ECONOMIC INTEGRATION OF IMMIGRANTS IN THE UNITED STATES

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University of Pittsburgh, 2017

Abstract

The primary purpose of this study was to examine the effect of human capital (e.g., English ability and educational attainment) and social capital (e.g., ethnic bonding capital and bridging social capital to main society) on the economic integration (e.g. Income, employment, occupation prestige, and welfare utilization) of immigrant in the United State. The current study addressed the following hypotheses: 1) Immigrants' human capital would have an effect on the economic integration of immigrants, 2) Immigrants' human capital would have an indirect effect on the economic integration of immigrants via ethnic bonding social capital, and 3) Immigrants' human capital would have an indirect effect on the economic integration of immigrants via bridging social capital to mainstream. It was also hypothesized that the indirect effect of human capital on immigrants' economic integration will be different, depending on the types of social capital. To address these hypotheses, secondary data analysis was conducted, using data from the Immigration and Intergenerational Mobility in Metropolitan Los Angeles Survey (IIMMLA), which investigated assimilation patterns among six Latino and Asian groups in the Los Angeles metropolitan area in 2004. Given that this study aimed to examine the roles that human and social capital play in the process of immigrants' economic integration into the host society, the current study focused on the 1st/1.5th, and 2nd generations (N=3,440). Using M*plus* 7, structural equation modeling (SEM) path analyses were conducted to test theoretical mediation models. The results, first, showed that immigrants' human capital (education attainment and English

ability) had a positive effect on their economic integration such as income, prestige occupation, employment, and welfare utilization. Second, immigrants' ethnic bonding and bridging social capitals had a positive effect on income, but this positive effect of social capital was not detected for other economic integration outcomes. Third, education attainment had a positive effect on both ethnic bonding and bridging social capital, whereas English ability had mixed effects on social capital; English ability decreased ethnic bonding social capital, but increased bridging social capital to mainstream society. As a result, lastly, there was two positive indirect effects of human capital via social capital on income (English→ bridging social capital→ income, and Education attainment→ bridging social capital→ income), and one negative pathway of human capital to income (English→ bonding social capital→ income). Implications and limitations were discussed.

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PREFACE

Thank you to my committee, Dr. Newhill, Dr. Koeske, Dr. Rauktis, and Dr. Shertzer, for helping me see this work through. Your thoughtful insights across all aspects of this work were truly appreciated and valued.

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To my family, Jake, Minseop, Daehan, mom, dad. Thank you for all your support and love.

1.0 INTRODUCTION

Immigrants, often termed “foreign born,” refer to persons who do not have U.S. citizenship at birth, including naturalized citizens, lawful permanent residents (LPRs), certain legal nonimmigrants (e.g., persons on student or work visas), those admitted under refugee or asylee status, and persons illegally residing in the United States and their native born child (2nd generation). Collectively, they make up a large and increasing share of the population in the United States. American Community Survey, which has been conducted annually by the Census Bureau, indicates that the U.S. immigrant population was approximately 43.3 million, or 13.5 percent of the total U.S. population of 321.4 million in 2015 (Figure 1). Although the number of immigrants in the U.S. is at an all-time high, their relative share of the overall population is slightly lower than it was during the 1870–1920 period. Between 1870 and 1920, immigrants as a percentage of the total population fluctuated between 13 and 15 percent, peaking at nearly 15 percent in 1890 mainly due to European immigration (Kandel, 2011). By 1930, however, immigrants' share of the U.S. population had declined to less than 12 percent. Their share continued to drop between the 1930s and 1970s, reaching a record low in 1970 (approximately 5 percent). However, since 1970, immigrants’ share of the population has increased rapidly, mainly because of large-scale immigration from Latin America and Asia. By 1990, their share had risen to 8 percent (19.8 million people), and by 2000 they constituted 11 percent (31.1 million people) of the total U.S. population. Currently, immigrants comprise 13.5 percent (43.3

million people) of the total U.S. population; together with their (American-born) children, this group consists of more than one-fifth of the U.S. population, the highest percentage in 94 years (Camarota & Zeigler, 2016).

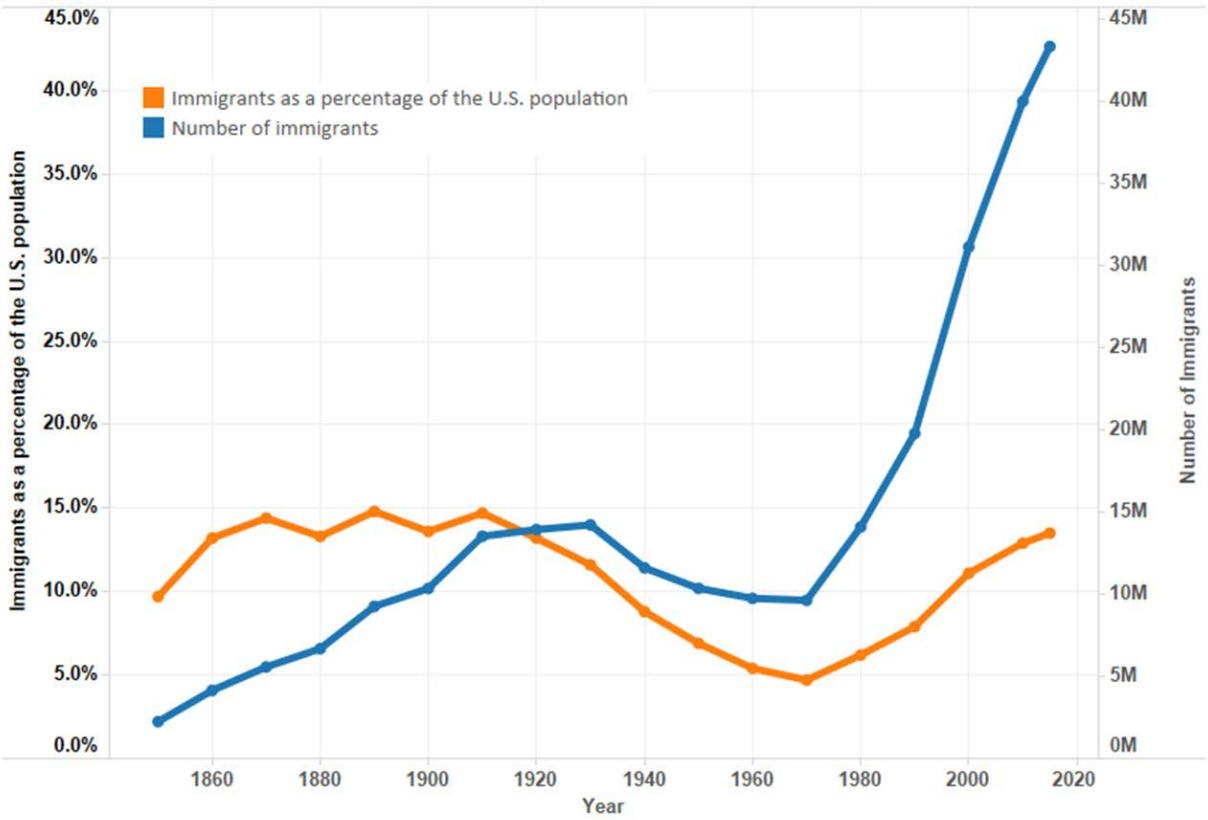

Figure 1. Number of Immigrants and Immigrants as Percentage of the U.S. Population, 1850 to 2015

Source: Migration Policy Institute (MPI) tabulation of data from U.S. Census Bureau, 2010-2015 American Community Surveys (ACS), and 1970, 1990, and 2000 Decennial Census. All other data are from Campbell J. Gibson and Emily Lennon, "Historical Census Statistics on the Foreign-Born Population of the United States: 1850 to 1990" (Working Paper no. 29., U.S. Census Bureau, Washington, DC, 1999).

1.1 CURRENT IMMIGRANTS IN THE U.S.

The current pattern of immigration can be characterized by the predominance of immigrants from Latin American and Asian countries, although immigrants to the U.S. come from more than 100 different countries (Camarota, 2012). In 2015, for instance, Mexican-born immigrants made up approximately 26.9 percent of the total number of immigrants residing in the United States, making them the largest immigrant group in the U.S. (see Figure 2). India was the second largest country of origin at about 5.5 percent of the foreign born population, followed by China (4.8 percent) and Philippines (4.6 percent). El Salvador (3.1 percent), Vietnam (3.0 percent), Cuba (2.8 percent), and Korea (2.4 percent), as well as the Dominican Republic (2.5 percent) and Guatemala (2.1 percent), round out the top ten countries of origin. Together, immigrants from these top ten countries made up almost 60 percent of all immigrants residing in the United States. This pattern is completely different from past trends, given that in 1960, for instance, most immigrants came from European countries (Gibson & Lennon, 1999). Italian-born immigrants accounted for 13 percent of all immigrants, followed by those born in Germany and Canada (about 10 percent each). Shifts in immigrant origins in turn lead to a dramatic change in the racial/ethnic composition of immigrants. In the 1960s when the vast majority of immigrants hailed from European countries, the Census data show that whites were the predominant racial group (over 75 percent) of immigrants (Grieco & Trevelyan, 2010). However, current data indicates much more diversity, showing that, while the proportion of white immigrants shrank to 47 percent, 27 percent of immigrants identify their race as Asian, 9 percent as black alone, and 17 percent as some other race. By the same token, ethnic composition becomes more diverse, given that nearly half of current immigrants (45 percent; 19.5 million) have Hispanic or Latino origins (see Figure 3).

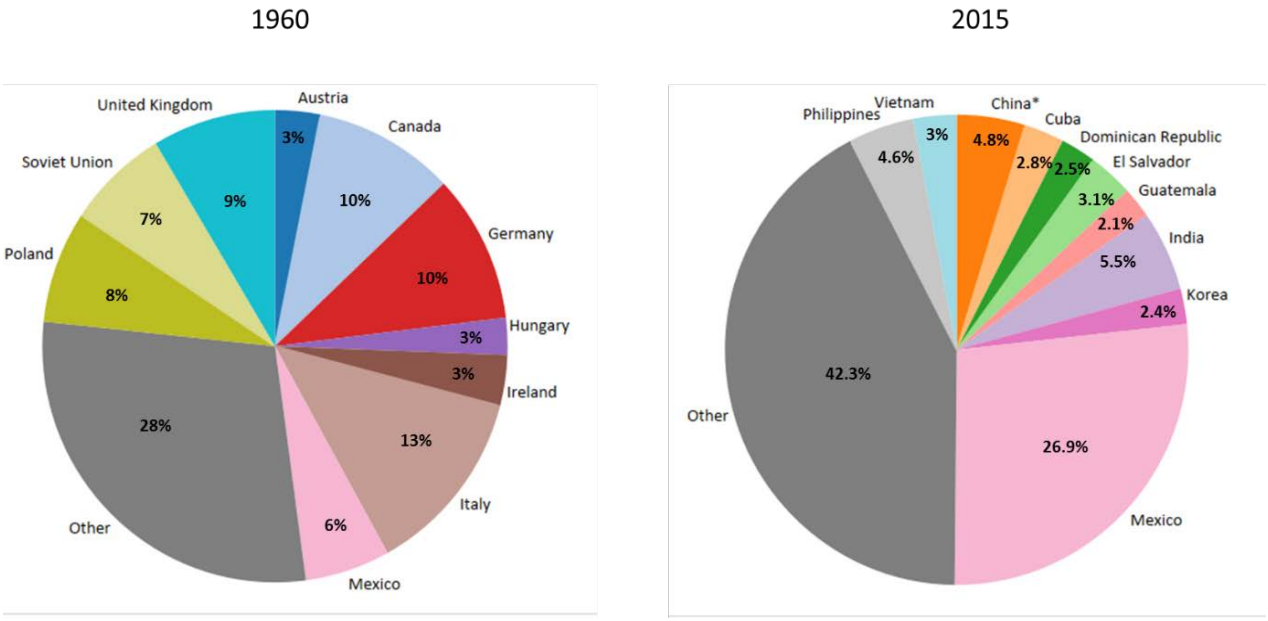

Figure 2. Top Ten Countries of Origin for Immigrants to the U.S., 1960 and 2015

Source: Migration Policy Institute (MPI) tabulation of data from U.S. Census Bureau, 2010 and 2015 American Community Surveys (ACS), and 2000 Decennial Census; data for 1960 to 1990 are from Campbell J. Gibson and Emily Lennon, "Historical Census Statistics on the Foreign-Born Population of the United States: 1850 to 1990" (Working Paper No. 29, U.S. Census Bureau, Washington, DC, 1999).

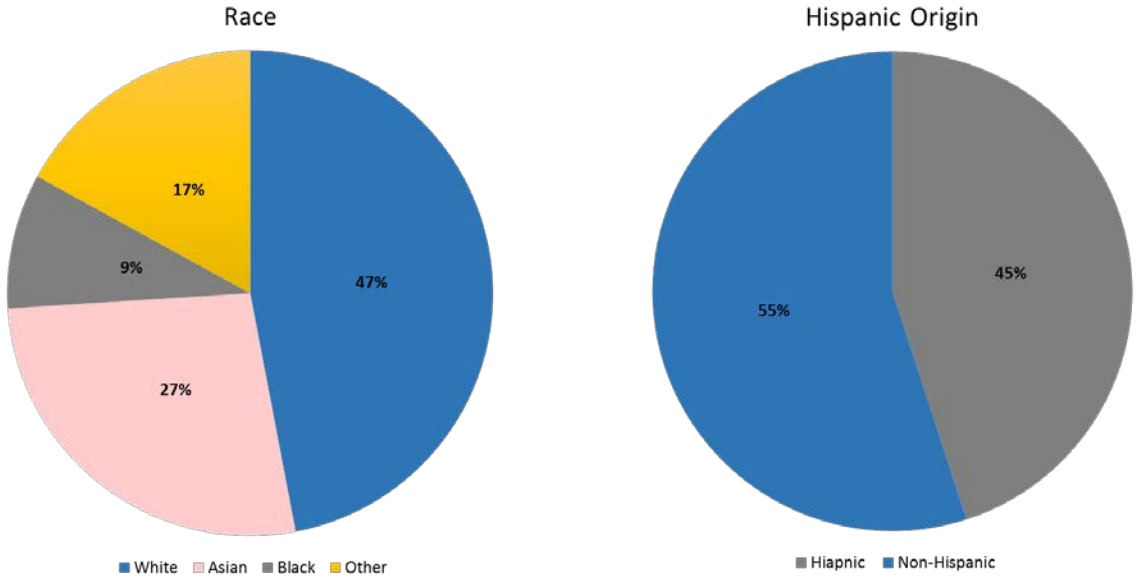

Figure 3. Race and Ethnicity of Immigrants, 2015

Source: Migration Policy Institute (MPI) tabulation of data from U.S. Census Bureau 2015

Another feature of the present-day immigrants is greater variation in their geographic distribution. Until recently, the vast majority of immigrants had settled in traditional gateway states: California, Texas, New York, Florida, New Jersey, Illinois, (Camarota & Zeigler, 2016). Since the 1980s, however, a number of immigrants have settled in states that previously experienced little or no immigration due to changes in immigration and border policy and economic conditions (Fix, Passel, & Unban Institute, 1994). In particular, Midwestern and southern states with more favorable economic condition have witnessed a large influx of immigrants, while the six major destination states still draw the largest numbers of immigrants (Jones, 2012). As a result, in 1990, 73 percent of immigrants resided in the traditional gateway states, compared to 27 percent living in all other states. By 2014, the proportion living in traditional gateway states declined to 64 percent, compared to 36 percent of immigrants living in nontraditional immigration states (Camarota & Zeigler, 2016).

In addition, today's immigrants have greater diversity with regard to their formal immigration status, which means that contemporary immigrants enter and reside in the U.S. under a variety of conditions. Indeed, immigrants in the 19th and early 20th centuries who came as volunteer immigrants, indentured laborers, or slaves were considered "legal immigrants", in the absence of any legislation (Segal, 2010). On the other hand, present-day immigrants are much more diverse in their immigration legal status, which, roughly, includes three broad groups: 1) legal immigrants [including naturalized citizens and lawful (permanent/ temporary)

residents], 2) refugees (and asylums[1]), and 3) illegal unauthorized (undocumented) immigrants. Currently, the majority of immigrants living in the United States (more than 70 percent) are in the U.S. legally (Kandel, 2011). Among them, nearly 48 percent are naturalized U.S. citizens (20.7 million people in 2015) who were formerly permanent residents but converted legal permanent resident status to U.S. citizenship. The other half of legal immigrants consists of lawful permanent residents (a.k.a. Green card holders) who come to live legally and permanently in the U. S., and legal temporary residents who are admitted for a designated period of time and for a specific purpose (e.g., foreign students, diplomats, temporary agricultural workers, persons on work assignments, and exchange visitors). In addition, 69,933 refugees, who are unable or unwilling to return to their country of origin or nationality because of persecution or a well-founded fear of persecution, arrived in the U.S. in 2015, with the majority coming from Burma, Iraq, Somalia, and Democratic Republic of Congo (68 percent of all refugees admitted in 2015) (2014 Yearbook of immigration status, 2015). In 2015, nearly 26,124 asylums, who are refugees already in the U.S. when they file for protection, entered the U.S. mostly from El Salvador, Guatemala, Egypt, and Honduras. However, most of these do not remain in refugee and asylee status, but rather adjust their status to legal permanent residents as soon as they are eligible, which is one year after arrival (Kerwin, 2011; Zong & Batalova, 2016). Finally, there are illegal

[1] In the U.S, refugees and asylums are distinguished by the person's location at the time of application. Refugees are generally outside of the United States when they are considered for resettlement, whereas asylum seekers submit their applications while they are physically present in or at a port of entry to the United States. An asylum seeker present in the United States may submit an asylum request either with a U.S. Citizenship and Immigration Services (USCIS) asylum officer (affirmative request), or, if apprehended, with an immigration judge as part of a removal hearing (defensive request). During the interview, an asylum officer will determine whether the applicant meets the definition of a refugee.

unauthorized immigrants, including those who arrive without legal documentation and those who overstay their visas. Although there is no valid method to estimate the size of illegal unauthorized immigrants (Segal, 2010), a recent study (Capps, Bachmeier, Fix, & Van Hook, 2013) estimated that approximately 11.5 million unauthorized immigrants resided in the United States (about 28 percent of total immigrant population) in 2011. This estimate is slightly lower than the peak of 12.4 million in 2007 (Segal, 2010), in large part due to the decrease in the new immigrants arriving from Mexico.

1.2 ECONOMIC INTEGRATION OF IMMIGRANTS

Despite the diversity among immigrants in the United States, all immigrants have at least one characteristic in common. Regardless of their country of origin, race/ethnicity, and geographic location, all immigrants, unlike their native-born counterparts, have to experience an assimilation process [2] by which immigrants adapt to a host country that may have different rules, laws, norms, values, and languages from their country of origin (Alba & Nee, 2003; Borjas, 2007; Gordon, 1964). While immigrant assimilation is multi-faceted [e.g., cultural assimilation (a.k.a. acculturation), social assimilation, and political assimilation], the economic aspect of the

[2] The concept of *assimilation* often refers to the convergence between immigrants and a mainstream (or native) society/culture. Therefore, research using the concept of assimilation tends to focus primarily on the eventual convergence (or divergence) between natives and immigrants, implicitly assuming that a higher level of convergence is a desirable outcome (Potocky-Tripodi, 2004). Recently, however, there has been a shift in focus and terminology away from assimilation towards *integration* (or incorporation), and studies using integration tend to focus more on well-being of immigrants themselves. This paper uses the concept of assimilation and integration interchangeably, despite a slight difference in focus between the two concepts, because previous research often used the two concepts interchangeably. However, it is noteworthy that this paper uses the phrase, economic integration, rather than economic assimilation, because the concept of integration (with a focus on well-being) would be more consistent with values of social work.

assimilation process (i.e. economic integration) has arguably received the most attention from scholars and policy makers, for several reasons including the effect that immigrants have on the native workforce, the fiscal impact that immigrants may have on the U.S. society, and the well-being of immigrants and their families (Alba & Nee, 2003; Borjas, 2007; Padilla, 1997; Terrazas, 2011).

Researchers have conceptualized and assessed economic integration in various ways. An early study (Carmon, 1981) pointed out that economic integration is an absorption process that characterizes the economic life of immigrants in the labor market (e.g., employment and job status), and it is a necessary precondition for other forms of integration, such as cultural and social integration. Yinger (1985) also noted that economic integration can be captured by the occupational, income, and labor supply patterns of a particular group in relation to that of the general society. Despite these early, broader definitions of economic integration, some researchers, especially economists and economic sociologists, have used a much narrower definition, with a limited focus on earnings or wages. Xie and Gough (2011), for example, indicated that economic integration can be measured by the extent to which immigrants are able to close an earnings gap with their native born counterparts. However, most scholars have used a broader definition of economic integration that encompasses multiple economic disparities between immigrants and natives. For example, Alba and Nee (2003) defined economic integration as the economic distance separating immigrants and their children from the mainstream of American society. They pointed out that economic integration can be assessed by unemployment, occupational status, self-employment, and family income. Similarly, Van Tubergen (2006) indicated that economic integration refers to the degree of economic equality between immigrants and natives, assuming that the economic integration of immigrants is

stronger when they have higher labor participation rates, lower unemployment rates, better jobs and higher income. In recent decades, moreover, the concept of economic integration has been extended to include a disparity in welfare use (Potocky-Tripodi, 2004; Xu & Kalina, 2012) in that welfare utilization is a reasonable proxy for economic hardships facing immigrants, and that welfare programs may serve as last resort for the self-sufficiency of immigrants.

1.2.1 Employment and occupation

The labor market has arguably been the most important institution for the integration of immigrants in the United States (Terrazas, 2011), and thus employment has been used as the primary indicator of economic integration (Camarota, 2012; Capps et al., 2013; Fix et al., 1994; Kandel, 2011). Recent national estimates (Camarota & Zeigler, 2016), derived from the March 2015 Current Population Survey (CPS), suggest that contemporary immigrants are well integrated into the labor market. In 2015, the employment rate [3] of immigrants ages 18-65 was 69.5 percent, indicating that the majority of immigrants in the labor force had a job, This is equal to the comparable employment rate for natives (69.5percent), suggesting that the share of working-age immigrants holding a job was the same as natives. Furthermore, another employment measure, the labor force participation rate (i.e., the share of those who have a job or are looking for a job among the total population), reveals that immigrants ages 18-65 were more likely to participate in the labor force than their native counterparts (73.2 percent vs. 73.7 percent). However, for those in the prime working years of 25 to 55, the same figures show that the overall employment and labor force participation rates for immigrants are slightly lower than

[3] The number of employed immigrants was divided by the total immigrants labor force.

those for their native born peers (employment rate = 73.6 percent vs.76.8 percent; labor force participation rate = 77.1 percent vs. 80.8 percent). Nevertheless, the current disparity in employment between immigrant and natives is at a record low, suggesting a conversing trend in labor force behavior between immigrants and natives. Since the 1970s when the labor force participation rate among immigrants was 48 percent, the rate has been growing steadily, whereas the rate for the native born increased from 1970 (58 percent) to 1990, but has stabilized since then (Terrazas, 2011). Even when taking a cross-national view, immigrants in the United States are strongly integrated into the labor force, compared to those in other immigrant-receiving countries across the advanced industrial world (Terrazas, 2011; Van Tubergen, 2006). In sum, in using employment as a lens to assess economic integration suggests that contemporary immigrants to the U.S. are successfully integrated into the American labor force compared to past immigrants and immigrants in other developed countries.

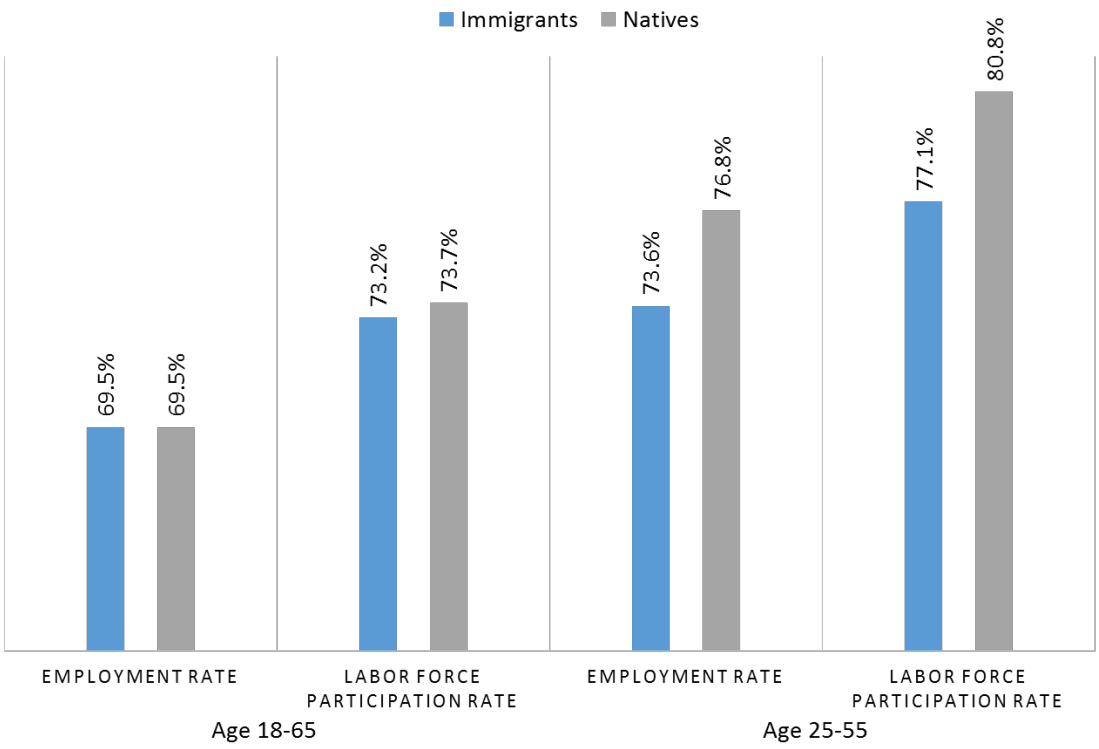

Figure 4. Employment of Immigrants and Natives, 2015

Note: Employed civilians ages 18 and older

Source: March 2015 Current Population Survey, Annual social and economic supplement (ASEC)

However, employment and labor force participation rates are not able to capture the complete picture of economic integration because they may mask job quality, which is associated with other economic indicators, such as earning, income, and poverty. A way to examine job quality is to take a look at occupational distribution (Camarota & Zeigler, 2016).

Table 1 shows the occupational distribution with the top five and bottom five occupations, in terms of their immigrant share. It is clear that immigrants are concentrated more in lower skilled service and industrial occupations. For example, immigrants constitute about 50 percent of workers in Farming, Fishing, and Forestry occupations, one third of those in

Building/Cleaning and Maintenance occupations (e.g., maids, housekeeping cleaners, janitors, and building cleaners), one fourth of those in Construction occupations (e.g., construction laborers), and slightly less than one fourth of those in Production occupations (e.g., butchers, meat/poultry/fish processing). On the other hand, immigrants account for 10 percent or less of workers in white-collar and/or high-skilled occupations, such as lawyers.

More recent data (the 2015 ACS Survey) show that this occupation disparity for immigrants was also found. Table 2 shows that immigrants are more likely than natives to have menial jobs, including service occupation, natural resources, construction, and maintenance occupations, but less likely to have white collar jobs, including management, business, science, arts occupations sales, and office occupations. In sum, although contemporary immigrants are well attached to the labor market, there is a disparity in occupational distribution between immigrants and natives, which may suggest that immigrants are more likely to be employed in low-skilled occupations.

