

Are Refugees and Immigrants Different?

Gauging the Correlation Between Refugee Status and Economic and Educational Success

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Abstract

Little previous research has analyzed the long-term economic and educational trajectories of refugee and immigrant arrivals in the U.S. Studies have found that refugees outperform immigrants in long-term earnings and economic outcomes because their inability to return to their countries of origin forces them to invest in country-specific human capital. This study revisits this research with a new methodology that increases the sensitivity of identifying refugees. The analysis uses American Community Survey data taken from 2001-2013 and focuses on immigrants and refugees who arrived in the U.S. from 1989-2000. Refugee status was correlated with 11-13% lower earnings relative to immigrants and lower levels of occupational prestige for males but higher earnings and occupational prestige for females. Refugees who arrive as children seem to outperform immigrant children. Disadvantages stemming from sending-country conditions may account for adult refugee under-performance relative to immigrants while refugee services may assist refugee children in outperforming comparable-situated immigrants.

Introduction

The United States is revered as a nation of immigrants. In the past 200 years, immigration movements from every corner of the world have created a narrative portraying America as a land of abundant opportunity, a bastion for the tired and weary immigrants of Emma Lazarus's "New Colossus." That narrative continues today, with nearly a million immigrants arriving in the U.S. each year (Department of Homeland Security (DHS), 2013). During the past four decades alone, the number of immigrants in the U.S. quadrupled from 9.6 million in 1970 to over 41 million in 2013 (Zong and Batalova, 2015). At the same time, immigrants have meaningfully impacted modern U.S. demographics, culture, industry, tradition, and politics.

Similarly, the United States has become the world's foremost destination for refugees and asylum seekers during its growth into a world super power in the second half of the 20th century (The United Nations Refugee Agency, 2015). Estimates suggest that more than 3 million refugees have entered the U.S. during the past 50 years, with upwards of 100,000 new individuals arriving each year via refugee or asylee status (Yearbook of Immigration Statistics, DHS, 2013).

Immigrants and refugees are often clumped into a monolithic grouping that encompasses all foreign-born individuals living within the U.S. Yet in theory, immigrants and refugees represent different populations; refugees were forced to leave their home countries because of political or economic unrest, whereas immigrants left their countries of origin voluntarily.

The distinctions between immigrants and refugees are not limited to the conditions of their home or sending country. Indeed, refugees enjoy a preferred legal status accompanied by access to a robust program of services and resources meant to encourage and expedite assimilation. Non-profit organizations nationwide are awarded federal grant money to assist

recently-arrived refugees with short-term living necessities, language classes, and in finding long-term housing and employment. These resources act as a temporary safety net, facilitating successful transition into U.S. residency and in many ways giving those with official refugee status an advantage over traditional immigrants.

Despite significant distinctions between immigrants and refugees, few prior studies have examined the variance in their trajectories for successfully transitioning to life in this country. Recent research suggests that, despite facing immediate disadvantages in earnings and education levels, refugees eventually outperform their immigrant counterparts (Cortes, 2004). This outcome is thought to arise from refugees' inability to return to their countries of origin and consequently being forced to more fully invest in transitioning to U.S. living (Cortes, 2004). Despite these findings, there is a general dearth of research explicitly comparing immigrants and refugees, with most immigration research lumping the two groups together. Besides Cortes (2004), we know very little about how refugee legal status impacts earnings, education, and accumulation of language skills relative to traditional immigrants.

This thesis utilizes an innovative methodology for classifying refugees and immigrants and a contemporary data sample to update the analysis of Cortes (2004) and further explore the impact of refugee status on long-term assimilation success. This novel classification scheme increases the sensitivity of Cortes's original analysis and demonstrates highly dynamic refugee arrival trends not previously addressed in the literature. The findings of this thesis describe both the demographic composition of recently arrived refugees and immigrants and their relative economic and educational trajectories. The insights enabled by this classification technique coupled with a deeper comparison of long-term economic trajectories together facilitate a more

thorough understanding of the comparative characteristics of recently-arrived refugees and immigrants.

A recent article in *The Economist* argued the U.S. should “reclaim its role as a beacon for those fleeing persecution and war” (*The Economist*, 10/17/15). Despite a history of generosity towards the world’s refugees and preliminary pledges to temporarily increase caps, the U.S. has remained on the sidelines for the current Syrian crisis. Whatever the eventual political outcome, the severity of the current crisis in Europe and recent issues with Latin American children at the southern border point to impending changes in U.S. refugee policy. In addition to informing potential approaches to policy making, this thesis exposes the dynamic nature of immigration and refugee arrivals. Its findings indicate differences in refugee and immigrant success from Cortes (2004), typifying the need for adaptive strategies to refugee and immigration policy.

Background

Definitions

Before examining the literature, differences between immigrants and refugees must be briefly discussed. Generally speaking, refugees are those individuals who come to the U.S. to escape conflicts in their countries of origin while immigrants are those individuals who come for either economic or family reasons. Apart from their distinct sending country circumstances, refugees also enjoy unique legal status that entitles them to government assistance and resources not afforded regular immigrants. These distinctions are addressed more thoroughly in the following section.

A refugee is an individual who, “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is

unwilling to avail himself of the protection of that country” (U.N. Refugee Agency, 2015).

Refugees are individuals forced by circumstance (e.g., ethnic cleansing, political/religious persecution, civil war) to leave their country of origin.

Refugees are defined herein to include asylum seekers. Asylum seekers maintain a similar status to refugee immigrants in that they are unable to remain in their country of origin due to similar safety concerns or issues of persecution. However, an asylum seeker is “someone who says he or she is a refugee, but whose claim has not yet been definitively evaluated” (U.N. Refugee Agency, 2015). Usually, an asylum seeker is an individual who arrived in the U.S. before initiating the formal process of applying for refugee status. Defectors from Cuba are the clearest example of asylees. They arrive in the U.S. without the ability to return back to Cuba because of political unrest but have not yet gone through the legal process of gaining refugee status. In this way, they are asylees because they apply for refugee status even though they are already residing in the U.S. Asylee and refugee populations come from comparable circumstances but are somewhat different in terms of the timing of their entrance and acquisition of official refugee status.

Immigrants are individuals who come to the U.S. through legal means other than as refugees or asylees. Illegal immigrants are beyond the scope of this thesis, and not discussed. For present purposes, the term immigrant includes only legal immigrants. Nonetheless, in a strict sense, immigrants in the sample are people who came to the U.S. most likely through legal means other than as refugees or asylum seekers.

Demographics

Throughout U.S. history, immigrants have represented a substantial portion of the U.S. population. In 1910, 14.9% of the more than 92 million people living in the U.S. were

immigrants. The percentage of foreign-born individuals gradually declined to less than 5% in the 1970s before skyrocketing in the 21st century. Recent estimates suggest the population of foreign-born people living in America has risen over 40 million, representing almost 13% of the U.S. population (Krogstad and Keegan, 2014). Immigration demographics have shifted drastically over the past two centuries and are often grouped into three distinct waves. Immigrants of the first wave (1840-1890) were predominately Northern European while immigrants of the second wave (1890-1920) were primarily from Southern and Eastern Europe. The most recent immigration wave (1960-present) has been characterized by a shift away from the Euro-centric immigration patterns of the past, with Mexico sending 28% of immigrants, followed by China with 6% and a host of other Asian and Latin American nations with less than 5% (Pew Research Center, 2014).

Refugees represent a smaller but still significant part of the U.S. population. Over the past 40 years, the U.S. has admitted anywhere from 25,000 to over 200,000 refugees annually and over 3 million in total since 1975 (DHS, 2013). Refugee arrival numbers fluctuate depending upon political situations abroad, which can change quite rapidly (Inkpen and Igielnik, 2014). A nation from which the U.S. may not have accepted refugees in prior years may experience a spike in refugee acceptances following an outbreak of civil war or genocide. For example, the U.S. only accepted a handful of refugees from Syria in 2013 but has vowed to increase its acceptance rate considerably in response to a mass exodus of Syrians fleeing the ongoing civil war and atrocities committed against civilians by the Assad regime (Gambino, 2015). Alternatively, the U.S. now accepts few refugees from Russia whereas refugees from the USSR in the late 1980s and early 1990s comprised a large portion of annual acceptances (Inkpen and Igielnik, 2014). In 2013, the total U.S. refugee acceptance cap was 70,000, with regional caps of

15,950 for Africa, 16,600 for East Asia, 650 for Europe, 4,400 for Latin America/Caribbean, and 32,400 for the Near East/South Asia. The largest individual sender countries were Iraq with nearly 20,000, Burma with just over 16,000, Bhutan with 9,000, Somalia with 8,000, Cuba with 4,000, the Democratic Republic of the Congo with 2,500 and Sudan and Eritrea with around 2,000 (U.S. Department of State, 2014).

