables, bivariate analysis, multivariate linear regression analysis, and moderation analysis to determine the impact of sociodemographic predictors and moderating variables on total pre-tax personal income (i.e., income attainment), the outcome variable. The study also controlled for age, citizenship status, and Hispanic origin to minimize confounding effects and applied the ASECWT weighted variable.

## **5. Results**

### **5.1 Descriptive Statistics**

The Great Recession lasted from December 2007 through June of 2009, and the data acquired for this study begins in 2009 and ends in 2019, with a nationally



representative sample of Hispanic female householders that includes 58,135,354 participants (N= 58,135,354) ages 15 through 85. The investigator deemed it important to examine the sample by subpopulation according to birth country of origin to explore group effects and better understand and or rule out significant differences among these two groupings. The Native-born cohort (N=33,323,878), 57.3%, were born in the U.S., born in the U.S. outlying, or born abroad of American parents. The Foreign-born cohort (N=24,811,476), 18.6%, were foreign-born naturalized citizens, and 24.1% were foreign-born not a US citizen as seen in Table 2. Univariate analyses of all the variables analyzed in the study are also presented in Table 2.

From the total population, (36.5%) of the participants reside in the South, 36.2% reside in the West, 19.8% in the Northeast, and 7.5% in the Midwest. Less than 1% of the participants were under age 15, 11.2% were aged 16-24, 59.7% were aged 25 - 54, 21.7% were aged 55-74, and 7.3% were ages 75 and over. Approximately 44.4% of participants reported their marital status as never married/single; 25.4% were divorced, 13.2% were widowed, 11.8% were separated, and 5.2% were married, with no spouse present. Slightly less than half of the participants reported not having any children (45%); 23.8% had one child, 17.7% had two children, 8.9% had three children, 4.6% had four or more children. Most of the participants were white (86.2%); 7.1% were Black, 2.3% were White American Indian, and 3.7% were other racial profiles. Over half of the participants were Mexican (53.8%); 14.4% were Puerto Rican, 7.5% were Central/South American, 6.3% were other Hispanic, 5.2 % were Cuban, 3.9% were Dominican, 3.9% were South American, 3.2% were Central American (excluding Salvadoran), and 1.8% were Salvadoran.

Over one third (37.7%) of the participants had an educational attainment level of grade 12, and under with no high school diploma, 33.4% had high school diploma or equivalent; 10.8% had some an academic/occupational/vocational program associate degree, 12.9% bachelor's degree, and 4.2% master's or doctorate degree. It is important to note that at the most advanced levels of educational attainment, 3.8% of the participants had a master's degree, and 0.4% had a doctorate degree. A little over half of the participants reported being employed (58.9%); 5.3% were unemployed, 22.7% were not in the labor force, 13% were retired, and 0.1% were in the Armed Forces. Of those employed, 41.3% reported working full-time from those in the labor force, 17.7% reported working part-time. A significant majority of the participants reported having no disability that affects work (87.4%), and 13.5% reported having disability limits or preventing work.

**Table 2: Descriptive Statistics of Sociodemographic Indicators**

Sociodemographic Indicators	Total Sample	Native Born Cohort	Foreign-Born Cohort
	N=58,135,354 %	N=33,396,683 %	N=24,811,476 %
<b><u>Age</u></b>			
<i>1-15.</i>	0.10%	0.10%	0.10%
<i>16-24</i>	11.20%	15.20%	5.90%
<i>25-54</i>	59.70%	58.10%	61.80%
<i>55-74</i>	21.70%	19.70%	24.40%
<i>75+</i>	7.30%	6.90%	7.80%
<b><u>Citizenship</u></b>			
<i>Native Born</i>	57.30%	100%	-
<i>Naturalized Citizen</i>	18.60%	-	43.60%
<i>Non-Citizen</i>	24.10%	-	56.40%
<b><u>Hispanic Origin</u></b>			
<i>Mexican</i>	53.80%	56.40%	50.40%
<i>Puerto Rican</i>	14.40%	25.00%	0.30%
<i>Cuban</i>	5.20%	2.40%	9.00%
<i>Dominican</i>	3.90%	1.50%	7.10%
<i>Salvadoran</i>	1.80%	0.70%	3.30%
<i>Other Hispanic</i>	6.30%	8.90%	2.70%
<i>Central/South American</i>	14.60%	14.10%	30.00%
<b><u>Race</u></b>			
<i>White</i>	86.80%	84.90%	89.30%
<i>Black</i>	7.10%	8.00%	6.00%
<i>American Indian</i>	2.30%	2.80%	1.70%
<i>Asian</i>	0.80%	0.90%	0.70%
<i>Pacific Islander or Hawaiian</i>	0.30%	0.30%	0.30%
<i>Bi-racial or Other</i>	2.60%	3.10%	2.00%
<b><u>Marital Status</u></b>			
<i>Married, spouse absent</i>	5.20%	3.60%	7.30%
<i>Separated</i>	11.80%	9.10%	15.40%
<i>Divorced</i>	25.40%	25.20%	25.70%
<i>Widowed</i>	13.20%	12.40%	14.40%
<i>Never married/single</i>	44.40%	49.70%	37.30%
<b><u>Income Range</u></b>			
<i>\$0 - \$9,999</i>	30.00%	27.60%	33.20%
<i>\$10,000 - \$19,999</i>	25.10%	22.50%	28.70%
<i>\$20,000 - \$29,999</i>	16.70%	16.60%	16.80%
<i>\$30,000 - \$39,999</i>	10.40%	11.50%	9.10%
<i>\$40,000 - \$49,999</i>	6.10%	7.30%	4.40%
<i>\$50,000 and above</i>	11.70%	14.50%	7.80%
<b><u>Official Poverty Status</u></b>			
<i>Below Poverty Line</i>	36.20%	32.70%	40.80%
<i>Above Poverty Line</i>	63.80%	67.30%	59.20%
<b><u>Disability Status</u></b>			
<i>No Disability</i>	87%	85%	89.7%
<i>Disability Prevents or limits work</i>	13%	15%	10.3%
<b><u>Geographic Region of Residence</u></b>			
<i>Northeast</i>	19.8%	20.1%	19.4%
<i>South</i>	36.5%	34.3%	39.4%
<i>Midwest</i>	7.5%	8.6%	6.0%
<i>West</i>	36.2%	37%	35.2%

Notes. Sampling weights were used in the analysis. Results are statistically significant at a 95% confidence interval. *LL.*, lower level, *UL.*, upper level.

A significant number of participants (36.2%) are living below the official poverty line, and (35.3%) of the participants were living below the Supplemental Poverty Measure (SPM). Nearly one third of the participants (30%) reported having an annual total pre-tax income of \$9,999 or less, 25.1% of participants ranged between \$10,000 - \$19,999, 16.7% ranged between \$20,000 – \$29,999, 10.4% ranged from \$30,000 - \$39,999, 6.1% ranged from \$40,000 - \$49,999, and 11.7% were \$50,000 and above. Mean total personal annual income for all participants in the study was \$33,179.