Table 1

Occupational Distribution, 2011

Top 5 occupations	Immigrant Share
Farming, Fishing, and Forestry	47.4%
Building/Cleaning and Maintenance	34.0%
Construction	24.4%
Production	23.4%
Food Preparation and Serving	22.5%
Bottom 5 occupations	
Office and Administrative Support	10.5%
Business Operations Specialists	10.1%

Education, Training, and Library	10.0%
Community and Social Services	9.2%
Legal Occupations	7.1%

Source: Camarota (2012)

Table 2

Immigrant Occupation Distribution, 2015

Occupations	Immigrants Workers Employed in (%)	Natives Workers Employed in (%)
Management, Business, Science, and Arts	31.0	38.4
Service	24.0	16.7
Sales and Office	16.9	25.0
Natural resources, Construction, and Maintenance	13.1	8.2
Production, Transportation, and Material moving	15.0	11.8

Sources: Migration Policy Institute tabulations of the U.S. Bureau of the Census' American Community Survey (ACS) and Decennial Census. Unless stated otherwise, 2015 data are from the one-year ACS file.

1.2.2 Earning, income, and poverty

Given the occupational distribution, it is not surprising that immigrants have lower earnings (i.e., income from work) than natives. In 2015, the annual median earnings of male immigrants who worked full-time and year-round were $37,182, which is only about 81 percent of the annual median earnings of natives ($46,172), as shown in Table 3. By the same token, immigrants'

income[4] also lags behind that of natives. The median household income of immigrant-headed households is $49,561, which is 90 percent that of the household income of natives ($54,695). In addition, the size of immigrant households is 30 percent larger on average than that of native households (3.09 persons vs. 2.38 persons). As a result, the income-to-need ratio (i.e., per capita household median income) of immigrants is only 70 percent that of natives ($16,025 versus $22,941), suggesting that the members of immigrant households are more likely to face economic hardship (Current Population Survey; ASEC supplement, 2015).

In addition, it should be noted that, particularly among the most recent immigrants, immigrants often lack skills specific to their destination country, and thus are at an elevated risk of having low earnings or wages (Xie & Gough, 2011; Zeng & Xie, 2004). As Chiswick (1978) theorized, not only do new immigrants have limited English proficiency, but specific skills and knowledge attained prior to their immigration may not be fully valued in the host-country labor market. In other words, immigrants initially earn less than their (similarly qualified) U.S. native counterparts because their human capital is discounted in the U.S. labor market, which will be discussed in greater detail later. As a result, the median earnings among immigrants who arrived after 2000 ($35,129) is only 76 percent that of natives. The median income of these recent immigrants is $41,132, which is 75 percent than of natives. They also comprise the highest share of the lowest earning category, as shown in Table 3.

[4] Income is from all sources, whereas earnings or wages are income from working.

Table 3

Earning and Income of Immigrants and Native, 2015

	Natives	All Immigrants	Immigrants Arrived after 2000
Median Annual Earning per Worker	$46,172	$37,182	$35,129
Median Household Income	$54,695	$49,561	$41,132
Average Household Size	2.4	3.1	2.8
Median Income Divided by Average Household Size	$22,941	$16,025	$14,638

Source: Camarota & Zeigler (2016), data from March 2015 Current Population Survey, Annual social and economic supplement (ASEC)

Given the lower earning and income of immigrants, immigrants and their family members are more likely to live in poverty than natives. Recent estimates, based on the 2015 CPS ASEC, show that nearly 18.5 percent of immigrants have family incomes less than 100 percent of the poverty threshold, compared to 13.5 percent of natives (Current Population Survey CPS, 2015). The higher incidence of poverty among immigrants as a group has increased the overall size of the population living in poverty. As a share of all persons in poverty, immigrants account for 16.7 percent of those in poverty in the U.S. However, these estimates may undercount the actual size of immigrants in poverty because it treats the U.S. born children of immigrants as natives, despite the fact that the poverty rates of children reflect their parents' income. A report taking this underestimation into account (Camarota & Zeigler, 2016) indicates that the poverty rate for immigrants' U.S.-born children (under 18) is even higher, than natives' young children (27.4 verse. 19.0, see Figure 5).

Figure 5 also provides the percentage of immigrants and natives living in or near poverty, defined as income less than 200 percent of the poverty line. It is important to investigate those in or near poverty because 200 percent of the poverty threshold is often used as the eligibility criteria for public assistance programs and those with income under 200 percent of the poverty threshold generally do not pay (federal or state) income tax. Like poverty, near poverty is much more common among immigrants. While 30.8 percent of natives live in or near poverty, 41.9 percent of immigrants live in or near poverty with income less than 200 percent of the poverty threshold. In addition, childhood poverty is more problematic among the young children of immigrants (under 18), due to their larger household size and smaller family income than natives (see, Table 3). In 2014, among the young children of immigrants (under 18), 55.2 percent lived in or near poverty (versus 39 percent of native young children) in the U.S.

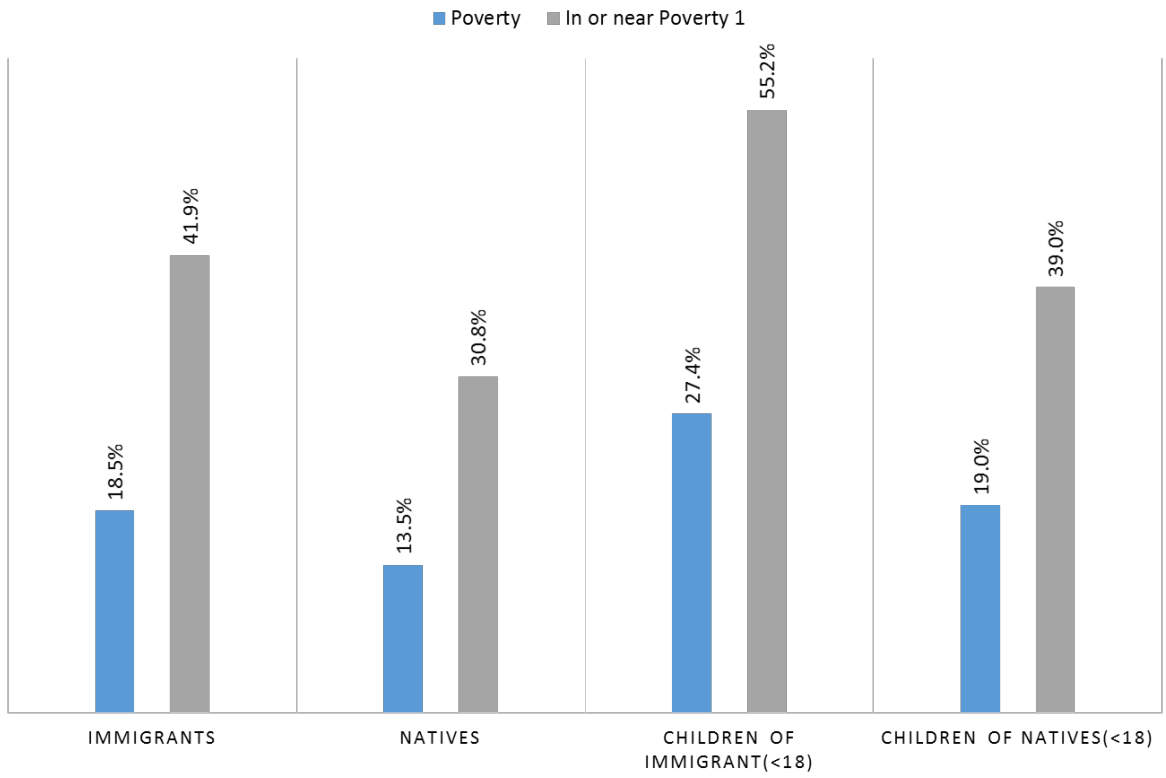

Figure 5. Poverty of Immigrants and Natives, 2015

Note: [1] Defined as under 200% of the poverty threshold.

Sources: March 2015 Current Population Survey, Annual social and economic supplement (ASEC)

1.2.3 Welfare utilization

The question of immigrants' welfare utilization, along with other indicators of economic integration, has been central to the immigration debate (Bean, Van Hook, & Glick, 1997) in that U.S. immigration policy bans the entry of persons who are likely to become welfare dependents. Applicants for immigrant admission must prove solvency and sponsorship that they are unlikely to be on welfare. Rates of participation in welfare programs among immigrants and/or differences in welfare use between natives and immigrants have often been viewed as indicators of the success or failure of U.S. immigration policy. As discussed previously, immigrants have

been in a disadvantaged position in the U.S. labor market, and their earnings and income have lagged behind those of natives. As such, immigrants have been overrepresented in the U.S. poverty population, and it is expected that immigrants are more likely than natives to rely on welfare programs designed to support self-sufficiency among low-income people.

However, previous studies on immigrants' welfare utilization have produced mixed findings. Earlier studies found that immigrants were less likely than natives to use welfare, despite the fact that more immigrants live below the poverty level compared with natives. For example, Blau (1984) found that in the 1970s immigrant families, especially female-headed immigrant families, had a smaller likelihood of participating in welfare programs, including Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI), and they had received lower welfare payments than natives. Tienda and Jensen (1986) found that despite their higher poverty rates, immigrant families had only minimally higher public assistance utilization rates, compared to natives in the 1970-80s. Jensen (1988) revealed that immigrant families were generally less likely than natives to receive AFDC, controlling for socio-demographic characteristics. In contrast, later studies, particularly those conducted in the 1990s, showed the reverse pattern in that immigrants were more likely to receive welfare benefits than natives (Borjas, 1994, 1995). For instance, Borjas and Hilton (1996) examined immigrants' participation in both cash assistance programs (e.g., AFDC and SSI) and in-kind programs (e.g., Medicaid, Food Stamps, and housing subsidies). Their findings revealed that in 1984, 18 percent of immigrant families received public assistance, compared to 15 percent of native families, which suggests that immigrants were more likely to rely on in-kind welfare programs. In addition they showed that this "welfare gap" widened in 1990 (21 percent vs. 14 percent), largely due to a growth in recent immigrants' use of welfare programs. Bean, Van Hook, and Glick

(1997) also indicated that the overall differences in AFDC and SSI use increased in the 1990s due to the increase in the size of native groups with a high rate of AFDC and SSI use. Moreover, Van Hook and Bean (1999) and Van Hook (2000) noted that recent immigrants contributed mainly to the rise in SSI use among immigrants in the 1990s.

Coupled with these findings, a common belief that immigrants rely heavily on welfare led to the 1996 welfare reform, which curtailed eligibility for some immigrants (This will be discussed in greater detail when discussing immigrants and welfare policies later). A recent study (Camarota & Zeigler, 2016) examining an extensive list of welfare programs, including Temporary Assistance to Needy Families (TANF), state administered general assistance (GA), Supplemental Security Income (SSI), Supplemental Nutrition Assistance Program (SNAP; formerly known as Food Stamps), free and subsidized school lunch, Women, Infants, and Children nutrition program (WIC), subsidized and government-owned housing, and Medicaid, showed that current immigrants are more likely to use public assistance than natives, due to the high rates of poverty among immigrants. This suggests that immigrants' use of welfare remains higher than that of natives even after the 1996 welfare reform. Specifically, Camarota and Zeigler's findings, based on the 2015 Current Population Survey (CPS)[5], indicate that 42.4 percent of immigrant-headed household used one or more major welfare programs, compared to 26.9 percent of native-headed household (see Figure 6). Although his findings indicate that use of cash assistance, including TANF, SSI, and state general assistance, is virtually the same (6.5 percent of immigrant-headed households and 6.5 percent of native-headed households), use of food assistance, including SNAP, free/reduced price school lunch, and WIC, is much higher

[5] It should be noted that the CPS has an issue with underreporting of welfare use in that the welfare measures are based on self-reporting. Moreover, given the CPS asks about the use of welfare in the prior calendar year, there is concern about recall bias. However, there is no evidence that these problems are more or less pronounced among immigrants.

among immigrant-headed households (27.3 percent vs. 15.9 percent). The same trend was also found for the use of Medicaid (33.6 percent of immigrant-headed households vs. 20.3 percent of native-headed households). These results are consistent with Borjas and Hilton (1996), who found that immigrants utilize in-kind welfare program more actively than cash assistance programs.

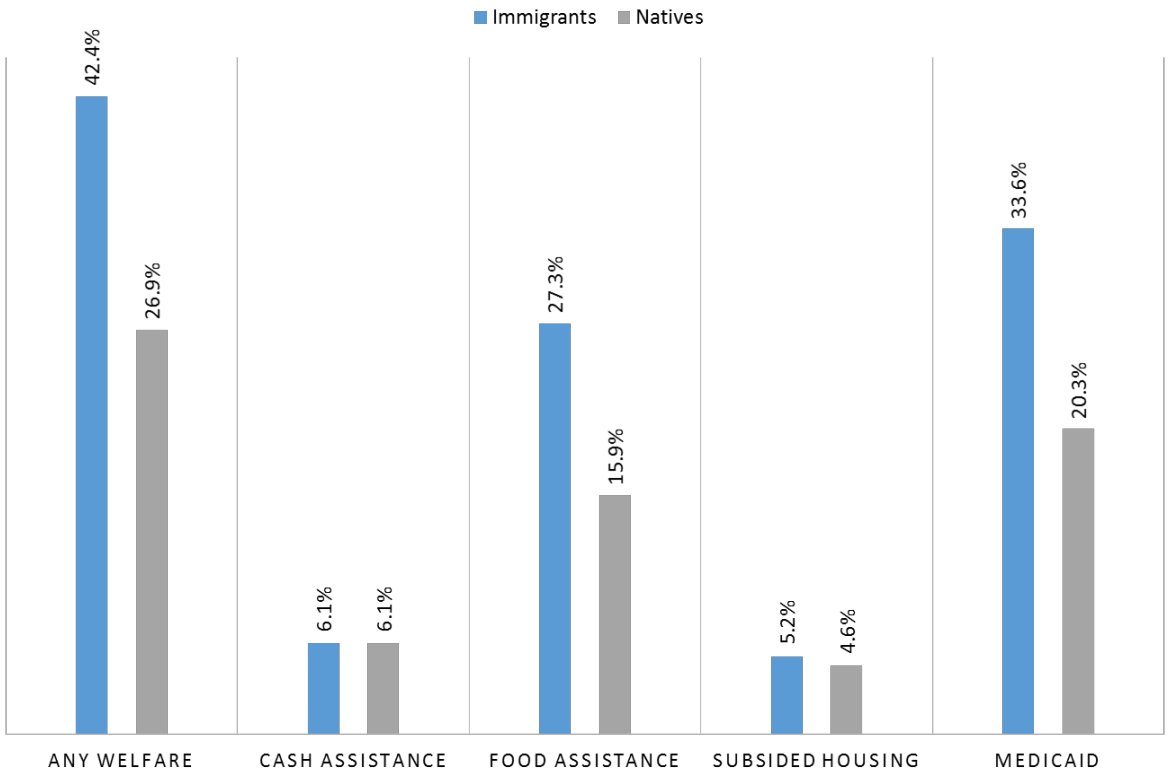

Figure 6. Use of Welfare by Immigrant Headed Household and Native Headed Household, 2015

Note: Cash assistance includes TANF, SSI, and state general assistance; Food assistance includes SNAP, free/reduced price school lunch, and WIC; Housing includes subsidized and government-owned housing.

Sources: March 2015 Current Population Survey, Annual social and economic supplement (ASEC)

However, another recent study (Ku & Bruen, 2013), which examined immigrants' participation in welfare programs by immigration legal status, showed a completely different picture. Ku and Bruen (2013) argued that it is important to consider immigrants' legal status because immigrants have different eligibility for welfare programs, depending on their legal

status (this issue will be discussed in detail later). In addition, they claimed that it makes more sense to compare poor immigrants (who are income-eligible for public assistance) to poor natives, rather than comparing the percentage of immigrant welfare recipients among total immigrants to the percentage of native recipients among total natives, because it would be a more appropriate yardstick to measure the extent to which poor immigrants have received public assistance, compared to poor natives. Their findings, based on the 2012 Current Population Survey (CPS), indicate that low-income non-citizen immigrants, including lawful permanent residents, refugees/asylees, temporary/provisional immigrants, and undocumented immigrants, face eligibility barriers, and thus they are less likely to receive welfare benefits than native citizens. For instance, more than one quarter of poor native citizens and naturalized immigrants with incomes below 200% of the poverty line received Medicaid, but only about one in five non-citizens received Medicaid (see Figure 7). Similarly, receipt of SSI was found to be higher for native (7.3 percent) and naturalized immigrants (7.3 percent) than non-citizen immigrants (2.5 percent).

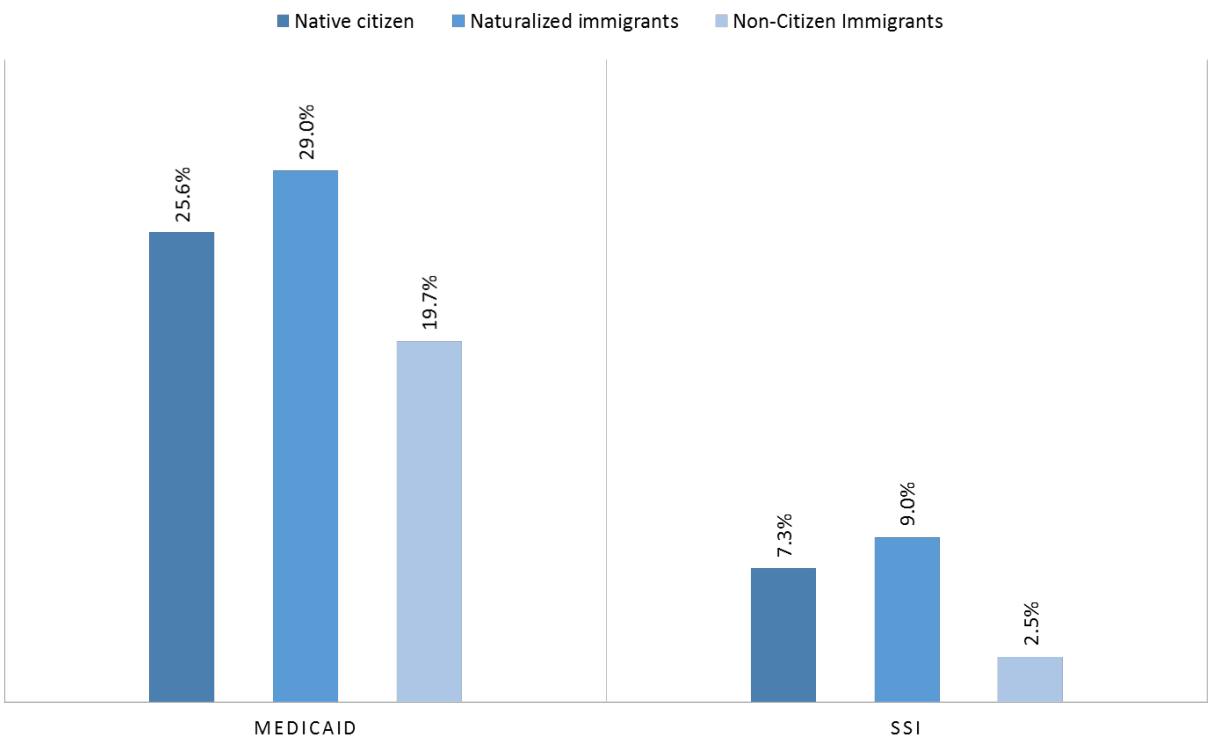

Figure 7. Receipt of Medicaid and SSI, Low-Income Adults, 2012

Note: Low-income adults are defined as those with family income less than 200 % of poverty line. Native citizen include those born in the United States, born abroad of U.S. citizen parents and those born in U.S. territories, such as Puerto Rico. Naturalized immigrants include foreign-born immigrants who have become naturalized citizens. Non-Citizen immigrants include various types of non-citizen immigrants, including lawful permanent residents, refugees/asylees, temporary/provisional immigrants, and the unauthorized.

Source: Ku and Bruen (2013)

1.3 SIGNIFICANCE AND RELEVANCE TO SOCIAL WORK

Social work, as a field, has a long history of helping immigrants in the United States. At the turn of the 20th century, settlement houses, neighborhood centers, and other voluntary organizations provided a variety of services to immigrants and their families who were struggling to adapt to

life in the United States. For instance, settlement houses provided citizenship classes in order to help immigrants learn English and American values (Balgopal, 2000). In addition to these services, early social workers played a role as mediators and advocates in immigrants' adaptation to their new country. Jane Addams, one of pioneers in social work, talked about their roles: "The Hull House residents sought not only to understand their immigrant neighbors but to interpret them to a public which had fears and doubts about those 'un-American types' who lived in the slums" (Addams, 1930, as cited in Balgopal, 2000, p.15). In short, immigrants have been a special group to which social work has long paid attention, with the explicit focus on their successful integration, including economic integration, through services and programs for resettlement (Balgopal, 2000).

The long history of working with immigrants in social work does not necessarily mean that the field of social work has maintained a consistent interest in challenges facing immigrants. Rather, social work's interest in immigrants has changed as a function of the share of immigrants in the U.S. In the 1920s when social work began to professionalize, the share of immigrants coincidentally started on a downward trend, and thus social work's Progressive-Era concern over immigrant welfare tended to scale back. Moreover, an influx of immigrants from European countries during the period stretching from the1920s to the 1960s led social workers to interact mostly with the first and second generation of immigrants who were not starkly different from the native-born in terms of race and ethnicity. This experience shaped social workers' initial notion of assimilation and acculturation (Engstrom & Okamura, 2007). Consequently, social work operated in a social climate that emphasized "Americanization" and often forced immigrants to be assimilated into ideal American system and values, without a specialized model of practice tailored to immigrants (Engstrom & Okamura, 2007; Sherraden & Martin, 1994). In

the late 1960s, when the share of immigrants was at its lowest historical point (less than 5 percent of the U.S. population), the need to understand and address the multiple challenges, such as poor economic integration, confronting immigrants had been, unsurprisingly, "pushed to the margin" in the field of social work (Engstrom & Okamura, 2007, p. 104).

However, the attention to immigrants in social work has increased again as the share and number of immigrants has risen since the 1970s. Given the current share of immigrants (13 percent of the total U.S. population), social work professionals often find themselves working with immigrants and their families. In addition, accompanying the rising share of immigrants is a series of social problems, including poor economic integration, which draw attention from the field of social work. As discussed, immigrants tend to concentrate more in low-skilled occupations in the labor market, and thus they are overrepresented in low-wage jobs. Although their rates of employment are comparable to that of natives, their earning, especially newcomers' earnings, are just 65 percent of that of natives. Immigrants also have lower family income, and they tend to reside in larger families than natives. Consequently, one in four immigrants live below the poverty level, and one in two immigrants live in near poverty, which is much higher than that of natives. Childhood poverty among immigrants is more problematic (Capps, Fix, Ost, Reardon-Anderson, & Passel, 2004). Nearly 60 percent of children of foreign-born parents live in near poverty, and one in four children of immigrants suffer from food insecurity or hunger (Capps et al., 2004). Despite this economic hardship, immigrants under-utilize safety nets. In particular, due to eligibility restrictions, non-citizen immigrants have received significantly lower benefits from public assistance program, although they contribute to the U.S. economy by paying taxes.

Immigrants and their children are also at an elevated risk for other social problems that may affect or be affected by unsuccessful economic integration. A number of studies have indicated that immigrants are in danger of poor health, including heart disease, cancer, high blood pressure, diabetes and high levels of HIV/AIDS (Blanas et al., 2013; Carten, Castillo-Mancilla, Allshouse, & Johnson, 2013; Cherrington, Ayala, Scarinci, & Corbie-Smith, 2011; Hoffman et al., 2011; Kreps & Sparks, 2008; Rhodes et al., 2009), and are at risk of mental health problems, including depression and anxiety (Chung, 2012; Cummings, Sull, Davis, & Worley, 2011; Jurcik, Ahmed, Yakobov, Solopieieva-Jurcikova, & Ryder, 2013; Kurz, Malcolm, & Cournoyer, 2005; Leung, Cheung, & Tsui, 2012a, 2012b; Marsiglia, Kulis, Perez, & Bermudez-Parsai, 2011), due in part to a lack of health insurance and acculturative stress, all of which are associated with poor economic integration (Mui & Kang, 2006; Wells, Lagomasino, Palinkas). Furthermore, previous literature has consistently documented that children in immigrant families are at an increased risk of maltreatment (Dettlaff & Earner, 2012; Dettlaff, Earner, & Phillips, 2009; Park, 2001; Rhee, Chang, Weaver, & Wong, 2008; Segal & Mayadas, 2005; Zhai & Gao, 2009), poor academic achievement (Eng, 2013; Owens & Lynch, 2012; Pong & Landale, 2012; Suizzo et al., 2012), substance use (Bui, 2013; Canino, Vega, Sribney, Warner, & Alegria ,2008)and risk behaviors (Mills et al., 2013; Schwartz et al., 2013), because of the stress and pressure resulting from immigration and acculturation.

In addition to the aforementioned problems, immigrants often confront harsh racism and discrimination, which may in turn affect their economic integration. In particular, racism and discrimination in the labor market were found to impose a significant earnings penalty on immigrants, especially those of color. Hersch (2011), for example, found substantial evidence of discrimination on the basis of skin color for legal immigrants in the United States, showing that

immigrants with dark skin color had earnings that were 16-23 percent lower than comparable white immigrants from European countries. This discriminatory penalty based on race (or skin color) does not diminish over time, suggesting that discrimination affecting immigrants is a persistent phenomenon (Hersch, 2011). Other cultural markers such as speaking with a foreign accent, in addition to skin color, may also function as a basis generating racism and discrimination against immigrants, by reinforcing an impulse toward discriminatory behavior on the part of the racial majority (Reitz & Sklar, 1997). Another study reported that Latino and Muslim immigrants are particularly vulnerable to racism and discrimination that has negative effects, including fear of deportation, difficulty in locating jobs and housing, low wages or nonpayment for work, and less access to welfare services (Pew Hispanic Center, 2007).

It is also noteworthy that some immigrant groups, such as refugees (or asylees), are particularly vulnerable to poor economic integration and other social problems. According to the U.S. Department of Homeland Security (2012), refugees are "persons who sought residence in the United States in order to avoid persecution in their country of origin (p. 1)." In other words, unlike voluntary immigrants, refugees are often forced to come to the United States to flee political persecution or oppression due to their ethnicity, nationality, religion, or political opinions. As a result of persecution in their homeland and/or the violence and torture previously experienced, they often experience high levels of physical and mental trauma, with a higher incidence of Post-Traumatic Stress Disorder (PTSD) in later life (Chung & Kagawa-Singer, 1993; Connor, 2010). Moreover, unlike other immigrants who may take purposeful steps before migration to ensure a successful assimilation (e.g. learning English), refugees often come to the U.S. with little preparation (Takeda, 2000). Thus, they are more likely than other immigrants to experience family separation with fewer financial resources, weaker social capital, and less

schooling (Kibria 1994; Portes & Stepick 1985). Due to these harsh conditions, along with cultural differences and prejudice in a host society, refugees' economic integration is far more challenging (Connor, 2010; Kibria 1994; Portes & Stepick 1985; Potocky-Tripodi, 2004; Takeda 2000; Waxman 2001).