Current U.S. Immigration Policy

The U.S. immigration system is highly complex and encompasses a number of different visa/immigration types. The U.S. accepts immigrants based on three primary principles: family-reunification, employment-based immigration, and promotion of diversity. The current worldwide annual cap for permanent immigrants is 675,000 (American Immigration Council, 2014). Temporary immigrants, for example those using student or worker visas, are not included in this permanent immigrants cap. This number does not include refugees.

Family-based immigration represents the largest portion of American immigration. The cap for family-based visas is set at 480,000 with a baseline of 226,000 each year. Family-based immigrants are grouped into two sub-pools: immediate relatives of U.S. citizens or the family preference system. Immediate relatives are spouses of U.S. citizens, unmarried minor children of citizens, or parents of citizens. There is technically no numerical cap for immediate relative visas, but petitioners must meet basic age and financial requirements. There are similar requirements for immigrants entering through the family preference system. However, these visas apply to adult children and siblings of citizens as well as spouses and unmarried minor children of lawful permanent residents (American Immigration Council, 2014).

Employment-based immigration is split into temporary and permanent sub-categories. There are over 20 different visas offered to temporary nonimmigrant workers – anything from

visas for intracompany transfers and diplomatic employees to athletes and entertainers. A majority of these visas are for highly skilled workers and are provided for specific employers or positions. These visas are also not part of the permanent immigration cap (American Immigration Council, 2014).

Permanent employment-based immigration, on the other hand, is part of the permanent immigration cap and has an annual visa cap of 140,000. Of these 140,000 visas, 40,000 are provided for “persons of extraordinary ability” in the arts, science, education, business, or athletics” (American Immigration Council, 2014). This includes multinational executives, preeminent professors or researchers, professional athletes, and exceptional artists and scientists. Another 40,000 are provided for individuals with advanced degrees and yet another 40,000 are for skilled workers who meet defined educational and experiential threshold requirements (within this 40,000, there is room for 5,000 unskilled laborers for jobs that are not temporary or seasonal). An additional 10,000 visas are offered for “special immigrants” including religious workers, U.S. Foreign Service workers, and former U.S. government employees. A final 10,000 are offered for individuals who will invest between \$500 thousand and \$1 million in a “job-creating enterprise” that employs a minimum of 10 American citizens (American Immigration Council, 2014).

In addition to family- and employment-based immigration, the U.S. accepts immigrants through the Diversity Visa lottery. The Diversity Visa lottery was created to increase immigration from countries with traditionally low rates of immigration and is a product of the Immigration Act of 1990. The U.S. distributes 55,000 visas at random across the six geographic regions of the world with larger portions of these visa allotments going to regions with the lowest immigration rates. Potential immigrants must meet certain education and professional experience

requirements before entering into a lottery to receive a visa. Due to the regional distribution of the visas, the program has recently favored Africans and Eastern Europeans (American Immigration Council, 2014).

The three major avenues of immigration – employment-based, family-based, and the Diversity Visa lottery – are all subject to a per-country visa ceiling. Namely, each country sending immigrants to the U.S. is entitled to a limited number of annual visas. Currently, no immigrant group from any individual country may exceed 7% of the total immigrants to the U.S. for that year (American Immigration Council, 2014).

Current U.S. Refugee Policy

As mentioned above, the U.S. admits a limited number of refugees annually. The current annual cap hovers around 70,000 and is decided each year by the coordinated efforts of the President and Congress. Refugees admitted to the U.S. typically arrive not from their country of origin but from a “transition country.” It is from these “transition countries” that potential refugees apply for admission to the U.S. For example, refugees accepted from Syria likely are not coming directly from Syria but have fled to transition countries like Turkey, Jordan, or Lebanon before applying for refugee status in the U.S. Refugee status is granted based on a number of criteria including the level of harm they face, membership in targeted demographics such as certain ethnicities or religions, and whether or not they have family already residing in the U.S. The only difference for asylees is that they are already present in the U.S. at the time they apply for refugee status (American Immigration Council, 2014).

Refugees receive significant special accommodations upon arrival in their country of resettlement by virtue of their refugee status. Even before arriving in the U.S., refugee applications become “cases” and are assigned to national agencies that will help refugees

transition to living in the U.S. The federal government awards agency grants that allow them to provide a wide range of goods and services to incoming refugees. Refugees generally receive basic household goods and money for rent, food, transportation, insurance, and even some for discretionary spending. These grants tend to last around three months, and refugees are expected to actively attend ESL and acculturation classes as well as seek sustainable employment (Church World Service, 2014).

Responding to the ongoing refugee crisis in Europe, the U.S. will raise its refugee caps incrementally by 30,000 refugees to 85,000 in 2016 and 100,000 in 2017. In addition to these cap increases, President Obama announced an intention to accept an additional 10,000 Syrian refugees over the next year (Schwartz and Troianovski, 2015). It remains unclear if these increases will be temporary or long-term changes to the current 70,000-cap benchmark. Additionally, Senators Patrick Leahy and Lindsey Graham have proposed a \$1 billion supplemental spending bill in a bipartisan attempt to help the U.S. take its “fair share” of Syrian refugees (Matishak, 2015).

Following recent terrorist attacks in Paris, many U.S. policymakers have proposed increasing stringency in refugee selection process or not accepting Syrian refugees at all. More than 20 state governors have said they will not accept Syrian refugees, with several others and many members of Congress calling for increased screening such as a religious test to exclude all non-Christian refugees (Frostenson and Lind, 2015). On November 19th, the U.S. House of Representatives passed the American Security Against Foreign Enemies Act (American SAFE Act), a bill that will effectively halt all Syrian refugee arrivals by requiring the FBI director to personally vet each individual refugee application. While the bill does not explicitly prohibit approval of applications, it will (at least in the short term) delay Syrian and Iraqi arrivals as

myriad government agencies attempt to implement a more intense certification process (Lind, 2015).

Conceptual Issues in the Assimilation of Immigrants and Refugees

Seminal research on long-term assimilation suggests immigrants surpass natives in earnings within 15 years of immigration and make around 11% more than native-born workers after just 30 years in the U.S. (Chiswick, 1978). Numerous studies since indicate that immigrants rapidly overcome initial earnings gaps primarily through acquisition of language skills (Carliner, 1996; Chiswick, 1986, 1991, 1998; Chiswick and Miller, 1996; Funkhouser, 1995; Rivera-Batiz, 1990; Shields & Price, 2001).

Immigrants and refugees encounter very similar circumstances in their long-term economic assimilation. Indeed, apart from Cortes (2004, discussed at length in the next section), previous research has grouped these two populations together in considerations of earning potentials, educational attainment, and general assimilative success. Despite their apparent similarities, refugees and immigrants are in theory uniquely defined by their sending-country conditions. Sending-country conditions (economic, political, social circumstances) have been found to impact long-term economic success of immigrants (Borjas, 1987). Thus, the violent circumstances from which refugees arrive hypothetically affect their assimilative success relative to immigrants.

In reality, this distinction is not so stark; there exists significant gray area between immigrants and refugees with regard to their sending country-conditions. Historically, millions of immigrants have fled poverty, war, and political conflict that might have warranted refugee status but arrived simply as immigrants without preferred legal status. This gray area still exists today. Thousands of immigrants flow into the U.S. from sending country circumstances that are

just as violent as those of refugees.

Additional factors like pre-selection and remigration, discussed below, distinguish immigrant and refugee populations. These factors help define the composition of refugee and immigrant populations arriving in the U.S. and likely impact the long-term economic success of both groups.