Univariate analysis by Native and Foreign-born cohorts on all sociodemographic predictor variables was conducted to examine sample size, prevalence estimates, and confidence intervals, as shown in Tables 3 and 4. The Native-born cohort exhibited a high prevalence of participants across the following sociodemographic predictors (36.9%) had an educational attainment level of high school diploma or equivalent, 59.1% were employed and attached to the labor market, and (37%) resided in the West geographic region of residence, followed by the South and Northeast Regions. The Foreign-born cohort had a higher prevalence of participants with an educational attainment level of grade 12, and under with no diploma (49.6%), 58.7% were employed and attached to the labor market, and 39.4% resided in the South region geographic region of residence, followed by the West and Northeast region. The Midwest region had the lowest prevalence rate for the geographic region of residence for both Native- and Foreign-born cohorts. Overall, for both cohorts' there was a significant variance by income level revealed at the highest income range (\$50,000 and above), in where the Native-born cohort had a prevalence rate of 14.5% compared to the Foreign-born cohort at 7.8%.

Additionally, a prevalence gap was noted for both groups at the \$40,000 – 49,999 income level. Overall, the native-born cohort exhibited higher achievement across all levels of educational attainment. Participants in the native-born cohort exhibited a higher prevalence of participants (36.9%) who had a high school diploma or equivalent, while the foreign-born cohort had a higher prevalence rate of participants with a grade 12 and under with no diploma (49.6%). For both cohort groups, participant total personal income decreased as the range of income increased, and the only significant variance by income level and by cohort was revealed at the highest income range (\$50,000 and above), in where the Native-born cohort revealed a prevalence rate of 14.5% as compared to the Foreign-born cohort at 7.8%.

**Table 3: Univariate Analysis of Sociodemographic Predictors - Native-Born**

Sociodemographic Predictors	Sample Size n	95% CI		Prevalence Estimate %	95% CI	
		LL	UL		LL	UL
<i>Overall Model - EA</i>	25,788,252.00	25356563 - 26219940				
<b>Educational Attainment - EA</b>						
No Diploma	7,122,787.00	6870900 - 7374675		27.6%	26.8%	28.5%
High School Diploma	9,504,821.00	9209562 - 9800081		36.9%	35.9%	37.8%
Associate Degree	3,513,303.00	3324313 - 3702293		13.6%	12.9%	14.3%
Bachelor's Degree	3,953,707.00	3764716 - 4142698		15.3%	14.7%	16.0%
Master's/Doctorate	1,693,631.00	1563351 - 1823911		6.6%	6.1%	7.1%
<i>Overall Model - LA</i>	33,323,877.00	32864432 - 33783322				
<b>Labor Attachment - LA</b>						
Employed	19,703,982.00	19315820 - 20092144		59.1%	58.3%	60.0%
Unemployed	1,801,573.00	1660451 - 1942696		5.4%	5.0%	5.8%
Not in Labor Force	7,833,666.00	7559205 - 8108128		23.5%	22.8%	24.3%
Retired	3,958,993.00	3775705 - 4142281		11.9%	11.4%	12.4%
Armed Forces	25,661.00	13087 - 38235		0.1%	0.0%	0.1%
<i>Overall Model - GR</i>	33,323,877.00	32864432 - 33783322				
<b>Geographic Region - GR</b>						
Northeast	6,695,173.47	6438466 - 6951880		20.1%	19.4%	20.8%
Midwest	2,861,630.90	2710250 - 3013011		8.6%	8.2%	9.0%
South	11,435,649.01	11104767 - 11766530		34.3%	33.5%	35.2%
West	12,331,424.58	12022323 - 12640526		37.0%	36.2%	37.8%

Notes. Sampling weights were used in the analysis. LL., lower level, UL., upper level.

**Table 4: Univariate Analysis of Sociodemographic Predictors - Foreign-Born**

Sociodemographic Predictors	Sample Size <i>n</i>	95% CI		Prevalence Estimate %	95% CI	
		LL	UL		LL	UL
<u>Overall Model - EA</u>	22,014,168	21620274 - 22408061				
<b>Educational Attainment - EA</b>						
No Diploma	10,920,691	10618724 - 11222658		49.6%	48.6%	50.6%
High School Diploma	6,457,171	6221241 - 6693101		29.3%	28.4%	30.3%
Associate Degree	1,628,947	2085061 - 2373998		7.4%	6.9%	8.0%
Bachelor's Degree	2,229,529	699436 - 856219		10.1%	9.5%	10.8%
Master's/Doctorate	777,828	21620274 - 22408061		3.5%	3.2%	3.9%
<u>Overall Model - LA</u>	24,811,476	24404671 - 25218280				
<b>Labor Attachment - LA</b>						
Employed	14,566,337	14232546 - 14900128		58.7%	57.7%	59.7%
Unemployed	1,264,019	1151975 - 1376061		5.1%	4.7%	5.6%
Not in Labor Force	5,368,886	5153025 - 5584745		21.6%	20.9%	22.4%
Retired	3,606,303	3423669 - 3788937		14.5%	13.9%	15.2%
Armed Forces	5,932	24404671 - 25218280		0.0%	0.0%	0.1%
<u>Overall Model - GR</u>	24,811,476	25218280 - 25218280				
<b>Geographic Region</b>						
Northeast	4,822,887	4602929 - 5042844		19.4%	18.6%	20.3%
Midwest	1,500,120	1391243 - 1608996		6.0%	5.6%	6.5%
South	9,766,809	9474092 - 10059524		39.4%	38.4%	40.3%
West	8,721,661	8468097 - 8975224		35.2%	34.3%	36.1%

Notes. Sampling weights were used in the analysis. LL., lower level, UL., upper level.

## 5.2 Bivariate Regression and Multivariate Regression Analysis

For hypothesis 1A, bivariate and multivariate regression analysis of education and labor correlates on the pre-tax income were conducted, and the analysis revealed a mean total personal annual income of \$27,902 for the Native-Born cohort and \$20,937 for the Foreign-Born cohort while controlling for age, citizenship status and Hispanic origin and results were statistically significant at a 95% CI and or  $p < .05$  or lower.

## 5.3 Educational and Labor on Income Attainment by Nativity Cohort

The first two of three multivariate linear regression analysis models presented test hypothesis 1A; the investigator examined the sample by nativity cohort while measuring education and labor predictor variables groupings on income attainment the outcome variable while controlling for age, citizenship status, and Hispanic origin. The analysis of grouped education and labor predictor variables was measured separately to isolate each predictor grouping and cohort grouping independently. Below you will find the hypothesis presented for analysis.

- **Hypothesis 1A:** Native-born female householders, as compared to Foreign-born female householders, are more likely to achieve higher educational attainment and labor attachment and thus have higher income attainment levels than Foreign-born female householders (See Table 5-6).

For hypothesis 1A, the predictor variables presented in the first linear regression model examined the associations between educational attainment and income attainment. The data revealed statistically significant results at a 95% CI and or  $p < .05$  or lower, as shown in Table 5-6. Results not bolded on the table were not statistically significant at a



$p < .05$  or lower. Overall, there was a positive relationship between education and income attainment. The Native-born cohort presented higher educational attainment prevalence rates across all levels of educational attainment. The most significant variation in this model revealed that the prevalence rate for those who did not have a high school diploma was 44% among the Foreign-born cohort compared to 21% for the Native-Born cohort.

For hypothesis 1A, the predictor variables presented in the second multivariate linear regression model examined the associations between labor attachment and income attainment. Overall, there was a negative relationship between labor attachment and income attainment. The data revealed statistically significant results at a 95% CI and or  $p < .05$  or lower, as shown in Table 7-8. Results not bolded on the table were not statistically significant at a  $p < .05$  or lower. Labor attachment prevalence rates for both the Native-Born and Foreign-Born cohort revealed minor significant variations; prevalence rates for the Native-Born cohort were 59.1% and 58.7% for the Foreign cohort. Both cohorts exhibited a 5% prevalence rate for unemployment. Based on the findings, the investigator rejected the null hypothesis for Hypothesis 1A.