Unauthorized immigrants who arrive and stay without proper documentation are another immigrant group at elevated risk. They appear to do worse in the indicators of economic integration than legal immigrants (Capps et al., 2013). Unemployment rates of unauthorized immigrants are slightly higher than those for legal immigrants, and unemployed unauthorized immigrants report their lack of legal status as a main barrier employment (Mehta, Theodore, Mora, & Wade, 2004). Even employed unauthorized immigrants often work in low-wage occupations (e.g. agricultural occupation for males; child-care or other domestic work for females) (Capps et al., 2013) and in unsafe exploitive working conditions with frequent work-hour violations (Mehta et al., 2004). The poverty rates of unauthorized immigrants (32 percent in poverty; 62 percent in near poverty) are much higher than those of their legal counterparts, and their children also suffer from a higher incidence of poverty (Capps et al., 2013). Experiences with illegal immigration (e.g., risky border crossings or victimization by smugglers) and the fear of deportation may adversely affect immigrants' mental health, such as depression or PTSD (Cavazos-Rehg, Zayas, & Spitznagel, 2007; Gonzales, Suarez-Orozco, & Dedios-Sanguineti, 2013; Kenworthy, 2012; Rasmussen, Rosenfeld, Reeves, & Keller, 2007; Sullivan & Rehm, 2005). These problems typically remain undiagnosed and untreated due to the fact that most of unauthorized immigrants (nearly 70 percent) are uninsured (Capps et al., 2013). Nevertheless, due to the eligibility criteria of public assistance programs, unauthorized immigrants rarely

utilize such benefits (Ku & Bruen, 2013), even though they have higher needs and often pay taxes.

2.0 CONCEPTUAL FRAMEWORKS

This chapter reviews theories and literature on immigrants' economic integration. First, as a general framework, assimilation theory, which posits that immigrants will gradually assimilate to a host country (Park & Burgess, 1969), will be reviewed. Based on a critique of assimilation theory, I will then review two general theories – human capital theory and social capital theory – to shed light on the economic integration of immigrants in depth.

2.1 ASSIMILATION THEORY

2.1.1 Historical background

After the first great migration from the 1880s to 1920s, researchers have paid attention to the integration of immigrants in the United States. Sociologist Robert Park defined the now famous idea of assimilation: "a process of interpretation and fusion in which persons and groups acquire the memories, sentiments, and attitudes of other persons and groups and, by sharing their experience and history, are incorporated with them in a common cultural life (Park & Burgess, 1969, p.735)." Park argued that immigrants would gradually assimilate to the mainstream of their host society over their life-course. At the end of World War II, Warner and Srole (1945) elaborated on Park's idea. They suggested that the succession of generations is another major

motor of assimilation. With each successive immigrant generation, they argued, people would increasingly adopt the cultural elements of the host country.

In the 1960s, at the beginning of what is called the second great migration to the United States, sociologist Gordon (1964) solidified the idea of assimilation. Whereas Park only looked at the cultural dimension of assimilation, Gordon suggested seven distinct dimensions instead, for example, cultural, social-structural, marital, identificational, attitudinal, behavior receptional, and civic. In this way, Gordon considerably increased the theoretical scope and usefulness of the assimilation idea. However, Gordon did not consider economic assimilation, although subsequent researchers have done so (Alba & Nee, 1997, 2003).

2.1.2 Basic concept

The key factors for researchers working within an assimilation framework were that integration of immigrants progressed over their life-course and between generations. Since the 1970s, researchers have used the assimilation theory in many immigration studies, and researchers derived hypotheses which were subsumed under the assimilation idea. It was hypothesized that integration would be higher among (1) immigrants who arrived at a younger age, (2) immigrants who have resided longer in the host country, and (3) successive immigrant generations (Alba & Nee, 1997, 2003).

These hypotheses have received ample empirical support in studies on immigrants' integration, in a wide number of countries, over an extended time span, and relying on different sources. Especially in terms of the economic dimension, for example, studies conducted in the United States showed that although immigrants were more often unemployed than natives during their first few years in the host country, this gap diminished with length of stay in the host

country (Chiswick, 1982; Chiswick, Cohen, & Zach, 1997; Chiswick & Hurst, 2000). Another study about the earnings of immigrants also found that over their life-course (Chiswick, 1978, 1979; Chiswick & Miller, 2002) and across generations (Kalmijn, 1996; Neidert & Farley, 1985) immigrants gradually catch up economically with the native population.

In terms of immigrants' language proficiency in the host country, studies found that immigrants who arrived at a young age acquired better language proficiency in the host-language (Carliner 2000; Chiswick, 1998; Chiswick & Miller, 1995; Dustmann 1994, 1997; Stevens 1999), their host-language fluency increases with the length of residence in the host country (Chiswick, 1994, 1998; Chiswick & Miller, 1995, 2001; Evans 1986), and increases with successive generations (Veltman, 1983).

2.1.3 Critical evaluation

Although numerous studies supported the hypotheses of assimilation theory, many were confronted with findings that the theory could not adequately explain the integration of immigrants. To be specific, researchers discovered important differences in integration between immigrants who migrate at the same age or who have same length of stay in the host country. After considering the influence of these assimilation factors, the assimilation theory could not explain why some individuals or groups integrate in the host country better than others. For example, research on immigrants' language proficiency in the United States found that Mexicans have lower English proficiency than immigrants from other countries of origin, even after individual characteristics were taken into account (Carliner 2000; Veltman 1983; Portes & Rumbaut, 2001). In European immigrants study in the United States labor market during the Age of Mass Migration (1850-1913) showed that immigrants with few skills were not able to

catch up and narrow the immigrant – native occupational and income gap over time and even across the generation compared to high skilled immigrants (Abramitzky, Boustan & Eriksson,2014). They explained that this persistent economic gap was caused by migrant enclaves, inherited skills from their ethnic network (Abramitzky et al., 2014). Studies of the early waves of migration to the United States at the turn of the 20th century also showed that some groups, such as the Russian Jews, integrated especially well economically, whereas other groups were less successful in the labor market (Perlmann 1988; Thomas & Znaniecki 1958). More recent studies of immigrants in the United States have again stressed the influence of the group differences on immigrants' economic integration (Borjas 1999; Jasso & Rosenzweig 1990).

In addition, researchers have found that integration of immigrants also differs across communities. It is assumed that all co-ethnics are willing to help their newly arrived immigrants, but that they do so within the limits of the information and resources available to them. Hence, it was suggested that immigrants who belong to more advanced communities have better economic opportunities than those belonging to ethnic groups with fewer human skills and limited information and resources. Sanders (1987) found that among paid employees, the earnings of Cuban immigrants in Miami were lower than those of Cuban immigrants in other parts of Florida. In addition, they found that the earnings of Chinese immigrants in San Francisco were lower than those of Chinese immigrants in other parts of California. Zhou and Logan (1989) reported that self-employed Chinese immigrants in New York City had lower earnings than in other parts of the state New York.

2.2 HUMAN CAPITAL THEORY

2.2.1 Historical background

Adam Smith (1776) is credited with the development of the concept of human capital in his seminal work, *An Inquiry into the Nature and Causes of the Wealth of Nations*. He advocated that education has both direct and indirect benefits on the individual (Hartog & Maassen Van Den Brink, 2007). To be specific, he believed that economic activities can be stimulated by an individual's acquired skills and abilities, which he viewed as a kind of capital (Keeley, 2007). However, the concept of human capital had been ambiguous and controversial until it was theorized and identified by modern economists, Mincer (1958), Schultz (1961), and Becker (1962). In his book, Human Capital, economist and Nobel Prize laureate Gary Becker argued that individuals' productivity and wages depend on their human capital. For example, an employee may have a strong incentive to invest in education and training that is translated into a better productivity in the labor market, which ultimately leads to higher wage. In other words, investment in human capital via education and training is a means of gaining greater returns in the labor market (Becker, 1962).

2.2.2 Basic concepts and literature review

There are some key differences between human capital and more traditional forms of capital, such as physical and financial assets. Unlike traditional capital, human capital resides inside individuals, and each individual owns his or her human capital. Thus, human capital is not transferable, and it is difficult to measure. However, education and the amount of training

received are often and widely accepted as measures of human capital (Becker, 1994; Schultz, 1961). Another essential difference is that human capital can actually appreciate, not devalue, with use.

Human capital can be broken down into general and specific forms. General forms of human capital represent knowledge and skills that can be utilized in diverse situations. Examples include a person's general mental ability and skills, such as communication skills and information processing skills that can apply across settings. Unlike general forms, specific forms of human capital tend to be valued only in targeted sectors, especially in the labor market. In this regard, human capital occasionally refers to some specific knowledge, skills, experiences and abilities that are particularly productive and valuable in the work place (Becker, 1962; Mincer, 1970).

Many previous studies lend empirical support to human capital theory and the idea that such capital is a key to individuals' success in the labor market, which may determine their quality of life (Bishop, 1994). Within the human capital perspective, education and skill level are often considered to be the foundations of human capital, and thus, people with higher levels of education and skill are assumed to be more productive (Becker, 1962; Bishop, 1994; Borjas, 2005); therefore, those with lower levels of human capital are expected to perform poorly in the labor market (Becker, 1962; Chiswick, 1982; Mincer, 1958, 1970). For example, it was found that people with high human capital, in terms of education and skill, are more likely than their less skilled and educated counterparts to have high wage jobs, better working conditions, and shorter unemployment periods (Aguilera, 2003), factors which play a role in the determining the growth of an individual's income (Benhabib & Spiegel, 1994; Bishop, 1994).

In the migration literature, human capital theory was also used first and foremost in studies of immigrants' economic integration. The concept of human capital has been used to describe the skills and experiences that may help individuals, especially people with an immigrant background. According to Chiswick (1991), a researcher who has focused on the relationship between the economic integration of immigrants and human capital, immigrants have a weaker economic position at arrival than natives, because they have less human capital. Immigrants lack "host country specific" human capital, and educational qualifications obtained in the country of origin are not easily transferable and equally valued in the host country (Friedberg, 2000). Furthermore, many immigrants do not speak the language of the host country well upon arrival, which limits their job opportunities (Funkhouser, 2000). Finally, the labor market experience immigrants obtained in their country of origin is of little value in the host country, which has a different structure and different rules.

Human capital theory can explain why some immigrants perform better economically than others, even after individual characteristics are taken into account. An individual who has acquired knowledge about another country's cultural values and the associated behaviors and attitudes, can adjust to the new host country more easily. Such knowledge, often called cultural knowledge, can enhance immigrants' access to information and social contacts, which may lead to less anxiety and better coping (Sanders & Nee, 1996). For example, Bates (1994) examined the performance of Asian immigrant-owned small businesses and found that their success and survival were associated with large investments of human capital. In addition, Chiswick (1991) argued that language proficiency is a form of host country specific human capital that may improve one's economic integration, and this assumption has been supported in earlier studies on the impact of immigrants' language fluency on earnings (Kossoudji,1988). As all forms of

human capital, he reasoned, language skills are embodied in a person and immigrants invest deliberately in learning the second language after arriving in the host country, and he found that immigrants who have higher second language skills tend to have greater economic returns in terms of employment and/or higher wages (Chiswick & Miller, 2001). Shield and Price (2002) also found that increases in human capital are associated with employment conditions improvement in their Mexican immigrant workers' job tenure study. This finding was replicated in a number of studies thereafter (Chiswick & Miller, 1995; Pfeffer & Parra, 2009).

However, one of the issues with human capital theory is that knowledge and skills do not benefit everyone equally. Particularly for immigrants, the effect of human capital has shown a discrepancy, in that the same amount of human capital often benefits immigrants less than it benefits natives (Wanner, 1998, Aydemir & Skuterud, 2005). Previous academic work on how immigrants fare in the workplace suggests that human capital affects immigrants differently than native workers. In existing studies that focus on the employment of immigrants, the effect of human capital on immigrants' performance in the labor market is not as strong as its effect is for natives (Nielsen, Rosholm, Smith, & Husted, 2004). This does not mean that human capital theory is entirely unable to explain and/or predict immigrants' performance in the labor market. Although there are wage gaps between immigrants and natives at the time of arrival, the wages of immigrants tend to approach those of natives, due to immigrants' acquisition of country-specific human capital, such as language proficiency, cultural experiences, or accumulation of additional education and training in the host country (Chiswick, 1978). That is, the assimilation process provides human capital for immigrants and contributes to reducing the wage gap between immigrants and natives. However, the wage gap often does not close completely between natives and (fully) assimilated immigrants (LaLonde & Topel, 1997; Abramitzky et al,

2014). Borjas (1985) also showed that the economic progress of immigrants over the life-course was much smaller than had previously been suggested by other scholars, and that immigrants do not surpass natives economically. That is, even if immigrants are seemingly equally qualified in terms of education and skills, their wages, on average, are still lower than those of their native counterparts (Li, 2001b).The wage gap between natives and equally qualified immigrants implies that immigrants do not benefit as much from increased human capital and receive lower returns than natives (Zhou & Logan, 1989). For example, immigrants who were educated in their country earned about 14 percent less than those who were American, even if their educational level was comparable, because most of their foreign educational credentials do not transfer to the U.S. (Li, 2001b; Mattoo, Neagu, & Özden, 2008; Zeng & Xie, 2004). Potocky-Tripodi (2004) examined the economic adaptation of immigrants residing in Miami- Fort Lauderdale and San Diego and found that immigrants' education level and the occupational prestige in their country of origin did not affect their economic status (earnings and employment status). In addition, previous literature attributes the wage gap and immigrants' lower return on human capital to discrimination by employers, other employees, or consumers (Altonji, 2005; Boswell, 1986; Kee, 1995). For example, it was documented that some immigrant groups, earn less on average than they should, given their productive abilities, because certain negative stereotypes of the group affect individuals even if they have above average productivity levels. Moreover, hiring immigrant employees could be viewed as a cost from employers' perspective due to the uncertainty about how immigrants perform as employees, which may explain lower wages and work status of immigrants. Coate and Loury (1993) found that discrimination toward members of certain ethnic groups induces employers to allocate such workers into lower status jobs that do not require higher levels of job training. Thus, even if the initial skills for the ethnic minority

worker are the same as those for workers in the majority group, the ethnic minority workers tend to have jobs requiring fewer skills. Lastly, it is reported that this discrimination results in self-selection (Nielsen et al., 2004). Through encouragement and modeling within groups, some immigrants choose courses of education that lead to jobs with low wages. Then, their low motivation to develop human capital will lead to observed aggregate wage gaps (Nielsen et al., 2004).

Thus far, human capital theory can explain why some immigrants perform better economically than another immigrants regardless of their length of stay in the U.S. However, despite the empirical success of human capital theory, there are challenges to be mentioned as well. Although the human capital theory has been used to explain several aspects of immigrants' economic integration (i.e., labor force status, occupational status, income), with regard to socio-cultural integration, most studies have been restricted to only one indicator (i.e., language proficiency) in assessing the level of immigrants' human capital .

2.3 SOCIAL CAPITAL THEORY

2.3.1 Historical background

One of the first and, arguably, more primitive formulations of social capital theory were introduced by West Virginia educator Lyda Hanifan in 1916. Hanifan used the term "social capital" to explain how participation by the community could directly help develop and strengthen rural schools. He described social capital as "good will, fellowship, sympathy, and social intercourse" that originates from contacts with individual neighbors and networks of

neighbors. He also argued that social capital may serve as "a social potentiality sufficient to the substantial improvement of living conditions in the whole community" (Hanifan, 1916, p.130). This archaic conceptualization of social capital has been fleshed out over the past several decades and conceptually refined and extended by some prominent scholars, such as James Coleman, Robert Putnam, and Pierre Bourdieu. Despite differences in each scholar's disciplinary base and emphasis, there is general agreement on some basic concepts that are collectively called social capital.

French sociologist Pierre Bourdieu (1985) described social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p.51). Under Bourdieu's definition, the acquisition of social capital results in increased access to cultural, economic, and social resources through social connections. He argued that although social networks may be ubiquitous in society, social capital resources can be unequally distributed, which results in an imbalance in economic capital distribution (Bourdieu, 1985).

American sociologist James Coleman (1988) developed his ideas about social capital theory through research on the educational outcomes of minority students in different types of high schools in the U.S. Coleman found that in private Catholic high schools, educational outcomes of minority students were better than those of their peers in public high schools. He theorized that reinforcing the networks of parent-child relations, supporting home-school ties, and having strong faith communities – all of which uniquely characterized the Catholic schools -- can positively affect children's educational achievement (Coleman, 1988). He also conceptualized social capital as consisting of complex bonds which are developed and facilitated through the mutual creation of expectations, obligations, and trust (Coleman, 1988).

Political scientist Robert Putnam (2000) asserted that social capital is a strong determinant of the success of social institutions. He argues that the social norms of trust and reciprocity, social networks, and civic engagement are the primary components of social capital. In his book, *Bowling Alone: The Collapse and Revival of American Community*, Putnam focused particularly on the role of social networks, and argued that the social deterioration caused by community breakdown, lack of trust in politicians and bureaucratic officials, and high levels of crime and disorder were associated with lower participation in social networks and local social structures. In addition, Putnam (1993) wrote "social capital refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit. Networks of civic engagement foster sturdy norms of generalized reciprocity and encourage the emergence of social trust (p. 67)." He suggested that social capital, primarily in the form of civic engagement and local associations, facilitates coordination and collaboration that produce reciprocal benefits among community members (Putnam, 2000).

2.3.2 Basic concepts and literature review

Social capital and social capital theory have been discussed in two related ways. The first refers to social capital as consisting of resources (e.g., information, ideas, and support) that individuals are able to obtain via their relationships with other people. Unlike other forms of capital, for example, physical capital (tools, technology) or human capital (education, skills), individuals can obtain "social" resources only in and through social relationships. The second way social capital has been discussed refers to social capital as the nature and extent of one's participation in various informal and formal civic organizations (Mulford, 2007). In this approach, social capital

can be conceptualized as the varied ways in which a community's members interact with each other (Sander & Putnam, 2002).

Scholars soon became aware that the concept of social capital is multidimensional in nature (Flap & Boxman, 2000; Grootaert, 2004; Putnam, 2007; Woolcock & Narayan, 2000). As a result of many debates about the term, the concept of social capital has become increasingly broad, and multi-faceted. One form of social capital is "bonding" social capital, defined as "ties to people who are similar in terms of their demographic characteristics, such as family members, neighbors, close friends, and work colleagues". The second primary form of social capital is "bridging" social capital, defined as "ties to people who do not share many of these characteristics" (Grootaert, 2004, p.4). Based on this distinction, bonding social capital tends to be expressive, i.e. drawn upon primarily to provide social support (e.g., emotional and physical help in a crisis) and to uphold identity and status, whereas bridging social capital is primarily instrumental, and thus is cultivated and deployed to generate a more diverse flow of resources for advancing interests and desires. For example, people who reside in small country towns for a long time tend to have rich stores of bonding social capital and a relative paucity of bridging social capital. On the other hand, young businessmen or businesswomen in large urban areas are likely to have the opposite, i.e. rich stores of bridging social capital and a relative paucity of bonding social capital (Putnam, 2009).

Social capital is also shown to have a significant influence on an individual's economic performance. For example, studies indicate that more social connection is associated with better career outcomes, in terms of salary, promotions, and career satisfaction (Bond, Galinsky, & Swansberg, 1998; Putnam, 2000; Thompson, 2005). Social capital also makes a difference in an individual's access to job-related information that may lead to advantages in obtaining stable

employment (Coleman, 1988; Mouw, 2003; Uzzi, 1999). In addition, social capital, especially social bonding capital, helps employees cope with job-related difficulties (Bond et al., 1998; Marshall & Barnett, 1992). Thus, individuals who are rich in social capital tend to receive more economic benefits through valuable economic cooperation and mutual support.

The accumulation of social capital has enabled some immigrants and their families to increase and diversify their social networks, allowing them to find employment in the larger society and to enjoy some of the same social and economic advantages as natives. However, for most immigrant workers, limited social capital, combined with their undocumented status and weak social networks, undermines their opportunities for social mobility and greater economic opportunities. Regarding the impact of social capital on immigrants' economic performance, a number of studies have been conducted; however, most of these studies do not focus on the distinctive circumstances immigrants face that impact their unique social capital framework and economic performance.

Social capital also may affect immigrants differently as well as human capital. In particular, social capital researchers have documented the possibility that social connections that hold obligations may interfere with economic activity and create undesirable outcomes for immigrants (Kao, 2004; Stanton-Salazar & Dornbusch, 1995). The early work of Granovetter (1983) pointed out the advantages of weak ties (such as social bridging) and the disadvantages of strong ties (social bonding) in the labor market. In his perspective, weak tie will more successfully provides new information about job opportunities that might otherwise remain unknown. A lack of weak ties might make society "fragmented and incoherent" due to the immobility of ideas, cultures, and endeavors between subgroups in society (Granovetta, 1983, p.202). In particular, weak ties are important for individuals' mobility. In a strong ties

concentrated society, individuals are likely to face overlapping job information and lack of labor flexibility, making it harder to advance to jobs with higher occupational status and encapsulating them in lower status positions (Granovetter, 1983). Other research focusing on networking also revealed that social capital may affect minorities differently. For example, the maintenance of ethnic identity and social networks entails heavy costs to immigrants in terms of the loss of opportunities for good jobs and earnings (Portes, 2000; Reitz & Sklar, 1997). For instance, an early European immigrant worker study found that the occupational gap with natives persisted over time because children of migrants grew up in migrant enclaves of their co-ethnic networks to find jobs(Abramitzky et al., 2014). Ooka and Wellman (2003) investigated the quality of jobs found by European immigrants in Canada, as a function of co-ethnic social ties and other broad social ties. They found that immigrants obtained jobs with higher incomes when they used broad social ties in their job searches. Catanzarite and Aguilera (2002) found that Mexican and Central American immigrants who work in fields that have a strong degree of ethnic concentration suffered a substantial pay penalty compared to those who work at sites with weak co-ethnic concentrations. In addition, previous studies suggest that an earnings penalty is often imposed on those more likely to maintain their native language (Kalbach & Kalbach, 1995; Li, 2001a), because using the native language leads to strong ethnic attachment, which often goes along with racial and other identifiable characteristics to provide grounds for social marking and discrimination (Pendakur & Pendakur, 2002). In other words, immigrants' strong ethnic ties and intense ethnic attachments can result in minority communities remaining more distinct normatively and culturally from mainstream society.

2.4 HUMAN CAPITAL IN THE CREATION OF SOCIAL CAPITAL

While using both social capital and human capital theory to examine the economic performance of immigrants has been used, rarely has attention been paid to the interplay of social and human capital in the lives of immigrants and its effects on their economic integration. In this respect, a new research question this study suggests is: how are social capital and human capital associated with each other in immigrant economic integration?

While human and social capital have been documented to correlate with each other, the effect of human capital on social capital has been more often highlighted, suggesting that education is a key determinant of social capital (Putnam, 1995; Alesina & La Ferrara, 2000; Gradstein and Justman, 2000). Although its mechanisms is not very clearly specified, it is often assumed that higher learning leads people to become better informed and more aware of the consequences of actions taken by themselves and others. Also, it enables people to learn good standards of behavior, help to engage in society, and develop social networks (Dinda, 2008; Knack & Keefer, 1997). In addition, people who receive more education develop greater self-confidence and, thus, are more likely to participate in social groups, whether informally in the community or more formally by joining established civic or political groups (Gamarnikow & Green, 2001; Bousrih, 2013).

Arguably, the role of education in building social capital might be more significant and complicated among immigrants. In the context of the interplay between human capital and social capital among immigrants, previous studies suggest two distinctive possibilities. First, as Green (1990) indicated, the expanded social capital to mainstream of host nation tends to be positively correlated with higher levels of education. The primary contribution of schooling is generating a community of norms and values, and integrating large numbers of immigrants in the United

States in the mid-nineteenth (Green, 1990). Generally, education is aimed at helping newly arrived immigrants acquire not only language skills but also new social and political norm. Thus, education facilitate immigrants' communication with mainstream society and expansion their social network to host society. Finally education potentially destroys ethnic conflict and promotes new social cohesion for immigrants (Gradstein & Justman, 2000). In contrast, when developing human capital is not successful, immigrants tend to become trapped in their ethnic bonding network, and to fail to integrate in host nation. Also, a high degree of ethnical tradition and value can be accentuated in the society. This ethnic enclave also can cause mistrust between immigrants and natives, often come into violent conflict (Gradstein & Justman, 2000). Collectively, for immigrants, promoting human capital can be positively associated with bridging social capital, while it is negatively associated with ethnic social capital.

2.5 HYPOTHESES OF THE PROPOSED STUDY

In sum, the literature review in the previous sections reveals that both human capital theory and social capital theory are useful conceptual frameworks that may explain immigrants' economic integration, indicating that human capital, including education and English abilities, may have a positive effect on immigrants' economic outcomes, while the effect of social capital on economic integration may be different depending on types of social capital (i.e., ethnic bonding social capital, such as co-ethnic ties with those with same ethnic backgrounds, and bridging social capital to mainstream society, such as broad networks with natives, and host nation communities). The literature review also indicates that immigrants' human capital may play a role in creating social capital. To be specific, as discussed, immigrants' human capital can be

positively associated with bridging social capital, while it would be negatively associated with ethnic bonding social capital. Collectively, therefore, the literature review implies that there is a potential pathway by which human capital and social capital affect immigrants' economic outcomes. However, many of previous immigrant studies tended to focus exclusively on either the association between human capital and economic integration or the association between social capital and economic integration. As a result, few studies have been conducted to examine the interplay of human capital and social capital in shaping immigrants' economic integration, with a focus on path models in which human capital plays a role in building social capital (ethnic bonding social capital vs. bridging social capital to mainstream), which in turn may contribute to the economic integration for immigrants. To address this knowledge gap, the current study specifies a path model (see below) and examines 1) whether immigrants' human and social capital affect economic integration, and 2) whether the two types of social capital (i.e., bridging social capital to mainstream and ethnic bonding social capital) may act as a mediator that links the association between human capital and economic integration, with the following hypotheses derived from the literature review.

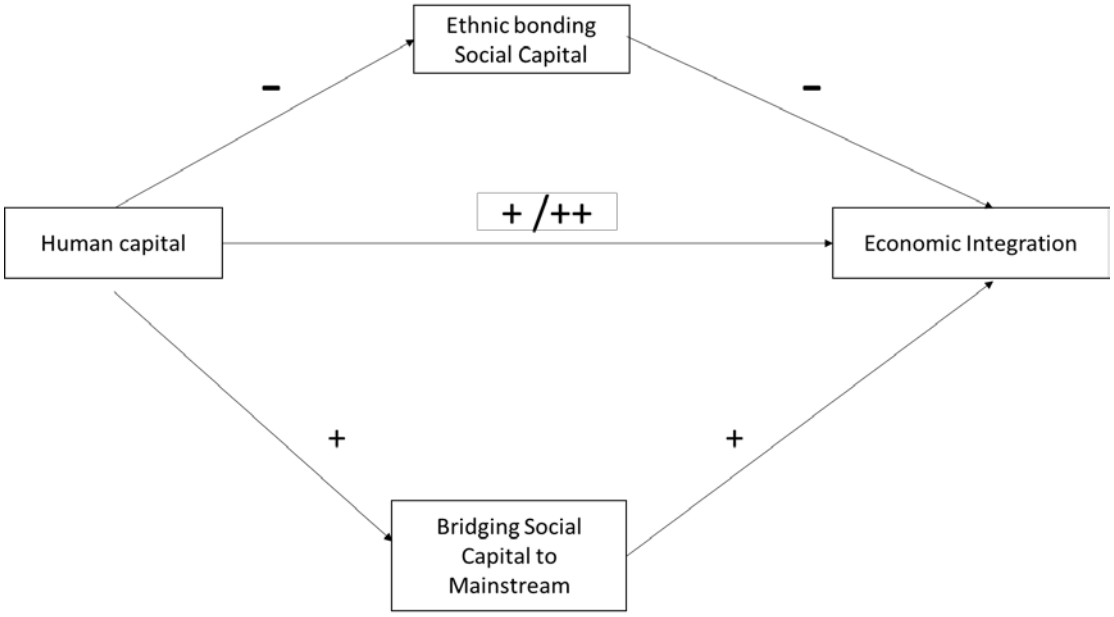

Figure 8. Conceptual Framework

2.5.1 Hypotheses

H1. Immigrants' human capital would have a direct effect on the economic integration of immigrants.