Pre-Selection

Pre-selection is the notion that foreign-born individuals are not representative of their country of origin (Chiswick, 1978). Rather, the very fact that they have immigrated sets them apart from the rest of the population of their home country. The act of immigration itself is indicative of immigrants possessing distinct characteristics or attributes that push and facilitate them to move to the U.S. These attributes can be anything from unobservable characteristics like ambition or entrepreneurial attitude to more observable characteristics like increased education or work experience.

Seminal research on pre-selection indicates that immigrants are positively pre-selected for traits such as higher motivation or ambition (Chiswick, 1978). However, pre-selection effects appear to differ greatly depending on the economic standing of the immigrant's country of origin (Borjas, 1991). Some evidence suggests immigrants from advanced industrial countries tend to be positively pre-selected while immigrants from underdeveloped or developing countries tend to be negatively pre-selected (Borjas, 1991). Other evidence suggests the immigration process positively pre-selects for immigrants from both developed and underdeveloped nations. For example, even immigrants from less developed nations in Asia and Africa tend to have higher levels of education than the populations of their sending countries (Portes and Rumbaut 1996, Cohen and Haberfeld, 2007).

Pre-selection is thought to be generally less intense for refugees than for immigrants, owing in part to the fact that refugees do not leave their country origin by choice (Chiswick, 1978, 1999). That being said, achieving refugee status still requires a certain degree of educational experience to navigate the application process. It seems reasonable the application process may positively pre-select refugees, but to date, this hypothesis remains untested.

Effects of Remigration

Remigration intensifies the impacts of immigration pre-selection. Estimates suggest around 1% of immigrants emigrate from the U.S. annually (Schwabish, 2011). While seemingly insignificant, when aggregated this level of remigration means as many as 30% of legal immigrants to the U.S. leave or return home (Duleep, 1994). Remigration causes additional selection that further distinguishes immigrants from their nonimmigrant counterparts (Borjas and Bratsberg, 1996). The intensification of pre-selection from remigration occurs in the same direction as the original pre-selective effect, namely positive pre-selection becomes more positive and negative pre-selection becomes more negative.

Refugees are theoretically distinct from immigrants as there is no possibility of remigration. Cortes (2004) argues that refugees not having the opportunity to immigrate back to their homelands spurs human capital investment and long-term success. Indeed, refugees are more likely to invest in schooling than traditional immigrants (Khan, 1997). However, refugee repatriation has increased drastically worldwide in the past 20-30 years, muddling the relative impact of remigration in comparing refugees to immigrants (Bradley, 2013). Between 1998 and 2007, more than 11.4 million refugees worldwide returned to their country of origin. In the same time period, 14 refugees returned home for every one that was resettled (Bradley, 2014). Despite

the growth of refugee remigration worldwide, little is known on how this impacts refugee selection and composition.

Previous Comparisons of Refugees and Immigrants

Only one previous study of note (Cortes, 2004) has explicitly compared refugee and immigrant populations and their assimilation trajectories after arriving in the U.S. Cortes's work, which inspired this thesis' methodology, suggests refugees actually outperform immigrants in the long run despite initial disadvantages. As described previously, Cortes maintains refugees have higher long-term earnings growth than comparable immigrants because they are unable to return home and thus invest in country-specific human capital at a higher rate. With additional pressure to "make it" in their new country, refugees are theoretically more inclined to acquire language skills and advance their education levels, which positively impacts their long-term earnings potential (Cortes, 2004).

Cortes's analysis also yields several results of interest regarding the composition of refugee and immigrant arrivals. Cortes finds that gender composition for both immigrant and refugee groups are roughly equivalent despite expectations that economic immigrants would be predominately male. Additionally, immigrants in Cortes's sample appear to be somewhat younger than refugees, a logical trend given the propensity of younger people to immigrate in search of job opportunities.

The more important result identified by Cortes is in the cross-sectional analysis of earnings and the subsequent regression analysis. Cortes's sample consists of foreign-born individuals surveyed in either the 1980 or 1990 U.S. Census who arrived between 1975 and 1980. Cortes finds earnings for refugees between 1980 and 1990 increased to a greater degree than earnings for immigrants in the same time period. Despite refugees being at an initial

earnings disadvantage, they outpace and eventually outperform immigrants even when controlling for English skill and education. In this way, Cortes's results seem to suggest either refugee services are successfully boosting long-term earnings and assimilation, or refugees are in some way different from immigrants and this difference makes them more successful.

Cortes contends the underlying reason refugees outperform immigrants is their inability to return home. Whereas immigrants can more easily return to their sending country if they fail in the U.S., refugees do not have this option and experience more pressure to successfully assimilate. Refugees have a longer time horizon in a host country, which makes them more inclined to invest in country specific human capital like education, language skills, or citizenship. This in turn makes refugees more likely to follow the earnings growth trajectory of the native population and outpace immigrants who do not experience the same pressure from longer time horizons. Surprisingly, Cortes does not consider the impact of refugee services on the long-term trajectory of refugees relative to immigrants.

Brief Considerations for Regression Modeling

Differences in Male and Female Labor Market Outcomes

Men and women, native or foreign-born, perform very differently in the U.S. labor market. The White House estimates that full-time working women in the U.S. earn just 77% of what their male counterparts earn, while other estimates suggest a lesser gap at a rate of 84% (Patten, 2015). Even though this wage gap is closing, gender clearly has a significant impact on long-term labor market success (Patten, 2015). In addition to lower earnings, women are less likely to work full time, more likely to reduce work hours or take time off to care for children, and more likely to face gender discrimination in the workplace than male counterparts (Patten, 2015). This gender gap is no different for immigrant and refugee populations. Immigrant women

have lower rates of workforce participation than even native-born women, despite the fact that immigrants as a whole engage the labor force at higher rates than the native-born population (Batalova, Ruiz, and Zong, 2015). Given how significant gender is to labor market success, regression analyses were run separately for males and females as discussed below. This separation is consistent with previous economic research.

Importance of Occupational Prestige as a Labor Market Success Indicator

Previous research comparing refugees and immigrants has focused on annual earnings, hourly earnings, and annual hours worked as primary indicators of long-term economic success (Cortes, 2004). While these are logical indicators of economic success, they do nothing to describe social standing and other aspects of the assimilation process, features that are important for any robust analysis of immigrants and refugees. Occupation and occupational prestige rankings, on the other hand, are helpful indicators of social standing and embody other characteristics of individuals such as how much schooling they have, how they spend their money, what their friends and social surroundings entail, and even how healthy they are (Warren, 1998). For this reason, both earnings and occupational prestige were used as outcome variables to gauge the relative success of immigrants and refugees. The use of occupational prestige offers a clearer indication of immigrant and refugee success in transitioning to the U.S. and is one of the innovations of this thesis.

Research Questions and Hypotheses

The paucity of comparative research on immigrants and refugees suggests these groups are one and the same. Despite many similarities, refugees and immigrants are different because of the unique conditions from which they arrive in the U.S. These unique conditions, coupled with pre-selection and remigration effects, impact the composition of either group. In turn, the

distinct characteristics of the arrival populations impact the long-term assimilative success of either group relative to the other. Figure 1 depicts all the factors that impact the composition of recently arrived foreign-born individuals and their aggregate effect on the long-term earnings and assimilation trajectories of refugees and immigrants.

[Figure 1]

As Figure 1 portrays, long-term refugee and immigrant economic outcomes are a result of many factors. This thesis analyzes these factors (except pre-selection and remigration) in isolation in an attempt to put together all the pieces of the assimilation story. In doing so, this thesis explores how refugee and immigrant populations' long-term economic trajectories differ by answering the following questions:

Sending-Country Conditions

How are sending-country conditions of refugees and immigrants distinct? The analysis herein examines whether the sending-country conditions of refugees and immigrants are actually distinct, or whether refugees and immigrants arrive from similar conditions. This paper hypothesizes that refugee sending-country conditions will be worse than immigrant sending-country conditions, but not as significantly as might be expected. Whereas sending-country conditions should theoretically be very distinct, the thousands of immigrants who arrive as immigrants fleeing refugee-like conditions will converge the observable sending circumstances of refugees and immigrants.