#### **5.4 All Sociodemographic Predictors and Natvity on Income**

The third analytical model tests hypothesis 1B and examines all sociodemographic predictor variables (i.e., education, labor, geographic region of residence) and nativity cohort on income attainment the outcome variable while controlling for age, citizenship status, and Hispanic origin. Analysis of all predictor variables in this model was measured to examine the cumulative effects of all predictors on income attainment, the outcome variable, and to examine income by nativity grouping further. Below you will find the hypothesis presented for analysis.

- **Hypothesis 1B:** Native-born and Foreign-born female householders who reside in the South region are less likely to achieve higher income (See Table 7).

For hypothesis 1B, the predictor variables presented in the third multivariate linear regression model examined the associations between education, labor, geographic region of residence, and nativity on income attainment revealed statistically significant findings at a 95% CI and or  $p < .05$  or lower, as shown in Table 9. Results not bolded on the table were not statistically significant at a  $p < .05$  or lower. The reference group for each predictor grouping was Educ\_MD (Master's and Doctorate degrees), Labor\_NF (Not in the labor force), and Region\_S (South region).

Education correlates revealed that participants who did not have a high school diploma had a prevalence rate of 31% ( $\beta = 14,687.794$ ,  $SE = 537.312$ , 95% CI = 13,595.446/15,780.142,  $p < .001$ ), high school diploma participants were 27.5% ( $\beta = 10,563.302$ ,  $SE = 604.362$ , 95% CI = 9,378.734/11,747.87,  $p < .001$ ), associate degree were 8.8% ( $\beta = 2742.678$ ,  $SE = 922.965$ , 95% CI = -933.64/4,551.716,  $p < .003$ ), bachelor's degree 10.6% ( $\beta = -10,768.193$ ,  $SE = 1331.94$ , 95% CI = -13,378.835/-8,157.552,  $p < .001$ ) as shown in Table 9.

Labor correlates revealed that participants who were employed had a prevalence rate of 58.9% for those who were employed ( $\beta = -21,792.341$ ,  $SE = 360.598$ , 95% CI = -22,499.125/-21,085.56,  $p < .001$ ), unemployed were 5.3% ( $\beta = -6280.73$ ,  $SE = 561.641$ , 95% CI = -7,381.563/-5,179.897,  $p < .001$ ), and armed forces were .10% ( $\beta = -29,550.266$ ,  $SE = 4925.18$ , 95% CI = -39,203.763/-19,896.77,  $p < .001$ ) as shown in Table 9.

Region correlates revealed the West region had a prevalence rate of 36.2% ( $\beta = -1753.725$ ,  $SE = 478.188$ , 95%  $CI = -2690.989/-816.462$ ,  $p < .001$ ), and revealed a negative relationship with income attainment. Results for the Native-born cohort were not statistically significant with a prevalence rate of 57.3% ( $\beta = -122.451$ ,  $SE = 1,768.54$ , 95%  $CI = -3588.932/3343.85$ ,  $p < .0.945$ ) as shown in Table 9.

Overall, the model revealed that participants who had obtained a high school degree were employed and lived in the West region had the highest prevalence rates and the strongest associations with income attainment. For hypothesis 1B, the investigator could not adequately compare all regions for evaluation considering the results for the Midwest region were not statistically significant. Therefore, the investigator failed to reject the null hypothesis for 1B.

**Table 5: Linear Regression: Educational on Income - Native-Born**

Sociodemographic Predictors	Estimate	Weighted %	SE	95% CI		p
				LL	UL	
<b>No Diploma</b>	<b>23,496.54</b>	<b>21.4%</b>	<b>763.885</b>	<b>21,999.31</b>	<b>24,993.78</b>	<b>0.000</b>
<b>High School</b>	<b>13,410.67</b>	<b>28.5%</b>	<b>788.311</b>	<b>11,865.56</b>	<b>14,955.79</b>	<b>0.000</b>
Associate Degree	<b>1,486.59</b>	10.5%	<b>1,243.64</b>	-950.981	3,924.17	0.232
<b>Bachelors Degree</b>	-16,522.66	<b>11.9%</b>	1,933.81	<b>-20,312.98</b>	-12,732.35	<b>0.000</b>

Notes: Sampling weights were used in the analysis. (N=33,323,878). Results in bold are statistically significant at p < .05 and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level. Variable EducMD is the variable categorized as the reference group.

**Table 6: Linear Regression: Educational on Income - Foreign-Born**

Sociodemographic Predictors	Estimate	Weighted %	SE	95% CI		p
				LL	UL	
<b>No Diploma</b>	<b>15,855.50</b>	<b>44%</b>	<b>932.142</b>	<b>14,028.48</b>	<b>17,682.53</b>	<b>0.000</b>
<b>High School</b>	<b>10,815.83</b>	<b>26%</b>	<b>1,058.35</b>	<b>8,741.43</b>	<b>12,890.22</b>	<b>0.000</b>
Associate Degree	2,418.18	7%	1,354.75	-237.18	5,073.53	0.074
<b>Bachleor Degree</b>	<b>-5,491.16</b>	<b>9%</b>	<b>1,497.01</b>	<b>-8,425.34</b>	<b>-2,556.98</b>	<b>0.000</b>

Notes: Sampling weights were used in the analysis. (N=24,811,476). Results in bold are statistically significant at p < .05 and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level. Variable EducMD is the variable categorized as the reference group.

**Table 7: Linear Regression: Labor on Income - Native-Born**

Sociodemographic Predictors	Estimate	Weighted %	SE	95% CI		p
				LL	UL	
<b>Employed</b>	<b>-29,234.771</b>	<b>59%</b>	<b>589.773</b>	<b>-30,390.744</b>	<b>-28,078.798</b>	<b>0.000</b>
<b>Unemployed</b>	<b>-8,847.456</b>	<b>5%</b>	<b>730.48</b>	<b>-10279.22</b>	<b>-7,415.693</b>	<b>&lt;.001</b>
Retired	93.715	11.9%	930.925	-1,730.925	1918.356	0.920
<b>Armed Forces</b>	<b>-37,758.158</b>	<b>0.1%</b>	<b>51,42.512</b>	<b>-47,837.632</b>	<b>-27,678.684</b>	<b>&lt;.001</b>

Notes: Sampling weights were used in the analysis. (N=33,323,878), Results in bold are statistically significant at  $p < .05$  and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level. Variable LaborNF is the variable categorized as the reference group.

**Table 8: Linear Regression: Labor on Income - Foreign-Born**

Sociodemographic Predictors	Estimate	Weighted %	SE	95% CI		p
				LL	UL	
<b>Employed</b>	<b>-20,930.187</b>	<b>59%</b>	<b>464.154</b>	<b>-21,839.942</b>	<b>-20,020.431</b>	<b>&lt;.001</b>
<b>Unemployed</b>	<b>-6,782.891</b>	<b>5%</b>	<b>743.763</b>	<b>-8,240.689</b>	<b>-5,325.094</b>	<b>0.000</b>
Retired	-43.541	15%	700.168	-1415.89	1,328.808	0.950
Armed Forces	-19,534.08	0%	10,231.218	-39,587.567	519.408	0.056

Notes: Sampling weights were used in the analysis. (N=24,811,476), Results in bold are statistically significant at  $p < .05$  and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level. Variable LaborNF is the variable categorized as the reference group.

