# Immigrant and Native Financial Well-Being: The Role of Race/Ethnicity, Age at Migration, and Place of Education

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**ABSTRACT**

Immigrants' integration into American society has occupied the interest of both scholars and the general public throughout the nation's history. Race/ethnicity and nativity status are well known stratifying factors that differentially affect immigrants' abilities to integrate into society, but this paper considers an additional influence – place of education or where immigrants' complete their education (United States or abroad). Using wealth attainment as an indicator of economic integration and two waves of data from the 2001 and 2004 Survey of Income and Program Participation, this paper finds that racial/ethnic and educational stratification differentially affect immigrants' financial well-being. In general, foreign educated racial/ethnic minority immigrants experience two forms of inequality in the United States: one associated with their racial/ethnic status and one associated with their place of education. Therefore, in terms of economic integration and wealth accumulation, when racial/ethnic minority immigrants are labeled as being doubly disadvantaged, the second layer of disadvantage is actually not due to their status as immigrants, but rather where they completed their education.

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## INTRODUCTION

Immigrants' integration into American society has occupied the interest of both scholars and the general public throughout the nation's history. For contemporary immigrants, much scholarly attention has focused on questions related to the historically unprecedented diversity in source countries. This greater diversity stems, in part, from the passage of the 1965 Amendments to the Immigration and Nationality Act. This legislation drastically altered the composition of the U.S. immigration stream with post-1965 immigration streams becoming more source-country diverse than those from earlier in the century. This was due to the abolition of national-origin quotas, lifting of the bans on immigration from Latin America and Asia, and establishment of family-reunification policies (Massey 1995). Over time, the number of European immigrants shank, while the population of immigrants from Latin America and Asia grew substantially. This shift stood in stark contrast to the first half of the 20$^{th}$ century when European-origin immigrants dominated the immigrant stream. Besides altering the source country composition of the immigration stream, this shift also increased variation in immigrants' job skills, education, life experience, culture, and other traits and characteristics. This broad diversity offers an opportunity for scholars to re-examine how contemporary immigrants integrate into U.S. society.

Immigrants integrate into U.S. society along a variety of dimensions. One way to assess how contemporary immigrants incorporate into American society is to examine immigrants' economic integration or their financial well-being. For many immigrants, the opportunity to improve their financial well-being serves as the necessary motivation to migrate to the United States (Portes and Rumbaurt 2006). In this paper, I join with a handful of scholars who have moved beyond using income as an indicator of economic integration and have begun to examine

wealth accumulation. Scholars typically focus on income to assess immigrant economic integration, but wealth has several theoretical advantages over income. Wealth better represents the traditional idea of financial well-being (Oliver and Shapiro 1995) because it signifies more permanent notions of prosperity and security (Keister 2000). Wealth also reflects the result of numerous economic activities (Hao 2007). For instance, savings behavior, portfolio allocation, risk aversion, consumption patterns, and retirement expectations, among others, affect savings rates, asset acquisition, and financial goals. Additionally, wealth attainment allows better insight into the financial resources available to immigrants above and beyond their wages and earnings (e.g. Amuedo-Dorantes and Pozo 2002; Cobb-Clark and Hildebrand 2006b; Hao 2007). In sum, a focus on wealth attainment as an indicator of economic integration adheres more closely to the meaning and theoretical significance of financial well-being (Oliver and Shapiro 1995). Moreover, wealth attainment allows scholars to assess not only the financial benefits of asset ownership, but also the social processes that contribute to immigrant wealth accumulation.

Many factors affect immigrants' economic integration in the United States. This paper focuses on three dimensions of the U.S. social stratification system that may affect these patterns of integration: race/ethnicity, nativity, and education. First, race/ethnicity is a powerful stratifying factor that affects how immigrants are received into the U.S. social stratification system. The concept of racial formation (Omi and Winant 1994) provides a conceptual framework that shows how race structures U.S. society and how immigrants are assigned a racial status within that structure that affects their life chances in similar ways as their native-born same-race/co-ethnic counterparts. Next, dominance-differentiation theory posits that nativity status acts as a secondary stratifying process, one that sorts members of society within racial/ethnic groups by nativity status. I move beyond the nativity dichotomy specified by Hao

(2007) and consider how age at migration conditions the relationship between immigrants and the native-born. Third, education plays an important stratifying role in U.S. society. Total educational attainment certainly influences wealth accumulation, but I focus on immigrants' place of education: where they complete their highest or final degree – either in the United States or abroad. Recent research finds that foreign education is associated with earnings disadvantage for Asian (Zeng and Xie 2004) and black immigrants (Dodoo 1997), but the effects of place of education may extend beyond the labor market to affect wealth accumulation. Last, both dominance-differentiation and segmented assimilation theory (Portes and Zhou 1993) emphasize the intersections of race/ethnicity with nativity and race/ethnicity with class. These intersections produce divergent patterns of integration and provide unique insight into how various dimensions of the U.S. social stratification system affect immigrants' financial well-being.

This paper argues that racial/ethnic and educational stratification differentially affect patterns of immigrant wealth accumulation. I use the concept of racial formation as well as dominance-differentiation and segmented assimilation theory to develop hypotheses that specify the relationship between race/ethnicity, age at migration, place of education, and immigrant wealth accumulation. I use data from the 2000 and 2004 panels of the Survey of Income and Program Participation to examine these hypotheses. These data are nationally representative of the U.S. population and are well-suited for the study of immigrant wealth accumulation because they contain detailed migration and financial information. They also contain a relatively large sample of immigrants, which allows for comparison with both immigrants' U.S.-born same-race/co-ethnic peers and U.S.-born whites. Results demonstrate strong racial/ethnic and educational stratification. Blacks are associated with the lowest levels of wealth attainment, regardless of age at migration or place of education. For most immigrants, those who migrate to

the United States as adults are associated with lower levels of wealth than the native-born; a finding that is driven by where immigrants complete their education. Asians are particularly disadvantaged by foreign educational attainment, but Hispanics represent a contradictory pattern. Neither nativity status nor place of education distinguishes wealth accumulation patterns among Hispanics. This article discusses this exception and why foreign educated Asian immigrants are associated with the largest wealth disadvantage. It concludes with the implications of both racial/ethnic and educational stratification for immigrant integration.

## CONCEPTUAL FRAMEWORK

### *The Importance of Wealth Accumulation*

Before examining how race/ethnicity, nativity, and education affect immigrants' economic integration, it is important to establish the importance of wealth accumulation as an indicator of economic integration or financial well-being. Income has a long history of being used as an indicator of immigrants' economic integration (e.g. Chiswick 1977, 1978), but recently scholars have turned their attention to other aspects of financial well-being such as wealth attainment. This shift has several advantages. For one, some scholars argue that wealth better captures the traditional notion of financial well-being (Oliver and Shapiro 1995). In this view, financial well-being is a stock of resources, constituting various assets such as homes, vehicles, investments, and retirement accounts. These specific assets – and wealth more generally – represent a more permanent concept of well-being, one that can meet both short- and long-term needs (Keister 2000). For example, in hard times, wealth can also be liquidated, perhaps to meet expenses associated with job loss or a medical emergency. In contrast, income is a flow of financial resources and an indicator of short-term well-being (Keister 2000), one that can disappear when faced with the aforementioned hardships.

Wealth is also an outcome of many unique financial activities (Hao 2007). Higher income certainly has the potential to increase wealth, but wealth attainment is indicative of savings, spending, and investment as well as financial priorities, goals, and values. For instance, home equity is a large portion of most Americans' wealth, but homes also provide security, safety, and access to neighborhoods with desirable amenities such as strong schools, excellent public services, and other attractive characteristics. Financial investments such as 401ks and Individual Retirement Accounts (IRAs) likewise contain asset value, but also represent savings behaviors such as retirement planning and expectations. Beyond the benefits of particular assets, wealth itself confers advantage. Wealth generates more wealth through return on investment, but also may serve as collateral for other investments (Keister 2005). Wealth may purchase luxury, free time, and/or political or social influence. Related, wealth increases educational and occupational opportunities, paying for tuition or providing the backing for an entrepreneurial career change. Last, perhaps the greatest advantage of wealth is its transferability. Financial transfers during (*inter vivo*) or at the end (inheritance) of life allow wealth's advantages and benefits to be passed on to the next generation or other beneficiaries. In sum, wealth broadly encompasses the advantages associated with particular assets, but also reflects financial behaviors such as savings goals, consumption, and other financial activities that affect financial well-being.

Because it is multifaceted (e.g. financial assets and debts) and broadly encompassing (e.g. financial behaviors), wealth captures economic integration better than income (Hao 2007). In light of this, wealth accumulation also provides unique insight into immigrant economic integration. When compared to the native-born, immigrant wealth accumulation patterns may differ according to a number of individual- and contextual-level factors, independent of income, education, and other socioeconomic influences. At the individual-level, wealth accumulation

reflects financial behaviors such as propensities to save, consumption patterns, and portfolio allocation. For instance, if immigrants continue their financial behaviors from their home country and realize higher earnings in the United States, their home country savings behavior may allow them to more quickly build financial resources. Additionally, wealth accumulation reflects cultural values and lifestyles such as the number of desired children, expectations for children's educational attainment, and preparations for old age (Hao 2007). Retirement investments are especially important for immigrants in the United States as they have limited access to social welfare programs (e.g. Medicare, Social Security) prior to naturalization. Consideration of contextual-level factors – such as race/ethnicity, nativity, and their intersections – accounts for the disparate social circumstances facing some groups. Racial/ethnic minorities face barriers in educational attainment, job skills, and other work opportunities that put them in a disadvantaged position. Immigrants are also likely to experience the same difficulties as their native-born same-race/co-ethnic peers and may be further disadvantaged due to their nativity status. In this way, some immigrant groups may be doubly disadvantaged relative to native-born whites, which will affect both their ability to accumulate wealth and to economically integrate into mainstream society.

**Dimensions of the U.S. Social Stratification System**

This section explores how three dimensions of the U.S. social stratification system affect immigrants' economic integration. I begin with race/ethnicity, drawing upon the concept of racial formation to show how the racial/ethnic hierarchy in the United States affects immigrants' life chances. I then move to nativity status and discuss how it divides immigrants from the native-born within racial/ethnic categories. I build upon dominance-differentiation theory by going beyond nativity status to consider how age at migration may differentially affect

integration patterns. Last, education – specifically place of education – affects integration. Educational attainment is certainly important, but where immigrants finish their education – domestically or abroad – may also affect integration patterns. Immigrants are considered foreign educated if they do not attain any additional education in the United States after arrival. In contrast, immigrants are U.S. educated if they attend and/or complete education in the United States after arrival. For instance, an immigrant with a bachelors degree completed abroad who then attains a master's degree in the United States is considered U.S. educated.