Arrival Population Composition

How are the refugee and immigrant arrival populations distinct? The second step of the below analysis assesses whether or not there are differences in the composition of refugee and immigrant populations in the U.S. that might predict their long-term economic success and

general assimilation. Based on the analysis of Cortes (2004), this thesis hypothesizes that immigrants will be somewhat younger than refugees but that either group will otherwise be relatively similar demographically.

Long-Term Economic Success

How do refugees and immigrants perform relative to one another in terms of long-term economic success? The final stage of the analysis consists of various regression models that gauge the correlation between refugee status and economic success. Informed by Cortes (2004), refugee status was expected to correlate with increased long-term earnings. However, changes in refugee arrival trends could dramatically impact the correlation between refugee status and long-term economic success.

This thesis will address these questions in an attempt to build on the foundation of refugee and immigrant comparative research laid out by Cortes (2004). In addition to updating Cortes's original analysis, the novel methodology utilized herein for determining refugee status drastically increases the sensitivity of the analysis.

Research Design and Data

The following quantitative analysis uses a nationally representative sample of immigrant and refugee populations and focuses on two specific aims. Firstly, this analysis is designed to determine if refugees are different socio-demographically from immigrants. Secondly, it is intended to evaluate how immigrants and refugees transition to living in the U.S. using several different regression analyses of employment outcomes and educational attainment.

Data comes from the American Community Survey (ACS), a nationally representative survey conducted by the U.S. Census Bureau. The ACS was chosen because it contains birthplace and arrival year of immigrants, as well as a number of employment and education

indicators like wages, occupational prestige, English skill, and educational attainment, which will serve as outcome variables. The data was collected between 2001-2013 (which represents all available ACS data), and was accessed using the Integrated Public Use Microdata Series (IPUMS-USA).

Using 2001-2013 ACS data, this study analyzes a fixed cohort of immigrants who arrived in the United States between 1989 and 2000. For the 2001 ACS, only foreign-born individuals aged 16 to 45 who arrived in the U.S. in 1989-2000 are included. The age range was increased by one year for each successive year of the ACS: individuals aged 17-46 for 2002 ACS, 18-47 for 2003 ACS, 19-48 for 2004 ACS, 20-49 for 2005 ACS, 21-50 for 2006 ACS, 22-51 for 2007 ACS, 23-52 for 2008 ACS, 24-53 for 2009 ACS, 25-54 for 2010 ACS, 26-55 for 2011 ACS, 27-56 for 2012 ACS, and 28-57 for 2013 ACS. This aging sample structure, which mimics Cortes, was selected to gauge long-term economic and educational growth without the availability of a longitudinal sample. Analyzing progressively older cohorts effectively allows for tracking of the long-term trajectory of immigrant samples without actually being able to follow trajectories of specific individuals. Additionally, using the staggered arrival time (1989-2000) with the data collection period (2001-2013) ensures the sample is comprised of immigrants and refugees who have been in the U.S. for extended periods of time and whose economic and educational trajectories have been affected by the circumstances they encountered. Appendix A describes all the components of the sample sub-setting process.

Table 1 compares the sample of arrivals from 1989-2000 to the expected arrival population based on the Department of Homeland Security's (DHS) statistics from 1989-2000. DHS's statistics represent the total arrival population during the time period while the ACS statistics represent a sample of the same arrival population (with possible error due to incorrect

year of entry or illegal immigrant entries). Inclusion of this table ensures the ACS sample looked similar proportionally at a sending-country level to the DHS arrival count. The proportions for each country are very similar for both time periods; except for Mexico, every country has a DHS arrival and ACS sample count within 2% of one another. The numbers for Mexico are skewed for two possible reasons. The counts for the 1989-1994 time period were likely misrepresented as a result of the passage of the Immigration Reform and Control Act (IRCA) of 1986, which legalized millions of previously undocumented workers. For the time period 1995-2000, the ACS count is possibly higher because of the continued prevalence of illegal immigration. Whereas the ACS would capture illegal immigrants within the sample, the DHS counts only include legal immigrants, which explains why they appear to be artificially deflated. Regardless, the general similarity of the ACS and DHS country proportions across all included countries validates the ACS as a legitimate sampling of foreign-arrivals from 1989-2000.

[Insert Table 1]

Deciding Who is a Refugee

This thesis also examines shifting trends in refugee arrivals on a country-by-country basis between 1989 and 2000. This component represents a primary contribution to current research and provides a critical underpinning of the subsequent quantitative analysis. Comparative research on immigrants and refugees is limited by the availability of reliable data. There is currently no known large-scale data source that explicitly indicates refugee status, meaning comparisons must rely on proxies to indicate if an individual is a refugee. The seminal work of Cortes (2004) chose specific countries (Afghanistan, Cuba, the Soviet Union, Ethiopia, Haiti, Cambodia, Laos, and Vietnam) known for sending high volumes of refugees and designates all arrivals from those countries as refugees. While sending-country and year pairs can be an

effective proxy for refugee status, Cortes's specific operationalization is not sensitive to the drastic changes in refugee arrivals on an annual basis.

This thesis uses the same country-year intersection as a proxy for refugee status but with significantly improved sensitivity. A new variable was created using the Department of Homeland Security's Yearbook of Immigration statistics that expresses the probability an individual is a refugee based on sending-country and year of arrival. This variable was computed by dividing the number of refugees by the total number of arrivals for every country-year intersection (see Appendix B). This yields a proportion ranging from 0.00-1.00 that represents the statistical probability that an individual arriving in the U.S. from a specific country-year is a refugee. Graphs 1-5 demonstrate the highly variable refugee arrival trends for various countries separated by region. The high degree of variation illustrates both a significant limitation of Cortes's analysis and the need for increasingly more adaptable policy approaches in the refugee and immigration policy space. Far from being monolithic, refugees are an amorphous and dynamic group that must be addressed as such.

[Insert Graphs 1-5]

In 2010, for example, 6,109 individuals arrived in the U.S. from the south Asian country of Bhutan (DHS, 2010; see Table 3, page 12). Of these 6,109 arrivals, 6,071 had refugee/asylee status (See Table 10, page 27). Based on these numbers, any individual who arrived from Bhutan in 2010 has a more than 99% chance of being refugee. On the other hand, in 2010, 13,328 individuals arrived from Canada (See Table 3, page 12), with only 35 of those having refugee status (See Table 10, page 27). Any individual arriving from Canada in 2010 has a less than 0.3% chance of being a refugee. Based on these proportions, Bhutanese respondents who arrived

in 2010 are assumed to be refugees, whereas any Canadian respondents who arrived in 2010 are assumed to be immigrants.

This new variable represents a significant advancement for research on refugees in and of itself, but also facilitates the creation of the more sensitive 3-level categorical used in the quantitative analysis. The three specific groups (refugee probability score: R=0-2) are those with a refugee probability $<.33$ (R=0), between $.33$ and $.66$ (R=1), and $<.66$ (R=2). For the rest of this thesis, the individuals with a refugee probability below $.33$ will be referred to as the immigrant sample while the other two groups will be referred to as the refugee sample.

Analysis and Empirical Results

Sending-Country Conditions

Creating this categorical also enables a broad analysis of sending-country conditions (education levels, GDP per capita, unemployment, and major episodes of political violence) based on the relative likelihood a country is sending immigrants or refugees. Each country-year is assigned a categorical refugee probability score that is used to analyze summary statistics of the factors listed above. This analysis indicates whether countries that are likely sending immigrants differ in any way from those that are likely sending refugees. (The analysis itself is more granular because it occurs at a country-year level instead of just at the country level.) Table 2 shows the summary statistics for country-years stratified by their refugee probability score. The GDP per capita and unemployment data come from the World Economic Outlook presented by the International Monetary Fund (IMF). The sending-country education levels come from the Barro-Lee Educational Attainment data set. Finally, the political and social conflict data come from the Major Episodes of Political Violence (1946-2014) dataset presented by the Integrated Network for Societal Conflict Research (INSCR). The included variable (represented by

“Political Violence” in the Table 2) indicates the prevalence of violence in the sending country or surrounding region including instances of ethnic warfare, civil warfare, proximate international warfare and several similar measures. Scores range from 0-13, with zero representing no instances of social or political violence and 13 representing extreme multi-faceted social and political conflict in both the sending country and surrounding regions.