**Table 9: Linear Regression: Sociodemographic Predictors and Nativity on Income**

Sociodemographic Predictors	Estimate	Weighted	SE	95% CI		p
		%		LL	UL	
<b>EducND</b>	<b>14687.794</b>	<b>31.00%</b>	<b>557.312</b>	<b>13595.446</b>	<b>15780.142</b>	<b>&lt;.001</b>
<b>EducHS</b>	<b>10563.302</b>	<b>27.50%</b>	<b>604.362</b>	<b>9378.734</b>	<b>11747.87</b>	<b>&lt;.001</b>
<b>EducAA</b>	<b>2742.678</b>	<b>8.80%</b>	<b>922.965</b>	<b>933.64</b>	<b>4551.716</b>	<b>0.003</b>
<b>EducBA</b>	<b>-10768.193</b>	<b>10.60%</b>	<b>1331.94</b>	<b>-13378.835</b>	<b>-8157.552</b>	<b>&lt;.001</b>
<b>Labor_E</b>	<b>-21792.341</b>	<b>58.90%</b>	<b>360.598</b>	<b>-22499.125</b>	<b>-21085.558</b>	<b>0.000</b>
<b>Labor_U</b>	<b>-6280.73</b>	<b>5.30%</b>	<b>561.641</b>	<b>-7381.563</b>	<b>-5179.897</b>	<b>&lt;.001</b>
Labor_R	554.937	13.00%	599.04	-619.199	1729.073	0.354
<b>LaborAF</b>	<b>-29550.266</b>	<b>0.10%</b>	<b>4925.18</b>	<b>-39203.763</b>	<b>-19896.769</b>	<b>&lt;.001</b>
Region_NE	-859.277	19.80%	706.728	-2244.484	525.93	0.224
Region_M	-539.084	7.50%	778.425	-2064.82	986.652	0.489
<b>Region_W</b>	<b>-1753.725</b>	<b>36.20%</b>	<b>478.188</b>	<b>-2690.989</b>	<b>-816.462</b>	<b>&lt;.001</b>
Native Born Cohort	-122.541	57.30%	1,768.54	-3588.932	3343.85	0.945

Notes: Sampling weights were used in the analysis. (N=58,135,354), Results in bold are statistically significant at  $p < .05$  and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level.

## 5.5 Double Moderation: Children, Disability and Education on Income

A two-way moderation analysis was performed using "PROCESS" macro, model 2, v2.16 (Hayes, 2013) in SPSS version 27 with bias-corrected 95% confidence intervals ( $n = 29,577$ ). The moderator variables evaluated for the analysis were the Presence of Children and Disability. The hypothesized two-way moderated model was tested in a single model to assess the significance of the indirect effects at differing levels of the moderator (Hayes, 2013) on the relationship between predictor (educational attainment) and the outcome variable (total personal income attainment). Below you will find the hypothesis presented in this double moderation model.

**Hypothesis 2:** Examine how the Presence of Children and Disability moderates the relationship between Educational Attainment on Income Attainment among Native- and Foreign-born female householders.

As zero is not within the CI, this indicates a significant moderating effect of the presence of children and disability on educational and income attainment (Hayes, 2015). The overall moderation model was supported with the index moderation = 16377 (95% CI = 13155; 19598), as shown in Table 10. The interaction effect was strongest in those with a bachelor's degree educational attainment level with the presence of disability (1 SD above the mean of the presence of disability; effect = -21136, SE = 3657, 95% CI = 28305; 13967) and weakest in those with an Associate degree with no children (1 SD below the mean of the presence of children, effect = -5882, SE = 1707, 95% CI = -9228; -2536). For both the strongest and weakest moderating effects, the interactions had a negative relationship with income attainment. Based on the findings presented in the moderation model, the investigator rejected the null for Hypothesis 2.

**Table 10: Double Moderation: Children, Disability and Education on Income**

Educational Attainment	Moderator #1	Moderator #2	Coefficient	SE	95% CI		p
	<i>Presence of Children</i>	<i>Presence of Disability</i>			<i>LL</i>	<i>UL</i>	
No High School Diploma	No Children		-339.73	1252.78	-2795.25	2115.78	0.786
No High School Diploma	1		-184.55	1489.50	-3104.05	2734.95	.9014
No High School Diploma	2		-285.03	1868.45	-3947.28	3377.20	0.879
No High School Diploma	3		-2598.98	2547.23	-7591.66	2393.70	.3076
High School Degree	No Children		-1527.31	1820.53	-5095.64	2041.01	0.402
High School Degree	1		-606.71	2180.08	-4879.78	3666.35	0.781
High School Degree	2		2391.72	2880.31	-3253.83	8037.27	0.406
High School Degree	3		-4093.01	4433.44	-12782.76	4596.73	0.356
<b>Associate Degree</b>	<b>No Children</b>		<b>-5882.36</b>	<b>1707.06</b>	<b>-9228.27</b>	<b>-2536.44</b>	<b>0.001</b>
Associate Degree	1		-1210.44	2244.39	-5609.55	3188.67	0.590
Associate Degree	2		-4237.91	3183.68	-10478.07	2002.24	0.183
Associate Degree	3		2754.95	5291.98	-7617.55	13127.47	0.603
<b>Bachelor's Degree</b>	<b>No Children</b>		<b>15298.10</b>	<b>2407.42</b>	<b>10579.43</b>	<b>20016.76</b>	<b>0.000</b>
<b>Bachelor's Degree</b>	<b>1</b>		<b>-16006.37</b>	<b>3632.08</b>	<b>-23125.42</b>	<b>-8887.33</b>	<b>0.000</b>
<b>Bachelor's Degree</b>	<b>2</b>		<b>18821.29</b>	<b>5709.53</b>	<b>7630.34</b>	<b>30012.2468</b>	<b>0.001</b>
Bachelor's Degree	3		-846.09	9496.69	-19460.04	17767.86	0.929
<b>No High School Diploma</b>		<b>No Disability</b>	<b>-4416.02</b>	<b>1390.99</b>	<b>-7142.43</b>	<b>-1689.61</b>	<b>0.002</b>
<b>High School Degree</b>		<b>Disability</b>	<b>-9804.69</b>	<b>2443.70</b>	<b>-14594.46</b>	<b>-5014.92</b>	<b>0.001</b>
<b>Associate Degree</b>		<b>No Disability</b>	<b>-16814.16</b>	<b>2352.98</b>	<b>-21426.12</b>	<b>-12202.20</b>	<b>0.000</b>
<b>Bachelor's Degree</b>		<b>Disability</b>	<b>-21136.22</b>	<b>3657.59</b>	<b>-28305.27</b>	<b>-13967.17</b>	<b>0.000</b>

Notes. Sampling weights were used in the analysis. Results in bold are statistically significant at  $p < .05$  and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level.



## 5.6 Double Moderation: Children, Disability, and Labor on Income

A two-way moderation analysis was performed using "PROCESS" macro, model 2, v2.16 (Hayes, 2013) in SPSS version 27 with bias-corrected 95% confidence intervals ( $n = 35,962$ ). The moderator variables evaluated for the analysis were the presence of children and disability on labor attachment and income attainment. The hypothesized two-way moderated model (see Table 11) was tested in a single model to assess the significance of the indirect effects at differing levels of the moderator (Hayes, 2013) on the relationship between predictor (labor attachment) and the outcome variable (total personal income attainment). Below you will find the hypothesis presented in this moderation model. Below you will find the hypothesis presented in this double moderation model.