***Race/Ethnicity***

Race is an important component of the U.S. social stratification system, affecting the structure and representation of U.S. society (Omi and Winant 1994). Contemporary racial formation reflects a sociohistorical dynamic process, which leads to the creation, adoption, transformation, and dissolution of racial categories over time (Omi and Winant 1994). Since racial formation is socially and historically defined, both racial statuses and racial meanings constantly change. Immigrants are inserted into a cross-section of this dynamic process; therefore, their U.S. racial status derives from a temporally-specific intersection of the current social structure and cultural representation of race. Thus, many immigrants must manage a racial/ethnic status that may never have been salient in their home country and now permeates their lives. Prior to migration, race may not have played any role in the lives of immigrants, but upon migration immigrants encounter a "comprehensive racialized social structure" that organizes and redistributes resources along racial lines (Omi and Winant 1994:60). This racialized U.S. social structure has implications for contemporary immigrant integration. Since the ordering of U.S. society and the allocation of resources depends on race, immigrants' integration depends on how well their native-born racial/ethnic counterparts fare in American

society. In this way, black and Hispanic immigrants may face some of the same challenges and blocked opportunities that restrict upward mobility into the middle class and contribute to social inequality as black and Hispanic Americans. In contrast, Asian Americans and Asian immigrants may both suffer from covert forms of discrimination and Asian immigrants may experience disadvantage associated with their nativity status; however, both groups do not encounter the same extent of disadvantage as that experienced by blacks and Hispanics. In short, the ability of immigrants to integrate into U.S. society is powerfully and initially affected by their racial/ethnic status.

The importance of racial/ethnic status for immigrant life chances is not new. Immigrants from the first part of the 20th century were predominantly of European origin, but "old" immigrants (e.g. British, French, German, Norwegian, Swedish) considered "new" immigrants (e.g. Irish, Jewish, Italian, Polish, Greek) to be a different and nonwhite race (Hirschman 2005). Over time, ethnic distinctions among European immigrants faded (Alba 1990) and descendents are grouped – and generally group themselves – into a white racial category (Alba 1990; Perlmann and Waldinger 1997). Several social processes contributed to this amalgamation, but intermarriage and social distancing played particularly important roles. Intermarriage contributed to the assimilation of old and new European immigrants over time (Hirchsman 2005; Perlmann and Waldinger 1997). Additionally, at the beginning of the 20th century, new immigrants only attained "whiteness" by distancing themselves from blacks (Allen 1994, Brodkin 1998, Ignatiev 1995, Jacobson 1998, Roediger 1991). Social distancing also helped Chinese immigrants living in Mississippi to separate themselves from blacks (Loewen 1971). While they did not attain white racial status, their efforts helped shift the racial dichotomy away from a white/nonwhite contrast toward a black/nonblack divide.

Contemporary immigrants face a comparable racial situation as their predecessors did one hundred years ago: The ease or difficulty of their American experience depends on the lightness or darkness of their skin. Due to deeply rooted and highly institutionalized racial/ethnic inequality in the United States (Omi and Winant 1994), immigrants of various racial/ethnic backgrounds will follow different assimilation paths. Indeed, segmented assimilation theory emphasizes that race/ethnicity is the key characteristic that determines immigrant assimilation patterns (Portes and Zhou 1993). These patterns reflect the numerous barriers to – or opportunities for – education, employment, occupational mobility, residential location, and asset acquisition, among others. Immigrants' incorporation patterns depend on their racial/ethnic status in the United States and how well their native-born racial/ethnic counterparts fare in American society. Indeed, nonwhite immigrants may experience the greatest challenges for integration into the white middle class mainstream (Portes and Rumbaut 2001). However, unlike their historic predecessors, contemporary immigrants may not be able to employ the same strategies for incorporation. The ability of recent immigrants to distance themselves from black Americans and attain whiteness, as their predecessors did, may be complicated by their own nonwhite racial status. Furthermore, recent patterns of intermarriage suggest that this mechanism may not be available for some racial/ethnic minority immigrants (Qian and Lichter 2001).

The importance of race/ethnicity for wealth accumulation is well documented. Black and Hispanic families attain lower net worth than whites (Campbell and Kaufmann 2006; Conley 1999; Oliver and Shapiro 2006). They also receive less financial assistance from their families and suffer discrimination that limits educational, occupational, and financial opportunities (Oliver and Shapiro 2006; Shapiro 2004). Homes are a particular source of wealth disadvantage for nonwhites. Discriminatory practices such as redlining, differential mortgage rates, and real

estate agent steering prevent racial/ethnic minorities from buying homes in more affluent areas (Conley 1999; Krivo and Kaufman 2004; Long and Caudill 1992; Oliver and Shapiro 2006; Wilson 1996). Furthermore, blacks and Hispanics are more likely than whites to have their applications for home mortgages rejected, even when accounting for other factors (Schafer and Ladd 1981; Fix and Struyk 1993). As a result, racial/ethnic minorities take longer to become homeowners (Boehm and Schlottman 2004), purchase less valuable homes that appreciate at slower rates over time (Conley 1999; Long and Caudill 1992), and are less likely to remain homeowners (Boehm and Schlottman 2004). Additionally, racial/ethnic inequality in financial wealth is evident. Blacks accumulate less financial wealth than whites (Oliver and Shapiro 2006) and both blacks and Hispanics are less likely than whites to have checking and savings accounts and to own stocks and bonds (Keister 2000, 2004). In sum, racial/ethnic minorities face constraints in acquiring not only the same *quantity* of assets as whites, but also the same *quality*. This impedes their ability to accumulate wealth at similar levels as whites.

***Age at Migration***

In addition to race/ethnicity, nativity status affects the structure of the U.S. social stratification system. Dominance-differentiation theory views nativity as a secondary factor (race/ethnicity is primary); therefore, it differentiates patterns of wealth accumulation *within* racial/ethnic groups (Hao 2007). In this perspective, nativity status is what separates the life chances of immigrants from those of the native-born. Yet, nativity status alone may be too broad and mask considerable heterogeneity *among* immigrants. Indeed, immigrants arrive to the United States across a wide range of ages. Considering the variation of immigrants' age at arrival builds on the dominance-differentiation perspective by acknowledging that immigrants may experience different outcomes depending on whether they migrate as children, adolescents, or adults.

Comparisons of native-born Americans to first generation immigrants who arrive to the United States as children (i.e. immigrant children), adolescents (i.e. immigrant adolescents), or adults (i.e. immigrant adults) is essential for the assessment of immigrant incorporation within assimilation theory and its variants. Though how long immigrants have lived in the United States certainly matters for integration processes, age at migration may play a more prominent role. Longer durations in the United States certainly help immigrants integrate as they will have more opportunities to improve their English language proficiency and to become familiar with U.S. culture; however, younger ages at migration are far more conducive for integration. For example, a given number of years in the United States may result in greater gains for an immigrant who arrives as a child than an immigrant who arrives as an adolescent or an adult. This is due, in part, to longer durations in the United States, but also attending and completing their educations in the U.S. school system and learning English at a young age.

In light of the above, immigrant children may exhibit similar patterns of wealth accumulation as the native-born. Research supports this idea by finding that younger ages at migration advantage immigrant children over immigrant adults and even adolescents for later life socioeconomic status (Myers, Gao, and Emeka 2009). Younger ages at migration also lead to similarities between children of immigrants (second generation) and immigrant children for a variety of educational outcomes, including: academic achievement (Cortes 2006; Kalogrides 2009; Kao and Tienda 1995), high school enrollment (Hirschman 2003) and completion (White and Kaufman 1997), college attendance (Keller and Tillman 2008), and overall educational attainment (Allensworth 1997; Chiswick and DebBurman 2004; Gonzalez 2003; Schultz 1984) as well as English language proficiency (Bleakley and Chin 2004; Stevens 1999). This research provides evidence that immigrant children and their native-born peers attain similar

socioeconomic outcomes later in life and suggests that immigrant children may achieve similar levels of wealth as the native-born. Immigrant adolescents may also experience socioeconomic outcomes, specifically wealth accumulation, that are more in line with the native-born since they will also complete their education in the United States and learn English at relatively young ages. Thus, when considering age at migration, it may be immigrant adults – rather than immigrants in general – who may experience wealth inequality relative to the native-born due to their older ages at migration.

***Place of Education***

Last, immigrants' place of education (U.S. or abroad) affects immigrant integration. The preponderance of research suggests that foreign education serves as a barrier to socioeconomic mobility in the United States (e.g. Bratsberg and Ragan 2002; Chiswick 1978; Chiswick and DebBurman 2004; Zeng and Xie 2004); however, some educational systems in some source countries such as certain Western European countries or Japan may be perceived to be as a close substitute for U.S. education. Immigrants from schools in these countries may experience a seamless transition into the U.S. labor force and may display similar economic integration patterns as their U.S. educated immigrant peers. Yet, among similarly educated individuals, most immigrants experience devaluation of their foreign degrees. In this way, more highly foreign educated immigrants may earn higher wages than less educated immigrants, but their financial well-being may not be commensurate with either similarly educated immigrants who complete their education in the United States (i.e. U.S. educated immigrants) or the U.S. educated native-born. Factors contributing to this devaluation include the following.

First, educational quality varies by source country. Educational quality is lower in developing nations, especially in higher education (Zeng and Xie 2004). These countries may not

possess and/or allocate adequate financial resources to the educational system, resulting in a lower quality of education. Upon arrival to the United States, the effect of school quality operates primarily through the return to education (Butcher 1994; Sweetman 2004), which varies by country of origin (Bratsberg and Ragan 2002; Bratsberg and Terrell 2002). This disadvantage, however, may be limited to immigrants who do not continue their education in the United States (i.e. the foreign educated). Indeed, better school quality increases the wages of immigrants *without* any U.S. education, but there is no effect of source country school quality on U.S. wages for U.S. educated immigrants (Bratsberg and Ragan 2002). Furthermore, wages of immigrants who continue and/or finish their education in either the United States (Zeng and Xie 2004) or Canada (Sweetman 2004) do not differ by source country. This suggests that school quality only matters for immigrants who complete their education abroad and do not pursue or complete any additional education in the United States. Therefore, it is school quality – and not the source countries themselves – that contributes to the devaluation of foreign educational attainment.

Second, highly (foreign) educated immigrants may be disproportionately affected by devaluation of their educational attainment. Since employers may not be familiar with educational institutions, standards, and/or practices in foreign countries, they may favor U.S. educated applicants (Chiswick 1978; Butcher 1994). This preference for U.S. educated employees represents a form of demand-side discrimination, which may increase with immigrants' educational attainment (Greeley 1976). In this way, foreign educated immigrants may be blocked from obtaining employment commensurate with their educational attainment. This type of discrimination may be more prevalent among highly educated immigrants as less educated and/or low-skilled immigrants may be employed in positions where the quantity or quality of their education may have little or no importance (Butcher 1994).