[Insert Table 2]

Before examining the results, it is important to note the presence of significantly more immigrant sending-country years (1733 country years with $R \leq 0.33$) than refugee sending country years (231 country years with $0.33 < R$). This is an expected result given that the population of immigrants in the U.S. dwarfs the population of refugees; most country-years will be classified as immigrant sending. However, basic analysis of sending-country conditions suggests refugee country-years are generally worse than immigrant-sending country-years. Sending-country unemployment rates and average levels of education appear fairly constant across refugee probability scores. However, immigrant-sending country-years have a mean GDP per capita over 10 times that of refugee-sending country-years. Furthermore, refugee-sending country-years have twice the average instances of major episodes of political violence. While these results are certainly rough given the skewed sample sizes, they do reflect the negative conditions one would expect from refugee-senders.

Characteristics of Refugees and Immigrants

This section presents various demographic and human capital data on ACS respondents based on their refugee probability score. Table 3 presents general demographic data stratified by the refugee score and separated into pre- and post-1995 arrival groups. The number of respondents in the lowest refugee probability groups (Range: 281,537-326,584) is significantly

larger than in the higher refugee probability groups (Range: 7,927-20,519), an expected outcome based on the number of immigrants in the U.S. relative to the number of refugees. Additionally, the sample appears to have a slightly higher proportion of females than males. Notable differences in age, education level, English skill, and citizenship are discussed below.

[Insert Table 3]

Graph 6 presents a distribution of ages at time of arrival for all three refugee probability groups. (This graph uses the complete sample of foreign arrivals between 1989-2000 instead of the subset sample described above.) This graph indicates the immigrant group is younger than the two groups with higher refugee probability scores. In other words, the population with a higher probability of being a refugee is slightly older than the population that has a lower probability of being a refugee, a result that is consistent with the analysis of Cortes (2004). This result confirms a priori assumptions regarding population age; we would expect immigrants to be disproportionately of working age whereas refugees are a more random (and subsequently older) sample of population of their sending country (Cortes 2004).

Graph 7 presents education levels for all three groups. The immigrant group has significantly higher proportion of people who lack a high school diploma (~30% vs 15-20%), but also a slightly higher proportion (3-5%) of individuals with advanced post-bachelor's degrees. Cortes's (2004) results also indicate immigrants are more concentrated in the lower education levels than refugees, but do not show a higher proportion of immigrants with post-bachelor's degrees as here. Recent immigration policy changes meant to attract highly educated immigrants may explain why immigrants have a slightly higher proportion of individuals with advanced degrees in this sample but not that of Cortes (2004).

Graph 8 shows the English skills for all three populations, with the y-axis representing the proportion of individuals who report not speaking English at all or speaking English poorly. Of the high refugee probability group, almost 43% report low English skills versus 36% and 33% for the immigrant and middle refugee probability groups respectively. Despite this apparent deficit among recent arrivals, the refugee group increases English skills at a much higher rate (10% versus 5%) compared to the other two groups as length of stay in the U.S. increases. This trend, which is also apparent in Cortes's (2004) sample, could result at least partly from the language services provided to refugees throughout the resettlement process.

Finally, Graph 9 displays the citizenship status for all three groups separated by length of stay. The immigrant group lags well behind the two refugee groups in citizenship for both recent and long-term arrivals. Only around 21% of the recently arrived immigrant sample has citizenship status (44% and 46% for the refugee groups) and this percentage only increases to around 42% for longer-term arrivals (70% and 79% for refugee groups). Cortes (2004) also reports that refugees gain citizenship status at a much faster rate than immigrants. Refugees' preferred legal status likely expedites the citizenship process and accounts for much of this difference.

[Insert Graphs 6-9]

Model Specification and Regression Analysis

In this section, a regression analysis is utilized to further explore the impact refugee status has on long-term success in transitioning to living in the U.S. Two outcome variables, log earnings and occupational prestige, were analyzed using the following model:

$$Y_{i,t} = \alpha_0 + \phi_{0\text{control}} + \beta_1 \text{yearsusa} + \beta_2 R^1 + \beta_3 R^2 + \beta_4 \text{probability} * \text{yearsusa}$$

Where Y is one of the two dependent variables described above, R^1 is a dummy variable indicating an individual has a refugee probability score of $0.33 < R \leq .66$, R^2 is a dummy variable indicating an individual has a refugee probability score $R > 0.66$, $rprobability$ is the categorical form of the refugee probability score, $yearsusa$ is the number of years a respondent has been in the U.S., and $rprobability * yearsusa$ is an interaction of refugee probability and time in the U.S. The variable $\phi_{0control}$ is a set of control variables including age at time surveyed, an indicator for high English skills, an indicator for education level, the average education of the corresponding sending-country, and an indicator for the year of data collection to control for fluctuations in the economy and labor market. As described previously, gender is a significant indicator of economic success; therefore, the model was run separately for males and females.

For the output variables, nominal earnings from the ACS were divided by the annual Consumer Price Index (CPI) before the log was taken to yield the log of real earnings. The occupational prestige variable is the Nakao-Treas prestige score which ranges from 0-100 and gauges the “social standing” of each occupation. For this variable, the ACS collects occupation and the IPUMS team calculates a score based on Nakao and Treas’s prestige assessments formulated from data in the 1989 General Social Survey (IPUMS, 2015).

The regression specification presents three outcomes of interest. The coefficient β_1 describes the degree to which additional years in the U.S. impacts earnings and occupational prestige, with a positive coefficient indicating additional years in the U.S. increases earnings or prestige. The coefficients β_2 and β_3 signify the impact of refugee probability score on the two outcome variables, with positive coefficients indicating a higher refugee probability score increases earnings or prestige relative to the low refugee probability group. This variable was

presented as three indicator variables (the low refugee probability group is omitted in the model) instead of as a three-level categorical in order to gauge the different impacts for different groups. Presenting this variable as indicators demonstrates the impact of belonging to the middle or high refugee probability group relative to the low probability group, a degree of precision not possible if it were presented as a categorical instead of three indicators. Finally, the coefficient β_4 describes the interaction between refugee probability and years in the U.S. A positive coefficient indicates individuals with a higher refugee probability score outpace those with a lower score over longer periods of time.

Before running the regression analysis, preliminary summary statistics were run to explore relative earnings and occupational prestige of the different refugee probability groups (Table 4). The two difference columns represent the values for 1995-2000 subtracted from the values for 1989-1994. This represents the additional earnings each refugee probability group gains from having arrived earlier in the U.S. and having had additional time to improve their economic status. Given the positive correlation between years in the U.S. and earnings/labor market outcomes, the earlier arrival group (1989-1994) would reasonably be expected to perform better than the later arrival group (1995-2000). Earnings for all three groups appear to decrease slightly across the time period for males. Earlier arrivals for the two refugee groups have slightly higher occupational prestige scores while the more recently arrived immigrants actually have slightly higher prestige scores for males. Given these results, it is possible more recent refugee arrivals (1995-2000) were better equipped to engage the labor force than refugees who arrived earlier (1989-1994). This trend could result from the significant influx of refugees from Russia and other former Soviet states in the second half of the 1990s. The former Soviet states were relatively well-developed and likely had better long-term sending-country conditions than other

major refugee senders like Burma, Vietnam, or various African nations. The relative development of the Soviet Union may account for the fact that refugees arriving from 1995-2000 outperformed those arriving from 1989-1994 despite having had less time to transition to the U.S. labor market. Results for females follow confirm the expectation that earnings and occupational prestige scores would be higher for earlier arrivals than the later cohort.

[Insert Table 4]

Regression Results for Males

Table 5 presents the regression output for both the control model and full model for the output variable log earnings. As expected, increased years in the U.S. are associated with increased earnings, with each additional year in the U.S. correlated with a 0.5% increase in log earnings. English skills and sending-country education levels are both positively correlated with earnings as we would expect from previous research on language acquisition and earnings.