**Hypothesis 3:** Examine how the Presence of Children and Disability in households moderates the relationship between Labor Attachment on Income Attainment among Native- and Foreign-born female householders.

As zero is not within the CI, this indicates a significant moderating effect of need for cognition on mood condition on the indirect effect via positive thoughts (Hayes, 2015). The overall two-way moderation model was supported with the index moderation = 38001(95% CI = 34631/ 41371). The interaction effect was strongest in those who were unemployed with disability (1 SD below the mean of the presence of disability; effect = 4804, SE = 1692, 95% CI = 1486/8122) and weakest in those who were unemployed and had no children (1 SD below the mean of the presence of children, effect = 2,926, SE = 1012, 95% CI = 940/ 4911). For both the strongest and weakest moderating effects, the

interactions had a positive relationship with income attainment. Based on the findings presented in the moderation model, the investigator rejected the null for Hypothesis 3

**Table 11: Double Moderation: Children, Disability and Labor on Income**

Attainment Level	Moderator #1	Moderator #2	<i>Coefficient</i>	<i>SE</i>	95% CI		<i>p</i>
	<i>Presence of Children</i>	<i>Presence of Disability</i>			<i>LL</i>	<i>UL</i>	
Employed	No Children		2535.60	2338.3894	-2047.70	7118.91	0.278
Employed	1		922.80	2511.6695	-4000.14	5845.75	0.713
Employed	2		877.97	2945.3924	-4895.08	6651.03	0.766
Employed	3		3148.38	3955.7093	-4604.91	10901.69	0.426
<b>Unemployed</b>	<b>No Children</b>		<b>2926.33</b>	<b>1012.9344</b>	<b>940.95</b>	<b>4911.71</b>	<b>0.004</b>
<b>Unemployed</b>	<b>1</b>		<b>4446.89</b>	<b>1339.2502</b>	<b>1821.92</b>	<b>7071.86</b>	<b>0.001</b>
Unemployed	2		1687.71	1762.9532	-1767.72	5143.15	0.338
Unemployed	3		3078.70	2358.7066	-1544.43	7701.83	0.192
Employed		No Disability	6298.41	3750.4538	-1052.58	13649.41	0.093
<b>Unemployed</b>		<b>Disability</b>	<b>4804.13</b>	<b>1692.7733</b>	<b>1486.24</b>	<b>8122.02</b>	<b>0.005</b>

*Notes. Sampling weights were used in the analysis. Results in bold are statistically significant at  $p < .05$  and 95% confidence interval. SE., standard error. LL., lower level, UL., upper level.*

## 6. Discussion

The experiences of the 58.1 million women represented in this study are heterogeneous; individual experiences include households headed by single mothers, aunts, grandmothers, cohabiting females, same-sex cohabiting, and married females, all of whom face unique challenges while experiencing the cumulative effects of gender discrimination, social bias, and other social stigmas. This investigation contributed to the literature by advancing scientific inquiry and addressing the gap in the literature related to social and economic mobility among Hispanic female householders living in the United States. The investigator will use the findings as a baseline study to establish a starting point to benchmark progress or decline and compare with other racial and ethnic groups of female householders living in the U.S. All interpretations and inferences of results are based on an aggregated view of the target population examined in this study.

### 6.1 Key Findings: Univariate Analysis

This study provides further evidence of the salience of the cumulative disadvantage of factors that impact economic security for Hispanic women. Examination of ten years of data revealed Hispanic female householders living in the U.S. are experiencing alarming deficits in educational attainment, weak attachment to the labor market, further aggravating the likelihood of increased income attainment and upward income mobility. For most women, increased education correlates with both higher earnings and lower unemployment, according to the annual publication *Highlights of Women's Earnings in 2019*, published by the U.S. Bureau of Labor Statistics. That is not the case for

the women in this sample, where the data suggest that labor, not education, is the driver for higher income attainment.

Findings in this study suggest that Hispanic women at every education level from high school to Ph.D. are at risk, evidenced by this study's low educational attainment prevalence rates. Overall, results on educational attainment reveal that over two-thirds of participants in this study had an educational attainment level of high school or less. Recent studies have shown that Hispanic educational progress is wedged between primary and pre-secondary education for participants in this study, with a growing number of Hispanic women positioning themselves in the middle between high school and bachelor's degrees (Carnevale & Fasules, 2017). The alarming prevalence rate of participants in this study who did not hold a college degree suggests that the state of secondary educational attainment for Hispanic female householders in the U.S. is a cause for national concern. Scholars assert the notion that for the U.S. to regain the top ranking in the world for college degree attainment, Hispanics will need to earn 6.2 million degrees by 2030 (Santiago & Callan, 2010).

Findings from this study also suggest that the effects of disadvantage transcend beyond the ecosystem of the educational system because Hispanic women who are caught in the lower to middle tiers of the educational system are likely to be positioned in the lower to middle levels of the labor market. The data in this study reveals that both native and foreign-born women showed weak attachment to the labor market. A possible explanation is that a large share of Hispanic women in the workforce remains significantly underrepresented in professional, technical, scientific jobs; the type of work customarily pays higher wages and provides benefits. Additionally, a significant number

of women who reported being displaced and not in the labor market and conveyed disability limits should be considered at risk. Further analysis beyond the scope of this study to determine the causal risk factors affecting their inability to attain work and earn income.

Moreover, further examination is needed to determine the types of jobs, the number of jobs, and the hourly work status of participants' employment to arrive at the causal risk factors which lead to lower-income attainment due to job placement.

According to a *Center for Economic and Policy Research (2016)*, the most common industries for Hispanic women are restaurants and other food services, followed by elementary and secondary schools. Hispanic women who work in lower-paying occupations generally mean that they earn less than non-Hispanics.

Scholars have long argued that working mothers encounter disadvantages in perceived competence, pay, promotion, and benefits relative to non-mothers and men and coined the term “motherhood penalty.” Research shows that mothers acquire fewer years of schooling and less work experience than other women and experience employment breaks which explain approximately one-third of the wage penalty for motherhood (Budig & England 2001). Over half of the participants in this study reported having children, and the motherhood penalty is another probable indicator of low educational achievement and poor attachment to the labor market. Cajner and colleagues (2017) suggest that women’s participation in the labor market might be affected by social gender norms or familial attitudes that differ across racial groups, and lower expected labor force participation might also influence educational attainment amongst women. Suggesting that Hispanic women are almost twice as likely to take care of house or family and be out

of the labor force due to house or family obligations (Cajner, Radler, Ratner & Vidangos, 2017).

Results from this study build on the current literature as to economic insecurity faced by Hispanic women, as over half of the participants in this study, 29 million female householders, reported an annual total pretax income attainment level of \$20,000 or less. The data from this study reveals that the mean total personal income for the entire sample was \$33,179, irrespective of household size, and more than one-third of participants lived below the poverty level. The *National Women's Law Center* corroborates this claim, as their study suggests that Hispanic women nationally are typically paid 55 cents for every dollar paid to white, non-Hispanic men. Suggesting that this pay gap typically amounts to a loss of \$2,425 every month, \$29,098 every year, and \$1,163,920 over a 40- year career, meaning that Hispanic women would have to work 22 months to make as much as white, non-Hispanic white men were paid in the previous calendar year alone.

## **6.2 Key Findings: Bivariate Regression and Multivariate Linear Regression by Nativity Cohort**

Women born in the United States (native-born) and those born in different countries (foreign-born) tend to differ due to cultural, political, legal, social, economic, and other factors. It is important to note that foreign-born participants in this study have different citizenship statuses, and further analysis is needed to control the privileges associated with citizenship status. The investigator plans to conduct future research and replicate this study to examine foreign-born participants and their sub-groups solely, documented residents and those who are not residents nor citizens and recent vs. long-term immigrants.