H 2. Immigrants' human capital would have an indirect effect on the economic integration of immigrants via Immigrants' ethnic bond social capital.

H 2.1. Immigrants' human capital would have a negative effect on Immigrants' ethnic bond social capital.

H 2.2. Immigrants' ethnic bond social capital would have a negative effect on the economic integration of immigrants.

H 3. Immigrants' human capital would have an indirect effect on the economic integration of immigrants via Immigrants' bridging social capital to mainstream.

H 3.1. Immigrants' human capital would have a positive effect on Immigrants' bridging social capital to mainstream.

H 3.2. Immigrants' bridging social capital to mainstream would have a positive effect on the economic integration of immigrants.

3.0 METHODOLOGY

3.1 DESCRIPTION OF SAMPLE

This study used data from the Immigration and Intergenerational Mobility in Metropolitan Los Angeles Survey (IIMMLA), which investigated assimilation patterns among six Latino and Asian groups (Mexicans, Vietnamese, Filipinos, Koreans, Chinese, and Central Americans from Guatemala and El Salvador). Conducted in 2004, the IIMMLA surveyed a random sample of 4,655 young immigrants (ages 20-39) in the five-county Los Angeles metropolitan area, which encompasses Los Angeles, Orange, Ventura, Riverside, and San Bernardino. The random sample consists of 1st/1.5th generation immigrants, 1st generation is defined as any foreign-born person who came to U.S. age 15 or later, 1.5th generation is defined as any foreign-born person who came to U.S. prior to age, and 2nd generation immigrants who were born in the U.S. and had at least one foreign-born parent, and 3rd and higher generation immigrants who were born in the U.S. to U.S. born parents.

In order to obtain a random sample of young immigrants, the IIMMLA relied on multi-stage, stratified sampling methods. Before the start of the survey, targeted quota for each ethnic group was determined for eligible immigrant respondents aged 20-40 in the five counties. In addition, all groups were assigned a separate sampling stratum for 1st/1.5th, 2nd, and 3rd generation, respectively. With these sampling strata, the first stage utilized random digit dialing

to select and screen households in the five counties, which enabled IIMMLA to complete sample quota for Mexicans of all generations. For other groups, samples were compiled, using more specific geographic and race/ethnic RDD targeting households in areas with high-density of Asian residents and with those on lists of Asian surnames. At the second stage, young adults were randomly selected within the selected households, using the "next recent birthday" method by which interviewers select the eligible person within the sampling unit who has the most recent birthday (Lavrakas, Bauman, & Merkle, 1993).

The surveys were conducted by a computerized telephone interview system administered in English or Spanish, although the vast majority of respondents (97%) chose English. The number of questions asked differed by generations, but an average interview length was about 30 minutes. In total 4,655 interviews were completed between April in 2004 and October 2004. Of them, 3,440 were 1st/1.5th or 2nd generation immigrants, while 1,215 were 3rd+ generation respondents. Given that this study aims to examine the roles that human capital (e.g., English proficiency) plays in the process of immigrants' economic integration, the 3rd + generation group, all of whom had high levels of English ability (i.e., little variation in English ability among the 3rd+ generation group) was excluded from the analyses for this study, which focuses exclusively on the 1st/1.5th, and 2nd generations (N=3,440).

The IIMMLA strategically targeted the six Latino and Asian groups to represent both the largest and significant groups and their diverse modes of incorporation in the United States among contemporary immigrants. In addition, the IIMMLA provides basic demographic data as well as extensive information about economic integration (e.g., occupation, household income, and welfare status), human capital (e.g., language use and educational attainment), and social capital (e.g., group membership with ethnic groups and for mainstream society). Therefore, the

IIMMLA enables us to capture the overall picture of contemporary immigrants' economic integration in relation to human and social capital.

3.2 MEASURES OF EACH VARIABLES

3.2.1 Dependent variables

Economic integration: Given the fact that economic integration is a multi-dimensional concept, this study used four types of economic integration of immigrants as a dependent variable.

(a) Employment status: Based on the question "Are you currently working, on leave but have a job, temporarily laid off, looking for work, keeping house, going to school or unable to work/disabled?", this study constructed a dichotomous variable indicating whether respondents were 'working' or 'not working.' Specifically, respondents who answered that they were currently working or on leave were labeled as "working" and the others were labeled as "not working"

(b) Occupational prestige score: Although the aforementioned dichotomous variable of employment status differentiates employed (i.e., 'working') and unemployed (i.e., 'not working') immigrants, it is equally important to capture variation in the level of economic integration and/or socioeconomic success among employed immigrants. With the concept of occupational prestige, defined as the public perception of an individual's social standing based on their occupations, sociologists have long used occupational prestige scores to operationalize individuals' social standing and/or class according to occupational hierarchies in a society. In recognizing that occupational prestige can be a proxy for the level of immigrants' economic

integration among employed immigrants, this study created a variable reflecting occupational prestige scores, based on information about immigrants' current occupation. Given that the IIMMLA coded immigrants' occupation according to 2002 U.S. Census occupation code, this study adopted Frederick and Hauser (2010)'s approach, which has been widely used to transforms 2002 U.S Census occupational categories into occupation prestige scores. This occupational prestige score variable was used for subgroup analyses with employed immigrants.

(c) Household income: In addition to employment-related variables, this study also used household income as a measure of immigrants' economic integration. This variable reflects household income from all sources before taxes in 2003, with seven categories: 1) less than $12,000, 1) $12,000 - $19,999, 3) $20,000 - $29,999, 4) $30,000 - $49,999, 5) $50,000 - $69,999, 6) $70,000 - $99,999 and 7) $100,000 or more. It is noteworthy that this study did not used a frequently used size-adjusted measure of household income (i.e., the income-to-needs ratio) because family size was controlled for.

(d) Welfare utilization: As a measure of immigrants' economic integration among low-income immigrants, this study used a variable of welfare utilization. This dichotomous variable, used for subgroup analyses with low-income immigrants, indicates whether respondents or immediate family members received Medicaid or temporary cash assistance from the government, such as TANF, or SSI or disability benefits in the past year.

3.2.2 Independent variables

Human capital: Two types of human capital, English ability and education attainment were used as an independent variable.

(a) English ability: In the IIMMLA, interviewers assessed respondents' English abilities (speaking, understating, and accent) through the phone interviews. English speaking and understanding abilities were scored with a 5-point Likert scale (poor, fair, good, very good, and excellent), while accent was scored with a binary scheme (having accent vs. no accent). In the structural equation model that will be discussed later, English ability was treated as a latent variable measured by the three indicators (i.e., English speaking, understanding, and accent)

(b) Education attainment: Reflecting the highest level of education by the time of the survey, this variable consists of six ordinal categories: 1) did not complete high school, 2) complete high school, 3) attend vocational or trade school, 4) attend some college, 5) graduate from college, and 6) attend graduate school.

3.2.3 Mediators

Social capital: In this study, two dimensions of social capital, ethnic bonding and bridging to mainstream society, were used as a mediator that links human capital and economic integration among immigrants.

(a) Ethnic bonding: As a form of ethnic bonding social capital, two mediating variables were included in the model. First, immigrants' perception of same ethnic marriage was included as an ethnic bonding social capital, reflecting immigrants' ties to the same ethnic people. This mediating variable was based on an item asking "how important do you think it is for people who are your race or ethnic group to marry other people who are of the same race or ethnic group," with two categories of 'not important' (0) and 'important' (1). Second, immigrants' ties with ethnic organizations were also included as a mediating variable of ethnic bonding social capital. This variable was constructed based on two contingent items asking "over the past

twelve months, have you participated in any kind of organization which is associated with your (mother's) (father's) (parents') country of birth?" and "was this a political organization or some other type of organization?" Although it is not clear as to the meaning of participation, a positive answer to these questions suggests that the respondent may feel a sense of bonding or attachment to the respondents' ethnic group. In the literature of immigrants' social capital and political participation, moreover, membership with political ethnic organization is often considered an indication of stronger ethnic ties (Nakhaie, 2008; Tillie, 2004). Following this line of research, an ordinal variable of ethnic group participation was used as a mediator, with three categories (1: no participation, 2: participation in ethnic organizations (not political), and 3: participation in political ethnic organizations).

(b) Bridging to mainstream society: Three mediators were used to capture 'bridging to mainstream society" social capitals. First, an item asking whether immigrants feel that the United States is their home was used a mediating variable capturing immigrants' emotional ties to mainstream society. Given that the item asked "which feels most like home to you between parents' country of origin and the United States, the respondents who chose the U.S. were coded as 1, while those who chose parents' country of origin were coded as 0. Second, a variable reflecting immigrants' civic engagement in mainstream society was included as a mediator, based on an item measuring (average) weekly hours respondents spent doing things with or for community organizations which influence U.S. government or public policy over the past twelve months. Lastly, community involvement in mainstream society was measured by weekly hours respondents spent doing things with or for community organizations or groups, of either professional or social nature (e.g., work-related organizations or sports teams) over the past twelve months.

3.2.4 Control variables

This study controlled for demographic variables, including age, gender (male vs. female), ethnicity (Latino vs. Asian vs. Other), which are potentially correlated with the independent and dependent variables in this study. Previous research found that young, female, and ethnic minority immigrants are more likely to experience labor market disadvantages, compared to their counterparts (Bradatan & Sandu, 2012; Lightman & Gingrich, 2012). The demographic variables are also associated with immigrants' English abilities and educational attainment. For example, a gender difference was found in English ability in that immigrant women's language acculturation was faster than immigrant men (Kisselev, Brown, & Brown, 2010). Regarding the relationship between ethnicity and education attainment, it has been documented that Hispanics have lagged behind the other non-Hispanic groups in their educational attainment (Chiswick & DebBurman, 2004).

In addition, citizenship status and generational cohorts (1st/1.5th vs. 2nd generation) were included as a control in that both variables were shown to be associated with income, and labor force participation (Kwon, Zuiker, & Bauer, 2004). For example, Slack and Jensen (2007) found that unemployment is more pervasive among the first-generation of immigrant than the second, and the main reason of this higher unemployment of the first generation was their lack of citizenship. In addition, the second-generation is more fluent in English than the foreign- born first generation is very natural because English is mother-tongue for the second-generation who was born in the U.S.

3.3 DATA ANALYSES

Following descriptive analyses of study variables, preliminary analyses were first conducted to examine whether the study variables and covariates present significant associations at the bivariate level, using Pearson's correlation, using SPSS 21 statistical package. Next, independent sample T-test and chi square test were conducted to examine whether there were differences between generations (1st/1.5th generation vs. 2nd generation) in terms of the study variables, given that this study also aims is to shed light on the rate of assimilation across generations, and the result of independent t-test and chi square test showed the explicit differences in assimilation between the 1st/1.5th generation and the 2nd generation.

Finally, using M*plus 7* statistical package (Muthén & Muthén 1998-2010), structural equation modeling (SEM) path analyses were conducted to test the theoretical mediation model depicted in Figure 8. Unlike other traditional path analysis methods, such as Baron and Kenny (1986), which run regression models sequentially to estimate indirect effects, SEM approach enables us to simultaneously include multiple dependent and mediating variables, and thus estimate the direct and indirect effects of human capital on economic integration via mediating variables of social capital at the same time (Kline, 2011). In addition, SEM, which can flexibly incorporate factor analysis frameworks, offers a convenient way to differentiate between observed and latent variables. In other words, SEM can have latent variables that represent hypothetical constructs measured by observed variables (i.e., indicators). For example, three observed variables of IIMMLA that respectively measure English speaking, understanding, and accent can be assumed to tap a common (latent) domain, called English capability or ability. SEM provides a way to test this hypothesized latent variable of English abilities, and analyze the

relationship between this latent variables and other (both latent and observed) variables, taking account of the measurement errors of the three English-related observed variables.

Another advantage of SEM is its ability to deal with missing data that are often inherent in large-scale survey data sets, such as the IIMMLA. In general, the IIMMLA provides very rich information with small amount of missing data, and thus the majority of the study variables were missing data in 1 % or fewer cases. However, variables identified as indicators for English capability were missing data in about 5 %. Among dependent variables, household income had about 9% missing data, while occupation prestige scores were missing in about 6 %. Therefore, it was essential to rely on missing data handling techniques that may lead to better, hopefully unbiased, statistical estimates. This study implemented the full information maximum likelihood (FIML) method, which most SEM packages, including M*plus*, provide to obtain unbiased estimates under the assumption of Missing-at-Random (Allison, 2002). Previous simulation studies showed that the FIML reliably estimates model parameters with as low as 30% of missing data (Peng, Harwell & Ehman, 2007). In addition, the previous studies showed that the FIML is better than traditional missing data handling methods (e.g., list-wise or pair-wise deletion), and is arguably superior to other modern methods, such as multiple imputation (Allison, 2012).

SEM, roughly speaking, consists of three stages: model specification, parameter estimation, and model fit estimation. In the stage of model specification, English ability was treated as a latent variable measured by three indicators, including English speaking scores, English understanding scores, and English accent. Similarly, ethnic bonding social capital was initially hypothesized as a latent variable measured by two observed variables (i.e., same ethnicity marriage, and ties with ethnic organization), while bridging to mainstream society

social capital was assumed to be a latent variable measured by three observed variables (i.e., feel home, civic engagement, and community involvement). However, a confirmatory factor analysis with the two latent factors (i.e., ethnic bonding and bridging to mainstream society social capital) revealed that the hypothesized model had a poor fit, because some indicators within factors were more associated with each other than others. More importantly, each of the observed items illuminates unique aspects of social capital, although they can be labeled commonly as either ethnic bonding or bridging to mainstream society capital. Therefore, the 5 observed social capital mediators were included respectively as an observed variable in the SEM models, which may also enhance the interpretability of the mediating roles of social capital, given the specific meaning of each mediator. As a result, the SEM path models of this study specified two independent variables, including a latent variable of English ability and an observed variable of educational attainment, which are theorized to affect four types of economic integration measures (employment, occupational prestige, income and welfare utilization) via two forms of observed ethnic bonding capital and three forms of observed bridging to mainstream society social capital.

In the parameter estimation stage, the model parameters (i.e. regression coefficients estimating relationships among variables included in the models) were obtained from four models predicting income, employment, occupational prestige, and welfare utilization, respectively. This study estimated the four models with different types of dependent variables, rather than a single model predicting the four types of dependent variables simultaneously, because each type of the dependent variables is applicable to different (sub) samples. When estimating models with a dependent variable of employment, for example, the full study sample was used to estimate the model parameters, while models with a dependent variable of

occupation prestige scores were estimated with a subgroup of the "employed." In models estimating immigrants' welfare utilization, two variables (i.e., the receipt of government health insurance and temporary cash assistance) were included simultaneously as dependent variables for a subsample of immigrants with household income of less than $ 50,000 because welfare utilization is a meaningful proxy for economic integration among low-income immigrants and, in the IIMMLA, no immigrant with household income of 50,000 or more was on welfare. As in models for employment, lastly, models for household income can be estimated with the full sample. However, this study did not estimate a model with both employment and household income because employment is a binary variable and thus logistic SEM was used to estimate the effect of human and social capital on a binary variable of employment, while linear SEM was used for household income that was treated as a quantitative variable. By the same token, logistic SEM was used for models with binary dependent variables of welfare utilization, while linear SEM was used for models with occupational prestige scores.

For both logistic and linear SEM, (linear and logistic) regression coefficients were estimated with Maximum Likelihood (ML), in particular, FIML to handle missing data, as discussed. The indirect effects of human capital on economic integration via social capital were computed by the product of regression coefficients from human capital (i.e., independent variables) to social capital (i.e., mediating variables) and those from social capital (i.e., mediating variables) and economic integration (i.e., dependent variables). The statistical significance of the product was evaluated, using bias-corrected bootstrapping approaches (Selig & Preacher, 2009; Shrout & Bolger, 2002), rather than conventional "normal theory" approaches, such as Sobel test or Baron and Kenny (1986) method. The normal theory approaches are based on the assumption that the sampling distribution of the product of two

coefficients is normal; however, MacKinnon, Warsi, and Dwyer (1995) pointed out that the product of two normally distributed variables is not itself normally distributed, and, in fact, it is often asymmetric and kurtotic. It has been recommended to use alternative approaches with various resampling procedures (e.g., bootstrap, jackknife, and Monte Carlo). Previous simulation studies (MacKinnon, Lockwood, & Williams, 2004) revealed that, of the resampling methods compared, bootstrap methods are particularly useful for testing the statistical significance of an indirect effect, and Shrout and Bolger (2002)'s bias-corrected bootstrap method addressing the asymmetric nature of the product terms performed relatively best. Using the bias-corrected bootstrap function of M*plus*, therefore, this study drew 5,000 bootstrap samples, and estimate the confidence interval of the project terms (i.e., indirect effects), based on variability in the distribution of the parameter estimates across the bootstrap samples.

During the final stage, several fit indices were evaluated in order to assess how well the specified, theoretical model replicates the empirical correlation among variables in the model. First, this study used the model chi-square, which is the most basic fit statistic. If the model chi-square is equal to zero, the model is a just-identified model fitting the data perfectly. As the value of the model chi-square increases, the fit of a model becomes increasingly worse. The statistical significance of the model chi-square test, therefore, indicates a "badness-of-fit." However, it is problematic to rely solely on the model chi-square as a fit statistic because it is sensitive to sample size. In particular, when sample size is larger than 400, the model chi-square test may, almost always, reject the model, even if there are marginal differences between observed and predicted covariance. Given the limitation of the model chi-square, this study also provided other fit indices, including Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR), all of

which are the most popularly reported fit indices for SEM. The RMSEA indicates how well the model would fit the populations covariance matrix (Kline, 2011), taking into account the number of estimated parameters in the model (i.e., model complexity). Given that the RMSEA is a badness-of-fit index, a value of zero indicates the best fit, and greater values indicate worse fit. An RMSEA of .05 or lower includes good or close approximate fit, while an RMSEA in the range of 0.05 to 0.10 is often considered fair fit or reasonable error of approximation (Hooper, Coughlan, & Mullen 2008). The CFI, which is an incremental fit index, evaluates the relative improvement in fit of the model compared with a baseline model (also called the null model assuming that all observed variables are uncorrelated). The CFI ranges from 0 to 1, with values closer to 1.0 indicating good fit. A cut-off guideline of CFI $\geq$ 0.9 is often accepted as indication of good fit (Kline, 2011), although some studies (e.g., Hu & Bentler, 1999) suggest that a stringent cut-off criterion (e.g., CFI values of 0.95 or higher) should be regarded as good fit. The SRMR is the square root of the difference between the residuals of the (observed) sample covariance matrix and the (predicted) hypothesized covariance model. Values for the SRMR ranges from 0 (perfect fit) to 1. Values of the SRMR less than .10 are generally considered acceptable (Kline, 2011). It is noteworthy that the aforementioned fit indices and their cut-off points are based on continuous data. In terms of categorical data, however, there is no agreement on the threshold values of fit indices, and even whether the same fit indices can be used for the categorical data. Given the lack of consensus about fit indices for categorical data, M*plus* does not provide fit indices (e.g. model chi-square, RMSEA, CFI, and SRMR) for SEM models using FIML with categorical dependent variables. In this study, therefore, fit indices were reported only for models with a dependent variable of household income and occupational prestige scores.

The three stages of SEM (i.e., model specification, parameter estimation, and model fit estimation) were firstly undertaken for the total sample with both 1st/1.5th generation and 2nd generation to investigate the interplay among human capital, social capital, and economic integration for all immigrants. Then, the same analyses were conducted for 1st/1.5th generation and 2nd generation, respectively, to examine whether there is a different pattern of the relationship among the study variables between 1st/1.5th generation and 2nd generation. The SEM models for 1st/1.5th generation were the same as their counterparts for 2nd generation, except the fact that two control variables (citizenship and length of citizenship) that were included for models for 1st/1.5th generation were not include in models for 2nd generation because all of the 2nd generation immigrants had citizenship. As a results, in total, this study estimated 12 SEM models [i.e., 4 separate models (for household income, employment, occupational prestige score, and welfare utilization, respectively) x 3 samples (total, 1st/1.5th generation only, and 2nd generation only)].

4.0 RESULTS

4.1 DESCRIPTIVE STATISTICS

Table 4 shows the descriptive statistics of the study variables. The mean age of the sample was 27 (range: 20-40; SD: 6.01), about half of the sample were female (50%), and 2nd generation who were born in U.S. with their foreign-born parents (53%). Regarding race/ethnicity, about half of the sample consisted of Asian immigrants (49.3%), which is higher than a national average of 40% (2014 Yearbook of Immigration Statistics. 2015). It is due in part to the fact that the IIMMLA was conducted in the Los Angeles metropolitan area with a high concentration of Asian immigrants. The percentage of Latino respondents was 40.9%, which is slightly higher than a national average of 39.9% (2014 Yearbook of Immigration Statistics. 2015), while 9.8 % were others. The vast majority of the sample had the U.S. citizenship (86.8%), which is not surprising in that 2nd generation immigrants (about 50% of the sample) gain the U.S. citizenship when they are born, and about half of 1st/ 1.5th generation immigrants have been estimated to be naturalized U.S citizens at the national level (2003 Yearbook of Immigration Statistics, 2004).

Regarding human capital, most respondents were reported to have high levels of English abilities in that only 1.7 % had poor or fair English speaking abilities and 2.2% had poor or fair English understanding. Interviewers who rated the respondents English via phone interviews

reported that the majority of the respondents had excellent speaking abilities (74.8%), and understanding abilities (73%) with no accent (77.8%).

In regard to education levels, 16.7% of the respondents had a high school diploma, and 27.7% of the respondents had college graduate, and it is consistent with other immigrant population of other studies samples. According to Luthra and Soehl (2015), immigrants' education level (both 1st /1.5th and 2nd generation or both immigrant children and their parents) is very similar between several immigrant data samples such as CILS (Children of Immigrants Longitudinal Study, 1992-2006, in San Diego and Miami), ISGMNY (Immigrant Second Generation in Metropolitan New York, 1998-1999 in New York), NELS (National Education Longitudinal Study, 1988) including this study sample, IIMMLA. Lutha and Soehl analyzed education level as years of education, and they found that years of education is very similar between countries of origins across the data. For example, the mean of education year for Mexican parent (1st/1.5th generation) is 9.7 in IIMMLA; 10.4 in CILS, and for Mexican 2nd generation, the mean is 13.3 in IIMMLA; 13.4 CILS. For Chinese parent, the mean is 15.2 in IIMMLA; 15.6 in NELS, and for Chinese 2nd generation, the mean is 16.5 in IIMMLA, 16.3 in NELS.

In terms of social capital, for the vast majority of the respondents, same ethnic marriage was not perceived as important (82%), and their participation in ethnic group organization was minimal (8.2%). Their participation in the mainstream was weak as well, despite that fact that most respondents felt like the U.S. is their home (95.7%). They spent less than one hour per week on the organizations unrelated to their ethnic origin. For example, they spent only .59 hours (or 36 minutes) on civic engagement, and .93 hours (or 56 minutes) on community involvement, such as work-related organizations, sports teams, or other non-religious organizations.

Regarding economic integration, the respondents who were working in the survey period were 69.9 %, while 30.3% were not working. This employment rate is similar to comparable estimates reported in the 2015 U.S. Census estimating employment rates among all adult immigrants of ages 18 to 65 (Camarota & Zeigler, 2016). With regard to household income, 5.7% were less than $12,000; 10.3% were between $12,000 and $19,999; 13.1% were between $20,000-$29,999; 20.5% were between $30,000-$49,999; 16.6% were between $50,000-$69,999; 17.0% were between $70,000-$99,999; 16.9% were more than $100,000. Regarding occupations with an average prestige scores of 47.38 (SD: 13.71), the top 10 occupations were 1) other teachers and instructors, 2) retail salesperson, 3) cashiers, 4) customer service representatives, 5) secretaries and administrative assistants, 6)accountants and auditors, 7) office clerks, 8) general first-line supervisors/managers of retail sales workers, 9) teacher assistants, and 10) receptionists and information clerks. Finally, among respondents with a household income of <$50,000 who were asked about welfare program receipts (49.6%), 35% reported that they had received government health insurance programs, such as Medicaid and Medi-Cal, while 18.5% had received temporary cash assistance insurance, such as AFDC, TANF, SSI or disability benefits.

In addition, preliminary correlational analyses were also conducted to test whether the study variables and covariates present significant associations at the bivariate level, using Pearson's correlation (see Appendix A). First, the human capital variables were positively associated with economic outcomes, including household income, employment, occupational prestige score, and welfare utilization, although receipt of cash assistance was not significantly associated with English speaking and accent. Second, regarding the correlation between social capital and human capital variables, same ethnic marriage (ethnic bonding capital variable) was

negatively associated with all English ability variables, but ties with ethnic organization (ethnic bonding capital variable) was positively associated with English speaking and understanding, and education level. Regarding bridging social capital to main society, feel home (bridging social capital variable) was positively associated with all human capital variables, and civic engagement (bridging social capital variable) had a positive association with English accent and education level, but community involvement (bridging social capital variable) was only positively correlated with English speaking. Last, regarding the correlation between social capital and economic outcomes, same ethnic marriage (ethnic bonding capital variable) did not have any significant correlation with economic outcomes, but ties with ethnic organization (ethnic bonding capital variable) was positively associated with income. Meanwhile, feel home (bridging social capital variable) was positively associated with income and occupational prestige score, and civic engagement (bridging social capital variable) had a positive association with income and occupational prestige score, but community involvement (bridging social capital variable) had no correlation with economic outcome variables.

4.1.1 Comparison of 1st/1.5th generation vs. 2nd generation

Table 4 presents the independent t-test and chi-square test results comparing 1st/1.5th generation and 2nd generation. It shows that the 2nd generation of immigrants had significantly better English abilities than the 1st/1.5th generation: for English speaking, $t(2782.54) = -7.45$, $p<.001$, for English understanding, $t(2819.49) = -6.47$, $p<.001$, for English accent, $\chi^2(1) = 131.58$, $p<.001$. The results also indicates that two groups were significantly different in occupation prestige scores $t(3238) = 3.43$, $p=.001$, and in temporary cash assistance, $\chi^2(1) = 6.00$, $p=.014$.

1st/1.5th generation had higher occupation prestige scores, and they were less likely to receive temporary cash assistance than 2nd generation.

The t-test also found significant differences in ethnic bonding variables, indicating that 1st/1.5th generation immigrants placed more important value on same ethnic marriage than 2nd generation, χ^2 (1) = 13.025, p<.001, while 2nd generation immigrants spent more time on ethnic group participation t (3430.61) = -2.22, p=.027, spent more time on non-ethnic community involvements t (2975.48) = -3.29, p=.001, and were more likely to think of the U.S. as their home countries, compared to 1st/1.5th generation, χ^2 (1) = 8.77, p=.003. For citizenship, two groups also had a significant difference, χ^2 (1) = 586.23, p<.001, indicating that 2nd generation immigrants were more likely to have the U.S. citizenship, compared to 1st/1.5th generation immigrants. However, no generational difference was detected for education levels, civic engagement, employment, household income, and government health insurance program utilization.