The refugee probability indicator variables and interaction variable ($rprobability * yearsus$) are both negatively correlated with earnings. The negative coefficients for the refugee probability indicators mean increased likelihood of refugee status is correlated with lower earnings. The negative coefficient on the interaction variable suggests that refugees tend to do worse than immigrants over long periods of time; immigrant earnings increase at a faster rate than refugee earnings in the long-term. A positive coefficient on the interaction variable would suggest, alternatively, that additional time in the U.S. benefits refugees to a greater degree than immigrants (*i.e.*, their earnings grow at a faster rate). Together, these results indicate refugee status is correlated with lower earnings, and immigrant earning increases outpace those of refugees in the long-term.

[Insert Table 5-6]

Table 6 displays the regression output for Nakao-Treas occupational prestige. The refugee probability indicators are negatively correlated with prestige scores. This correlation is more significant for the highest refugee probability group; a refugee probability score $R=1$ ($0.33 < R \leq 0.66$) is correlated with just a 0.4 decrease in occupational prestige whereas a refugee probability score of $R=2$ ($R > 0.66$) is correlated with a decrease of 2.5 in occupational prestige. However, the coefficient for the interaction variable is positive. This suggests the higher refugee probability groups ($R=1$ and $R=2$) benefit more from additional years in the U.S. than the lower probability group. In other words, refugees appear to increase their occupational prestige scores more than immigrants in the long-term. The positive coefficient for the interaction variable is inconsistent with the regression results for wages. A possible reason for this inconsistency is that the Nakao-Treas prestige scores were calculated based on survey data from the 1980s (IPUMS, 2015). It is possible refugees now occupy jobs that previously garnered higher prestige but now have lower wages.

As with earnings, educational attainment, sending-country education levels, English skills, and additional years are all correlated with increases in occupational prestige. The consistency of correlation for the controls for both the earnings and occupational prestige models represents internal validity of these models and data.

The regression results for males appear inconsistent with Cortes's (2004) ultimate findings. Whereas Cortes found that refugees outperform immigrants, this thesis finds that immigrants outperform refugees in economic success measures like earnings and occupational prestige.

Regression Results for Females

The regression outputs for females tell a slightly different story than for males (Tables 5-6). The refugee probability indicators are positively correlated with earnings and occupational prestige, indicating refugee status for women tends to increase their earnings and prestige scores. Similar to the results for males, the correlation is stronger for the R=2 ($R > 0.66$) group than for the R=1 ($0.33 < R \leq 0.66$) group; a refugee probability score between .33 and .66 was correlated with an increase in log earnings of 1.10 and occupational prestige score of 4.26 while a refugee probability score above .66 was associated with a log earnings increase of 1.43 and prestige score increase of 4.65. Despite positive correlations for the refugee probability indicators, the coefficient for the interaction variable for both models is negative. This negative value indicates earnings and occupational prestige increases for immigrants tend to be higher than for refugees in the long-term.

For both the earnings and occupational prestige models, all the control variables of interest have the same effect as for males except for sending-country education levels. Sending-country education levels had a slightly negative coefficient for the earnings model. This negative coefficient means increased sending-country education levels are correlated with a decrease in earnings for women.

The regression analyses for women are more consistent with Cortes' findings and somewhat contradict the findings for men. Refugee status is correlated with increased earnings and occupational prestige and appears to be somewhat advantageous for women relative to their immigrant counterparts.

Sub-Analysis on Children

In addition to the previously discussed models, two regression sub-analyses were run on individuals under the age of 6 years old who arrived from 1989-2000. Analysis of children should in theory more effectively control for the sending-country conditions and isolate the impact of refugee status. The two outcome variables for these regressions are educational attainment and high English skill. This regression uses the same model (again split by gender) as before except considers only age when surveyed, English skill (not included in English skill regression), and sending-country education levels as control variables.

Table 7 presents basic demographic information for the sample of children. Consistent with the adult sample described previously, the group with the lowest refugee probability score is much larger than the two refugee groups. Additionally, the two refugee groups dramatically outpace the immigrant groups in terms of citizenship.

The English skill regression output (Table 8) suggests refugee probability is positively correlated with reporting higher English skill for both the males and females. However, the interaction variable for these regressions have negative coefficients signifying immigrant children acquire language skills faster than refugee children. These results are skewed somewhat by the high incidence of high-level English skill among all three refugee probability groups.

The educational attainment output (Table 9) reports virtually the opposite of the English skills regression for both males and females. The coefficients for the refugee probability are negative, whereas the interaction variables are positive. These coefficients show that refugees who arrive in the U.S. as children have lower levels of education relative to immigrants. However, the positive values of the interaction variables indicate refugees tend to attain higher levels of education than immigrants as longer periods of time pass.

As expected, the control variables age, years in the U.S., and sending-country education levels are all positively correlated for both males and females across both the education and language skill model. The lone exception is sending-country education levels for females in the educational attainment model. Higher sending-country education levels are correlated with small decreases in educational attainment for women according to this model. Surprisingly, gender has no real impact on the outcomes for either model; coefficients for the refugee probability indicators and interaction variables have the same directionality and relative magnitude for males and females in both the education and English skill models.

[Insert Table 8-9]

Limitations

This thesis has several limitations worth mentioning. First and foremost is the use of sending-country and year of arrival as a proxy for refugee status. As previously mentioned, this proxy was necessary because there are no known data sets that explicitly indicate refugee status. Although there were likely instances in which refugees were mis-coded as immigrants or vice-versa, the methodology is more sensitive than that of previous studies and thereby minimized these errors.

Another limitation was the use of cross-sectional data. Use of a large cross-sectional database provides an inclusion of a multitude of independent variables applicable to the outcomes of interest (age, gender, year of entry to the United States, marital status, etc.). Cross-sectional data allow for correlations between these independent variables and the dependent variables of interest (earnings and occupational prestige), but does not allow for identifying direction of the association. Longitudinal data might provide multiple sampling time frames and allow for a more robust analysis of the associated variables, including some insight into

causation. Regression analysis controls for many of these covariates; however, it is impossible to control for all factors that influence economic trajectories in a cross-sectional cohort study because there may be important variables that are not included in the observed data. Because refugee status is determined at time of entry into the US, the cross-sectional data of this thesis actually provides temporal clues to the associations found in the earlier analysis. That is, refugee status preceded all of the dependent variables outcomes. Thus, the correlations found in this study support the notion that refugee status does impact economic outcomes, despite the use of cross-sectional instead of longitudinal data.

This thesis does not distinguish between refugees and asylum seekers. Although these two groups come to the U.S. under comparable circumstances, they are technically different and additional analysis might sort out differences between these two groups. However, just as there is no known data source that indicates refugee status, there is also no known data source that indicates if individuals are asylum seekers. Future research could apply a similar methodology to the one used in Cortes (2004) and this paper to study the differences between refugees, asylum seekers, and immigrants as three separate groups.

Missing country-level data was a small but persistent problem throughout the data compilation process. Many countries did not have data for some of the variables examined in the sending-country characteristics section. Many were underdeveloped countries with significant political and social turmoil that would have been likely candidates for refugee status in the U.S. Missing data in this section, in addition to weakening the strength of the analysis of sending country characteristics, meant using a slightly smaller sample of the ACS for the regression analysis to ensure there was accurate data represented for all parts of the regression model.

However, due to the substantial overall sample size, this limitation was inconsequential in this analysis.

Finally, several country coding issues arose either because of ambiguity in the data or geopolitical changes. The primary example of this is the fall of the USSR and breakup of the Soviet states into independent nations. For both the ACS and DHS, the USSR data was grouped into two categories: Russia and all other countries that were originally Soviet states. However, ambiguous coding in the ACS and DHS data complicated this process. For example, the DHS from 1989-2000 reports immigrant and refugee arrivals for both “Russia” and the “Soviet Union.” These numbers were grouped together as “Russia” but it is likely many of the arrivals from the Soviet Union came from other non-Russian Soviet states.

Discussion and Conclusions

This thesis explores the long-term assimilation success of refugees relative to immigrants. Whereas previous research has classified these two distinct populations as one homogenous group, this paper uniquely identifies refugees and compares their outcomes to those of immigrants. As discussed in the research questions and hypotheses, understanding the complete story of refugees and immigrants requires analysis of multiple different aspects that impact their long-term assimilation trajectory.