Next, devaluation of foreign educational attainment has several implications for immigrant integration. For one, immigrants may take jobs for which they are over-qualified. Here, the transferability of an educational credential depends particularly on the type of immigrants' education (Friedberg 2000). While foreign education in general may be de-valued in the United States, specific degrees may be further disadvantaged. For instance, immigrants with professional training, such as doctors and lawyers, must re-certify according to U.S. standards. Research on immigrants in Canada provides some insight into the challenges facing foreign educated immigrants in the United States. Many highly educated immigrants to Canada cannot find employment that is equivalent to what they had prior to migration (Basran and Zong 1998; Grant and Nadin 2007; Krahn et al. 2000), leading to lower wages than the Canadian-educated with similar professional degrees (Anisef, Sweet, and Frempong 2003). Additionally, doctors, engineers, and teachers (Basran and Zong 1998) and broader fields such as the natural sciences and health professions (Grant and Nadin 2007) encounter particular difficulty attaining positions in Canada commensurate with their origin country occupations or fields.

Last, it is important to note that the devaluation of immigrants' foreign education may be temporary. If immigrants obtain additional education in the United States, they may not experience permanent labor market disadvantage. For instance, in Israel, attaining additional education in the host country boosts the value of immigrants' home country education (Friedberg 2000). Indeed, immigrants who continued their education in their new host country received similar returns to pre- and post-migration education in Canada (Baker and Benjamin 1994; Schaafsma and Sweetman 2001) and the United States (Stewart and Hyclak 1984; Bratsberg and Ragan 2002), but slightly less so in Australia (Chiswick and Miller 1985).

**Place of Education and Wealth Accumulation**

Place of education affects earnings in the U.S. labor market (Dodoo 1997; Zeng and Xie 2004). Yet, the relationship between place of education and wealth accumulation is uncertain. Lower wages from foreign educational attainment will negatively affect immigrants' wealth accumulation relative to their U.S. educated peers, but place of education may also operate through other important areas, outside of the labor market, that may affect – positively or negatively – immigrant wealth accumulation.

First, foreign educated immigrants, on average, will be older at migration than immigrants who complete their education in the United States. This has several implications. For one, older immigrants face a different incentive structure for retirement investment than younger immigrants. Older immigrants will have fewer years of employment to build savings and acquire investments. If immigrants become eligible for Social Security, their smaller contribution period lowers their benefits. Company pensions will be affected in a similar way. Older immigrants will also, all else being equal, spend less time in the United States. Less time in the United States means that immigrants will have less exposure U.S. culture and less time to integrate into U.S. society. Less time in the United States has also been shown to affect command of the English language (e.g. Carliner 2000; Espenshade and Fu 1997; Hwang and Xi 2008). In short, these challenges associated with an older age at migration may lead to savings and investing trajectories that differ from younger, U.S. educated immigrants.

Second, foreign educated immigrants may have lower levels of English language proficiency, independent of their older age at migration (Zeng and Xie 2004). English language proficiency is indirectly related to wealth accumulation through income (e.g. Chiswick and Miller 2002; Hall and Farkas 2008; Tainer 1988) and directly related through participation in

formal U.S. financial institutions. Since English is part of the culture of U.S. financial institutions (Paulson et al. 2006), greater command of the English language may allow immigrants to more easily interact with banks and government agencies. Experience with the banking, real estate, and/or investment sectors may encourage immigrants to open accounts and/or invest in financial instruments, though there is some evidence that nativity limits participation in financial institutions for some time after migration (Guiso, Sapienza, and Zingales 2008; Osili and Paulson 2008a, 2008b). A lack of English proficiency may harm immigrants' abilities to accumulate wealth by limiting or preventing pursuit of a variety of financial instruments such as savings accounts, home mortgages, or stock ownership. Immigrants may further restrict their wealth accumulation by turning to commercial or informal financial institutions, which provide equivalent services as formal institutions for a fee (Caskey, Duran, and Solo 2006).

Last, foreign educated immigrants may have fewer personal resources. For social resources, foreign educated immigrants may have limited social networks, which will affect both job searches and other aspects of American life. Part of the value of attending a U.S. college is access to job contacts, on-campus interviews, internships, and alumni networks that may help secure employment. Foreign educated immigrants will not be able to use these valuable resources. Outside of labor market activities, social networks provide valuable information about where to live, how to navigate the U.S. financial system, and other facets of American life that the native-born may take for granted. For financial resources, foreign educated immigrants may have higher expenses and fewer assets. Immigration is certainly expensive in of itself, but foreign educated immigrants may also incur additional expenses. For instance, they may take jobs that do not have health insurance, which may force them to reduce their savings and

investing. Immigrants may also pursue additional schooling, which will affect their current income and personal debt. If they purchase a home, they may also face a higher mortgage payment due to a lack of credit history. Foreign educated immigrants may also differ in their financial portfolio composition. They may not have certain assets, such as vehicles or retirement accounts, or may maintain assets and continue to invest outside of the United States.

In sum, research clearly establishes that foreign educated immigrants experience earnings disadvantages in the United States after migration. Income certainly contributes to wealth accumulation, but the ramifications from foreign education may extend beyond the labor market to affect wealth attainment in some of the ways described above. Therefore, while foreign educated immigrants may earn less than their similarly (U.S.) educated immigrant peers, they may also encounter wealth inequality associated with their foreign education.

**Place of Education and Race/Ethnicity**

How foreign education affects immigrant wealth accumulation will differ by race/ethnicity. The concept of racial formation emphasizes a racial/ethnic hierarchy that structures access to resources and affects life chances within the U.S. social stratification system; this racial/ethnic hierarchy will affect both the native-born population and immigrants alike. For example, black immigrants will encounter similar forms of discrimination as black Americans and may face additional challenges and blocked opportunities due to their nativity status. Dominance-differentiation theory dovetails with this perspective by viewing both race/ethnicity and education as interdependent primary stratifying factors (Hao 2007). Yet, beyond highlighting the interdependent relationship between race/ethnicity and education, dominance-differentiation theory does not explain how these factors affect immigrant outcomes. To understand how race/ethnicity and education interact to produce divergent outcomes, we must turn to segmented

assimilation theory. This theory emphasizes the intersections of structural-level factors (i.e. racial/ethnic status) and individual-level measures of class (i.e. education). These intersections produce different outcomes depending on immigrants' perceived racial/ethnic status and their education.

These theories together have two implications for the relationship between race/ethnicity and place of education. One, they suggest *between*-group inequality. Segmented assimilation theory establishes that race/ethnicity is the primary factor that determines immigrants' integration patterns. In this way, immigrants will be sorted into the racial/ethnic hierarchy according to their perceived racial/ethnic status. This will govern their access to life chances and opportunities to accumulate wealth. And two, they suggest *within*-group inequality. Due to the devaluation of foreign educational attainment, foreign educated immigrants will be disadvantaged relative to their U.S. educated same-race/co-ethnic peers. For racial/ethnic minorities, these two sources of inequality (between- and within-group) intersect to produce a double disadvantage relative to U.S. educated native-born whites: a financial penalty due to both their race/ethnicity and their foreign education.

A brief examination of specific racial/ethnic groups provides insight into how place of education affects immigrant economic integration within racial/ethnic groups. Substantial heterogeneity characterizes the returns to education among Asian immigrants. At one end are immigrants from China, the Philippines, and Thailand who experience substantial devaluation of their educational attainment (Bratsberg and Terrell 2002; Zeng and Xie 2004). In contrast, immigrants from Singapore experience far less devaluation. Among Asians, this relatively smaller devaluation places the returns to their education behind Japanese immigrants; however, their returns still lag behind that of U.S. educated native-born Americans (Bratsberg and Terrell

2002). Japanese immigrants are particularly notable because they are the only nonwhite ethnic group to receive returns to their foreign education in the U.S. labor market that exceed those received by U.S. educated native-born Americans (Bratsberg and Terrell 2002; Zeng and Xie 2004). In short, Asian immigrants are quite polarized in the return to education: while Japanese immigrants outperform native-born Americans, Singapore immigrants trail behind both of these groups, and other Asian immigrants are even further behind.

African and Caribbean black immigrants receive lower returns to their foreign education in the U.S. labor market than native-born Americans (Bratsberg and Terrell 2002; Butcher 1994). With the exception of immigrants from Sierra Leone, African immigrants earn slightly higher returns than Caribbean immigrants (Bratsberg and Terrell 2002). From their respective African and Caribbean regions, Kenyan and Trinidadian/Tobagonian immigrants experience the highest returns to their education (Bratsberg and Terrell 2002). Among all black immigrants, the college educated are especially hard hit by the devaluation of their foreign educational attainment. Compared to their similarly educated African American peers, both African and Caribbean black immigrants do not receive wages commensurate with their educational attainment (Dodoo 1997). Indeed, black immigrants' foreign education is devalued so much that Africans *with* a foreign college degree receive the same earnings as African Americans *without* a college degree, while college educated black Caribbean immigrants receive approximately half the earnings of U.S. college educated African Americans (Dodoo 1997). Parsing Caribbean immigrants further reveals that English-speaking Caribbean immigrants (i.e. Jamaicans) perform better in the United States. labor market than African Americans while Spanish- (i.e. Dominicans) and French-speaking (i.e. Haitians) Caribbean immigrants perform worse (Kalmijn 1996).

No research to date has examined the role of place of education for Hispanics. This is surprising given the growing population of Hispanics in the United States – both native- and foreign-born. Nevertheless, it is important to gain some insight into Hispanic foreign educational attainment as there is considerable variation in the distribution of education by nationality. Among Hispanic immigrants, foreign-born Mexicans experience the worst educational outcomes: They are the least educated (Chiswick and DebBurman 2003; Izyumov et al. 2002), the only Hispanic ethnic group that is less likely to graduate from high school than U.S.-born non-Hispanic whites (Wojtkiewicz and Donato 1995), and are less educated than their U.S.-born (Mexican American) peers (Bean and Tienda 1987; Everett et al. 2007). This latter distinction is shared with Cubans and Puerto Ricans. Yet, despite this disadvantage relative to the U.S.-born, Cubans and other Caribbean immigrants attain relatively higher levels of education than their non-immigrating foreign born peers; Central and South Americans generally fall in between Caribbean and Mexican immigrants (Chiswick and DebBurman 2003; Izyumov et al. 2002). Returns to education among Hispanic immigrants are all below the U.S. average with Costa Rican immigrants receiving the highest return to their education in the U.S. labor market, while Mexican immigrants receive the least (Bratsberg and Terrell 2002).

**HYPOTHESES**

This conceptual framework suggests several hypotheses that will guide the analyses. These hypotheses set expectations for how race/ethnicity structures U.S. society and then how age at migration and place of education interact with race/ethnicity to produce divergent patterns of immigrant wealth accumulation.