Bivariate regression analysis revealed significant differences among native and foreign-born cohorts of female householders. Analysis of all predictors on income attainment also revealed a mean total personal annual income attainment of \$27,902 for the native-born cohort and \$20,937 for the foreign-born cohort, irrespective of household size. Overall, the native-born cohort exhibited higher achievement across all levels of educational attainment. Participants in the native-born cohort exhibited a higher prevalence of participants (36.9%) who had a high school diploma or equivalent, while the foreign-born cohort had a higher prevalence rate of participants with a grade 12 and under with no diploma (49.6%). For both cohort groups, participant total personal income decreased as the range of income increased, and the only significant variance by income level and by cohort was revealed at the highest income range (\$50,000 and above), in where the Native-born cohort revealed a prevalence rate of 14.5% as compared to the Foreign-born cohort at 7.8%.

Multivariate linear regression analysis revealed the varying effects of socioeconomic predictors on income attainment for native-born female householders and foreign-born female householders. The Native-born cohort exhibited significantly higher educational achievement across all educational achievement levels and slightly more attachment to the labor market due to native-born women in the armed forces, as shown in Tables 5 - 8. Multivariate linear regression also revealed that participants who had obtained a high school degree were employed and lived in the West region had the highest prevalence rates and the strongest positive associations with income attainment, as shown in Table 9.



The findings from this study lend support to Bahn and MGrew's (2018) analysis on gender wage gap differences pinpoint the wage gap as one of the most vital indicators contributing to income attainment differences by nativity, suggesting that native-born Hispanic women face lower wage gaps than foreign-born citizens who face the larger wage gaps. The gender wage gap alone does not fully explain the income attainment barriers participants face in this study. Closing educational equity gaps in degree completion and are critical for propelling economic success. MgGrew (2016) explains that occupational and industry educational inequality and workplace segregation for Hispanic women—which are caused by various forms of discrimination and inequality—are the largest contributors to the wage gap.

Ludwig-Dehn & Iceland (2017) suggests that the dispersal of Hispanics from their traditional gateway cities and states to new destinations represents a significant demographic phenomenon during the last quarter-century in the United States. Consequently, the investigator deemed it necessary to examine the effects of geographic region of residence. Overall, the geographic region of residence with the highest prevalence rate was the south region, followed by the west region with a very marginal difference of half of a percentage point. Participants in the native-born cohort reside in the West region, and the foreign-born cohort mainly resides in the South region.

Mounting research suggests that concentration of Southern counties have a lower average socioeconomic mobility (Chetty et al. 2014) and overall well-being (Flippen 2014). Even though results from the geographic region of residence analysis were inconclusive, the investigator supports the hypothesizing of the South region as the region with the greatest economic disparities. The rural and urban sprawl of income

attainment is an area of analysis that needs further investigation. Additional examination is needed by county, city, and state to determine the validity of predicting income attainment by exact locality and region for Hispanic female householders. To better understand the sources and drivers of income attainment by region. Scholars on regional income inequality suggest that, like inequalities between races or genders, disparities between regions are primarily determined by the level of inequality in the nation (Manduca, 2019).

### **6.3 Key Findings: Moderation Analysis**

A two-way moderation analysis was performed to determine the moderating effects of the presence of children and disability on the relationship between education and income attainment. Participants who exhibited the highest interaction effect and a negative relationship with income were householders with a bachelor's degree and reported disability. Followed by participants with associate degree participants with a disability. It suggests that these two groups of participants are at greater risk for economic insecurity. The investigator also examined the moderating effects of the presence of children and disability on the relationship between labor attachment and income attainment. Participants unemployed with a disability exhibited the highest interaction effect and positively correlated with income, followed by unemployed participants with one child. Results from the moderation analysis directly point to the cumulative effect of potential risk factors that negatively influence income attainment.

The moderation analysis suggests that disability impacts the relationship between educational attainment and income, and motherhood and disability impact the relationship between labor and income attainment. These groups identified in the

moderation analysis are participants who encounter a greater share of potential barriers, contributing to a greater chance of economic burden. Motherhood and disability can be especially difficult for Hispanic women with poorer education, income, and employment outcomes. Mounting research suggests that Hispanic mothers are overwhelmingly the most likely group of single mothers not to enter college or hold a high school diploma (Gault, Milli, & Reichlin Cruse, 2018). It is also well known that individuals with disabilities face barriers to education and employment, limiting their earning potential. Pettinicchio and Maroto (2017) explain that disabled women may end up being “twice penalized” or in “double jeopardy.” Explaining that they are regularly subjected to discriminatory structures and attitudes in society and the job market.

Results from the moderation analysis strongly point to Hispanic women with disabilities as being at greater risk than other groups in this study. Key social and institutional factors contribute to disparities between Hispanic women who are disabled in areas such as quality of health, access to health care and insurance coverage, risk factors, and morbidity. Studies have shown that people of color with disabilities seem to face double marginalization, discrimination, and stigma that lead to poor socioeconomic outcomes (Goodman, Morris, Boston, & Walton, (2017).

#### **6.4 Implications for Social Work**

Social work evaluation and treatment interventions for clients who are financially insecure is an area that is underexplored both in literature and studies conducted. Direct practice with clients who are experiencing poverty or who are facing financial insecurity benefit from assessments which identify how to best support clients with basic yet essential necessities such as food, housing, health, and transportation. Practitioners in the

field can offset the financial burden by referring to programs and services which help alleviate financial burden or provide clients with financial education in which they can empower themselves or their families. To strengthen the national economy and narrow the attainment gaps for marginalized groups, scholars, policymakers' government, and private institutions must work together, share administrative data, and tackle the problem of socioeconomic mobility for Hispanic women. According to the Institute for Women's Policy Research (2020), at the current rate of change, Hispanic women working full time in the U.S. will not achieve equal pay until 2224. The Bureau of Labor Statistics National Center for Education Statistics (2019) reports that, on average, Hispanic women in the U.S. are paid 45% less than white men and 30% less than white women. The gap is most significant as Hispanic women move up the educational ladder and earn 37% less than white men on average.

The Equal Pay Act (EPA) of 1963 requires employers to pay men and women equally for doing the same work -- equal pay for equal work. Currently, only 42 states have equal pay laws, and the burden of proof is incumbent upon women to prove they have not been paid fairly. A continued call to action on equal pay is needed to ensure that public and private institutions adhere to federal policy and that the progress made thus far does not fall on deaf ears. Pay equity accountability in terms of policy starts at the top, and social work practitioners must work in tandem with governments, corporations, and civil rights entities that protect the right of women to be paid fairly. Moreover, social work practitioners need to work with governmental stakeholders and employers, to enact legislation and policies that protect women from unfair practices and chip away at a gender pay gap.

Data in this study reveals that foreign-born female participants, as compared to native-born participants of Hispanic origin, are experiencing lower levels of educational attainment, as well as income attainment, by a difference of \$6,965, making it a plausible notion that a path to U.S. citizenship can be a positive economic driver for a significant number of study participants who were foreign-born documented resident or not a US citizen. Reinforcing the practicality and the benefits of supporting the Deferred Action for Childhood Arrivals (DACA) and the Dream Act as viable options to improve the overall U.S. economy and socioeconomic trajectory of a large share of foreign-born women living in the U.S.