Table 4

Descriptive Statistics of Study Variables (N=3,440)

		Total		1st/1.5th		2nd		Difference	
		M/%	SD	M/%	SD	M/%	SD		
Age		27.89	6.01	28.83	6.07	27.06	5.82	**	†
Gender									
	Female	50.5%		49.9%		51.1%			
	Male	49.5%		50.1%		48.9%			
Ethnicity								**	††
	Latino	40.9%		33.4%		47.6%			
	Asian	49.3%		60.7%		39.2%			
	Other	9.8%		5.9%		13.3%			
Generation									
	1st/1.5th	47.2%							

2nd	52.8%							
U.S. citizen								
Yes	86.8%		72.0%		100%		**	††
No	13.2%		28.0%		0%			
Family size	2.08	1.06	2.06	1.11	2.10	1.02		
English speaking ability	4.64	0.69	4.54	0.77	4.73	0.6	**	†
Poor	0.1%		0.1%		0.0%			
Fair	1.6%		2.3%		1.0%			
Good	7.1%		9.5%		5.1%			
Very good	16.4%		18.9%		14.3%			
Excellent	74.8%		69.1%		79.7%			
English understanding ability	4.62	0.72	4.53	0.80	4.69	0.63	**	†
Poor	0.2%		0.5%		0.0%			
Fair	2.0%		2.8%		1.3%			
Good	6.9%		8.4%		5.6%			
Very good	17.9%		20.3%		15.9%			
Excellent	73.0%		68.0%		77.3%			
English accent							**	††
Accent	22.2%		31.3%		14.5%			
No accent	77.8%		68.7%		85.5%			
Education level	3.98	1.37	4.02	1.41	3.95	1.32		
Did not complete high school	4.9%		6.2%		3.8%			
High school	16.7%		15.6%		17.7%			
Vocational or trade school	3.2%		2.5%		3.8%			
Some college	36.4%		33.5%		39.1%			
College graduate	27.7%		30.2%		25.5%			
Graduate school	11.0%		12.1%		10.1%			
Employment								
Working	69.6%		68.9%		70.3%			
Not working	30.4%		31.1%		29.7%			
Occupational prestige Scores (among employed immigrants)	47.38	13.71	48.67	13.87	46.27	13.49	**	†
Household income	4.51	1.78	4.45	1.81	4.55	1.75		
Less than $12.000	5.7%		6.1%		5.3%			
$12,000-$19,999	10.3%		11.1%		9.5%			
$20,000-$29,999	13.1%		13.8%		12.5%			
$30,000-$49,999	20.5%		20.4%		20.6%			
$50,000-$69,999	16.6%		15.2%		17.8%			
$70,000-$99,999	17.0%		16.4%		17.5%			
$100,000 or more	16.9%		17.1%		16.7%			
Medicaid (among low-income immigrants)								

Yes	35.0%		36.6%		33.5%			
No	65.0%		63.4%		66.5%			
Cash assistance (among low-income immigrants)							**	††
Yes	18.5%		16.2%		20.7%			
No	81.5%		83.3%		79.3%			
Same ethnicity marriage							**	††
Not important	82.0%		79.5%		84.2%			
Important	18.0%		20.5%		15.8%			
Ties with ethnic organization	1.09	0.33	1.08	0.31	1.11	0.35	**	†
No	91.8%		92.8%		90.9%			
Ties with non-political groups	0.7%		6.2%		7.6%			
Ties with political groups	1.2%		0.9%		1.5%			
Feel home							**	††
Ethnic origin	4.3%		5.4%		3.3%			
U.S.	95.7%		94.6%		96.7%			
Civic engagement (hours)	0.59	4.44	0.55	3.89	0.63	4.89		
Community involvement (hours)	0.93	4.93	0.65	3.45	1.19	5.93	**	†

Note. **p < .05, † based on independent T-test, †† based on Chi-square test

4.2 SEM RESULTS

4.2.1 Household income

4.2.1.1 Household income model for total sample

Figure 9 presents the path SEM results for immigrants' household income (for full results, see Appendix A.1). The model fit of the path model was good: χ^2 (38, N = 3,440) = 354.01, p <.001; CFI = .954; RMSEA =.049; SRMR = .023. The results shows that English ability had a negative association with ethnic bonding social capital, as hypothesized with H2.1. In particular, English ability was associated lower perceived importance of same ethnic marriage (b = -.05, p <.05), while English ability was not associated with ties with ethnic organizations.

Unlike expectation that ethnic bonding social capital has a negative association with immigrants' economic integration (i.e., H.2.2), however, both same ethnic marriage ($b = .17$, $p < .05$) and ties with ethnic organizations ($b = .23$, $p <. 05$) were positively associated with household income. Therefore, the resulting indirect effect of English ability on household income via same ethnic marriage was significantly negative ($b = -.01$, $p < .05$), indicating that ethnic bonding social capital may suppress the positive effect of English ability on income that was expected with H2.

In terms of bridging to mainstream society social capital, English ability was positively associated with feel home ($b = .02$, $p < .05$), indicating that immigrants with better English were more likely to have emotional ties to mainstream society (i.e., perceive the U.S.A. as home), as anticipated with H3.1. Consistent with H.3.2, moreover there was a positive association of feel home with household income ($b = .28$, $p <.05$). The resulting indirect effect of English ability on household income via feel home was significantly positive ($b =.01$, $p< .05$), suggesting that H3 holds for a pathway via feel home. English ability also had a positive association with another form of bridging to mainstream society social capital, immigrants' community involvement ($b = .20$, $p <.05$), although it was not significantly associated with immigrants' civic engagement. However, both civic engagement and community involvement has no association with household income. Thus, no indirect effect of English ability via civic engagement and community involvement was detected, suggesting that H3 does not hold for pathways via civic engagement and community involvement.

The results also show that educational attainment had the potential to influence immigrants' income via social capital, particularly ethnic bonding capital. Unlike expectation that immigrants' human capital will be negatively associated with ethnic bonding social capital (H2.1), however, education attainment was positively associated with immigrants ties with ethnic

organizations (b = .02, p < .05), which was in turn positively associated with immigrants' income (b = .23, p < .05). The resulting indirect effect was also positively significant (b=.01, p<.05), suggesting that ties with ethnic organizations acted as a mediator (H2), but, in an unexpected way. As expected with H.3.1, education attainment was positively associated with civic engagement among bridging to mainstream society social capital (b = .19, p <.05), suggesting that H3.1 holds for civic engagement. Because of non-significant association between civic engagement and household income (against H3.2), however, the indirect effect of education attainment via civic engagement, which was expected in H3, was not found. Other forms of bridging to mainstream society social capital had no association with education attainment, and thus no associated indirect effects were detected, indicating that no bridging to mainstream social capital acted as a mediator linking the association between education attainment and household income among immigrants (against H3).

It is worth noting that, as expected in H1, there were significant direct effects of English ability and education attainment on household income, even after controlling for ethnic bonding and bridging to mainstream society social capital (as well as demographic variables). Both English ability and education attainment had a positive association with household income, indicating that those with better English ability and education levels had greater levels of household income (b = .39, p < .05 for English ability; b = .37, p < .05 for education attainment).

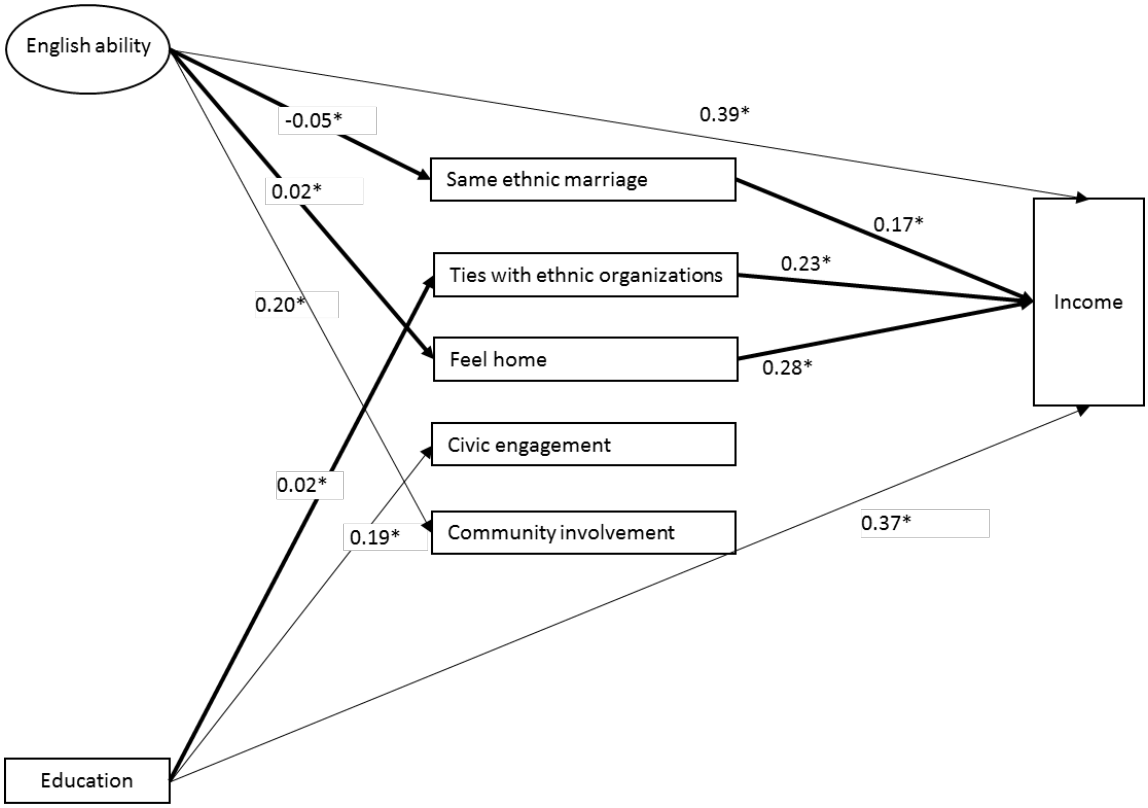

Figure 9. SEM Path Model of Immigrants' Household Income (N=3,440)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix B.1)

4.2.1.2 Household income model for 1st/1.5th generation

Figure 10 displays the path SEM results for 1st/1.5th generation. The model fit of the path model was good: χ^2 (36, N = 1,622) = 163.14, p <.001; CFI = .962; RMSEA =.047; SRMR = .023. As in the previous model for both 1st/1.5th and 2nd generation immigrants, English ability had a negative association with same ethnic marriage (b = -.05, p < .05), suggesting that H2.1 holds true for the subgroup of 1st/1.5th generation immigrants. With the insignificant indirect

effect of English ability via same ethnic marriage, however, H2 was not supported because the association between same ethnic marriage and household income was marginally significant among 1st/1.5th generation immigrants ($b = .19$, $p < .1$). In addition, the associations between English ability and the three forms of bridging to mainstream society social capital were not found among 1st/1.5th generation immigrants, suggesting that H3 was not supported among 1st/1.5th generation immigrants.

As in the path model of household income for all immigrants (i.e., 1st/1.5th generation and 2nd generation), education attainment had a positive association with ethnic bonding social capital, in particular, ties with ethnic organizations ($b = .03$, $p < .05$). Given its insignificant association with on household income, however, the associated indirect of education attainment on household income was not detected, suggesting that H2 was not supported among 1st/1.5th generation immigrants. In terms of bridging to mainstream society social capital, education attainment was positively associated with civic engagement ($b = .26$, $p < .05$). But, civic engagement had no association with household income, and thus the associated indirect was not found. In addition, education attainment had no association with feel home, although feel home was positively associated with household income, which led to the insignificant indirect effect of education on household income via feel home. Community involvement had an association with neither education attainment nor household income, suggesting that H3 is not tenable among 1st/1.5th generation immigrants.

Like the path model for all immigrants, however, this subgroup path model found direct effects of English ability and education attainment, even after considering ethnic bonding and bridging to mainstream society social capital. In particular, both forms of human capital had a

positive, direct association with household income (b = .34, p < .05 for English ability; b = .42, p < .05 for education attainment)

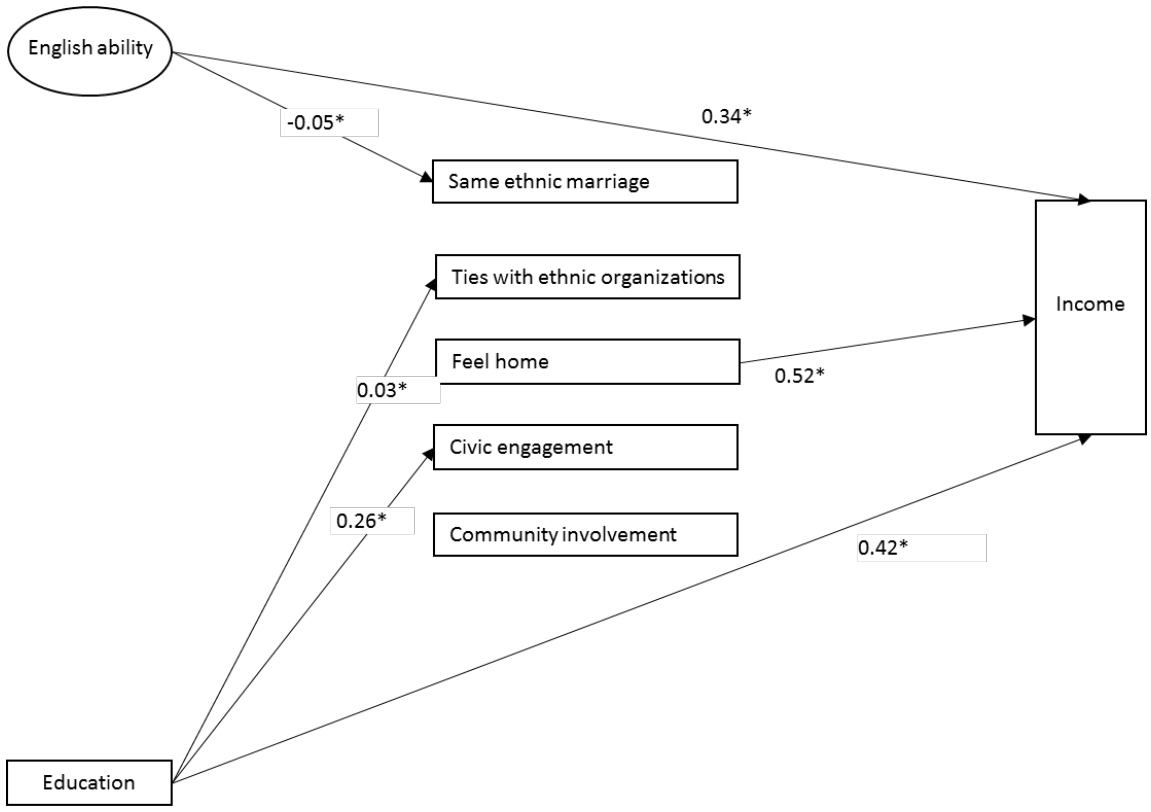

Figure 10. SEM Path Model of Immigrants' Household Income for 1st/1.5th generation (N=1,622)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix B.2).

4.2.1.3 Household income model for 2nd generation

Figure 11 present the path SEM results for 2nd generation. This subgroup path SEM model had a good fit as well; χ^2 (32, N = 1,622) = 154.28, p <.001; CFI = .963; RMSEA =.046; SRMR = .025. It shows that among 2nd generation immigrants English ability was negatively associated

with some ethnic marriage, as expected in H2.1, while it was not associated with ties with ethnic organizations. However, there was no significant association between same ethic marriage and household income, resulting in the insignificant indirect effects of English ability on household income via ethnic bonding social capital (against H2). In addition, H3 was not supported for English ability as well among 2nd generation immigrants. Specifically, English ability was positively associated with feel home as hypothesized in H3.1; however, the bridging to mainstream society social capital had no association with household income.

Education attainment had no association with ethnic bonding social capital among 2nd generation immigrants, although its relationship with ties with ethnic organization was marginally significant ($b = .02$, $p < .1$). Among bridging to mainstream society social capital, civic engagement and feel home had a positive association with education attainment, although the association between education attainment and feel home was marginally significant ($b = .13$, $p < .05$ for civic engagement; $b = .01$, $p < .1$ for feel home). However, civic engagement had a positive association with income, which was marginally significant. As a result, the associated indirect effect was not significant, suggesting that both H2 and H3 were not tenable for education attainment among 2nd generation immigrants. However, the direct effect of English ability and education attainment on income also remained statistically significant among 2nd generation immigrants, even after controlling for the social capital mediators along with other control variables ($b = .50$, $p < .05$ for English ability; $b = .36$, $p < .05$ for education attainment).

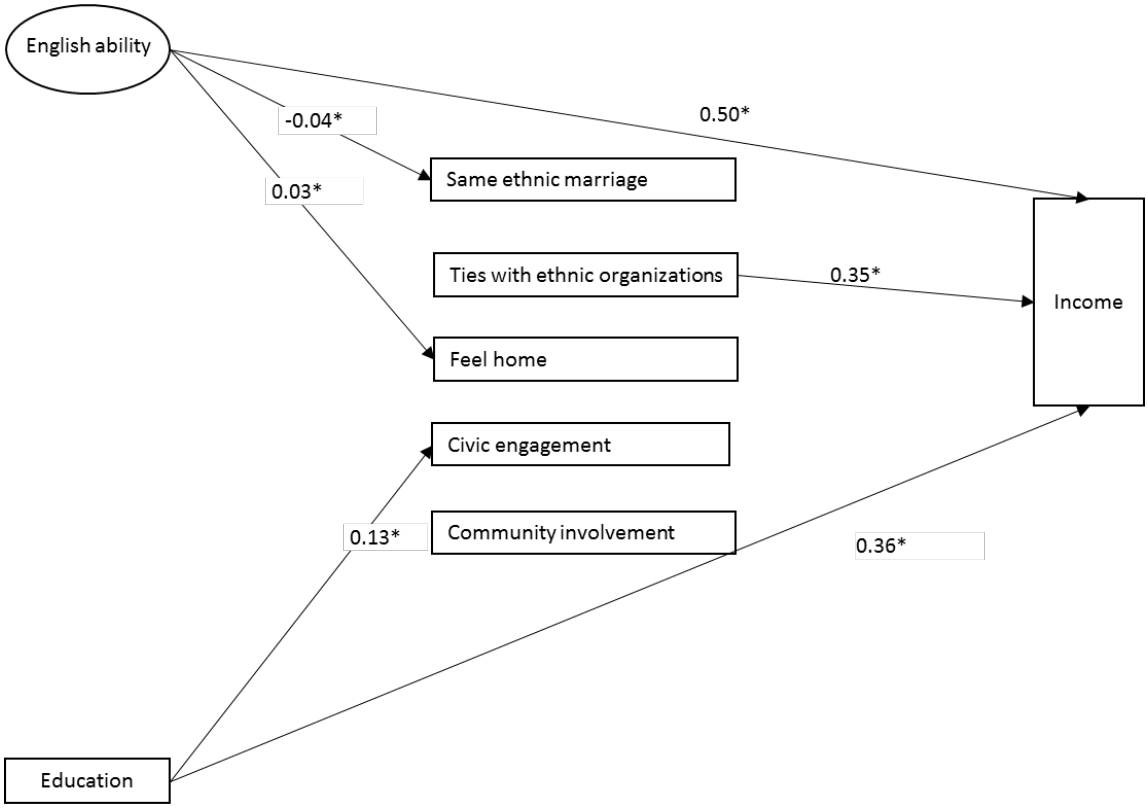

Figure 11. SEM Path Model of Immigrants' Household Income for 2nd generation (N=1,818)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix B.3).

4.2.2 Employment

4.2.2.1 Employment model for total sample

Figure 12 displays results from the path SEM models of immigrants' employment (N= 3,440). With FIML, as discussed, a logistic regression approach was used to estimate the association between human/social capital and immigrants employment (unemployed vs. employed), while a linear regression approach was used to examine the association between human capital and social capital. Given that M*plus* does not provide fit indices, when using FIML with categorical

dependent variables, fit indices, including model chi-square, RMSEA, CFI, and SRMR, were not reported for the path model.

Given the fact that, like the first SEM model of household income, this SEM model was estimated for the data from all immigrants, coefficients from human capital independent variables to social capital mediators were more or less the same, in terms of direction and magnitude, as those in the previous models of household income. For example, immigrants' English ability was negatively associated with same ethnic marriage among ethnic bonding mediators ($b=-.05$, $p < .05$), while it was positively associated with feel home among bridging to mainstream society mediators ($b=.03$, $p<.05$). On the other hand, education attainment was positively associated with ties with ethnic organizations among ethnic bonding social capital, while it was positively associated with civic engagement among bridging to mainstream social capital. These findings indicate that for English ability, H2.1 and H3.1 hold true for same ethnic marriage and feel home, respectively, while for educational attainment, H2.1 and H3.1 hold true for ties with ethnic organizations and civic engagement, respectively. However, this model found that neither ethnic bonding mediators nor bridging to mainstream society mediators were associated with immigrants' employment, suggesting that H2.2 and H3.3 were not supported, and thus H2 and H3 were not tenable for employment.

Regarding the direct effect of human capital independent variable, English ability has no direct effect on employment, after controlling for social capital, demographic characteristics, and education. On the other hand, the positive, direct effect of education attainment on employment remained statistically significant, indicating that immigrants with high levels of education were more likely to be employed, controlling for their social capital, demographic characteristics, and English ability.

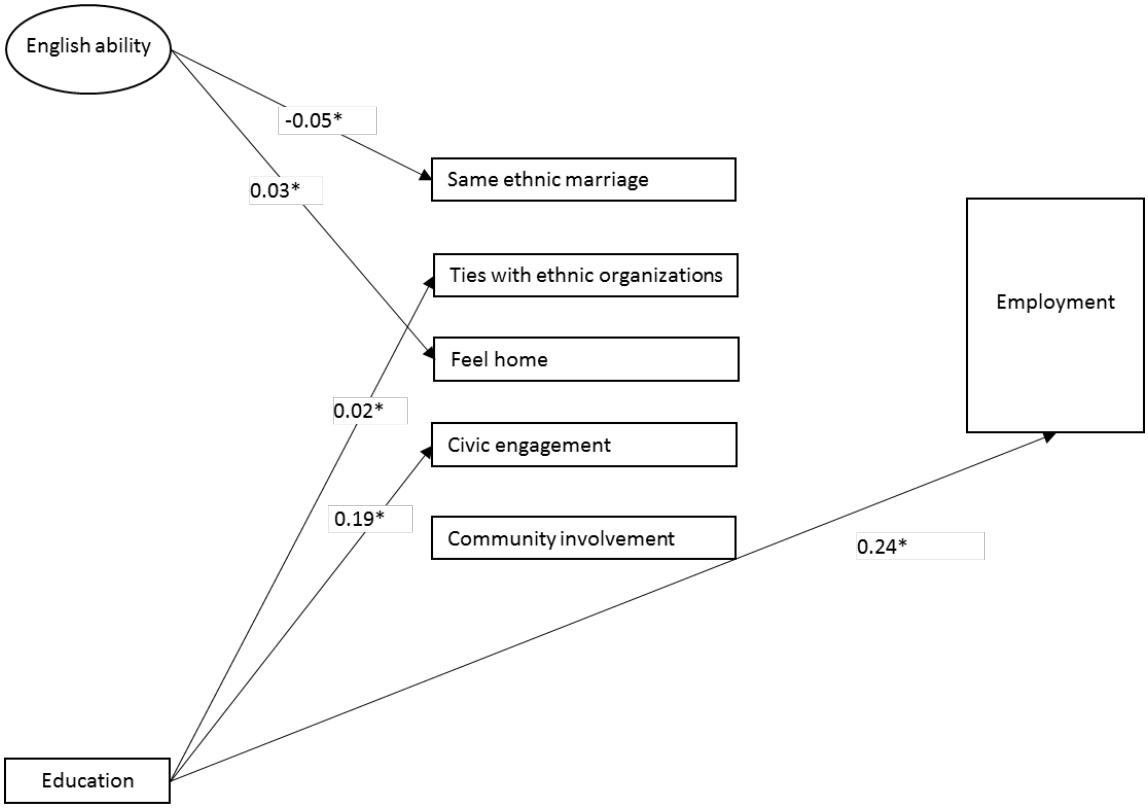

Figure 12. SEM Path Model of Immigrants' Employment (N=3,440)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to employment which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix C.1)

4.2.2.2 Employment model for 1st/1.5th generation

Figure13 shows results from the path SEM models of employment among 1st/1.5th generation immigrants (N= 1,622). As in the previous model for both 1st/1.5th generation and 2nd generation immigrants, English ability was found to be associated negatively with same ethnic marriage among ethnic bonding mediators ($b = -.05$, $p < .05$), supporting H2.1. However, the relationship between same ethnic marriage and employment was marginally significant ($b = -.23$, $p < .1$), although its directionality was in line with H2.2. Thus, the resulting indirect effect was

not detected, suggesting that among 1st/1.5th generation immigrants ethnic bonding social capital did not act as a mediator for the association between English ability and employment (against H2). In terms of bridging to mainstream society social capital, English ability was associated positively with feel home, as expected in H3.1. Given no association between feel home and employment, however, no indirect effect was found, suggesting that bridging to mainstream society social capital did not act as a mediator as well (against H3)

Among 1st/1.5th generation immigrants, immigrants' education attainment had a positive association with both forms of ethnic boning social capital ($b = .02$, $p < .05$ for same ethnic marriage; $b = .03$, $p < .05$ for ties with ethnic organizations), unlike H2 expecting a negative association between human capital and ethnic bonding social capital. As discussed, however, only same ethnic marriage, among ethnic bonding mediators, had an association with employment with marginal significance ($b = -.23$, $p <.1$). No evidence supporting H2 was found for immigrants' education attainment among 1st/1.5th generation immigrants. In addition, education attainment was positively associated with civic engagement, suggesting that H3.1 holds true only for civic engagement among 1st/1.5th generation immigrants. However, the mediator had no association with employment, resulting in no indirect effect of education attainment on employment via bridging to mainstream society mediators (against H3).

Regarding the direct effect of human capital, education attainment found be to associated directly with employment, even after adding social capital mediators (as well as demographic controls) ($b = .27$, $p<.05$). However, no direct effect was found for English ability, suggesting that H1 holds true only for education attainment among 1st/1.5th generation immigrants.

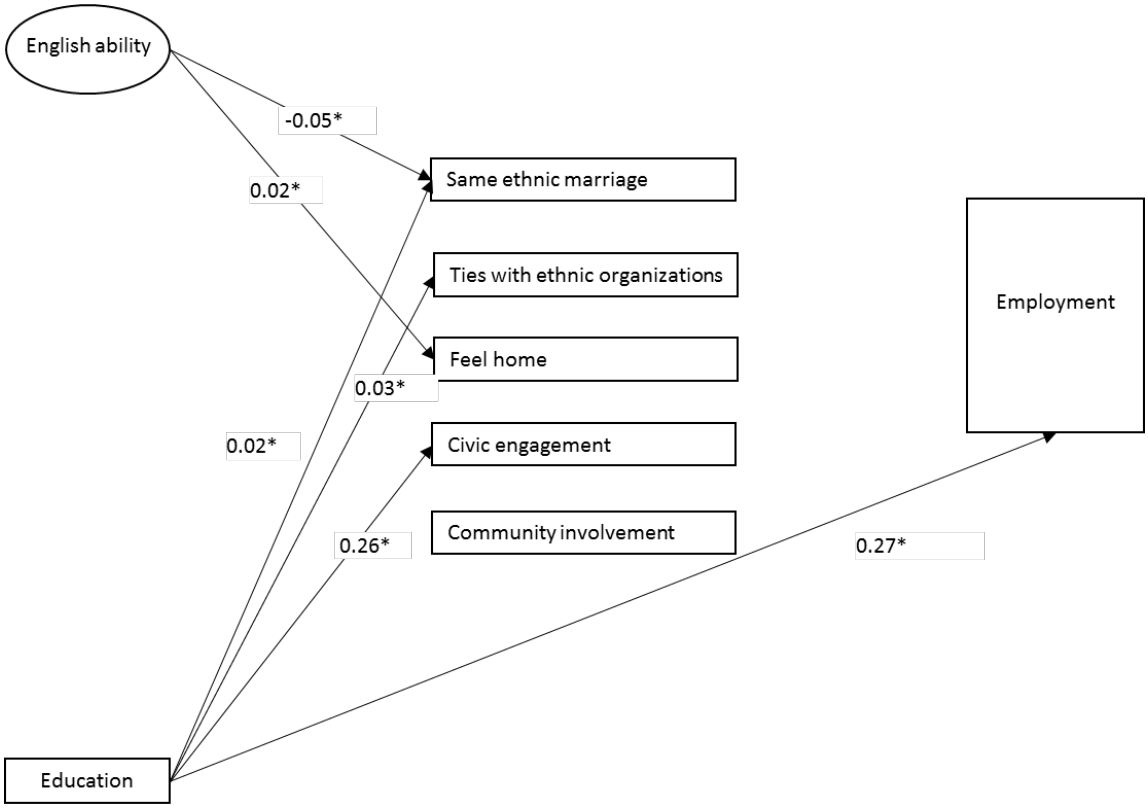

*Figure 13***.** SEM Path Model of Immigrants' Employment for 1st/1.5th generation (N=1,622)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to employment which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix C.2)

4.2.2.3 Employment model for 2nd generation

As shown in Figure 14, among 2nd generation immigrants, English ability was negatively associated with same ethnic marriage ($b = -.06$, $p < .05$), while it was positively associated with feel home ($b = .04$, $p < .05$). These results indicate that H2.1 and H3.1 hold for same ethnic marriage and feel home, respectively. However, no mediator had a significant association with employment (against H2.2 and H2.3), and thus no indirect effects were found for English ability among 2nd generation immigrants (against H2 and H3). Similarly, no indirect effects of

education attainment were found, suggesting that H2 and H3 did not hold for education attainment as well. In particular, education attainment had a positive association only with ties with ethnic organizations (b = .02, p <.05); however, the associated indirect effect was not detected because of no association between the mediator and employment among 2nd generation immigrants.