Preliminary analysis of sending country conditions for refugee and immigrant populations helps frame considerations of long-term success. As previously discussed, refugees come from worse circumstances than typical immigrants. Data on sending country conditions in this thesis verify this belief; refugees come from countries that have particularly low GDP per capita and high incidences of political violence relative to immigrants. Based on the settings of their countries of origin, refugees appear to be at an inherent disadvantage relative to immigrants.

This preliminary disadvantage may further impact the long-term population success of refugees relative to immigrants. Based on prior research (Borjas, 1991), refugees may be negatively pre-selected for traits that facilitate economic success (education, language skills, etc.) since they come from relatively violent and underdeveloped settings. It is also possible refugees are not negatively pre-selected from their sending-country population, but that the adverse sending-country conditions deflate the human capital levels and long-term capacity of the entire population (including both those who come to the U.S. as refugees and those who stay). While proving causality is beyond the scope of this thesis, it is clear refugees come from disadvantageous sending-country circumstances that may impact their long-term assimilation trajectories.

Despite coming from different sending-country conditions, refugee and immigrant populations arriving in the U.S. appear to be relatively similar socio-demographically. For refugee and immigrant arrivals from 1989-2000, there are no major differences in marital status, family size, or gender makeup. Consistent with expectations, the immigrant population is slightly younger than the refugee population. While initially distinct, refugee and immigrant levels of English skill and educational attainment converge over time. The only really significant difference between the groups is their levels of citizenship, with refugees outpacing immigrants in naturalization rates. Higher rates of refugee naturalization are most likely an artifact of preferred refugee status; however, this trend does not seem to indicate or represent a significant difference between the groups. Despite seemingly impactful differences in sending-country conditions, the refugee and immigrant arrivals analyzed in this thesis appear to be a somewhat homogenous group based on available and observable data. There are no major observable

differences between the populations that clearly account for their distinct assimilation trajectories.

Overall regression results somewhat contradict Cortes's (2004) findings that refugees outperform immigrants in the long-term. Immigrant males appear to outperform refugees both for earnings and occupational prestige. The earnings and prestige gap appears to only increase as time in the U.S. increases. Refugee females appear to slightly outperform immigrants in earnings, but the impact of this result is mitigated by the significant gap between male and female earnings. Additionally, immigrant women increase their earnings and occupational prestige at a faster rate than refugee women in the long-term.

Regression results for children present a somewhat different story than for adults. For both males and females, refugee status is correlated with higher probability of having high English skills for individuals who arrived in the U.S. as children. Additionally, while refugee status is slightly negatively correlated with education levels, refugee children gain additional levels of education relative to immigrant children as time passes. Together, this analysis suggests this group of immigrant and refugee children have thus far performed analogously and will likely have similar long-term earning trajectories.

The regression analysis should control for the differences (at least the observable differences) between refugees and immigrants and isolate the impact of refugee status on long-term assimilation success. The results for adults suggest that refugee status, at least for men, is correlated with less long-term economic success. The ensuing interpretation then is that refugee status actually makes individuals worse off relative to people that come as traditional immigrants. However, this interpretation is inconsistent with expectations about refugee status and the additional services they receive. Holding all other characteristics constant, the

assumption would be that refugee status and the associated financial support, employment services, and language skills would assist refugees, or at least not make them worse off.

There are two potential reasons refugee status and services are associated with worse economic outcomes despite predictions that they should facilitate economic achievement: (1) Refugees' experience in the U.S., despite their preferred status, is in some way uniquely harmful relative to immigrant experience, so much so that it shifts their long-term trajectory downwards. (2) Refugees have significant preexisting unobservable characteristics that make them distinct from immigrants and limit their long-term economic success.

The first interpretation seems invalid given the regression results for children. Far from suffering a harmful experience in the U.S., refugee children appear to do as well if not better than immigrant children. Analysis of children ostensibly controls for sending-country impacts and isolates the impact of refugee status. Given the results for children, refugee status and the general refugee experience do not seem to adversely affect economic and educational performance. In turn, this indicates that refugee services are correlated with lower earnings and occupational prestige not because they are actually harmful, but rather because adult refugees have significant unobservable or unmeasured characteristics that decrease long-term success.

Following this logic, if refugees in general have unobservable characteristics that make them less successful, then women and children refugees might have other unobservable characteristics that allow them to overcome this disadvantage. Alternatively, it could also be interpreted that refugees in general have positive unobservable characteristics but that male refugees have unobserved qualities that make them less successful than their immigrant counterparts and other demographics of refugees (women and children). Certainly, it makes sense that children, who have been impacted less by the dire circumstances of their sending

countries, will be more resilient than older refugees. However, it is unclear what accounts for female refugees drastically outperforming male refugees in relation to either group's immigrant counterparts. Do refugee women perhaps possess unobserved characteristics like resilience or entrepreneurial nature that allows them to be uniquely successful upon arriving in the U.S.?

This discussion of the possible impact of unobservable characteristics is a clear direction for future qualitative analysis. Comparative case studies and interviews of immigrant and refugee families would help point to the specific characteristics or dynamics that may go unobserved or unmeasured in large data samples but nonetheless have a significant impact on long-term economic success.

Another direction for research, qualitative and otherwise, is in better understanding the “middle group”, the populations who have refugee probabilities between .33 and .66. In particular, how do the individuals who come from adverse conditions with high proportions of refugees but who are not actually refugees perform relative to refugees and traditional immigrants? This is the group that suffers the same disadvantages as refugees, but who are not receiving the same services, support, and preferred status once they arrive in the U.S. What do their assimilation trajectories look like? This is a particularly interesting question when considering historically how many people arrive in the U.S. as immigrants but from circumstances that might warrant refugee status. Whether it is Irish Immigrants escaping a potato famine or Chinese immigrants fleeing Mao's Cultural Revolution or Latin American children fleeing drug violence, thousands, if not millions, of traditional immigrants to the U.S. have arrived as the “tired and huddled masses” but without the benefits of refugee services. From a contemporary policy perspective, should the government assist this “middle group” in overcoming their natural disadvantages? Or are their situations, dire as they may be, the

underlying driver of their success in the U.S., the spark that helps create unobserved characteristics that facilitated assimilation. Despite this thesis's attempt to answer questions about the middle group, many remain.

The insights of this thesis highlight an area in significant need of both future research and a change in understanding. Certainly, policy makers and social science researchers alike know very little of the comparative outcomes of refugees and immigrants. Despite the importance of additional research in this area, the absence of significant data is a major impediment to research advances. The more important take away then is that research and policymaking on refugee and immigration policies must become more adaptable and dynamic. As this thesis indicates, refugee arrival trends from year to year change drastically just on the basis of individual countries. These changes are even more significant across numerous countries and decades of time. The cohort of refugees investigated in this thesis, arrivals from 1989-2000, have completely different assimilation trajectories from those investigated in Cortes (2004) who arrived from 1975-1980. The composition of refugees and immigrants arriving in the U.S. is always shifting. The “tired and huddled masses” have a changing face. If the U.S. is to remain a beacon to the world, both in the refugee and immigration sphere, it must take seriously this changing face and begin to more effectively target policy solutions. This thesis in many ways raises more questions than it answers. However, it makes clear the compositional changes are significant, and underlies the importance of a change in understanding of refugee and immigration issues.

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References

Akee, R. (2010). "Who Leaves? Deciphering Immigrant Self-Selection from a Developing Country." Economic Development and Cultural Change **58**(2): 323-344.

"Asylum-Seekers." *UNHCR News*. The UN Refugee Agency, n.d. Web. 17 Mar. 2015. <<http://www.unhcr.org/pages/49c3646c137.html>>.

Borjas, G. J. (1985). "Assimilation, changes in cohort quality, and the earnings of immigrants." Journal of Labor Economics: 463-489.

Borjas, G. J. (1987). Self-selection and the earnings of immigrants, National Bureau of Economic Research Cambridge, Mass., USA.

Borjas, G. J. (1991). Immigration and self-selection. Immigration, trade and the labor market, University of Chicago Press: 29-76.

Borjas, G. J. (1992). National origin and the skills of immigrants in the postwar period. Immigration and the Workforce: Economic consequences for the United States and Source areas, University of Chicago Press: 17-48.