First, since race/ethnicity plays such an important role in determining access to resources and opportunities in the United States, race/ethnicity will differentially affect immigrants' life

chances and influence wealth accumulation. Racial formation establishes that there is a racial/ethnic hierarchy in the United States with whites at the top and racial/ethnic minorities below. Both segmented assimilation and dominance-differentiation theory confirm that racial/ethnic stratification is a powerful mechanism for determining access to resources. Specifically, blacks and Hispanics experience a variety of disadvantages that affect their integration patterns, but Asians occupy a different location in the racialized social structure. This structure is evident in the wealth literature where the importance of race/ethnicity for wealth inequality is well documented. The largest wealth inequality is in the black/white contrast (Conley 1999; Oliver and Shapiro 2006) followed by Hispanic/white and Asian/white (Campbell and Kaufman 2006). Therefore, I offer the following hypothesis that captures racial/ethnic stratification in wealth accumulation.

**Hypothesis 1:** Wealth inequality will be largest between whites and blacks, followed by Hispanics and Asians.

Dominance-differentiation theory suggests that nativity acts as a second-tier stratification sorting factor within racial/ethnic groups; I extend this idea to consider age at migration. Since immigrants who migrate at younger ages are likely to grow up and complete their education in the United States, there is reason to expect that their wealth accumulation patterns will more closely resemble those of the native-born. Thus, any negative effects associated with nativity should only affect immigrants who arrive to the United States as adults. This effect, however, may differ by racial/ethnic group. Since white and Asian immigrants occupy a relatively advantaged position within the racialized U.S. social structure, the effect of immigrant adult status will be greater for these groups than for blacks and Hispanics. I offer the following hypotheses that capture the effect of age at migration and its intersection with race/ethnicity.

**Hypothesis 2:** Immigrants who arrive to the United States as adults will be associated with less wealth than native-born whites and their same-race/co-ethnic native-born peers.

**Hypothesis 2a:** Relative to their same-race native-born peers, the effect of arriving to the United States as an adult will be larger for Asian and white immigrants.

The last hypotheses parse out any effects due to education from those due to nativity status; specifically for those immigrants who arrive to the United States as adults. The preponderance of evidence suggests that foreign education will harm immigrant wealth accumulation. This will disadvantage foreign educated immigrants relative to both native-born whites and their U.S. educated same-race/co-ethnic immigrant peers. However, the effect of foreign education may vary by race/ethnicity. Asian and white immigrants are disproportionately highly educated. This, combined with their relatively privileged position in the U.S. social structure, suggests that the effect of place of education will be greater for these groups than for blacks and Hispanics. Therefore, when considering place of education and its intersection with race/ethnicity, I offer the following hypotheses:

**Hypothesis 3:** Foreign educated immigrants will be associated with less wealth than native-born whites and their U.S. educated same-race/co-ethnic peers.

**Hypothesis 3a**: Relative to their same-race native-born peers, the effect of place of education will be larger for Asian and white immigrants.

## DATA AND METHODS

### *Data*

This research uses two waves from the 2001 and 2004 panels of the Survey of Income and Program Participation (SIPP). SIPP is a continuous series of national multistage-stratified panels of the U.S. civilian noninstitutionalized population that interviews all household members

15 years old and over. Interviews are designed around a core set of questions with rotating topical modules. I combine information from the core questions with the migration module and financial module from both the 2001 and 2004 panels. SIPP data are particularly valuable for immigration studies because the large sample size yields a relatively large sample of immigrants, particularly racial/ethnic minority immigrants. SIPP has also been previously used to analyze immigrant wealth attainment (Cobb-Clark and Hildebrand 2006a, 2006b, 2006c; Hao 2004, 2007) because of its extensive financial and migration information. There are no missing data in the SIPP data as missing data are imputed with a sequential hot deck procedure. This procedure matches a respondent with missing information to a donor respondent according to multiple categories including sex, race, age, and marital status. The missing information for the respondent are then replaced with the donor's valid data.

I follow Hao (2007) in the construction of my analytical sample. The sample is restricted to individuals age 25 to 64 years old and I exclude those with net worth in the top 0.5 percent of the sample distribution.[1] I exclude Native Americans, respondents from U.S. territories, and immigrants who do not report migration history information.[2] After these restrictions, my final sample contains 44,349 individuals: 39,744 native-born and 4,605 immigrant.

***Outcome Variable***

The outcome variable is net worth (standardized and logged), measured as the value of assets less debts and adjusted to U.S.$2004 using the Consumer Price Index.[3] Assets include the value of financial investments, such as checking and savings accounts, retirement accounts, and

[1] SIPP data under-represent the very wealthy and some components of net worth are top-coded. Hao (2007) recommends excluding the very wealthy to bring the distribution of net worth more in line with that of the Survey of Consumer Finances, the benchmark data for the wealth distribution of the U.S. population.
[2] Native Americans include American Indians, Aleutians, and Eskimos. U.S. Territories include American Samoa, Guam, Puerto Rico, and the Virgin Islands.
[3] To correct skew in the SIPP data, I add a constant to the net worth variable to eliminate negative values and then take the natural log.

stocks. Also included are the value of non-financial holdings, such as homes, automobiles, real estate, and other valuable possessions. The value of these assets is weighed against total debts, such as those from credit cards, hospital bills, mortgages, and liens.

***Explanatory Variables***

The primary explanatory variables are race/ethnicity, age at migration, and place of education. First, I measure race/ethnicity by including dichotomous variables for non-Hispanic white (reference category), non-Hispanic black, non-Hispanic Asian, and Hispanic.[4] Second, I account for age at migration by creating two dichotomous variables: adult immigrants (1=age at migration 18 years or greater) and immigrant children/adolescents (1=age at migration less than 18 years).[5] The reference category is the native-born. Next, immigrants' place of education is determined by examining the year of receipt of the terminal degree and the year of migration. Immigrants with a date of completion for their terminal educational degree that precedes their migration date are assumed to have completed their education abroad (1= foreign terminal degree). Last, I include interactions between race/ethnicity and both age at migration and immigrant foreign terminal education.

***Controls***

I include several controls from the life cycle. These include age and dichotomous variables to capture marital status – never married (reference category), married, separated, divorced, and widowed. I include the number of children currently living in the household. Educational attainment consists of five dichotomous variables: no high school degree (reference category), high school degree, some college, college degree, and advanced degree. For income, I

[4] Throughout the paper, I simplify the racial categories by using white, black, and Asian.
[5] In supplemental analyses, I followed both Rumbuat (2004) and Myers et al. (2009) and looked at expanded categories of immigrant children and adolescents. There was no relationship between these more nuanced age divisions of immigrant children and adolescents and adult wealth accumulation.

use a log transformation to correct for skew. I include a variable for urban/rural residency (rural is the reference category) and a series of four regional dichotomous variables capture the U.S. Census regions: Northeast (reference category), Midwest, South, and West. Since immigrants often settle in states with a large population of immigrants, I construct a dichotomous variable representing the eight states with at least 15 percent of the population foreign-born [1=resident] (Census 2007).[6] Last, I include a dichotomous variable to control for period effects (1=2004 panel).

***Additional Variables for Sensitivity Tests***

Sensitivity tests (discussed below) introduce several additional variables. I include a variable that identifies Mexican-origin Hispanic immigrants since they are the largest source of Hispanic immigration. This variable is interacted with the age at migration and foreign education variables. Next, I include a variable for refugee status (1=refugee) and interactions with race/ethnicity. Appendix Table B illustrates the construction of the refugee variable.

***Analytical Method***

I use median regression, a specific type of quantile regression, to analyze net worth (Koenker and Bassett 1978). Since its introduction by Koenker and Bassett (1978), quantile regression has become more commonplace with increasing computer power. Early applications of quantile regression focused on wages and wealth inequality (e.g. Buchinsky 1994; Chamberlain 1994; Conley and Galenson 1998) and its use, particularly in economics, has become widespread. Quantile regression provides a more complete assessment of the effects of covariates across the distribution of net worth (at specified quantiles) and may capture unique features in the data that may have been missed by estimating the conditional mean (OLS regression). The principle advantages of quantile regression include the absence of a

[6] Appendix Table A details the states used to construct this variable.

distributional assumption and robustness to outliers (Koenker 2005; Hao and Naiman 2007). This latter strength is particularly important when analyzing net worth, since it is heavily right-skewed. Logging net worth helps make the skewed distribution more symmetrical, but even with this transformation, logged net worth may still have a number of outliers and residuals may still not be normally distributed. These OLS assumption violations may lead to distorted and inefficient estimates, even with a large dataset like SIPP. In contrast to OLS, the resistance of quantile regression to outliers ensures that estimates from median regression are unbiased and efficient, even in the presence of unusual observations.

I estimate three models to explore the effects of race/ethnicity, age at migration, and place of education. In Table 2, Model 1 additively includes the explanatory variables and controls. Model 2 adds interactions between race/ethnicity and age at migration. Model 3 includes interactions between race/ethnicity and place of education. In Table 3, two additional models serve as sensitivity tests for the results in Model 3. Model 4 examines Mexican-origin Hispanic immigrants as a sensitivity analysis for the Hispanic results. Last, Model 5 tests for refugee effects. All analyses are weighted using the SIPP-generated person-weights.[7] Results for logged wealth are interpreted in terms of percent change.

*Table 1*

## RESULTS

### *Descriptives*

Table 1 presents descriptive results for the explanatory variables and net worth (Appendix Table C contains descriptives for the controls). Several patterns are noteworthy in the distribution of educational attainment by race/ethnicity and place of education. Looking to

[7] I create a new weight variable that averages the person-weights (SIPP variable name: WPFINWGT) from the core and topical files in each SIPP panel.

foreign educated immigrants, a greater proportion of Hispanics complete their education abroad with relative similarity across white, Asian, and black immigrants. Among the foreign educated, there are substantial differences in the amount of foreign education by race/ethnicity. For the college educated, a larger proportion of Asians – and a slightly smaller proportion of white immigrants – complete their education abroad. With the exception of black immigrants, a similar proportion of college educated immigrants complete their education abroad versus in the United States. Black immigrants present a different pattern: more black immigrants complete their college education in the United States and a substantially smaller proportion arrive to the United States with their education completed abroad. In addition to the pattern depicted for the college educated, strong racial/ethnic differences characterize the educational attainment of less educated immigrants. For immigrants with a high school degree or less, a greater proportion are foreign educated blacks and Hispanics. In sum, descriptive examination of the distribution of foreign educational attainment reveals stark patterns by racial/ethnic group. Among the foreign educated, white and Asian immigrants are mostly college educated while black and Hispanic immigrants tend to have only completed, at most, a high school education.