Overall, for female householders who are mothers, social work practitioners should advocate for supportive work-family policies to manage work, and caregiving should be at the forefront, as these policies directly impact both mothers and caregivers whose families are dependent on householder income. Laws providing paid family and medical leave allow workers to continue earning a portion of their pay while taking time away from work to address health conditions, care for a family member, address circumstances arising from military service, and care for a newborn, adopted or foster child.

Tax credits are also a key driver to increasing income for individuals and families. The earned income tax credit (EITC), first proposed in the early 1970s, was signed by President Ford, later substantially expanded by President Reagan, who deemed it “the best anti-poverty, the best pro-family, the best job creation measure to come out of Congress” (Snyder,1995). Shifting demographics, acculturation, and a changing

economy are marking new economic trends among Hispanic households, so it would benefit social work scholars and policymakers to partner and support studies and interventions that address income attainment to boost economic security for both the individual and the greater U.S economy.

## **6.5 Future Research**

The data for this study predates the Covid-19 pandemic and will not reflect the current state of the target population post-pandemic. The investigator also plans to conduct future research and replicate this study to analyze 2020 through 2023 to evaluate how the Covid-19 pandemic has impacted Hispanic women in the United States. To achieve new levels of economic equity among Hispanic female householders, anti-poverty practitioners in the field of social work need to further explore Hispanic women's proclivity to poverty as an output of the risk factors associated with income (i.e., educational attainment, labor force attachment, equal wages, and earnings) attainment. Prominent scholars on income mobility suggest that the problem of poverty and income inequality for female-householders is the rapid rise of income and wealth disparities, coupled with longstanding gender inequities (Chetty, 2016). As this study was designed to be a baseline study and the start of longstanding research agenda, it is important to note the varied social and cultural factors that present for both native- and foreign-born women to attain economic security.

Future research will focus on examining each cohort independently to arrive at a better understanding of the risk and protective factors germane to each group of Hispanic women. After examining each cohort independently, longitudinal studies on income and

geographic region of residence will be conducted on each group to better determine income attainment and mobility for each sub-group of Hispanic women.

## **6.6 Theoretical Perspective**

This study was viewed through the theoretical lens of ecological systems and cumulative disadvantage theory. Bronfenbrenner (1999) describes ecological systems theory as an output of interrelated and interdependent associations of a complex system of relationships between person, family, and environment. Ecological system theory best explains how human relationships are affected by their family, work, school, and community settings, which are affected by broader social, cultural, and policy conditions. O'Rand (1996) also suggests that cumulative disadvantage is premised on the idea that those who start life with greater resources will accumulate more opportunities to increase their resources, while those who start with less have fewer opportunities for acquiring additional resources and fall further behind.

The problem of income immobility lies in a disadvantaged socioeconomic position because socioeconomic disadvantage tends to accumulate over the life course, both between and within socioeconomic domains (Dannefer, 2003). Accumulated socioeconomic disadvantages negatively impact income attainment and further exacerbate the larger problem of income mobility, which is to accumulate or transfer generational wealth to future generations. Hispanic female householders' historical experience of societal misogynistic socio-cultural norms and systemic and structural barriers related to gender inequities continue to position Hispanic women at a deficit propelling the effects of cyclical disadvantage.

## **6.7 Limitations**

Since this is a one-time measurement of exposure and outcome, it is challenging to derive causal relationships from the proposed repeated cross-sectional analysis. Moreover, additional in-depth analysis is needed to study the effects of citizenship on income while examining the role of education and labor. Native- and foreign-born participants experience a different set of benefits due to their citizenship status, yet we know little of how groups of women fare in income attainment due to their immigration status. Women who are not naturalized citizens but documented residents and those who are not residents or citizens are exposed to different risk and protective factors that need to be investigated. Moreover, additional analysis is needed to assess how income is acquired to determine how familial support and safety net programs may compensate for total household income deficiencies, especially for those women who have children or are disabled. A significant number of women also reported not being in the labor force. Further analysis is needed to understand better how risk factors (i.e., education gap, low wages and earnings, disability, occupational segregation, and motherhood penalization) cause a disconnection from the labor market.

## **6.8 Conclusion**

We have a severe problem in our society; income inequality is at an all-time high, and the middle class is slowly disappearing. As a result, closing the achievement and attainment gap has become a societal priority, and scholars, practitioners, and governmental stakeholders must examine the drivers of social and economic mobility to address the disparities related to socioeconomic inequality. Projections are that by 2060,



Hispanic women will form nearly a third of the female population in the United States (Gandara, 2015), but many of them will continue to be mired in poverty if practitioners fail to address the root causes of social and economic mobility. Income attainment among Hispanic women living in the U.S. is a cause for national concern. Hispanic female householders are often the sole providers of their household, and financial affordability is often a barrier to securing healthcare, education, childcare, housing, and transportation. Financial difficulties are often compounded for Hispanic women with citizenship barriers, poor education, labor, and health outcomes, and who reside in highly unequal geographic regions which do not provide access to opportunity.

Although Hispanic women are entering primary and secondary education at higher rates than ever before, entry into the educational system does not entirely guarantee student retention nor degree completion. Nor does it secure a good-paying job or a pathway to economic security. Furthermore, scholars have suggested that the U.S. labor market has been driven by decades of institutional forces, both public and private systems, which are interrelated with the economic sector producing occupational segregation, wage inequities, and the extent and effectiveness of policy responses related to labor, all which contribute to the decline in labor-force activity and income attainment (Groshen & Holzer, 2019).

Findings from this study suggest that ten years after the Great Recession, a representative sample of Hispanic female householders in the U.S. are still struggling to graduate from high school, get a college degree, and hold a job that secures income levels at par with men, and other women of other racial and ethnic backgrounds. The unequal education system and ongoing discrimination have followed Hispanic women into the

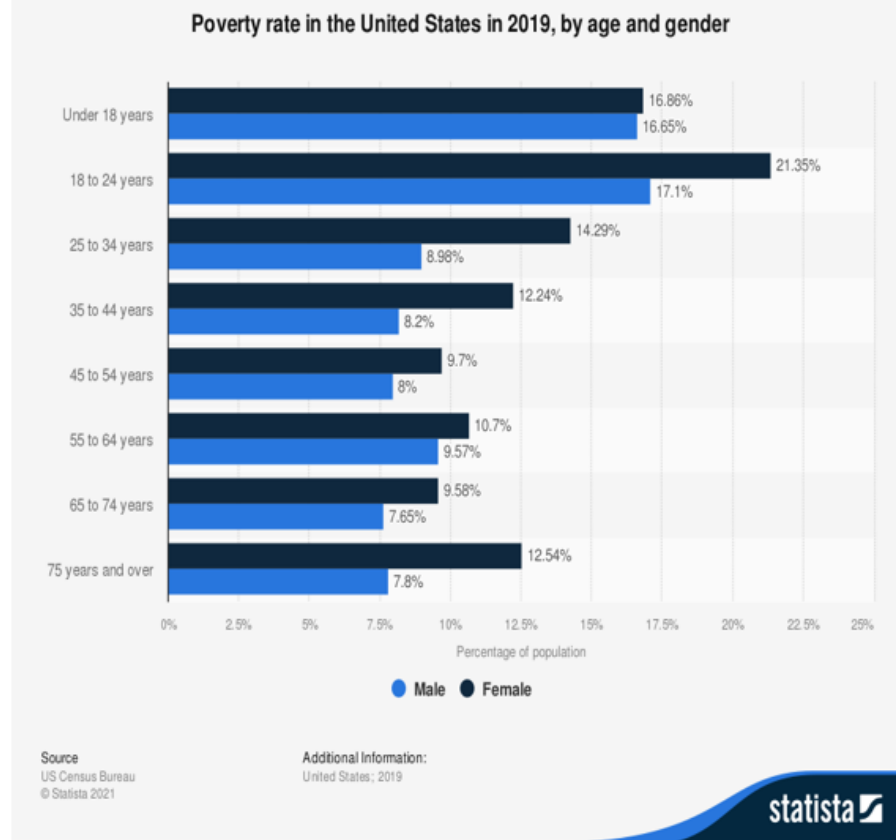
workforce in segregated career pathways with lower wages. Levin and his colleagues (2006) computed the lifetime economic benefit to society for converting a female Hispanic high school dropout to a high school graduate at more than \$171,000 per graduate.