Borjas, G. J. and B. Bratsberg (1994). Who leaves? The outmigration of the foreign-born, National Bureau of Economic Research.

Bradley, Megan. *Refugee repatriation: justice, responsibility and redress*. Cambridge University Press, 2013.

Chiswick, B. R. (1978). "The effect of Americanization on the earnings of foreign-born men." The Journal of Political Economy: 897-921.

Chiswick, B. R. (1999). "Are immigrants favorably self-selected?" American Economic Review: 181-185.

Chokshi, Niraj. "For the first time, the U.S. high school graduation rate tops 80%, report finds." *Washington Post*: n. pag. *Washington Post*. Web. 20 Apr. 2015. <<http://www.washingtonpost.com/blogs/govbeat/wp/2014/04/28/for-the-first-time-the-u-s-high-school-graduation-rate-tops-80-percent-report-finds/>>.

Constant, A. and D. S. Massey (2003). "Self-selection, earnings, and out-migration: A longitudinal study of immigrants to Germany." Journal of Population Economics **16**(4): 631-653.

Cortes, K. E. (2004). "Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States." Review of Economics and Statistics **86**(2): 465-480.

DeVoretz, D. J., et al. (2004). "The economic experiences of refugees in Canada."

"FY13 Refugee Admissions Statistics." *U.S. Department of State*. U.S. Department of State, 01 July 2014. Web. 19 Mar. 2015.
<<http://www.state.gov/j/prm/releases/statistics/228666.htm>>.

Duleep, H. O. (1994). "Social security and the emigration of immigrants." *Soc. Sec. Bull.* **57**: 37.

Frostenson, Sarah, and Dara Lind. "Here's a Map of Every State Refusing to Accept Syrian Refugees." *Vox*. Vox, 18 Nov. 2015. Web. 21 Nov. 2015.
<<http://www.vox.com/2015/11/16/9746456/map-syrian-refugees-governors>>.

Gambino, Lauren. "US Steps up Syrian Refugee Admissions but Why Are Some Still Excluded?" *The Guardian*. The Guardian, 11 Mar. 2015. Web. 16 Mar. 2015.
<<http://www.theguardian.com/world/2015/mar/11/us-accept-thousands-syrian-refugees>>.

"How the United States Immigration System Works: A Fact Sheet." *Immigration Policy Center*. American Immigration Council, 01 Mar. 2014. Web. 11 Feb. 2015.
<<http://www.immigrationpolicy.org/just-facts/how-united-states-immigration-system-works-fact-sheet>>.

Hunt, J. (2009). Which immigrants are most innovative and entrepreneurial? Distinctions by entry visa, National Bureau of Economic Research.

Inkpen, Christopher, and Ruth Igielnik. "Where Refugees to the U.S. Come from." *Pew Research Center RSS*. FactTank, 28 July 2014. Web. 19 Mar. 2015.
<<http://www.pewresearch.org/fact-tank/2014/07/28/where-refugees-to-the-u-s-come-from/>>.

"Integrated Public Use Microdata Series." N.d. *IPUMS USA*. Web. 20 Apr. 2015.
<<https://usa.ipums.org/usa/index.shtml>>.

Krogstad, Jens Manuel, and Michael Keegan. "From Germany to Mexico: How America's Source of Immigrants Has Changed over a Century." *Pew Research Center RSS*. FactTank, 27 May 2014. Web. 18 Mar. 2015. <<http://www.pewresearch.org/fact-tank/2014/05/27/a-shift-from-germany-to-mexico-for-americas-immigrants/>>.

Liebig, T. and A. Sousa-Poza (2004). "Migration, Self-Selection and Income Inequality: An International Analysis." *Kyklos* **57**(1): 125-146.

Lind, Dara. "Republicans Have Obama in a Corner on Syrian Refugees." *Vox*. Vox, 19 Nov. 2015. Web. 21 Nov. 2015. <<http://www.vox.com/2015/11/19/9762054/congress-obama-refugees-syria/in/9025354>>.

Lind, Dara. "The US Is so Paranoid about Syrian Refugees That It's Letting Barely Any in." *Vox*. Vox, 16 Nov. 2015. Web. 21 Nov. 2015.
<<http://www.vox.com/explainers/2015/11/16/9745318/syrian-refugees-us-isis/in/9025354>>.

Lindsay Lowell, B. and J. Avato (2014). "The wages of skilled temporary migrants: Effects of visa pathways and job portability." *International Migration* 52(3): 85-98.

Massey, Douglas S., and Nancy A. Denton. "Suburbanization and segregation in US metropolitan areas." *American Journal of Sociology* (1988): 592-626.

Matishak, Martin. "Should the U.S. Spend \$1 Billion to Help Syrian Refugees?" *The Fiscal Times*. The Fiscal Times, 15 Oct. 2015. Web. 08 Nov. 2015. <<http://www.thefiscaltimes.com/2015/10/15/Should-US-Spend-1-Billion-Help-Syrian-Refugees>>.

Musterd, Sako, et al. "Are immigrants' earnings influenced by the characteristics of their neighbours?." *Environment and Planning A* 40.4 (2008): 785-805.

K. Nakao and J. Treas. 1994. "Updating Occupational Prestige and Socioeconomic Scores: How the New Measures Measure Up." *Sociological Methodology* 24: 1-72.

Patten, Eileen. "On Equal Pay Day, Key Facts about the Gender Pay Gap." *Pew Research Center RSS*. Pew Research Center, 14 Apr. 2015. Web. 28 Nov. 2015. <<http://www.pewresearch.org/fact-tank/2015/04/14/on-equal-pay-day-everything-you-need-to-know-about-the-gender-pay-gap/>>.

"Refugees." *UNHCR News*. The UN Refugee Agency, n.d. Web. 13 Mar. 2015. <<http://www.unhcr.org/pages/49c3646c125.html>>.

Ruiz, Ariel, Jie Zong, and Jeanne Batalova. "Immigrant Women in the United States." *Migrationpolicy.org*. Migration Policy Institute, 19 Mar. 2015. Web. 28 Nov. 2015. <<http://www.migrationpolicy.org/article/immigrant-women-united-states#Employment%20and%20Occupations>>.

Schwabish, Jonathan A. "Identifying rates of emigration in the United States using administrative earnings records." *International Journal of Population Research* 2011 (2011).

Schwartz, Felicia, and Anton Troianovski. "U.S. to Boost Refugee Intake by 30,000 Over Two Years." *WSJ*. WSJ, 20 Sept. 2015. Web. 18 Oct. 2015. <<http://www.wsj.com/articles/john-kerry-says-u-s-to-admit-30-000-more-refugees-in-next-2-years-1442768498>>.

"Second-Generation Americans." *Pew Research Centers Social Demographic Trends Project RSS*. Pew Research Center, 07 Feb. 2013. Web. 19 Mar. 2015. <<http://www.pewsocialtrends.org/2013/02/07/second-generation-americans/#three-great-waves>>.

Tammaru, Tiit, et al. "Learning through contact? The effects on earnings of immigrant exposure to the native population." *Environment and planning. A* 42.12 (2010): 2938.

The Refugee's Journey to America. Durham: Church World Service, 2014. Print.

Warren, John Robert, Jennifer T. Sheridan, and Robert M. Hauser. "Choosing a Measure of Occupational Standing How Useful are Composite Measures in Analyses of Gender Inequality in Occupational Attainment?." *Sociological Methods & Research* 27.1 (1998): 3-76.

"Yearbook of Immigration Statistics." *Department of Homeland Security*. Department of Homeland Security, n.d. Web. 20 Apr. 2015. <<http://www.dhs.gov/yearbook-immigration-statistics>>.

"Yearning to Breathe Free." *The Economist*. The Economist Newspaper, 17 Oct. 2015. Web. 11 Nov. 2015. <<http://www.economist.com/news/united-states/21674694-america-should-reclaim-its-role-beacon-those-fleeing-persecution-and-war-yearning>>.

Zong, Jie, and Jeanne Batalova. "Frequently Requested Statistics on Immigrants and Immigration in the United States." *Migrationpolicy.org*. Migration Policy Institute, 25 Feb. 2015. Web. 08 Nov. 2015. <<http://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states#Annual%20Flows>>.