*Figure 1*

Figure 1 highlights the importance of separately examining race/ethnicity, age at migration, and place of education for wealth accumulation. Graph 1 provides insight into the racial/ethnic hierarchy in the United States by presenting well-documented racial/ethnic wealth inequality. Whites and Asians accumulate similar levels of wealth, but a substantial gap divides the average wealth of these two groups from that of Hispanics and blacks. Graph 2 introduces age at migration. In this graph, immigrant adults are associated with the lowest average wealth, with the exception of blacks. For blacks and whites, immigrant children/adolescents average the

highest wealth, while the native-born accumulate the highest average wealth for Asian and Hispanic Americans. Graph 3 shows the importance of place of education. With the exception of foreign educated black immigrants, foreign educated immigrants accumulate less average wealth than the native-born or U.S. educated immigrants. For other immigrants, U.S. educated Asian and Hispanic immigrants attain average levels of wealth that are very similar to those of Asian and Hispanic Americans. In contrast, among blacks and whites, U.S. educated immigrants average substantially more wealth than the native-born or their foreign educated immigrant peers.

***Regression Results: Median Regression***

**Model 1 – Additive Specification**

Table 2 presents results from median regression analyses. To conserve space, Table 2 presents the explanatory variables (results are from the full model, controls are presented in Appendix Table D). Model 1 establishes strong racial/ethnic, age at migration, and place of education results. Model 1 also provides support for Hypothesis 1 by confirming well-documented racial/ethnic wealth inequality. Racial/ethnic minorities accumulate less wealth than whites, but the amount of wealth inequality conforms to the expectation set forth in Hypothesis 1. Blacks experience the largest racial/ethnic wealth inequality relative to whites, possessing 2.3 percent less wealth than whites [$=e^{-.023} - 1$]. Hispanics and Asians are associated with 1.3 percent [$=e^{-0.013} - 1$] and almost 1 percent [$=e^{-0.008} - 1$] less wealth than whites, respectively. Though the difference between these groups and whites is smaller than the black/white contrast, there is still significant wealth inequality.

*Table 2*

Turning to other results, immigrants' financial well-being differs by their age at migration. Immigrants who arrive to the United States as children/adolescents attain a slight advantage over the native-born: these immigrant children/adolescents are associated with almost 1 percent [$=e^{0.009} - 1$] more wealth. In contrast, immigrant adults experience a financial setback. They are associated with wealth disadvantage of approximately the same magnitude as the wealth advantage of immigrant children/adolescents. Last, place of education is negatively related to wealth accumulation, though this relationship does not achieve statistical significance at conventional levels. Therefore, this result must be interpreted with caution: Immigrants completing their education abroad are associated with less wealth than immigrants finishing their education in the United States.

**Model 2 – Race/Ethnicity and Age at Migration Interactions**

Hypothesis 2 specifies that immigrant adults accumulate less wealth than both native-born whites and their same-race/co-ethnic peers. Model 2 tests this hypothesis by including interactions between race/ethnicity and age at migration. With the inclusion of these interaction terms, the race/ethnicity coefficients now represent the native-born (when the interaction terms are zero). Among the native-born, the inequality between both blacks and Hispanics and whites observed in Model 1 holds. For Asians, however, accounting for nativity changes the relationship between Asian American and white American wealth inequality. In Model 2, the lack of a significant difference between these two groups suggests that Asian Americans attain wealth equality with white Americans, a finding contrary to prior work (Campbell and Kaufmann 2006).

Turning to the interaction terms, consistent with Hypothesis 2, neither the coefficient for child/adolescent immigrant (representing white immigrants) nor the interactions between race/ethnicity and child/adolescent immigrant attain significance. This suggests that immigrants

who arrive to the United States as children or adolescents attain wealth equality with their same-race/co-ethnic native-born peers. Joint tests of significance indicate that Asian child/adolescent immigrants [Asian, interaction term] attain wealth equality with native-born whites while both black [black, interaction term] and Hispanic [Hispanic, interaction term] child/adolescent immigrants are associated with significantly less wealth than native-born whites. For immigrants who arrive to the United States as adults, results generally support Hypothesis 2. The coefficients for white (adult immigrant) and Asian (interaction between Asian and adult immigrant) immigrants are significant and negative, suggesting that these groups are associated with lower levels of wealth accumulation than white and Asian Americans, respectfully. To properly interpret the interaction term, the coefficient for Asian adult immigrants must be added to the coefficient for white adult immigrants [–0.012 + –0.019]. This reveals that Asian adult immigrants experience a second layer of disadvantage when compared to white adult immigrants, one associated with their racial status. These results also provide support for Hypothesis 2a: the effect of arriving to the United States as an adult is largest for Asian and white immigrants.

Turning to the other racial/ethnic groups, results for black immigrants differ slightly from the pattern identified above. The positive and significant interaction term indicates reduced wealth inequality [–0.023 + 0.003] between white and black adult immigrants. This suggests that wealth inequality between white and black immigrants is smaller than the divide between white and black Americans. A second interpretation of the interaction term reveals that black adult immigrants are associated with less wealth than black Americans [–0.012 + 0.003], but this difference is smaller than the inequality between white adult immigrants and white Americans. This also supports Hypothesis 2a.

Last, results for Hispanic adult immigrants do not support Hypothesis 2 or Hypothesis 2a: the interaction term between Hispanic and adult immigrant is not significant. This provides evidence that Hispanic adult immigrants attain wealth equality with white adult immigrants and that nativity status does not divide the wealth attainment of Hispanic Americans and Hispanic adult immigrants. This result suggests the primacy of ethnicity for Hispanics and that nativity does not act as a further stratifying factor. Despite the lack of significance for the interaction term, joint tests of significance [Hispanic, interaction term; Adult immigrant, interaction term] indicate that Hispanic adult immigrants are associated with less wealth than white Americans.

*Figure 2*

To illustrate the patterns found in Model 2, Figure 2 presents predicted values of net worth by race/ethnicity and age at migration. The line graph has two advantages for interpretation: 1) the lines aid comparisons *within* racial/ethnic groups; and 2) the stacked columnar data points aid comparisons *between* racial/ethnic groups. Since the predicted values are in the log scale, an antilog or exponential transformation untransforms logged wealth and provides a sense of effect size. Contrasts with the reference group are presented in brackets. Beginning in the middle of the graph, wealth inequality among the native-born is quite apparent. Asian and white Americans attain wealth parity, but Hispanic [–$24,480] and black [–$37,547] Americans are associated with substantial wealth inequality relative to these groups. Next, as reported in Model 2 – and despite the slight upward trend depicted in the graph – child/adolescent immigrants are associated with wealth equality with their same-race/co-ethnic native-born peers. Last, Figure 2 illustrates a different ordering of the racial/ethnic hierarchy among immigrant adults. Nativity status does not distinguish the wealth accumulation of Hispanic Americans and Hispanic adult immigrants; this lack of a wealth penalty leads to wealth

equality between white and Hispanic adult immigrants. In contrast, Asian adult immigrants are associated with a substantial wealth penalty [–$20,190], which places their wealth attainment not only below that of white adult immigrants, but Hispanic adult immigrants as well.

*Figure 3*

**Model 3 – Race/Ethnicity and Place of Education Interactions**

Model 3 introduces interactions between race/ethnicity and place of education. This model builds on Model 2 by dividing immigrant adults into two groups based on where they completed their education. This allows for the isolation of any effects due to nativity or due to place of education. Results for the native-born and immigrant children/adolescents remain unchanged from Model 2. The inclusion of the interaction terms, however, changes the pattern of Model 2 for adult immigrants. These coefficients now represent U.S. educated adult immigrants: those immigrants who migrate to the United States and complete additional education. These immigrants attain equivalent levels of wealth as their same-race/co-ethnic peers.[8] Therefore, any wealth inequality associated with immigrants is due to place of education. Model 3 provides support for Hypothesis 3: foreign educated immigrants are associated with wealth disadvantage relative to native-born whites and their U.S. educated same-race/co-ethnic peers.

For racial/ethnic variation, there is a nuanced pattern. First, the coefficient for foreign educated black immigrants is not significant, suggesting that the wealth disadvantage for these immigrants (relative to black Americans) is equivalent to that experience by foreign educated white immigrants (relative to white Americans). For foreign educated black immigrants then, there is no additional penalty associated with race. This lack of an additional racial penalty, such

[8] Joint tests of significance indicate that U.S educated Asians [Asian, interaction term] attain wealth equality with both Asian Americans and white Americans. In contrast, U.S. educated blacks [black, interaction term] and Hispanics [Hispanic, interaction term] attain wealth equality with their same-race/co-ethnic native-born peers, but wealth inequality remains between these groups and native-born whites.

as that associated with foreign educated Asians, may be a result of a small sample size. I return to this issue later. Next, Hispanic immigrants again present a different pattern. The positive and significant interaction term reduces the wealth penalty associated with foreign education for Hispanic immigrants and brings the wealth attainment of this group much closer to that of both Hispanic Americans and foreign educated white immigrants. This could be due to the relatively lower levels of educational attainment for both Hispanic Americans and foreign educated Hispanic immigrants, since lower levels of foreign education may have fewer socioeconomic ramifications (Butcher 1994). Last, in support of Hypothesis 3a, foreign educated white [–.019] and Asian [–.019 + –.018] immigrants are associated with the largest wealth penalty for their foreign education.

Figure 3 presents predicted values from Model 3. In this graph, the native-born are now on the left. Following from Model 3, U.S. educated immigrants attain wealth equality with their same-race/co-ethnic native-born peers. Since foreign educated immigrants were driving the results depicted in Figure 2, the pattern displayed in Figure 3 is familiar. Relative to their same-race/co-ethnic native-born peers, foreign educated Asians and Hispanics are associated with the largest [–$60,287] and smallest [–$10,823] wealth penalties, respectively. This variation in the wealth penalty associated with foreign education alters the racial hierarchy. Whereas whites and Asians attained similar levels of wealth among the U.S. educated regardless of nativity status, foreign educated Asians are associated with a level of wealth attainment that is not only below foreign educated whites [–$19,094], but foreign educated Hispanics [–$14,903] as well.

***Sensitivity Analysis: Mexican-origin Hispanic Immigrants and Refugees***

Table 3 presents two sensitivity tests that assess the robustness of the results in Model 3. Model 4 serves as a sensitivity test for Hispanics and includes interactions between Mexican-

origin immigrants and the age at migration and place of education variables.[9] Including these interaction terms reveals that Mexican-origin Hispanic immigrants drive the Hispanic results in Model 3. When accounting for Mexican-origin Hispanic immigrants, the interaction term between Hispanic and place of education is no longer significant. It remains positive, though the loss of significance could be attributable to the decrease in sample size since Mexican-origin immigrants are the largest nationality within the Hispanic ethnic group. Model 5 includes a variable for refugee status and interactions with race/ethnicity. These variables are not significant, suggesting that refugees do not affect the patterns observed in Model 3.

**DISCUSSION**

Since Chiswick (1978) social scientists have been concerned with the effect of foreign educational attainment on immigrants' integration into U.S. society. More recent work considers the earnings ramifications of foreign education for specific racial groups including black (Dodoo 1997) and Asian (Zeng and Xie 2004) immigrants. In this paper, I extend this seminal research by including Hispanics and examining age at migration in addition to place of education. I also use a relatively unexplored indicator of immigrant economic integration – wealth accumulation. I draw on the concept of racial formation as well as segmented assimilation and dominance-differentiation theory to build hypotheses that specify how race/ethnicity, age at migration, and place of education influence immigrants' ability to accumulate wealth.