Regarding the direct effect of human capital, a different pattern emerged. Unlike models for 1st/1.5th generation immigrants, both English ability and education attainment had a positive, direct association with employment among 2nd generation immigrants (b = .27, p < .05 for English ability; b = .23, p <.05 for education attainment).

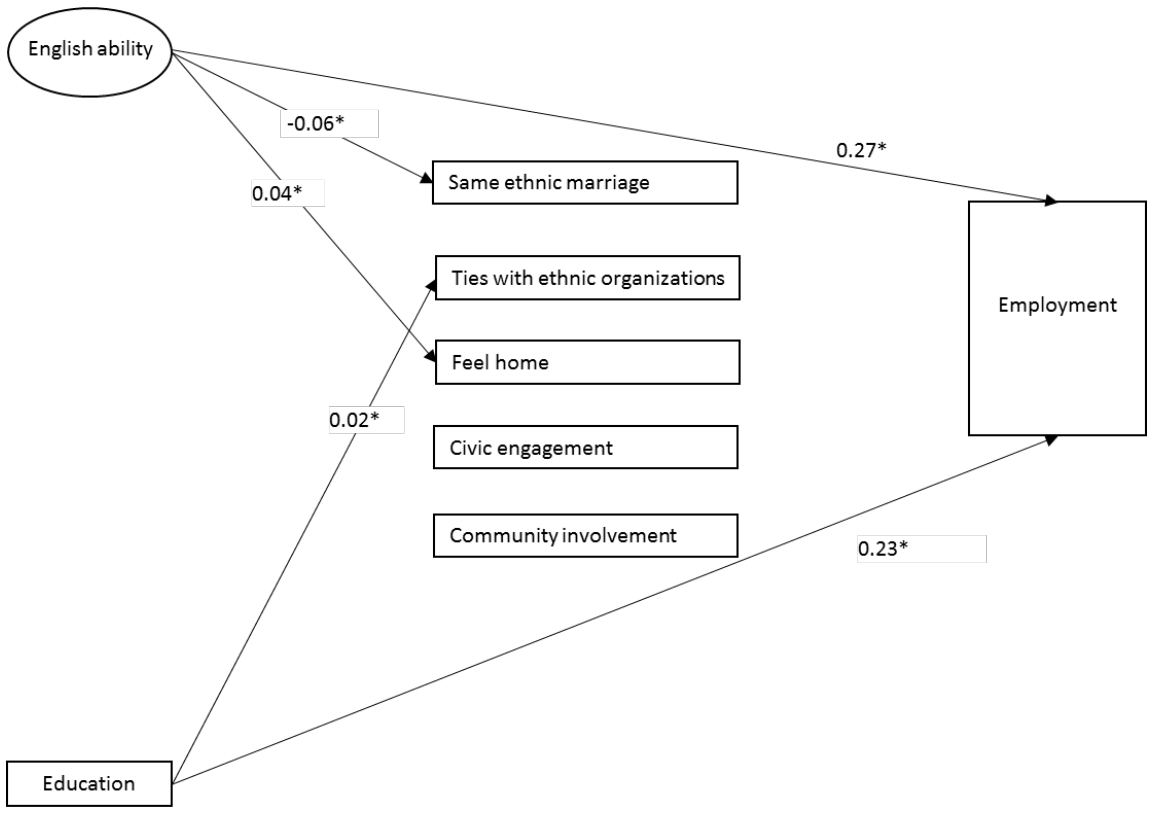

Figure 14. SEM Path Model of Immigrants' Employment for 2nd generation (N=1,818)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to employment which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix C. 3)

4.2.3 Occupational Prestige Scores

4.2.3.1 Occupational Prestige Score model for total sample

Figure 15 displays the path analyses results for occupational prestige scores. This path model, which was estimated for the data from employed immigrants (N=2,395), had a good model fit: χ^2 (38, N = 2,395) = 265.86, p <.001; CFI = .967; RMSEA =.043; SRMR = .021. As expected in H2.1 and H3.1, English ability had a negative association with same ethnic marriage among ethnic bonding mediators (b = -.04, p<.05), while it had a positive association with feel home among bridging to mainstream society mediators (b = .03, p <.05). However, there was no evidence supporting H2.2 and H 3.2, indicating that no social capital mediators were associated with occupational prestige scores among employed immigrants. Therefore, no indirect effects were found (against H2 and H3). Education attainment was positively associated with ties with ethnic organizations among ethnic bonding mediators (b = .03, p <.05) and with civic engagement among bridging to mainstream society mediators (b = .22, p <.05). With no significant association between social capital mediators and occupational prestige scores, however, there was no evidence supporting H2 and H3 for education attainment.

In terms of the direct effect of human capital independent variables, both forms of human capital predicted occupational prestige scores, even after controlling for social capital mediators and demographic control variables. In particular, both had a positive association with

occupational prestige scores (b=.90, p <.05 for English ability; b = 4.37, p <.05 for education attainment).

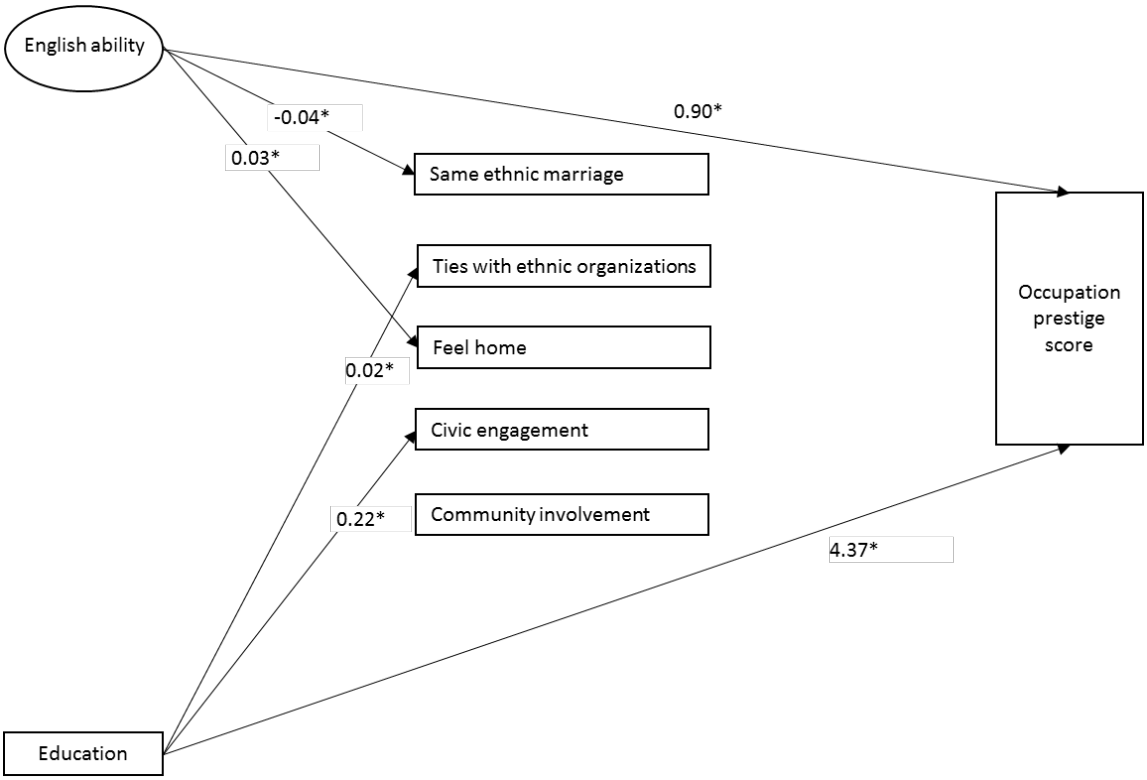

Figure 15. SEM Path Model of Immigrants' Occupational Prestige Scores (N=2,395)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix D.1).

4.2.3.2 Occupational Prestige Score model for 1st/1.5th generation

Figure 16 presents the path analyses results for occupational prestige scores among 1st/1.5th generation immigrants. With good model fits: χ^2 (36, N = 1,117) = 136.97, p <.001; CFI = .961; RMSEA =.050; SRMR = .026, this path model shows similar results with the previous model of occupational prestige scores. For example, English ability was negatively associated

with same ethnic marriage (b = -.04, p<.05), while education attainment had a positive association with ties with ethnic organizations (b = .03, p <.05) and civic engagement (b = .30, p <.05). Unlike the previous model, however, this model found that the positive association between English ability and feel home lost its significance among 1st/1.5th generation immigrants, with a negative association between community involvement and occupational prestige scores. In addition, no evidence was found to support H2 and H3 that social capital may serve as a mediator for the association between human capital and occupational prestige scores. However, the positive direct effects of both English ability and education attainment on occupational prestige scores were found as well among 1st/1.5th generation immigrants.

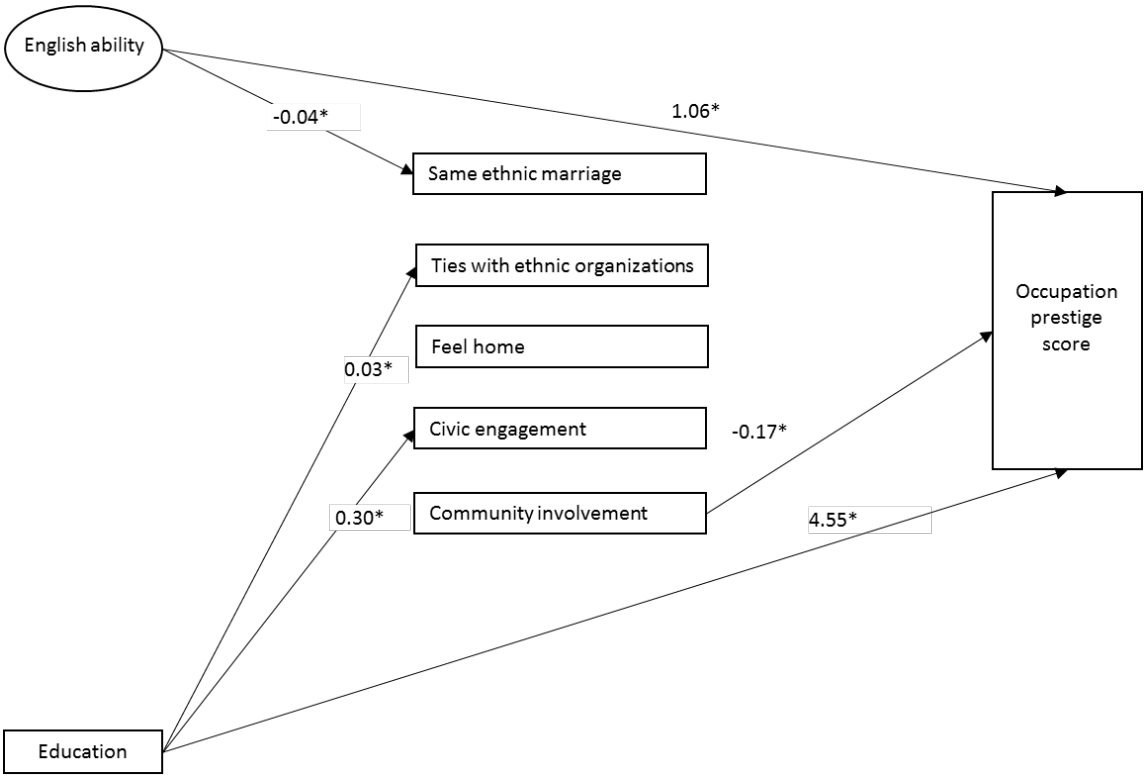

Figure 16. SEM Path Model of Immigrants' Occupational Prestige Scores for 1st/1.5th generation (N=1,117)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix D.2).

4.2.3.3 Occupational Prestige Score model for 2nd generation

As shown in Figure 17, the path model for 2nd generation immigrants shows a different picture of the interplay among human capital, social capital, and occupational prestige scores. With good model fits: χ^2 (32, N = 1,278) = 73.62, p <.001; CFI = .982; RMSEA =.032; SRMR = .019, the

model found that English ability had no relationship with ethnic bonding social capital. In addition, English ability was not associated with bridging to mainstream social capital, except feel home, which had a positive association with English ability (b = .04, p < .05). However, social capital mediators, including feel home, had no significant association with occupational prestige scores, resulting in the insignificant indirect effect of English ability via feel home. Education attainment also had no association with social capital mediators, and thus no indirect effect of Education attainment was found. Regarding the direct effect of human capital, the positive direct effect of English ability, which was found among 1st/1.5th generation immigrants, disappeared, although education attainment had still a positive, direct effect on occupational prestige scores (b = 4.25, p <.05).

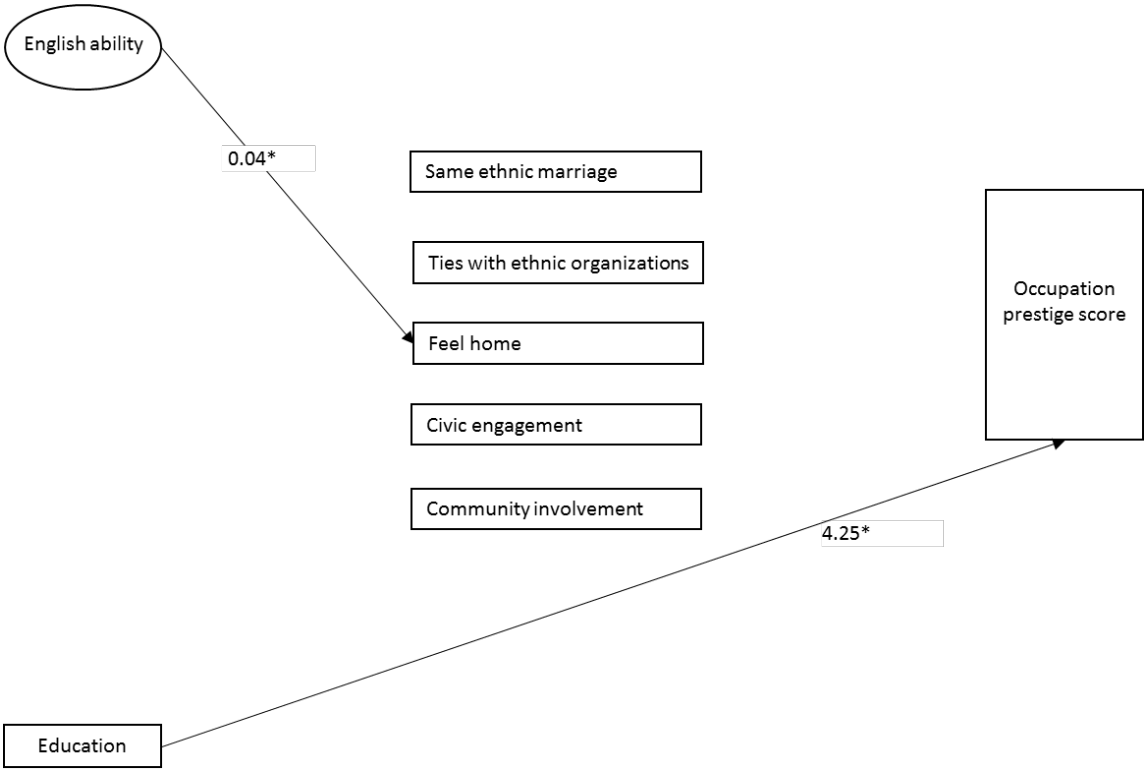

Figure 17. SEM Path Model of Immigrants' Occupational Prestige Scores for 2nd generation (N=1,278)

Note: Coefficients represent unstandardized linear regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix D.3).

4.2.4 Welfare utilization

4.2.4.1 Welfare utilization model for total sample

Figure 18 displays results from the path model predicting welfare utilization (Medicaid and cash assistance) among low-income immigrants and/or potential recipients of such programs, defined as those with household income of under $50,000. Given that two variables of welfare utilization were a dichotomous variable, logistic regression approaches were used, and, thus, no fit indices were reported.

Consistent with H2.1 and H3.1, English ability was negatively associated with same ethnic marriage among ethnic bonding social capital (b = -.04, p <.05), while it was positively associated with feel home among bridging to mainstream society social capital (b = .03, p < .05). However, no indirect effect of English ability on welfare utilization was found (against H2.2 and H3.2) because social capital mediators had no significant relationship with welfare utilization among low-income immigrants (against H2 and H3). In addition, education attainment had no significant association with social capital mediators, although it had a positive association with ties with ethnic organization and civic engagement with marginal significance (p <.1). Therefore, no indirect effect of education attainment was observed. In terms the direct effect of human capital, both forms of human capital had a positive, direct association with receipt of Medicaid and cash assistance, although the direct effect of English ability on cash assistance was marginally significant. It indicates that immigrants with better English and high levels of education were more likely to rely on welfare programs, even after controlling for social capital and demographic factors.

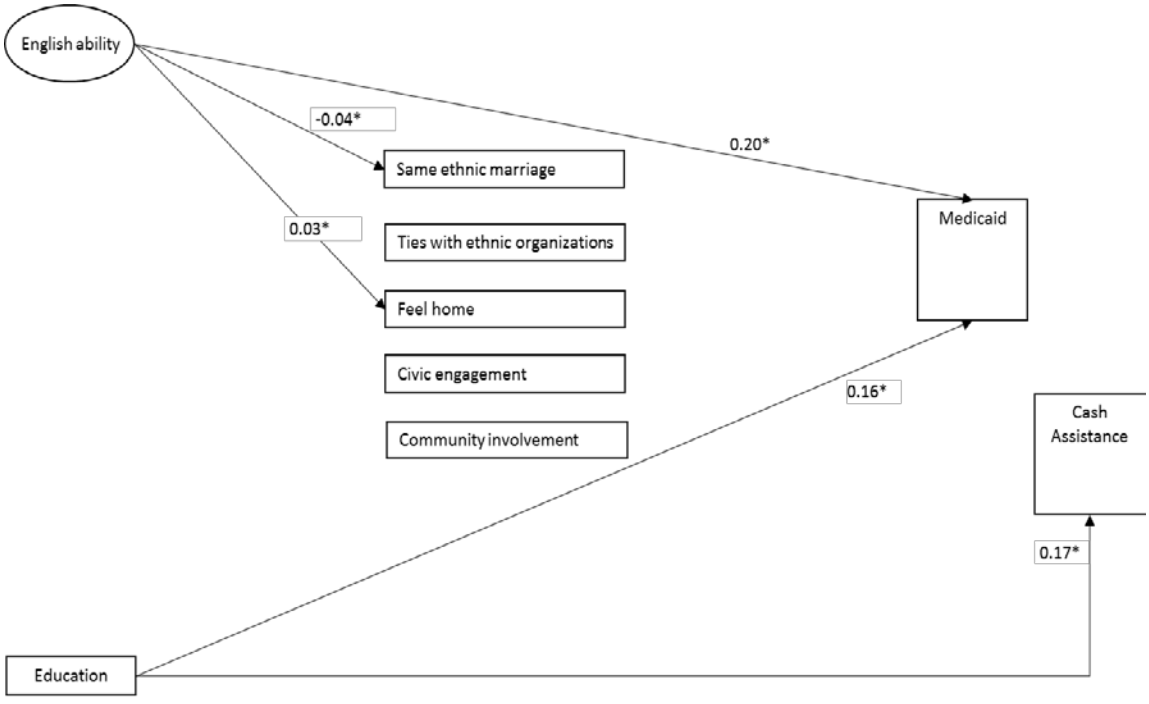

Figure 18. SEM Path Model of Immigrants' Welfare Utilization (N=1,568)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to Medicaid and Cash assistance which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix E.1)

4.2.4.2 Welfare utilization model for 1st/1.5th generation

Figure 19 shows that the path model with 1st/1.5th generation immigrants had somewhat the same results as the previous one for all low-income immigrants. For example, English ability had a negative association with same ethnic marriage ($b = -.05$, $p < .05$), while it was positively associated with feel home, with marginal significance ($b = .03$, $p < .1$), among bridging to mainstream society mediators. For education attainment, there was a positive association with ties with ethnic organizations ($b = .02$, $p < .05$), with a (marginally significant) positive association with civic engagement ($b = .16$, $p < .1$). However, there was no association between social capital and welfare utilization, and thus there was no indirect effect of human capital via social capital among 1st/1.5th generation immigrants. Finally, as in the previous model with all low-income immigrants, both English ability and education attainment had a direct effect on receipt of Medicaid and cash assistance, controlling for social capital and demographic factors.

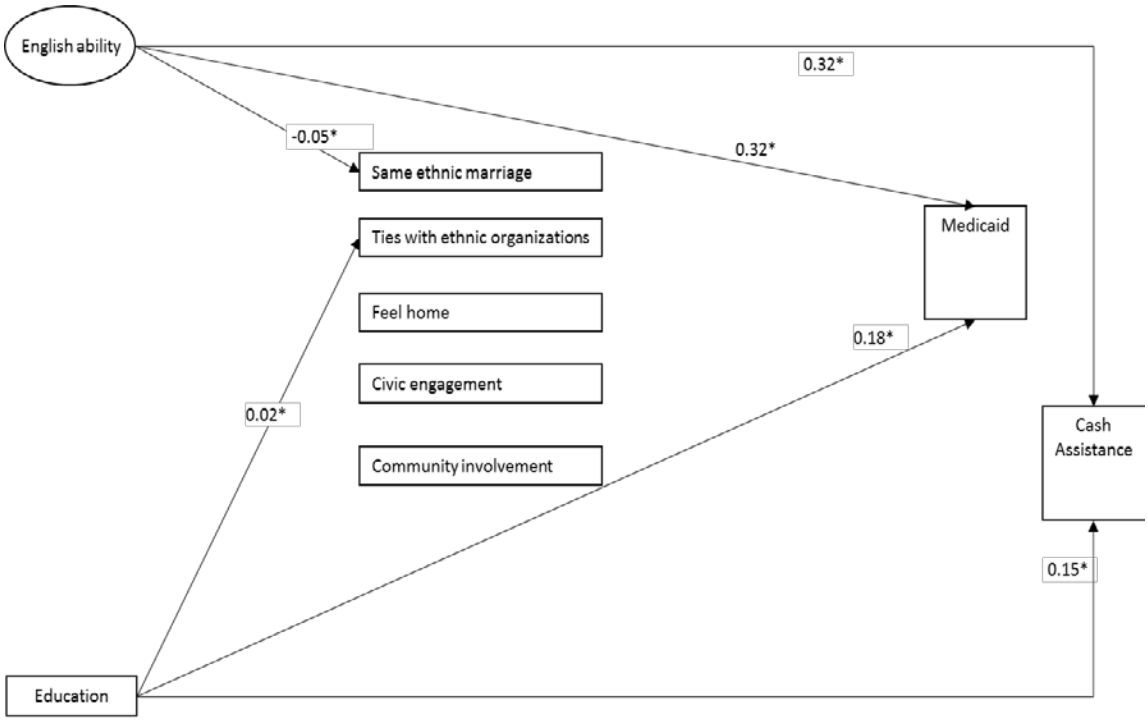

Figure 19. SEM Path Model of Immigrants' Welfare Utilization for 1st/1.5th generation (N=768)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to Medicaid and Cash assistance which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* $p < .05$) are presented. Bold arrows indicate significant indirect paths ($p < .05$). Control variables are not presented here (for full results, see Appendix E.2)

4.2.4.3 Welfare utilization model for 2nd generation

As shown in Figure 20, a different pattern of the association among human capital, social capital, and welfare utilization was detected among 2nd generation low-income immigrants. English ability had no significant association with ethnic bonding social capital. Although it had a marginally significant association with ties with ethnic organizations (b .03, $p < .1$), which was in turn positively associated with receipt of Medicaid (b = .62, $p < .05$), the associated indirect effect was not significant. English ability was also positively associated with feel home (b .04, $p < .05$) among bridging to mainstream society mediators, as expected in H3.1. However, the

associated indirect effect was not found because of no association between feel home and welfare utilization. Education attainment had a negative association with same ethnic marriage (b = .02, p <.05), as anticipated in H2.1. However, it had no association with other social capital mediators. In addition, given no association between same ethnic marriage and welfare utilization, the indirect effect of education attainment on welfare utilization via same ethnic marriage was not significant. In terms of the direct effect of human capital, unlike the model for 1st/1.5th generation immigrants, English ability had no direct effect on receipt of Medicaid and cash assistance. On the other hand, education attainment was directly associated with receipt of both Medicaid and cash assistance (b = .17, p <.05 for both Medicaid and cash assistance).