The future of the United States very much depends on the future of Hispanic women. Hispanic women in the United States have made significant contributions to society and the economy, yet they are not all faring well after the Great Recession. As the number of Hispanic female-headed families rises, so does that segment of the female population whose economic well-being and quality of life depend heavily on improving their social and economic status. Since the “War on Poverty” was declared in the 1960s, poverty as a social condition has evolved, and the United States has rapidly become an unequal income-attaining nation. Severe gaps in educational attainment, weak attachment to the labor market, wage segregation, and rising income and wealth disparities have crippled Hispanic women's ability to advance and achieve new economic security and generational wealth levels.

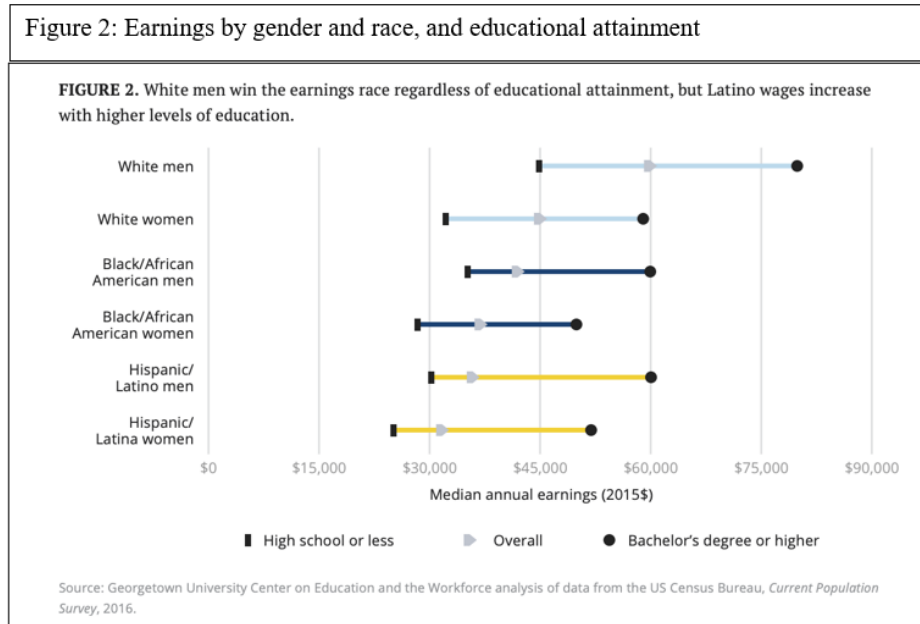
## 7. Figures

### 7.1 Poverty rate in the United States in 2019, by age and gender

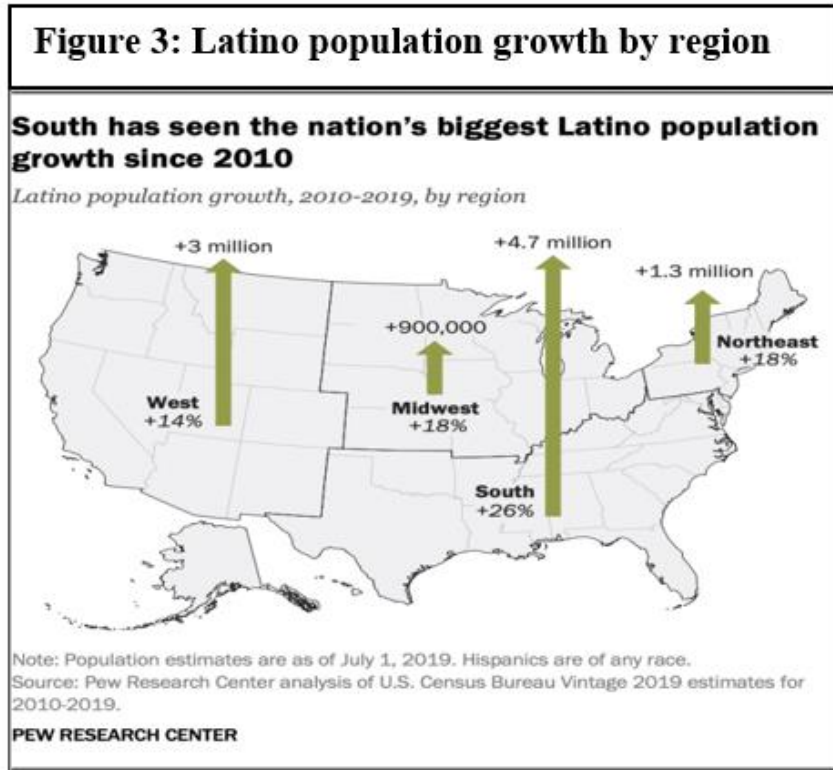
**Figure 1. Poverty rate in the United States in 2019, by age and gender**



## 7.2 Earnings by gender and race and educational attainment



### 7.3 Latino population growth by region



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- ❖ 1998: Associates in Arts - Generalist  
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- ❖ Psychodrama, Sociometry and Group Psychotherapy, 2002
- ❖ American Fundraising Professionals
- ❖ Columbia University Alumni Association
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- ❖ Human Rights Campaign
- ❖ Loyola University Alumni Association
- ❖ National Association of Social Workers
- ❖ Society for Social Work and Research
- ❖ City of New York – Office of the Brooklyn Borough President, Citation, 2008
- ❖ City of New York – Office of the Brooklyn Borough President, Proclamation, 2007
- ❖ New York City Department of Public Health & Mental Hygiene, Dedicated Service Certificate of Recognition, 2007
- ❖ New York City Public High Schools, Intergenerational Work-Study Program Award of Appreciation, 2007
- ❖ Miami-Dade Public Schools Frederick Douglas Elementary School, Dedication to Students Certificate of Appreciation, 2002

August 2015 to present - FLORIDA INTERNATIONAL UNIVERSITY  
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May 2014 to May 2015 - AMERICANS FOR IMMIGRANT JUSTICE  
Director of Development

August 2013 to April 2014 - MIAMI DADE COUNTY – CAHS  
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December 2008 to 2013 - FLORIDA INTERNATIONAL UNIVERSITY  
Executive Major Gifts Development Officer

July 2003 to 2008 - BUENA VIDA CONTINUING CARE REHAB CENTER  
Director of Community Affairs and Development

#### PUBLICATIONS

“Women Earn Less, Experience Negative Company Cultures, and Still Face a Glass Ceiling in the Communication Industries,”  
<https://carta.fiu.edu/kopenhavercenter/wp-content/uploads/sites/17/2018/06/Kopenhaver-Center-Report-2018-ver-1>.

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