Results provide evidence of both racial/ethnic and educational stratification, but educational stratification only affects the wealth accumulation of foreign educated immigrants. When accounting for place of education, U.S. educated immigrants attain wealth equality with their same-race/co-ethnic native-born peers. This suggests that U.S. education levels wealth

[9] In this specification, Mexican-origin only refers to immigrants. Therefore, there is no coefficient for Mexican-origin under the race/ethnic subheading in Table 3.

inequalities *within* racial/ethnic groups. Between-group inequalities still exist, however. The ordering of the racial/ethnic hierarchy is the same for both the native-born and U.S. educated immigrants: whites and Asians attain equivalent levels of wealth with Hispanics and blacks accumulating substantially less wealth. This places Asians in a unique position within the racialized U.S. social structure: Whether US-educated immigrants and native-born Americans, Asians are the only racial/ethnic minority group to attain wealth equality with native-born whites.

Turning to foreign educated immigrants, both racial/ethnic and educational stratification affect patterns of wealth accumulation. Among the foreign educated, white immigrants are best positioned. This reflects an effect of racial/ethnic stratification in the United States: even when accounting for age at migration and place of education, whites remain at the top of the racial/ethnic hierarchy. Results suggest that racial/ethnic stratification also affects Hispanics in terms of their wealth accumulation relative to native-born whites, but educational stratification does not contribute to wealth inequality with foreign educated Hispanic immigrants. Foreign educated Hispanic immigrants experience the smallest wealth penalty from their foreign education, relative to both Hispanic Americans and US-educated Hispanic immigrants. This lack of a wealth penalty associated with foreign education for Hispanics may reflect the generally lower levels of educational attainment among this ethnic group. Since foreign educated Hispanics would have similar low levels of educational attainment as Hispanic Americans and U.S. educated Hispanic immigrants, their foreign education may be relatively immune from devaluation and subsequently does not affect their wealth attainment as it does for other racial/ethnic groups. In contrast, foreign educated white and Asian immigrants are associated with the largest wealth inequalities relative to their native-born and U.S. educated immigrant

peers. These inequalities possibly reflect the substantial devaluation of their relatively higher educational attainment. Last, foreign educated black immigrants experience wealth inequality associated with their foreign education, but they do not encounter an additional penalty due to their racial status.

The above argument provides some insight into why foreign educated Hispanic immigrants may experience little financial setback associated with their foreign educational attainment. Additionally, results suggest that foreign educated Hispanic immigrants are not demonstrating any financial behaviors that separate their wealth accumulation from that of Hispanic Americans or U.S. educated Hispanic immigrants. Regardless of nativity status and place of education, Hispanics are purchasing assets, managing debt, saving, and investing in similar ways. This leads to wealth parity among Hispanics and provides evidence that racial/ethnic stratification is the only contributing factor to wealth inequality between Hispanics and native-born whites.

But why would foreign educated Asian immigrants receive such a large wealth penalty relative to Asian Americans? For one, foreign educated Asian immigrants may have difficulty obtaining desirable jobs, which may lead to settling (at least temporarily) for "unrelated jobs" that are a mismatch between their educational attainment and the job requirements (Zeng and Xie 2004). Discrimination may also prevent Asian immigrants from obtaining jobs that are commensurate with their education (Tang 1993, 2000; Kim and Lewis 1994). Last, foreign educated Asians may be disproportionately highly educated and/or hold degrees that do not transfer to the American labor market. Research examining immigrants in Canada provides support for this idea by finding that foreign educated doctors, engineers, and teachers as well as immigrants who hold foreign degrees in the natural sciences and health professions face

considerable difficulty in obtaining positions that correspond to their origin country occupations or fields (Basran and Zong 1998; Grant and Nadin 2007).

While the labor market experience of foreign educated Asian immigrants provides insight into what is driving their relatively larger wealth penalty, other characteristics may also uniquely factor into this inequality. Foreign educated Asian immigrants may exhibit different patterns of investment behavior. This may include low levels of risk tolerance or an aversion to loans and debts as part of a conservative investment strategy. Consumption patterns may also harm the wealth accumulation of foreign educated Asian immigrants. Occupational mismatch may increase expenses in other areas such as health insurance and/or immigrants may be financing additional schooling or accreditation in the United States. Next, cultural differences may also contribute to differential expenditure patterns. Foreign educated Asian immigrants may place a greater emphasis on educational or cultural opportunities for their children, which will reduce their ability to accumulate wealth. Remittances and/or the financing of migration for relatives or friends to the United States will also drain financial resources. Last, foreign educated Asian immigrants may be more oriented to their country of origin than their peers. Their experience with financial markets in their home country could affect their trust and participation of U.S. financial institutions.

***Contributions and Implications***

This paper provides a nuanced perspective for understanding contemporary immigrant incorporation and broader social stratification; one that moves beyond a singular focus on race/ethnicity or class and more fully considers the varied outcomes that arise from the intersections of multiple stratification processes. Immigrants provide an opportunity to gain further insight into the structure of the U.S. social stratification system. Upon arrival, immigrants

are assigned a racial/ethnic status and inserted into a racialized social structure. Though they possess a wide range of skills and abilities, their assigned racial/ethnic status affects their ability to use these resources to integrate into society. In this way, foreign educated racial/ethnic minority immigrants experience two forms of inequality in the United States: one associated with their racial/ethnic status and one associated with their place of education. Therefore, in terms of economic integration and wealth accumulation, when we speak of racial/ethnic minority immigrants being doubly disadvantaged, the second layer of disadvantage is actually not due to their nativity status, but rather where they completed their education.

***Limitations and Future Research***

Several limitations of this study must be acknowledged. One limitation is the small sample size for some groups such as foreign educated black immigrants and Asian Americans. The small size of foreign educated black immigrants could explain why this group experiences a similar penalty from their foreign education as white immigrants and why there is not an additional penalty due to their racial status. Though Asian Americans are also few in number, this same argument is less applicable in light of the large number of Asian immigrants. That U.S. educated Asian immigrants attain wealth equality with native-born whites suggests that the financial parity between white and Asian Americans is not solely a function of sample size. Larger sample sizes would strengthen the findings and conclusions of this paper and also allow for the exploration of wealth differences by nationality. For example, foreign educated Japanese immigrants receive better returns in the labor market than similarly educated native-born whites, while other foreign educated Asian immigrants experience devaluation of their foreign educational attainment (Zeng and Xie 2004). A second limitation is that results are based on cross-sectional data. Future research would benefit from longitudinal data with an over-sample

of immigrants. This would provide enough data for the examination of foreign educated blacks as well as various nationalities within larger racial/ethnic groups. Furthermore, longitudinal data would allow for the examination of the effects of place of education both at the time of migration and over time.

***Conclusion***

Wealth stratifies society by providing differential access to neighborhoods, school districts, health care, power and influence, and leisure activities. It also provides the basis for the intergenerational transfer of financial advantage via inheritances. The opportunity to improve their financial well-being provides the necessary motivation for many immigrants to move to the United States (Portes and Rumbaurt 2006). Since social stratification is closely tied to financial resources, wealth accumulation provides unique insight into immigrant integration. Upon arrival, immigrants will differentially incorporate into American society according to a number of factors including race/ethnicity and place of education. The intersection of these powerful stratifying factors contributes to the unique ways that racial/ethnic and educational stratification affect immigrant wealth accumulation. These intersections urge scholars to better understand immigrants' patterns of incorporation and to consider how these patterns may provide differential access to opportunities to improve their financial – and overall – well-being.

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## TABLES

**Table 1: Mean Values for Explanatory Variables and Wealth, SIPP 2001 and 2004, N=44,349**

| | Full Sample | | | White | | Asian | | Black | | Hispanic | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | NB | FB | NB | FB | NB | FB | NB | FB | NB | FB |
| **Education** | | | | | | | | | | | |
| Foreign terminal degree | 0.06 | — | 0.59 | — | 0.52 | — | 0.57 | — | 0.56 | — | 0.65 |
| College and above | | | | | | | | | | | |
| U.S. educated | 0.27 | 0.29 | 0.17 | 0.32 | 0.20 | 0.56 | 0.29 | 0.15 | 0.21 | 0.13 | 0.04 |
| Foreign educated | 0.02 | — | 0.15 | — | 0.22 | — | 0.28 | — | 0.09 | — | 0.04 |
| Some college | | | | | | | | | | | |
| U.S. educated | 0.34 | 0.37 | 0.11 | 0.36 | 0.11 | 0.26 | 0.09 | 0.39 | 0.14 | 0.35 | 0.09 |
| Foreign educated | 0.01 | — | 0.12 | — | 0.17 | — | 0.12 | — | 0.21 | — | 0.09 |
| High school or below | | | | | | | | | | | |
| U.S. educated | 0.33 | 0.35 | 0.14 | 0.32 | 0.18 | 0.18 | 0.05 | 0.46 | 0.09 | 0.52 | 0.23 |
| Foreign educated | 0.03 | — | 0.32 | — | 0.13 | — | 0.17 | — | 0.26 | — | 0.52 |
| **Age at Migration** | | | | | | | | | | | |
| Adult | 0.08 | — | 0.75 | — | 0.77 | — | 0.82 | — | 0.83 | — | 0.75 |
| Child/adolescent | 0.03 | — | 0.25 | — | 0.23 | — | 0.18 | — | 0.17 | — | 0.25 |
| **Wealth Measures** | | | | | | | | | | | |
| Net Worth[a] | $161.41 | $165.66 | $124.71 | $188.61 | $194.11 | $228.86 | $172.23 | $55.25 | $68.97 | $83.84 | $55.27 |
| | ($260.07) | ($262.97) | ($230.31) | ($277.05) | ($297.47) | ($326.57) | ($256.30) | ($127.08) | ($141.07) | ($189.60) | ($130.17) |
| Log of Net Worth[a] | $7.43 | $7.43 | $7.41 | $7.44 | $7.45 | $7.46 | $7.44 | $7.37 | $7.38 | $7.39 | $7.37 |
| | ($0.14) | ($0.14) | ($0.12) | ($0.15) | ($0.15) | ($0.16) | ($0.13) | ($0.07) | ($0.08) | ($0.10) | ($0.07) |
| N | 44349 | 39744 | 4605 | 32176 | 1418 | 250 | 1060 | 5456 | 380 | 1862 | 1747 |

*Note* : Some columns may not total 100 due to rounding. Standard deviations in parentheses. NB=Native-born; FB=Foreign-born.

[a] U.S.$2004 (in thousands).