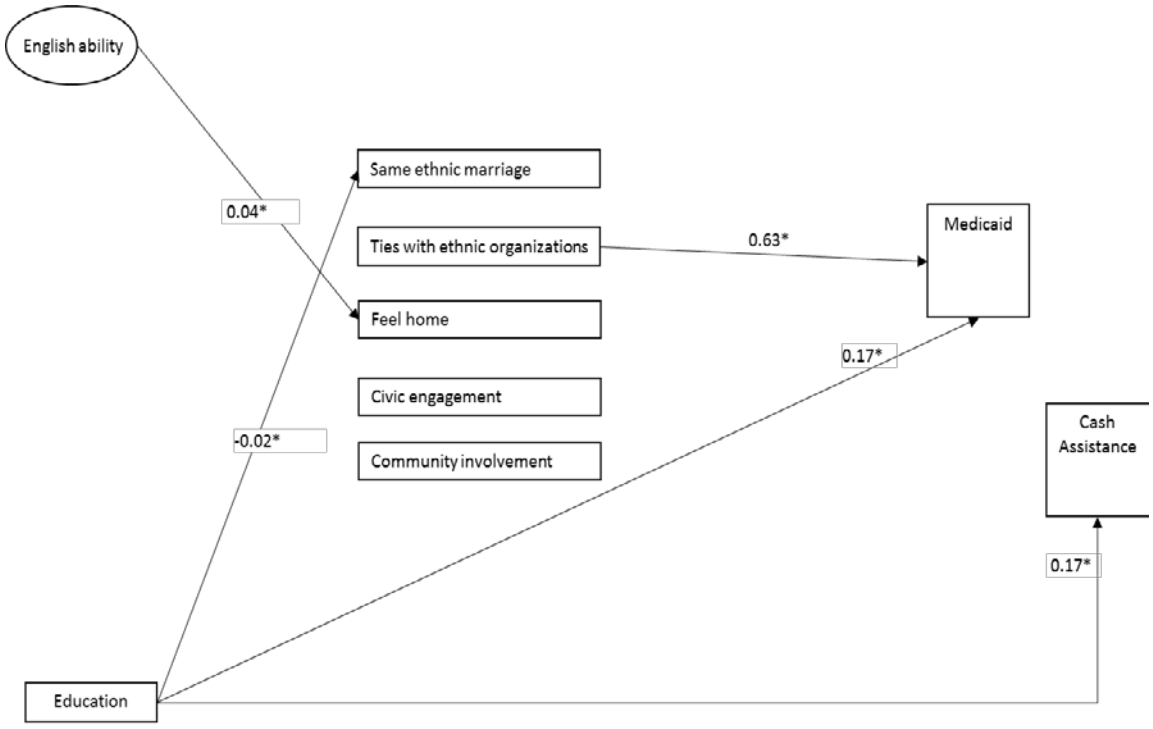

Figure 20. SEM Path Model of Immigrants' Welfare Utilization for 2nd generation (N=800)

Note: Coefficients represent unstandardized linear regression coefficients, except coefficients pointing to Medicaid and Cash assistance which are unstandardized logistic regression coefficients. Only statistically significant coefficients (* p < .05) are presented. Bold arrows indicate significant indirect paths (p < .05). Control variables are not presented here (for full results, see Appendix E.3)

5.0 DISCUSSION OF FINDINGS

5.1 REVIEW OF MAIN FINDINGS

Utilizing data from the Immigration and Intergenerational Mobility in Metropolitan Los Angeles Survey (IIMMLA) on 3,440 young immigrants, this study conducted secondary data analyses to examine the interplay among immigrants' human capital, social capital, and economic integration. In particular, this study investigated how immigrants' human capital, including English abilities and educational levels, affects four dimensions of economic integration (i.e., household income, employment, occupation prestige scores, and welfare utilization), with a focus on the mediating roles of ethnic bonding and bridging to mainstream society social capital. In fact, it has been well-documented that human capital and social capital play an important role in economic integration among individuals. Yet, this study is one of only a few studies to date that have considered both human capital and social capital as a determinant of immigrants' economic outcomes. What is more, this study provides another piece of evidence about the mechanism through which human capital and social capital affect immigrants' economic integration.

As the first study conceptualizing social capital as a mediator of the relationship between human capital and economic integration, this study made five primary contributions to understanding the economic outcomes of young immigrants. First, this study found the negative

effect of English ability on income, when the effect was mediated by ethnic bonding social capital. To be specific, the negative indirect effect was a result of the combination of (1) the negative association between English ability and immigrants' co-ethnic family ties (measured by perceived importance of same ethnic marriage) and (2) the positive association between co-ethnic family ties and household income. The former negative association, which is consistent with H 2.1, corroborates previous studies reaching a somewhat similar conclusion that immigrants with limited English abilities are likely to have friends and spouses with the same ethnic background, or equivalently those who can speak English fluently tend to more diverse network beyond their ethic enclave (Lee, 2014). However, the latter positive association between co-ethnic family ties and household income, along with the positive association of ties with ethnic organizations with household income, does not support the hypothesis 2.2., which was derived from a body of immigrant research indicating that the maintenance of ethnic identity and co-ethnic network entails the loss of opportunities for good jobs and earnings in the host society (Portes, 2000; Reitz & Sklar, 1997). One possible explanation for this unexpected finding is that ethnically concentrated social networks may help immigrants with the acquisition of economic opportunities. For example, some business sectors, especially grocery stores, restaurants, and garment industries, depended on immigrant labor. In addition, their hiring process is often socially embedded (Granovetter, 1983), suggesting that informal exchange of information and/or introduction through co-ethnic family members, friends, and communities play a critical roles in obtaining economic opportunities for immigrants (Kim, 2017), who typically lack necessary skills for employment in the mainstream labor market. In this respect, Amuedo-Dorantes and Mundra (2007), showing the positive effects of familial and friendship ties on hourly wages among (undocumented and legal) Mexican immigrants in the U.S.A., may explain why this study

found the positive association between ethnic bonding social capital and household income, suggesting that co-ethnic immigrant clusters have the potential to produce positive outcomes in terms of immigrant's income through helping them make up for their overall disadvantaged positions in the segmented labor market (Cutler & Glaeser 1997; Waldinger & Lichter, 2003).

In addition, Portes and Bach (1985) pointed out that the positive effect of ethnic bonding and enclave is more likely to be achieved, when an ethnic group or community is large enough to provide sufficient economic resources to ethnic members and be spatially distinguished from main economies. Given that the IIMMLA collected data from Asian and Latino immigrants in Los Angeles metropolitan areas where Asian and Latinos have sizable ethnic communities, Portes and Bach (1985)'s study may also explain why this study found the positive association between ethnic bonding social capital and household income. Taken together, the negative, indirect effect of English ability on income via ethnic bonding capital suggests that immigrants with limited English can (or have no choice but to) rely on their co-ethnic ties, which may in turn help them get ahead economically. On the other hand, immigrants with good English abilities may not need to rely on their co-ethnic ties, but this may decrease their chance to obtain economic benefit from ethnic enterprises.

However, the negative indirect effect of English ability on income via ethnic bonding capital should not be translated into the overall negative effect of English ability, because this study also found, as expected in H3, a positive indirect effect of English ability, when it is mediated by bridging social capital. This finding, which is the second primary contribution of this study, results from the positive association between English ability and emotional ties to the host country (i.e., feel home), which in turn lead to an increase in household income. The positive association between English ability and emotional ties to the host country, along with

the positive association between English ability and community involvement, is in line with the hypothesis (H3.1) that human capital has a positive effect on bridging social capital. Also, the positive association between emotional ties to the host country and household income is consistent with the hypothesis (H3.2) that bridging social capital has a positive effect on economic integration. In sum, this positive indirect effect of English ability suggests that English ability helps immigrants connect with those from diverse and distant backgrounds, and such ties with the host country and natives have the potential to provide valuable income-related information that would lead to immigrants' economic success in the mainstream society but would be limited or even unavailable within co-ethnic network or clusters (Kim, 2017). Further, this positive pathway may offset the aforementioned negative indirect effect of English ability (via ethnic bonding social capital), suggesting that the overall effect of English ability on income would be positive due to the positive direct effect of English ability on income, controlling for social capital mediators and other demographic variables.

Third, this study found that education attainment, another form of human capital, had a positive association with both ethnic bonding (i.e., ties with ethnic organizations) and bridging to mainstream society capital (i.e., civic engagement), although only ethnic bonding social capital served as a significant mediator for household income. This pattern of relationships between education attainment and social capital indicates that the results support H 3.1 (i.e., positive associations between human capital and bridging social capital) with regard to education attainment, but does not support H.2.1 results (i.e., negative associations between human capital and ethnic bonding), suggesting that education attainment and English ability are differently associated with social capital, despite the fact that both are often conceptualized as human capital. Given that there is scant research focusing on the relationship between immigrants'

education levels and ethnic bonding or intra-ethnic ties, it is somewhat unclear why this study found the positive association between education attainment and ties with ethnic organizations.

However, a body of research on social capital for natives has shown that people with better education are more likely to join social networks with those with similar class and religion backgrounds, and they are also more likely to engage in civic and/or political activities, compared less educated people (Gamarnikow & Green, 2001; Power, 2002). If this is the case among immigrants as well, it suggests that highly educated immigrants are more likely to have intra-ethnic ties with those with similar backgrounds, and information shared within the intra-ethnic network or organizations are valuable and provides more economic opportunities. In addition, it also explain why this study found the positive association between education attainment and civic engagement in the mainstream society, although this study found that such association did not result in better income in this study (i.e., no indirect effect of education attainment on income via civic engagement). In sum, education attainment, unlike English ability, has the potential to increase both ethnic bonding and bridging social capital, and it, particularly, increased ethnic bonding capital may function as valuable sources for economic benefits among immigrants.

Fourth, this study found that the aforementioned indirect effects were not tenable for other economic integration outcomes, including employment, occupational prestige scores, and welfare utilization, largely because both ethnic bonding and bridging to mainstream society social capital had no significant association with such labor market-related and policy-related outcome. The finding that bonding social capital has no association with the labor market outcomes is consistent with prior studies that have examined, mainly within the European context. Whether bonding and bridging capital have different labor market implications for

immigrants in that they have often reported no effect of bonding social capital on the labor market outcomes. In their study utilizing a large-scale dataset on immigrants in the Netherlands, for example, Kanas, Chiswick, Lippe, & Tubergen (2009) documented that bonding social capital had no effect on the labor market outcomes, including employment. Similarly, Lancee (2012) found that ethnic friends and family ties were not associated with labor market outcomes among immigrants in Germany. Regarding the effect of bridging social capital, however, they tend to report significant findings, unlike this study. For example, De Vroome and Van Tubergen (2010), in their study on refuges in the Netherlands, showed that regular contact with local natives was associated with both the likelihood of employment and the occupational status of the employment. In his study of immigrants in Germany, Lancee (2012) also found that friendship with native Germans increased employability and the level of occupational prestige. Although it is not clear why this study's finding with regard to the effect of bridging social capital on labor market outcome is different from prior studies, one potential explanation is that, as discussed, previous studies were conducted mainly in the European countries characterized often by a more rigid dual (or segmented) labor market in which there is a sharp contrast between jobs in the primary market (relatively high salaries, status, career mobility and good working conditions) and those in the secondary market (relatively low pay, poor working conditions, little promotion opportunities, and low levels of job security). Given that immigrants, particularly, those who have language barriers and limited education, are often locked in the secondary market, in European countries, inter-ethnic ties (e.g., regular contact with natives, and information from natives) may play a more critical role in helping immigrants get stable employment with better working conditions in the mainstream labor market. Compared to European countries, on the other hand, the labor market in the U.S. tends to be more flexible with a vast segment of working

population that is more mobile, upwards or downwards, within one's own working life (Contini, 2001). In addition, migrants and natives tend to work in jobs that are more similar (Fernández-Macías, Hurley, & Storrie, 2012), which may explain why inter-ethnic ties or employment-related information from inter-ethnic ties are not a significant predictor of labor market outcomes.

The last, but not least, contribution of this study is that this study is distinct from previous studies in that it included welfare utilization among its outcomes. The inclusion of welfare utilization to the subgroup analyses for low-income immigrants means that the current study likely shed light on the roles of human and social capital in the receipt of public assistance that is a last resort for self-sufficiency among the most economically vulnerable immigrant population. In particular, although this study did not found significant indirect effects of human capital on welfare utilization via social capital, this study detected the independent effects of human capital and social capital on welfare utilization, which would provide another piece of evidence regarding the roles that human and social capital play in the economic integration of low-income immigrants. As a matter of fact, since the 1990s, there has been a controversial view that immigrants are more likely than natives to rely on public assistance (Borjas, 2011; Camarota, 2012). However, related scholarship for more than two decades have compared immigrants and natives regarding their use of public assistance (Bean et al., 1997; Bean &Stevens, 2003; Borjas, 1999, 2011; Borjas & Hilton, 1996; Fix & Passel, 2002; Tienda & Jensen, 1986), concluding that immigrants admitted via an authorized, non-refugee entry mode are actually less likely than their native counterparts to rely on public assistance (Bean & Stevens, 2003). The finding of this study shows that low-income immigrants with better human capital are more likely to use public assistance, suggesting that immigrants' underutilization of welfare programs would be accounted

for by low-income immigrants' lack of human capital that may make it difficult for them to have access to information about welfare programs or to get assistance in applying for such program due to language barriers (Nichols, 2008). The finding that bridging social capital was associated with lower likelihood of Medicaid use, albeit marginally significant, also implies another barrier, stigma perceived by low-income immigrants who receive public assistance in the host society (Hao & Kawano, 2001). With this discrimination and stigmatization, immigrants often decide not to rely on public assistance, even though they are eligible (Barrett, & McCarthy, 2008; Nichols, 2008). The finding that civic engagement had a negative effect on use of government health insurance may suggest that immigrant who has higher levels of bridging social capital to mainstream societies are more likely to perceive stigma imposed by natives.

5.2 REVIEW OF SECONDARY FINDINGS

Beyond these key findings, there are several findings derived from this study's exploratory analyses regarding generational differences.

This study found differences in economic integration between 1st/1.5th generation and 2nd generation, which would challenge the core idea of assimilation theory. Assimilation theory posits that the succession of generations is one of the major motor of assimilation, suggesting that immigrants, over generations, would increasingly and naturally incorporated into the host society. According to this study's descriptive statistics, however, there is mixed evidence. While English ability was improved across generation, occupational prestige scores for 2nd generation were lower than those for 1st/1.5th generation. Previous studies suggest that this downward assimilation of immigrant is due to the fact that, at the individual level, 1st generation

immigrants tend to be positively self-selected on characteristics, such as ambition, adventurousness, drive, persistence, and entrepreneurship (Gindelsky, 2016). Despite initial poor economic status and limited opportunities, these traits may help 1st generation immigrants achieve successful economic integration in the host country (Chiswick ,1978, 1979), while those positive traits tend to be eroded across generations as a part of acculturation process (Portes & Rumbaut, 2014). At the structural level, the downward assimilation of 2nd generation immigrants can be potentially explained by the vicious circle of poverty, meaning that 2nd generation immigrants are forced into low socio-economic status due to restrictive immigration policies (Portes & Zhou, 1993) just like their parents.

In addition, subgroup SEM models found the differential roles that human and social capital play in economic integration between 1st/1.5th generation and 2nd generation. While English ability and education attainment had a positive effect on household income for both 1st/1.5th generation and 2nd generation, social capital had differential effects on income between generations. For 1st/1.5th generation immigrants, bridging capital had a positive effect on income, while ethnic bonding capital had no effect. In contrast, among 2nd generation immigrants, ethnic boding social had a positive effect on income, whereas bridging capital had no effect. Given the exploratory nature of this analysis, it is only possible to speculate as to the reason why this generational difference was detected. One potential reason is that, for 1st generation immigrants, bridging social capital, as expected, may generate economic benefits, while ethnic bonding capital may produce primarily non-economic benefits in that strong ethnic bonding commonly functions as a source of generating emotional relief and support, which in turn helps them preserve intact families (Portes & Rumbaut, 2001). On the other hand, given their fluent English and a number of opportunities for acculturation, perhaps most 2nd generation

immigrants already possess high levels of bridging social capital, or ties with natives. Thus, 2nd generation immigrants who have strong ties with co-ethnic individuals and/or organizations may have additional opportunities, compared to their counterpart with no strong ethnic ties, to get economic gains from ethnic enclaves. The finding that English ability was positively associated with welfare utilization only 1st/1.5th generation immigrants also suggest that language barriers and resulting lack of information would not be a problem for 2nd generation immigrants.

5.3 LIMITATIONS

While this study enhanced our understanding of the interplay among human capital, social capital, and economic integration among immigrants, there are a few limitations to highlight, which may lend guidance for future research. First and foremost, this study relied on cross-sectional data, and thus, as with all non-experimental studies, caution must be taken in making a causal interpretation of the findings. In the field of immigrant research where experimental designs have rarely been utilized due to practical and ethical issues, non-experimental designs, such as survey research, have been typically used, with statistical controls to estimate unbiased causal relationships. However, it is well-known that cross-sectional data that earlier studies often used (e.g., Chiswick, 1978) were not able to effectively ensure a high level of internal validity, even though many control variables were included. In particular, immigrant research has documented that the effects of human/social capital on economic integration are confounded with cohort effects (differences among cohorts of immigrants entering the United States at different periods), individual changes (each immigrant's change over time), and generational changes (differences between immigrants and their offspring) (McCarthy et al, 1997). In

response to such confounding factors, this study included cohort as a control and conducted subgroup analyses by generation as well. In addition, to reduce other potential selection bias and omitted variable bias, this study attempted to include other control variables. With these extensive controls, however, it is noteworthy that the possibility remains that immigrants differ in other ways that cannot be controlled for in the data and that may bias the results.

A related issue is that this study conducted mediation analyses to test for a chain of causal relationships of human capital, social capital, and economic integration. However, it is also possible that immigrants with better economic integration outcomes (e.g., higher incomes) may be able to have better networks with co-ethnic individuals and natives. It is also plausible that bridging social capital, such as inter-ethnic ties with native may lead to better human capital, such as English ability. This issue of reverse causality cannot be dealt with by cross-sectional data. Longitudinal or panel data with multiple waves are necessary to establish the complex causal relationship among human capital, social capital, and economic integration. Moreover, given that longitudinal data may provide the potential to use fixed-effects regressions that can control for omitted variable bias or selection bias (Allison, 2005; Abramitzky et al, 2014), the issue of internal validity could be addressed more effectively, with a data set with longitudinal information.

Another limitation inherent with secondary data analyses is that the IIMMLA does not include detailed information about human and social capital to examine the full spectrum of the effects of human and social capital on immigrants' economic integration. For example, previous studies on immigrants' human capital often distinguished foreign and host-country education for U.S. immigrant education because education obtained in the country of origin are not easily transferable and equally valued in the host country (Friedberg, 2000), pointing out the

differential rate of return to education in terms of immigrants' economic outcomes (Bratsberg & Ragan, 2002). This suggests that it is important to include immigrants' U.S. and foreign schooling, separately, into analytic models, in order to capture the potentially different effects of U.S. and foreign schooling on economic outcomes. In the IIMMLA, however, respondents were asked about the highest level of education, and thus it is not clear whether the highest level of education was attained in the country of origin or the U.S., particularly among 1st/1.5th generation immigrants, some of whom are likely to have received both U.S. and foreign schooling.

In addition, items for social capital mediators might have some measurement errors. Based on a conceptual distinction between bonding and bridging social capital (Putnam, 2000, 2009), this study used two IIMMLA variables (i.e., same ethnic marriage and ties with ethnic organizations) as items for ethnic bonding social capital, while three IIMMLA variables (i.e., feel home, civic engagement, and community involvement) as items for bridging to mainstream society social capital. This approach, particularly to measuring immigrants' participation in organizational activities (i.e., ties with ethnic organizations, civic engagement, and community involvement), was based on the assumption that their involvement in informal organizational activities can be seen as either bridging or bonding social capital, depending on the characteristics of the organizations. Therefore, immigrants' participation in ethnic organizations were classified as a form of ethnic bonding capital, while their participation in community organization in the host society that influence the U.S. government and/or policies and participation in other informal organizations such as work-related organizations and sports teams were viewed as a form of bridging social capital reflecting civic engagement and community involvement in the host society, respectively. However, it is possible that while participating in

the ethnic organizations, immigrants build ties with natives that cut across ethnic boundaries (e.g., interaction or friendship with natives). Similarly, it is probable that community organizations influencing the U.S. government and policies may consists of co-ethnic members and deal with ethnic issues, suggesting that it may provide a platform in which immigrants develop co-ethnic ties. In other words, although all of the items reflect some aspects of social capital, the distinction between ethnic bonding social capital and bridging social capital might be blurry. Therefore, the findings related to bonding and bridging social capital must be interpreted with caution.

Another related issue with social capital mediators is that, in the data set, there was a low level of variation for social capital mediators, which may lead to the absence of significant associations between social capital and economic outcomes. Subsequently, the lack of significant associations between types of social capital and economic outcomes caused the SEM models, except models predicting income, to show insignificant indirect effects of human capital on economic integration via social capital mediators. Future studies with a data set with richer information on social capital are warranted.

Finally, it should be noted that Asian and Latino immigrants could be heterogeneous in many aspects, suggesting that the effect of human capital and social capital on immigrants' economic integration would be different depending on immigrants' ethnicity or country of origin. However, this study was intended to investigate the *overall* interplay of human capital and social capital in economic integration among immigrants in the U.S.A. Therefore, this study treated multiple immigrants groups as a single group (i.e., immigrants), including ethnicity as a control in order to control for potential heterogeneity between immigrants groups. It will be

fruitful and informative to examine whether the effect of human capital and social capital on economic integration differs by immigrants' ethnicity. Future studies are warranted.

5.4 IMPLICATIONS FOR POLICY AND PRACTICE

Despite these limitations, this study has several implications for policy and practice. First, the important role that education plays in immigrants' economic integration points to the need to develop more inclusive education systems. Compared to native, immigrants, particularly those from Latin America, tend to have low levels of education attainment and likely work at unskilled low-wage service occupations, with little opportunity for upward mobility (Cranford, 1998; Lopez, Popkin, & Telles, 1996). In recognizing that education is a key to the successful adaptation of immigrant, educators and policy makers have made efforts to develop education systems meeting immigrant's educational needs. In particular, they have paid attention to young immigrants' college education, which plays a vital role in upward mobility in that individuals with bachelor or higher degrees earn higher wages and are less likely to experience unemployment (Schultz, 1961). However, immigrant youth, particularly those from Latin America, often fail to get a university education, although some groups of immigrants (e.g., those from Asia) find the doors to the post-secondary education wide open (Baum & Flores, 2011). In addition, undocumented immigrants have considerably lower postsecondary attainment rates, compared to legal immigrants and natives (Passel & Cohn, 2009) not because they do not want to pursue the post-secondary education, but because of formidable legal and financial barriers faced by undocumented immigrant youth (Abrego, 2006; Baum & Flores, 2011).

In specific, exclusionary policies deny undocumented immigrant youth legal status, causing this vulnerable population to encounter greater structural and economic limitations. For example, both public and private universities classify undocumented youth as international students, charging them a tuition that is three to seven times higher than that of legal residents or U.S. citizens (Kaushal, 2008). In addition, undocumented immigrant students do not qualify for federal financial aid and do not have access to most other non-familial sources of funding for higher education (e.g., bank loans). Resulting from these limited opportunities, limited access to higher education for undocumented immigrant youth has caused a series of negative effects on both undocumented youth and society as a whole. First, it may encourage many undocumented youth to drop out of high school before graduation (Galassi, 2003). Second, the undocumented youth who drop out of high school are likely to be exposed to higher risks of juvenile delinquency (Rumbaut & Ima, 1988). Third, without the opportunity to earn a college degree, they are likely to get a job with low-wages like their illegal parents, thereby increasing the cycle of poverty (Galassi, 2003).

In fact, a number of progressive legislation has been made by state legislatures to help immigrant students overcome financial barriers to post-secondary education (Kobach, 2007; Olivas, 2008). Over the past decade, for instance, many states have implemented policies designed to provide in-state college tuition to out-of-state students who meet certain requirements, including graduation from in-state high schools (Flores, 2010). These efforts, however, do not resolve issues faced by undocumented immigrant students, including legal status, legal employment, or citizenship, nor do such policies help them eligible for the federal student aid (Baum & Flores, 2011). At the national level, a notable policy development is the proposed Development, Relief, and Education for Alien Minors (DREAM) Act, introduced in

2003 by Senators Orrin G. Hatch and Dick Durbin (Zota, 2009). The proposed legislation aims to1) create a path towards legal immigration status and citizenship for high achieving undocumented youth who were brought to the United States as children, and 2) eliminate the section 505 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, which penalizes States that provide in-state tuition regardless of immigration status (Kim, 2013). However, the legislation has failed to become law, with opponents' argument that in-state tuition for undocumented immigrants would be an inefficient use of tax money (Kaushal, 2008). Although, in the current political environment, it is unlikely for the Act to pass Congress in the near future, the finding that immigrants' education attainment leads to better economic outcomes would provide a piece of evidence supporting such legislations that may improve prospects for economic and social mobility for individual immigrants but also generate benefits for society as a whole.

Second, the finding that English ability is an essential ingredient for immigrants' economic success point to the need to enhance existing language education. In fact, English proficiency is a virtual requirement for not just economic integration but also the full participation of immigrants into the U.S. society in that most Americans view fluent English as a key component of national identity. For example, a recent nationally representative survey showed that 94 percent of the U.S. residents believed that "being able to speak English" should be somewhat or very important in determining if someone is a true American (Schildkraut, 2007). However, immigrants in general, those from Latin America in particular have limited English proficiency (Fix et al., 1994). Given that immigrants from Latin America countries constitute the majority of the immigrant population, active approaches to language education are needed, and thus some state and local governments with large segments of immigrant

populations, including California, New York, Florida, Texas, and Illinois have initiated efforts to implement policies regarding language education (Wixom, 2015). Without the support of the federal government, however these local governments have faced chronic underfunding that diminish prospects for successful implementation of the policies. Additional and stable support from the federal government will help place immigrants with limited English ability equal footing with their native counterparts in the labor market, although further research is needed to ensure that the additional supports for the existing programs are used in effective and efficient manners

In terms of social capital, finally, it is important to help immigrants build social bridges to connect with opportunities available in the mainstream society. In fact, there are some programs designed to help immigrant integration. Being provided within the immigrant community, these programs provide a platform in which immigrant build ethnic bonding, but limited opportunities to build ties with natives. In the long run, however, ethnic bonding may restrict further mobility due to limited resources and opportunities within the ethnic community. In other words, while strong social bonding within the immigrant community provides important social and material support, it can also serve to hinder immigrants from taking advantage of economic opportunities beyond the ethnic enclave, suggesting that excessive social bonding may cause isolation and entrapment. These points to the need to make more efforts to develop programs that help link immigrants with natives and organizations in the host society. In addition, given that the prevalence of residential segregation of immigrants which is a barrier to bridging social capital, policy options to enhance residential integration need to be explored. It is common that immigrants settle in places where there is a high concentration of co-ethnic immigrants. However, this residential segregation is likely to cause social exclusion as well.

Finally, political civic engagement needs to be encouraged for immigrants (even without citizenship). In informal political processes, immigrants can protest their right in terms of immigration laws and policy that have disproportionate impacts on their social and economic integration. According to Putnam (2009), by attending these civic engagement actives, individuals' social capital will be promoted. Engagement in civic activities, especially for immigrant, would provide opportunities to earn perceptions of belonging to America, to blend into the mainstream society and to experience collective consciousness of the new country.

5.5 CONCLUSION

This study was motivated by a simple question: why are some immigrants economically well-integrated into the United States? Assimilation theory (Gordon 1964), which is arguably the most well-known and widely-used theory in the field of immigration study, would offer a simple answer to this question that immigrants gradually learn the host language and culture, and thus their economic outcomes will be improved over time and over generations. However, assimilation theory has a limitation in that it cannot account for variation in economic outcomes within immigrants who have spent the same amount of time in the United Stated and/or within the same generation, which led this study to rely on two general theories, human capital theory and social capital theory. This study's findings are essentially in line with a body of immigrant research that has pointed out the importance of human and social capital to immigrants' economic integration. A unique, theoretical contribution of this study lies on the fact that this study considered both human and social capital, and, more specifically, conceptualized two types of social capital as a mediator that link human capital with multiple economic integration

outcomes, including household income, employment, occupational prestige scores, and welfare utilization. This study found that social capital has the potential to mediate the effect of human capital on immigrants' economic integration, especially household income. However, it is noteworthy that this study also found some mediation paths that occurred in unpredicted (opposite) directions, with a number of insignificant mediation paths in models predicting employment, occupation prestige scores, and welfare utilization. Further research is warranted to shed more light on this complicated interplay among human capital, social capital, and immigrants' integration outcomes.