**Table 2. Median Regression Estimates of Race/Ethnicity, Age at Migration, and Place of Education on Logged Net Worth, SIPP 2001 and 2004, N=44,349**

| | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| *Race/Ethnicity (ref=NH white)* | | | | | | |
| NH Asian | -0.008 | * | 0.006 | | 0.006 | |
| | (0.003) | | (0.006) | | (0.006) | |
| NH Black | -0.023 | *** | -0.023 | *** | -0.023 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Hispanic | -0.013 | *** | -0.015 | *** | -0.015 | *** |
| | (0.001) | | (0.002) | | (0.002) | |
| *Age at Migration (ref=native-born)* | | | | | | |
| Child/adolescent immigrant | 0.008 | ** | 0.004 | | 0.004 | |
| | (0.003) | | (0.004) | | (0.005) | |
| Adult immigrant | -0.007 | * | -0.012 | ** | -0.008 | |
| | (0.003) | | (0.004) | | (0.008) | |
| *Interaction with Age at Migration* | | | | | | |
| Child/adolescent immigrant | | | | | | |
| NH Asian | — | | 0.012 | | 0.011 | |
| | | | (0.014) | | (0.013) | |
| NH Black | — | | 0.004 | | 0.004 | |
| | | | (0.010) | | (0.011) | |
| Hispanic | — | | 0.008 | | 0.007 | |
| | | | (0.005) | | (0.005) | |
| Adult immigrant | | | | | | |
| NH Asian | — | | -0.019 | * | -0.014 | |
| | | | (0.008) | | (0.013) | |
| NH Black | — | | 0.003 | ** | 0.004 | |
| | | | (0.005) | | (0.012) | |
| Hispanic | — | | 0.011 | | 0.003 | |
| | | | (0.004) | | (0.008) | |
| *Place of Education (ref=U.S. educated)* | | | | | | |
| Foreign educated | -0.006 | † | -0.006 | † | -0.019 | *** |
| | (0.003) | | (0.003) | | (0.004) | |
| *Interaction with Place of Education* | | | | | | |
| NH Asian | — | | — | | -0.018 | * |
| | | | | | (0.009) | |
| NH Black | — | | — | | 0.002 | |
| | | | | | (0.005) | |
| Hispanic | — | | — | | 0.012 | ** |
| | | | | | (0.004) | |

† p < .1; * $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

*Note* : Standard errors in parentheses; NH signifies non-Hispanic. Models control for all variables discussed in the text and displayed in Appendix Table D.

**Table 3. Sensitivity Analyses for Mexican-Origin and Refugee Status Immigrants (Median Regression Estimates), SIPP 2001 and 2004, N=44,349**

| | Model 4 | | SE | Model 5 | | SE |
|---|---|---|---|---|---|---|
| *Race/Ethnicity (ref=NH white)* | | | | | | |
| NH Asian | 0.007 | | 0.007 | 0.006 | | 0.007 |
| NH Black | -0.023 | *** | 0.001 | -0.023 | *** | 0.001 |
| Hispanic | -0.015 | *** | 0.002 | -0.015 | *** | 0.002 |
| *Age at Migration (ref=native-born)* | | | | | | |
| Child/Adolescent | 0.004 | | 0.004 | 0.006 | | 0.005 |
| Adult | -0.008 | | 0.007 | -0.003 | | 0.009 |
| *Interaction with Age at Migration* | | | | | | |
| Child/adolescent immigrant | | | | | | |
| NH Asian | 0.010 | | 0.013 | 0.008 | | 0.014 |
| NH Black | 0.004 | | 0.011 | 0.002 | | 0.012 |
| Hispanic | 0.007 | | 0.007 | 0.004 | | 0.006 |
| Mexican-origin | 0.000 | | 0.006 | — | | |
| Adult immigrant | | | | | | |
| NH Asian | -0.015 | | 0.015 | -0.021 | | 0.016 |
| NH Black | 0.003 | | 0.010 | -0.001 | | 0.012 |
| Hispanic | 0.000 | | 0.010 | -0.002 | | 0.009 |
| Mexican-origin | 0.005 | | 0.008 | — | | |
| *Place of Education (ref=U.S. educated)* | | | | | | |
| Foreign educated | -0.020 | *** | 0.003 | -0.017 | *** | 0.004 |
| *Interaction with Place of Education* | | | | | | |
| NH Asian | -0.017 | * | 0.008 | -0.021 | * | 0.008 |
| NH Black | 0.003 | | 0.005 | 0.000 | | 0.005 |
| Hispanic | 0.005 | | 0.004 | 0.010 | * | 0.004 |
| Mexican-origin | 0.013 | *** | 0.003 | — | | |
| *Refugee Status (ref=nonrefugee)* | | | | | | |
| Refugee | — | | | -0.011 | | 0.007 |
| *Interaction with Refugee Status* | | | | | | |
| NH Asian | — | | | 0.013 | | 0.010 |
| NH Black | — | | | 0.007 | | 0.019 |
| Hispanic | — | | | 0.015 | | 0.010 |

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

*Note* : SE signifies standard error; NH signifies non-Hispanic. Models control for all variables discussed in the text.

## FIGURES

### Figure 1

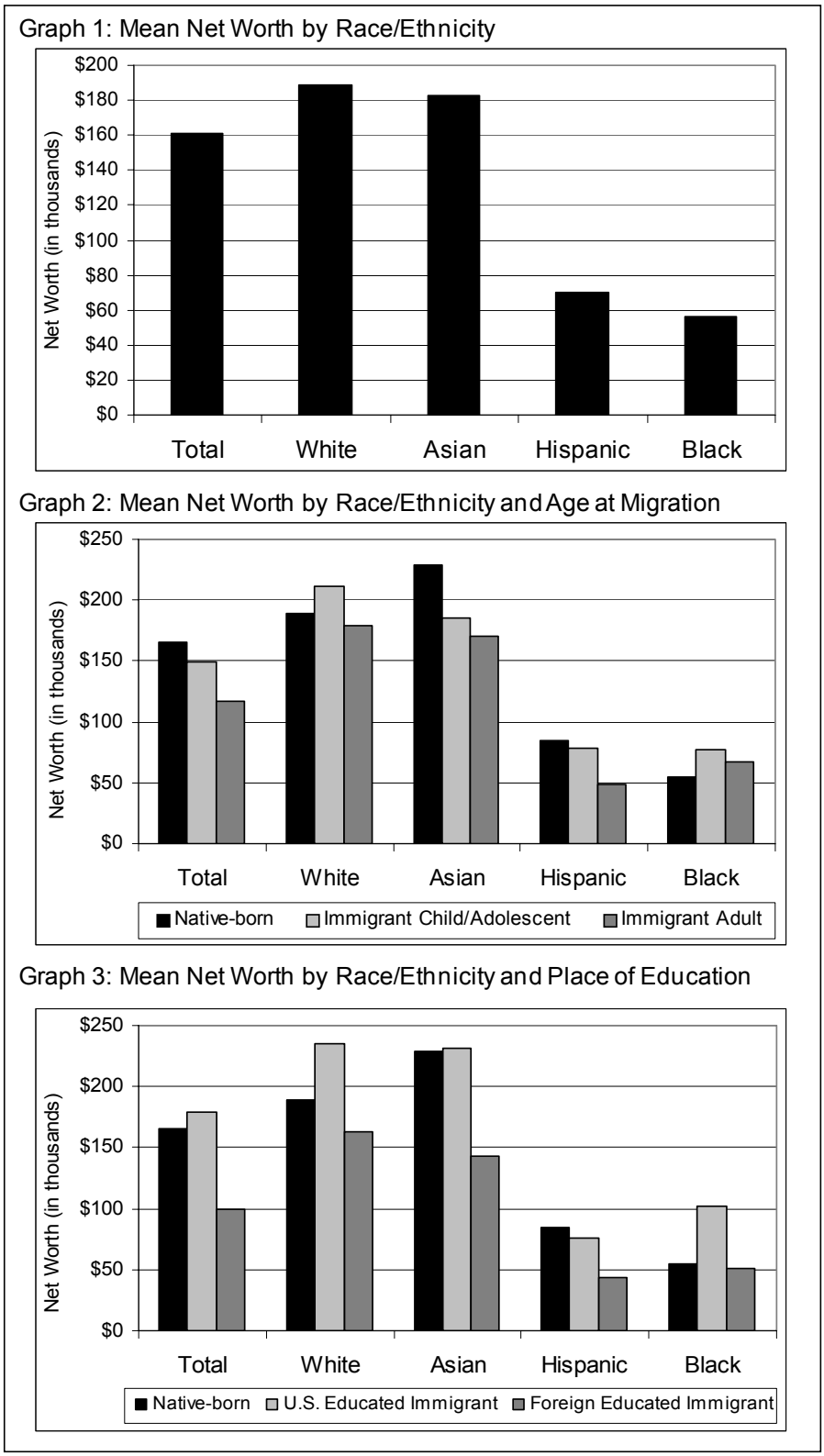


**Figure 2: Predicted Values of Logged Net Worth by Race/Ethnicity and Age at Migration**

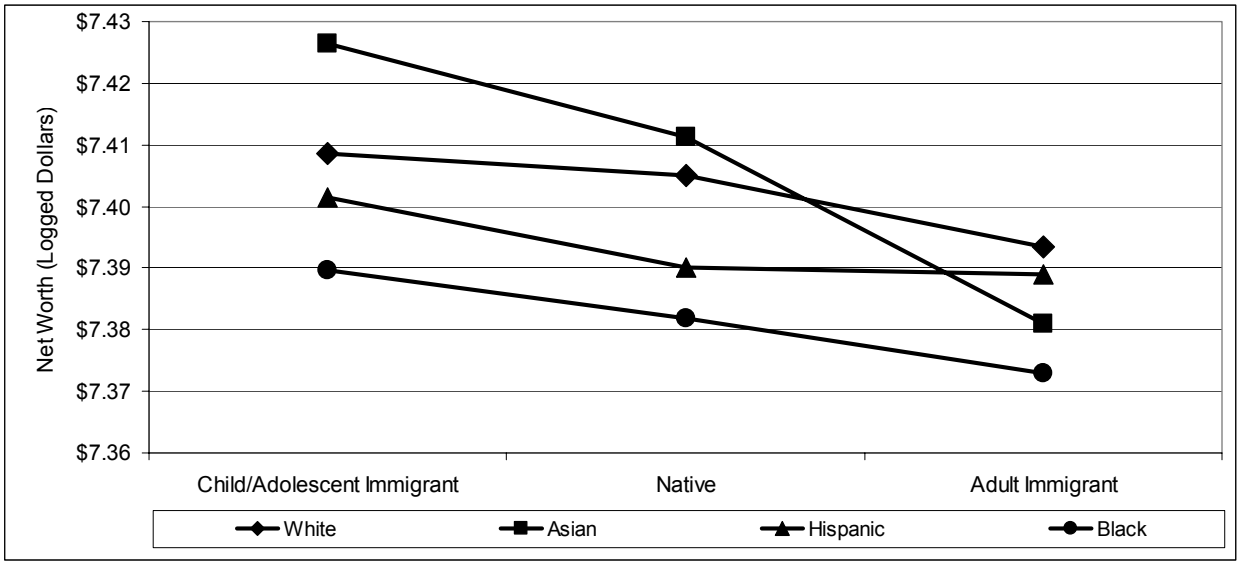
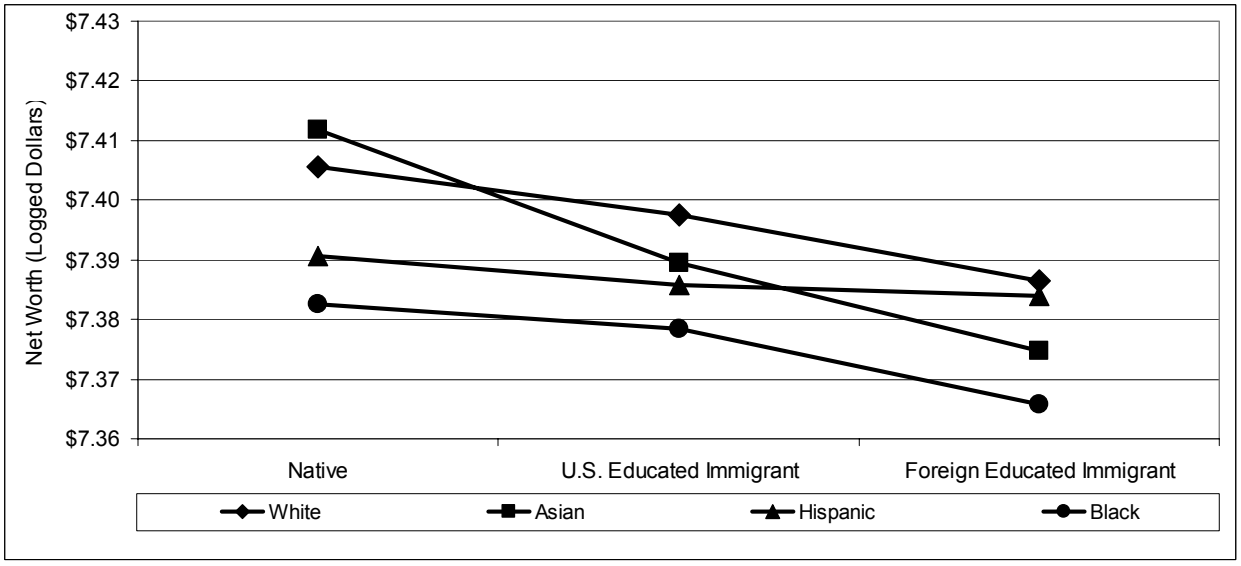



**Figure 3: Predicted Values of Logged Net Worth by Race/Ethnicity and Place of Education**



## APPENDIX TABLES

**Table A. Percent Foreign Born, by State.**

| State | Percent | State | Percent |
|---|---|---|---|
| **California** | **27.2** | Kansas | 6.0 |
| **New York** | **21.6** | Michigan | 6.0 |
| **New Jersey** | **19.7** | Idaho | 5.6 |
| **Florida** | **18.7** | Nebraska | 5.6 |
| **Nevada** | **18.5** | New Hampshire | 5.4 |
| **Hawaii** | **16.9** | Pennsylvania | 5.2 |
| **Texas** | **15.8** | Oklahoma | 4.9 |
| **Arizona** | **15.0** | Wisconsin | 4.3 |
| Massachusetts | 14.2 | South Carolina | 4.2 |
| Illinois | 13.7 | Indiana | 4.1 |
| District of Columbia | 12.7 | Tennessee | 4.0 |
| Connecticut | 12.6 | Arkansas | 3.9 |
| Rhode Island | 12.6 | Iowa | 3.8 |
| United States | 12.5 | Vermont | 3.7 |
| Washington | 12.2 | Ohio | 3.6 |
| Maryland | 12.1 | Missouri | 3.5 |
| Colorado | 10.1 | Maine | 3.2 |
| Virginia | 10.1 | Louisiana | 3.1 |
| Oregon | 9.7 | Alabama | 2.9 |
| New Mexico | 9.4 | Kentucky | 2.7 |
| Georgia | 9.0 | Wyoming | 2.7 |
| Utah | 8.0 | North Dakota | 2.3 |
| Delaware | 7.6 | South Dakota | 2.1 |
| North Carolina | 6.8 | Montana | 1.9 |
| Alaska | 6.7 | Mississippi | 1.7 |
| Minnesota | 6.5 | West Virginia | 1.3 |

*Source:* Table GCT0501 from the U.S. Census Bureau, 2005-2007 American Community Survey.

*Note:* States are sorted in descending order by percent foreign born. The bold states have at least 15 percent of the population that are foreign born.

**Table B. Countries Used in Refugee Variable Construction, SIPP 2001 and 2004**

| Country | N | SIPP ID # | Country | N | SIPP ID # |
|---|---|---|---|---|---|
| Afghanistan | 8 | 200 | Laos | 27 | 221 |
| Balkan countries | | | Nicaragua | 29 | 316 |
| Czech Republic | 5 | 155 | Poland | 59 | 128 |
| Czechoslovakia | 4 | 105 | Romania | 17 | 132 |
| Slovakia | 1 | 156 | Soviet Union | 5 | 180 |
| Yugoslavia | 34 | 147 | Latvia | 1 | 183 |
| Cambodia | 27 | 206 | Lithuania | 5 | 184 |
| Cuba | 106 | 337 | Ukraine | 24 | 195 |
| Ethiopia | 19 | 417 | Vietnam | 119 | 242 |
| Iran | 43 | 212 | **Total** | **533** | — |

*Source:* Van Hook and Bean (2009)

**Table C. Means and Standard Deviations for Control and Select Explanatory Variables, SIPP 2001 and 2004, N=44,349**

| | Mean | | Mean | SD |
|---|---|---|---|---|
| Race/Ethnicity | | Marital status | | |
| White | 0.75 | Single | 0.17 | |
| Asian | 0.03 | Married | 0.58 | |
| Hispanic | 0.09 | Seperated | 0.04 | |
| Black | 0.13 | Divorced | 0.18 | |
| Mexican-origin (Hispanic only) | 0.33 | Widowed | 0.04 | |
| Educational attainment | | Age | 44.51 | 10.63 |
| No high school degree | 0.10 | Household income[a] (log) | 7.13 | 2.94 |
| High school graduate | 0.27 | Number of children | 0.86 | 1.17 |
| Some college | 0.35 | Region of residence | | |
| College graduate | 0.19 | Northeast | 0.17 | |
| Advanced degree | 0.10 | Midwest | 0.26 | |
| Age at migration (immigrant only) | | South | 0.37 | |
| Adult | 0.08 | West | 0.21 | |
| Adolescent | 0.01 | Urban | 0.77 | |
| Child | 0.02 | Top 8 immigration state | 0.30 | |
| English language proficiency (immigrant only) | | Refugee (immigrant only) | | |
| Native speaker | 0.35 | White | 0.01 | |
| Very well | 0.25 | Asian | 0.13 | |
| Well | 0.15 | Hispanic | 0.03 | |
| Not Well | 0.20 | Black | 0.01 | |
| Not at all | 0.05 | Respondent in 2004 panel | 0.58 | |

*Note* : SD signifies Standard Deviation.

[a] US$2004 (in thousands).

**Table D. Control Variable Median Regression Estimates on Logged Net Worth, SIPP 2001 and 2004, N=44,349**

| | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| *English Language Proficiency* [a] | | | | | | |
| Very well | -0.003 | | -0.002 | | -0.002 | |
| | (0.002) | | (0.002) | | (0.002) | |
| Well | -0.007 | ** | -0.008 | ** | -0.007 | * |
| | (0.003) | | (0.002) | | (0.003) | |
| Not well | -0.010 | *** | -0.011 | *** | -0.010 | *** |
| | (0.002) | | (0.002) | | (0.003) | |
| Not at all | -0.012 | *** | -0.014 | *** | -0.014 | *** |
| | (0.003) | | (0.003) | | (0.003) | |
| *Education* [b] | | | | | | |
| High school | 0.010 | *** | 0.010 | *** | 0.010 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Some college | 0.018 | *** | 0.018 | *** | 0.018 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| College degree | 0.050 | *** | 0.051 | *** | 0.051 | *** |
| | (0.002) | | (0.002) | | (0.002) | |
| Advanced degree | 0.078 | *** | 0.079 | *** | 0.079 | *** |
| | (0.003) | | (0.003) | | (0.003) | |
| *Household characteristics* | | | | | | |
| Female[c] | 0.000 | | 0.000 | | 0.000 | |
| | (0.001) | | (0.001) | | (0.001) | |
| Age[d] | 0.003 | *** | 0.003 | *** | 0.003 | *** |
| | (0.000) | | (0.000) | | (0.000) | |
| Household income[e] | 0.003 | *** | 0.003 | *** | 0.003 | *** |
| | (0.000) | | (0.000) | | (0.000) | |
| Number of children | 0.002 | *** | 0.002 | *** | 0.002 | *** |
| | (0.000) | | (0.000) | | (0.000) | |
| *Marital status* [f] | | | | | | |
| Married | 0.025 | *** | 0.025 | *** | 0.025 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Seperated | -0.008 | *** | -0.007 | *** | -0.008 | *** |
| | (0.002) | | (0.002) | | (0.002) | |
| Divorced | -0.013 | *** | -0.013 | *** | -0.013 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Widowed | -0.007 | ** | -0.007 | ** | -0.007 | ** |
| | (0.002) | | (0.003) | | (0.002) | |
| *Residence* [g] | | | | | | |
| Midwest | -0.005 | *** | -0.005 | *** | -0.005 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| South | -0.010 | *** | -0.010 | *** | -0.011 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| West | 0.000 | | 0.000 | | 0.000 | |
| | (0.001) | | (0.001) | | (0.002) | |
| Urban[h] | 0.008 | *** | 0.008 | *** | 0.008 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Top 8 immigration state[i] | -0.001 | | -0.001 | | -0.001 | |
| | (0.001) | | (0.001) | | (0.001) | |
| 2004 SIPP panel[j] | 0.007 | *** | 0.007 | *** | 0.007 | *** |
| | (0.001) | | (0.001) | | (0.001) | |
| Intercept | 7.340 | *** | 7.3404 | *** | 7.3403 | *** |

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed

*Note* : Standard errors in parentheses.

[a] Reference is native-speaker.

[b] Reference is no high school degree.

[c] Reference is male.

[d] Logged and adjusted to US$2004.

[e] Grand mean-centered.

[f] Reference is never married.

[g] Refernce is Northeast.

[h] Reference is rural.

[i] Reference is all other states.

[j] Reference is 2001 SIPP panel.