APPENDIX A. CORRELATION

Bivariate Correlation between study variables (N=3,440)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.English speaking ability																	
2.English understanding ability	.869**																
3.English accent	.429**	.375**															
4.Education level	.211**	.234**	.121**														
5.Income	.215**	.231**	.134**	.396**													
6.Employment	.047**	.076**	.019	.106**	.211**												
7.Prestige Scores	.133**	.145**	.067**	.477**	.365**	.174**											
8.Gov health insurance	.112**	.118**	.079**	.159**	.264**	.108**	.134**										
9.Cash assistance	.043	.063*	-.006	.072**	.180**	.124**	.039	.393**									
10.Same ethnicity marriage	-.081**	-.079**	-.109**	-.004	.007	-.018	.009	-.029	-.022								
11.Ties with ehtnic organization	.045**	.052**	.021	.109**	.097**	.015	.033	.045	-.023	.052**							
12.Feel home	.072**	.076**	.079**	.077**	.079**	.012	.046**	.014	-.002	-.083**	-.006						
13.Civi engagement	.028	.029	.039*	.066**	.044*	-.004	.042*	-.025	.019	.012	.173**	-.020					
14.Community involvement	.035*	.030	-.012	.031	.021	.018	.008	.000	.009	-.016	.027	.017	-.025				
15.Age	.014	.024	-.075**	.168**	.239**	.181**	.269**	.083**	-.031	.026	-.005	.044**	.010	-.005			
16.Gender	-.036*	-.018	-.044*	-.046**	.072**	.113**	-.014	.055*	.037	.008	-.021	-.017	-.002	.039*	-.002		
17.U.S. Citizen	.130**	.123**	.131**	.256**	.212**	.026	.146**	.078**	-.044	-.009	.053**	.082**	.019	.040*	.083**	-.023	
18.Generational Cohort	.132**	.115**	.200**	-.026	.029	.016	-.060**	.032	-.058*	-.062**	.037*	.051**	.010	.055**	-.148**	-.012	.413**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX B. SEM INCOME MODEL

B.1 SEM RESULTS (DV: INCOME; N=3,440)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Income		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.961																		
Understanding	.985 ***	.025	.905																		
Accent	.277 ***	.011	.443																		
Independent Variables																					
English				-.045 ***	.012	-.079	.012	.007	.024	.021 **	.008	.068	.112	.079	.017	.196 *	.100	.026	.391 ***	.049	.146
Education				.003	.006	.012	.022 ***	.005	.090	.004	.003	.029	.188 ***	.050	.058	.091	.063	.025	.370 ***	.024	.283
Mediators																					
Same Ethnic Marriage																			.168 *	.073	.036
Ties with Ethnic Org.																			.233 **	.084	.043
Feel Home																			.279 *	.141	.032
Civic Engagement																			.004	.006	.009
Community Involvement																			.001	.006	.002
Controls																					
Family Size				-.015 *	.006	-.042	.007	.005	.023	-.004	.004	-.021	-.058	.056	-.014	.026	.076	.006	.342 ***	.051	.204
Gender (ref: Female)				.006	.013	.008	-.012	.011	-.018	-.005	.007	-.011	.019	.151	.002	.394 *	.168	.040	.286 ***	.056	.080
Asian (ref: Latino)				.013	.015	.017	.031 *	.015	.047	.010	.008	.025	.166	.188	.019	.206	.213	.021	.215 **	.069	.060
Other (ref: Latino)				.009	.024	.007	.028	.023	.025	-.005	.013	-.008	.171	.223	.011	.087	.238	.005	.242 *	.112	.040
Citizenship				.066 *	.028	.058	.014	.024	.014	.011	.017	.019	-.066	.343	-.005	.379	.306	.026	.163	.110	.031
Length of Citizenship				-.004 **	.001	-.077	-.001	.002	-.024	.002 **	.001	.060	-.003	.029	-.006	-.026	.024	-.042	.040 ***	.007	.175
Generation (ref: 1.5)				-.054 **	.016	-.070	.024 †	.014	.037	.016 *	.008	.040	.118	.205	.013	.441 *	.221	.045	.027	.067	.008
R2				.017			.017			.020			.005			.008			.274		
Fit Indices	AIC	117061.753																			
	BIC	117872.659																			
	Chi-Square	354.005, df=38, p<.001																			
	RMSEA	0.049																			
	CFI	0.954																			
	SRMR	0.023																			

† p < .1, * p < .05, ** p < .01, *** p <.001

B.2 SEM RESULTS FOR 1ST/1.5TH GENERATION (DV: INCOME; N=1,622)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Income		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.964																		
Understanding	.973 ***	.034	.903																		
Accent	.306 ***	.014	.493																		
Independent Variables																					
English				-.050 **	.016	-.092	.010	.008	.024	.014	.010	.046	.126	.084	.024	.155	.098	.033	.338 ***	.065	.139
Education				.016 †	.009	.057	.027 ***	.006	.126	.003	.005	.018	.257 **	.076	.093	.048	.057	.020	.420 ***	.035	.327
Mediators																					
Same Ethnic Marriage																			.190 †	.100	.042
Ties with Ethnic Org.																			.057	.133	.010
Feel Home																			.517 **	.184	.064
Civic Engagement																			-.007	.010	-.016
Community Involvement																			-.002	.012	-.005
Controls																					
Family Size				-.018 *	.009	-.051	.011	.007	.039	-.011 †	.006	-.056	-.008	.051	-.002	.125	.110	.040	.256 ***	.065	.157
Gender (ref: Female)				.011	.020	.014	.003	.015	.006	.007	.011	.015	-.083	.188	-.011	.123	.177	.018	.306 ***	.079	.084
Asian (ref: Latino)				.021	.025	.026	.018	.020	.028	.001	.016	.003	.069	.206	.009	-.326 †	.167	-.046	.114	.096	.031
Other (ref: Latino)				.043	.047	.025	.080 †	.043	.062	.015	.022	.015	.188	.302	.011	-.068	.312	-.005	.010	.198	.001
Citizenship				.050	.030	.055	.009	.020	.014	.013	.019	.025	-.141	.216	-.016	.517 *	.226	.067	.148	.112	.037
Length of Citizenship				-.004 **	.001	-.085	-.001	.001	-.019	.002 **	.001	.077	-.001	.011	-.003	-.014	.013	-.036	.039 ***	.006	.187
R2				.017			.026			.020			.010			.007			.312		
Fit Indices	AIC	58191.925																			
	BIC	58817.330																			
	Chi-Square	163.135, df=36, P<.001																			
	RMSEA	0.047																			
	CFI	0.962																			
	SRMR	0.023																			

† p < .1, * p < .05, ** p < .01, *** p <.001

B.3 SEM RESULTS FOR 2ND GENERATION (DV: INCOME; N=1818)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Income		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.953																		
Understanding	1.009 ***	.042	.906																		
Accent	.205 ***	.018	.331																		
Independent Variables																					
English				-.043 *	.018	-.067	.013	.013	.021	.029 *	.012	.092	.067	.122	.008	.178	.177	.017	.497 ***	.070	.162
Education				-.010	.007	-.036	.016 *	.006	.060	.006 †	.004	.047	.130 *	.064	.035	.117	.096	.026	.363 ***	.030	.273
Mediators																					
Same Ethnic Marriage																			.087	.106	.018
Ties with Ethnic Org.																			.346 **	.104	.070
Feel Home																			-.020	.210	-.002
Civic Engagement																			.009 †	.006	.026
Community Involvement																			.001	.008	.003
Controls																					
Family Size				-.012	.009	-.033	.003	.008	.010	.003	.004	.018	-.114	.099	-.024	-.058	.107	-.010	.436 ***	.042	.253
Gender (ref: Female)				.000	.017	.000	-.025	.017	-.035	-.015 †	.008	-.042	.110	.242	.011	.654 *	.269	.055	.246 **	.077	.070
Asian (ref: Latino)				.001	.019	.002	.041 *	.021	.057	.020 *	.008	.054	.233	.265	.023	.549	.339	.045	.342 ***	.090	.095
Other (ref: Latino)				-.020	.027	-.019	.002	.024	.002	-.006	.015	-.011	.148	.249	.010	.023	.296	.001	.547 ***	.118	.106
R2				.008			.012			.021			.003			.007			.228		
Fit Indices	AIC	52958.328																			
	BIC	53437.306																			
	Chi-Square	154.278, df=32, P<.001																			
	RMSEA	0.046																			
	CFI	0.963																			
	SRMR	0.025																			

† p < .1, * p < .05, ** p < .01, *** p <.001

APPENDIX C. SEM EMPLOYMENT MODEL

C.1 SEM RESULTS (DV: EMPLOYMENT; N=3440)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Employment		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.888																		
Understanding	1.171 ***	.016	.921																		
Accent	.319 ***	.013	.441																		
Independent Variables																					
English				-.054 ***	.013	-.081	.015	.011	.026	.026 **	.007	.073	.158	.152	.020	.219	.170	.026	.113	.075	.035
Education				.004	.006	.013	.022 ***	.005	.090	.003	.003	.023	.191 **	.066	.059	.094	.073	.026	.235 ***	.033	.170
Mediators																					
Same Ethnic Marriage																			-.037	.100	-.008
Ties with Ethnic Org.																			.082	.122	.014
Feel Home																			-.004	.190	.000
Civic Engagement																			-.005	.008	-.011
Community Involvement																			.006	.009	.015
Controls																					
Family Size				-.016 *	.006	-.045	.006	.005	.021	-.004	.003	-.019	-.060	.073	-.014	.017	.081	.004	.131 **	.040	.074
Gender (ref: Female)				.006	.013	.008	-.012	.011	-.018	-.005	.007	-.011	.018	.152	.002	.388 *	.169	.039	.555 ***	.078	.147
Asian (ref: Latino)				.014	.016	.018	.032 *	.014	.048	.010	.008	.024	.176	.184	.020	.204	.203	.021	-.697 ***	.095	-.184
Other (ref: Latino)				.009	.024	.007	.029	.021	.026	-.006	.013	-.010	.200	.285	.013	.090	.316	.005	-.165	.150	-.026
Citizenship				.064 *	.026	.057	.019	.023	.020	.008	.014	.014	.019	.330	.001	.438	.360	.030	-.201	.151	-.036
Length of Citizenship				-.004 **	.001	-.076	-.002	.001	-.037	.002 **	.001	.072	-.012	.021	-.022	-.031	.022	-.050	.029 **	.009	.119
Generation (ref: 1.5)				-.057 **	.017	-.074	.021	.014	.031	.019 *	.009	.046	.076	.196	.009	.391 †	.216	.040	.016	.101	.004
R2				.018			.017			.022			.006			.008			.077		
Fit Indices	AIC	110172.22																			
	BIC	110976.983																			

† p < .1, * p < .05, ** p < .01, *** p <.001

C.2 SEM RESULTS FOR 1ST/1.5TH GENERATION (DV: EMPLOYMENT; N=1622)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Employment		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.921																		
Understanding	1.070 ***	.021	.922																		
Accent	.327 ***	.016	.490																		
Independent Variables																					
English				-.054 **	.017	-.093	.010	.012	.022	.020 *	.010	.062	.141	.153	.025	.163	.140	.033	.039	.090	.014
Education				.018 *	.009	.063	.027 ***	.007	.124	.002	.005	.011	.255 **	.085	.092	.047	.075	.019	.269 ***	.050	.197
Mediators																					
Same Ethnic Marriage																			-.228 †	.138	-.048
Ties with Ethnic Org.																			.084	.199	.013
Feel Home																			-.090	.252	-.010
Civic Engagement																			-.003	.014	-.005
Community Involvement																			.043	.029	.078
Controls																					
Family Size				-.018 †	.009	-.050	.010	.007	.038	-.012 *	.005	-.059	-.008	.088	-.002	.120	.078	.039	.158 **	.058	.091
Gender (ref: Female)				.011	.020	.013	.004	.015	.006	.007	.011	.014	-.085	.193	-.011	.123	.172	.018	.725 ***	.113	.188
Asian (ref: Latino)				.019	.025	.023	.018	.019	.029	.002	.014	.004	.066	.244	.008	-.325	.218	-.046	-.940 ***	.150	-.238
Other (ref: Latino)				.042	.046	.024	.080 *	.034	.062	.014	.026	.014	.184	.441	.011	-.069	.393	-.005	-.639 *	.261	-.078
Citizenship				.048	.029	.053	.010	.022	.015	.013	.016	.027	-.136	.280	-.016	.518 *	.249	.067	-.163	.161	-.038
Length of Citizenship				-.004 *	.002	-.082	-.001	.001	-.020	.002 *	.001	.074	-.002	.014	-.004	-.015	.013	-.037	.031 ***	.009	.141
R2				.017			.026			.022			.010			.007			.114		
Fit Indices	AIC	65239.396																			
	BIC	65870.192																			

† p < .1, * p < .05, ** p < .01, *** p <.001

C.3 SEM RESULTS FOR 2ND GENERATION (DV: EMPLOYMENT; N=1818)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Employment		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.815																		
Understanding	1.341 ***	.030	.912																		
Accent	.260 ***	.020	.322																		
Independent Variables																					
English				-.056 *	.022	-.067	.014	.021	.018	.039 **	.011	.095	.101	.300	.009	.160	.362	.012	.265 *	.132	.062
Education				-.100	.007	-.034	.016 *	.007	.060	.006 †	.004	.045	.127	.096	.035	.122	.117	.027	.230 ***	.044	.163
Mediators																					
Same Ethnic Marriage																			.158	.147	.031
Ties with Ethnic Org.																			.027	.153	.005
Feel Home																			.117	.290	.011
Civic Engagement																			-.005	.010	-.014
Community Involvement																			-.002	.009	-.006
Controls																					
Family Size				-.011	.009	-.031	.003	.008	.009	.004	.004	.021	-.112	.114	-.023	-.060	.139	-.010	.081	.054	.044
Gender (ref: Female)				.000	.017	.000	-.025	.017	-.035	-.015 †	.008	-.042	.108	.230	.011	.656 *	.279	.055	.404 ***	.106	.109
Asian (ref: Latino)				.001	.020	.002	.041 *	.019	.057	.020 *	.010	.054	.231	.264	.023	.549 †	.319	.045	-.495 ***	.122	-.130
Other (ref: Latino)				-.019	.027	-.018	.002	.026	.002	-.006	.013	-.011	.145	.364	.010	.025	.441	.001	.142	.176	.026
R2				.008			.011			.022			.003			.007			.052		
Fit Indices	AIC	49622.918																			
	BIC	50096.39																			

† p < .1, * p < .05, ** p < .01, *** p <.001

APPENDIX D. SEM OCCUPATION PRESTIGE SCORE MODEL

D.1 SEM RESULTS (DV: PRESTIGE SCORES; N=2,395)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Prestige Scores		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.976																		
Understanding	.947 ***	.029	.903																		
Accent	.274 ***	.013	.440																		
Independent Variables																					
English				-.036 *	.015	-.063	.008	.009	.015	.026 **	.010	.086	.053	.080	.009	.136	.119	.019	.901 *	.408	.044
Education				.008	.007	.029	.020 **	.006	.079	.001	.004	.004	.219 ***	.062	.075	.054	.084	.015	4.365 ***	.206	.431
Mediators																					
Same Ethnic Marriage																			.662	.634	.018
Ties with Ethnic Org.																			-.263	.807	-.006
Feel Home																			.374	1.243	.005
Civic Engagement																			.066	.071	.019
Community Involvement																			.003	.042	.001
Controls																					
Family Size				-.017 *	.008	-.045	.006	.007	.017	-.005	.005	-.024	-.129 †	.075	-.032	.034	.113	.007	-.996 ***	.248	-.071
Gender (ref: Female)				.023	.015	.030	-.008	.014	-.011	-.002	.008	-.005	.060	.168	.008	.349 †	.195	.036	-.037	.478	-.001
Asian (ref: Latino)				.020	.019	.026	.032 †	.019	.048	.017 †	.010	.042	.017	.175	.002	.276	.246	.029	1.360 *	.598	.050
Other (ref: Latino)				-.008	.027	-.007	.006	.025	.005	-.009	.015	-.014	.212	.256	.016	.189	.288	.012	1.447	.890	.032
Citizenship				.061 †	.034	.054	.004	.027	.004	.013	.021	.022	.080	.292	.007	.347	.383	.024	.797	.976	.019
Length of Citizenship				-.003 †	.002	-.068	.000	.002	.002	.001 *	.001	.050	-.008	.020	-.017	-.018	.026	-.029	.164 **	.058	.095
Generation (ref: 1.5)				-.035 †	.019	-.046	.026	.018	.038	.017 †	.010	.043	.022	.230	.003	.359	.285	.037	-2.202 ***	.594	-.080
R2				.013			.014			.021			.007			.005			.280		
Fit Indices	AIC	90267.799																			
	BIC	91030.909																			
	Chi-Square	206.857, df=38, p<.001																			
	RMSEA	0.043																			
	CFI	0.967																			
	SRMR	0.021																			

† p < .1, * p < .05, ** p < .01, *** p <.001

D.2 SEM RESULTS FOR 1ST/1.5TH GENERATION (DV: PRESTIGE SCORES; N=1,117)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Prestige Scores		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.987																		
Understanding	.933 ***	.037	.901																		
Accent	.307 ***	.016	.504																		
Independent Variables																					
English				-.042 *	.020	-.080	.011	.010	.026	.012	.012	.039	.114	.082	.022	.104	.135	.020	1.060 *	.521	.058
Education				.018 †	.010	.066	.028 **	.008	.127	-.001	.006	-.004	.304 **	.091	.109	.014	.080	.005	4.545 ***	.298	.466
Mediators																					
Same Ethnic Marriage																			.831	.886	.024
Ties with Ethnic Org.																			-.343	1.344	-.008
Feel Home																			1.055	1.547	.017
Civic Engagement																			.052	.141	.015
Community Involvement																			-.174 *	.102	-.050
Controls																					
Family Size				-.017	.012	-.043	.013 †	.008	.042	-.014 †	.008	-.063	.002	.071	.001	.212	.165	.053	-.449	.348	-.032
Gender (ref: Female)				.045 †	.024	.056	-.004	.020	-.007	.007	.013	.015	-.088	.247	-.011	.092	.237	.011	.403	.687	.014
Asian (ref: Latino)				.010	.029	.012	.013	.025	.020	.021	.019	.045	-.027	.194	-.003	-.289	.225	-.036	1.806 *	.835	.064
Other (ref: Latino)				.006	.052	.004	.076	.055	.057	.028	.025	.029	.011	.288	.001	.194	.436	.011	.830	1.625	.014
Citizenship				.057	.036	.064	-.002	.026	-.003	.014	.022	.027	-.017	.200	-.002	.606 †	.312	.068	.569	1.008	.018
Length of Citizenship				-.003 †	.002	-.075	.000	.002	.012	.002 *	.001	.061	-.009	.014	-.021	-.016	.017	-.035	.154 **	.054	.098
R2				.017			.027			.020			.012			.007			.337		
Fit Indices	AIC	44784.806																			
	BIC	45366.941																			
	Chi-Square	136.968, df=36, p<.001																			
	RMSEA	0.050																			
	CFI	0.961																			
	SRMR	0.026																			

† p < .1, * p < .05, ** p < .01, *** p <.001

D.3 SEM RESULTS FOR 2ND GENERATION (DV: PRESTIGE SCORES; N=1,278)

		English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Prestige Scores		
		Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking		1.000	.000	.962																		
Understanding		.965 ***	.055	.901																		
Accent		.196 ***	.024	.311																		
Independent Variables																						
English					-.027	.022	-.041	-.003	.018	-.004	.043 **	.017	.139	-.074	.147	-.010	.143	.208	.015	.912	.643	.038
Education					-.003	.009	-.012	.012	.008	.045	.003	.004	.022	.137 †	.083	.045	.087	.131	.021	4.254 ***	.284	.407
Mediators																						
Same Ethnic Marriage																				.236	.917	.006
Ties with Ethnic Org.																				-.131	.978	-.003
Feel Home																				.268	2.141	.003
Civic Engagement																				.064	.101	.019
Community Involvement																				.083 †	.057	.034
Controls																						
Family Size					-.015	.011	-.039	-.002	.011	-.004	.002	.005	.011	-.252 *	.123	-.062	-.097	.149	-.017	-1.643 ***	.343	-.118
Gender (ref: Female)					.002	.020	.003	-.010	.020	-.014	-.010	.010	-.029	.173	.234	.022	.589 *	.293	.054	-.492	.680	-.018
Asian (ref: Latino)					.021	.024	.027	.050 *	.025	.068	.016 †	.010	.044	.026	.252	.003	.676 †	.374	.060	1.221	.811	.044
Other (ref: Latino)					-.023	.031	-.022	-.018	.026	-.018	-.018	.019	-.037	.243	.334	.022	.123	.331	.008	2.168 *	1.014	.057
R2					.004			.010			.028			.007			.008			.219		
Fit Indices	AIC	41713.715																				
	BIC	42162.030																				
	Chi-Square	73.618, df=32, p<.001																				
	RMSEA	0.032																				
	CFI	0.982																				
	SRMR	0.019																				

† p < .1, * p < .05, ** p < .01, *** p <.001

APPENDIX E. SEM WELFARE UTILZATION MODEL

E.1 SEM RESULTS (DV: WELFARE; N=1,568)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Gov't Health Insurance			Cash Assistance		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.920																					
Understanding	1.095 ***	.022	.941																					
Accent	.272 ***	.016	.426																					
Independent Variables																								
English				-.040 *	.016	-.073	.019 †	.011	.049	.034 **	.010	.106	.098	.105	.026	.356	.224	.045	.202 *	.089	.075	.199 †	.104	.075
Education				-.010	.008	-.035	.010 †	.006	.050	.004	.005	.027	.099 †	.055	.052	.182	.116	.046	.155 **	.045	.114	.173 **	.055	.130
Mediators																								
Same Ethnic Marriage																			-.145	.144	-.029	-.126	.170	-.026
Ties with Ethnic Org.																			.268	.218	.039	-.228	.231	-.034
Feel Home																			-.119	.242	-.014	-.200	.302	-.025
Civic Engagement																			-.040 †	.022	-.055	.021	.031	.029
Community Involvement																			-.010	.010	-.028	.000	.012	-.001
Controls																								
Family Size				-.012	.009	-.034	-.004	.007	-.014	-.010 †	.005	-.048	-.042	.063	-.017	.090	.131	.018	-.160 **	.054	-.091	-.089	.059	-.052
Gender (ref: Female)				.033 †	.020	.044	-.016	.014	-.029	-.006	.012	-.014	-.017	.134	-.003	.482 †	.283	.043	.341 **	.112	.090	.240	.134	.065
Asian (ref: Latino)				.019	.024	.024	.025	.017	.044	.009	.014	.018	.166	.162	.031	.308	.344	.027	.108	.136	.028	-.404	.163	-.106
Other (ref: Latino)				.033	.037	.024	.071 **	.027	.073	-.003	.022	-.003	.009	.251	.001	.152	.542	.008	.312	.224	.047	-.548	.241	-.083
Citizenship				.078 *	.035	.081	-.010	.026	-.014	.006	.021	.010	-.081	.233	-.012	.306	.548	.022	-.106	.210	-.022	-.304	.263	-.066
Length of Citizenship				-.002	.002	-.048	.001	.002	.015	.001	.001	.034	-.008	.013	-.023	-.027	.040	-.037	.036 *	.017	.143	.009	.019	.035
Generation (ref: 1.5)				-.071 *	.032	-.093	.016	.024	.029	.031 †	.018	.068	-.042	.204	-.008	.130	.503	.012	.356 †	.204	.094	-.219	.234	-.059
R2				.017			.017			.026			.006			.010			.079			.044		
Fit Indices	AIC	51153.268																						
	BIC	51935.471																						

† p < .1, * p < .05, ** p < .01, *** p <.001

E.2 SEM RESULTS FOR 1ST/1.5TH GENERATION (DV: WELFARE; N=768)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Gov't Health Insurance			Cash Assistance		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.922																					
Understanding	1.094 ***	.033	.929																					
Accent	.282 ***	.024	.441																					
Independent Variables																								
English				-.046 *	.022	-.088	.014	.014	.042	.029 †	.016	.083	.156	.163	.038	.312	.242	.053	.316 **	.121	.126	.317 *	.146	.127
Education				.005	.012	.016	.016 *	.008	.091	.005	.008	.027	.164 †	.093	.075	.092	.133	.030	.145 *	.065	.109	.178 *	.085	.134
Mediators																								
Same Ethnic Marriage																			-.115	.199	-.024	-.320	.243	-.067
Ties with Ethnic Org.																			-.125	.310	-.017	-.515	.349	-.070
Feel Home																			.161	.297	.022	-.246	.395	-.034
Civic Engagement																			-.041	.029	-.068	.016	.037	.026
Community Involvement																			-.007	.017	-.015	-.026	.020	-.060
Controls																								
Family Size				-.022 †	.012	-.066	.000	.008	.001	-.016 †	.008	-.073	-.020	.094	-.008	.245 †	.133	.067	-.160 *	.070	-.101	-.127	.078	-.081
Gender (ref: Female)				.029	.029	.036	.014	.018	.027	.008	.019	.016	.068	.226	.011	-.044	.321	-.005	.312 *	.158	.082	.387 †	.203	.102
Asian (ref: Latino)				.019	.035	.023	.024	.022	.047	-.001	.023	-.002	.270	.270	.043	-.199	.383	-.023	-.150	.187	-.039	-.752 **	.247	-.198
Other (ref: Latino)				.003	.064	.002	.098 *	.040	.093	.020	.041	.019	.148	.492	.012	-.064	.698	-.003	.565	.387	.072	-.169	.474	-.022
Citizenship				.060	.039	.074	-.010	.025	-.019	.004	.025	.007	-.131	.301	-.021	.495	.428	.055	.032	.211	.008	.037	.273	.010
Length of Citizenship				-.002	.002	-.044	.000	.002	.004	.002	.002	.048	-.014	.019	-.036	-.018	.027	-.032	.030 *	.015	.122	-.013	.016	-.051
R2				.018			.025			.021			.011			.010			.091			.084		
Fit Indices	AIC	27190.207																						
	BIC	27789.256																						

† p < .1, * p < .05, ** p < .01, *** p <.001

E.3 SEM RESULTS FOR 2ND GENERATION (DV: WELFARE; N=800)

	English			Same Ethnic Marriage			Ties with Ethnic Org.			Feel Home			Civic Engagement			Community Involvement			Gov't Health Insurance			Cash Assistance		
	Loading	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B	b	SE	B
Speaking	1.000	.000	.888																					
Understanding	1.194 ***	.037	.942																					
Accent	.251 ***	.025	.370																					
Independent Variables																								
English				-.040	.025	-.063	.033 †	.020	.067	.044 **	.014	.135	-.001	.138	.000	.421	.428	.038	.123	.147	.038	.102	.166	.032
Education				-.023 *	.011	-.084	.002	.008	.010	.003	.006	.018	.035	.061	.023	.270	.187	.057	.171 **	.063	.122	.171 *	.073	.125
Mediators																								
Same Ethnic Marriage																			-.169	.209	-.033	.011	.240	.002
Ties with Ethnic Org.																			.633 †	.323	.098	-.025	.312	-.004
Feel Home																			-.697	.452	-.071	-.196	.478	-.020
Civic Engagement																			-.031	.038	-.034	.032	.049	.036
Community Involvement																			-.014	.011	-.046	.022	.024	.077
Controls																								
Family Size				.003	.014	.008	-.009	.011	-.030	.001	.007	.005	-.070	.081	-.032	-.179	.246	-.026	-.143 †	.084	-.071	-.014	.096	-.007
Gender (ref: Female)				.030	.026	.041	-.045 *	.021	-.077	-.023 †	.014	-.061	-.099	.150	-.024	1.039 *	.462	.080	.401 *	.161	.105	.117	.182	.031
Asian (ref: Latino)				.015	.032	.018	.031	.025	.048	.021	.016	.051	.075	.179	.017	.690	.552	.049	.508 **	.194	.122	-.051	.222	-.012
Other (ref: Latino)				.039	.043	.033	.059 †	.034	.063	-.010	.022	-.017	-.085	.242	-.013	.060	.747	.003	.369	.261	.062	-.569 *	.267	-.097
R2				.016			.020			.028			.003			.016			.077			.035		
Fit Indices	AIC	21335.226																						
	BIC	21794.318																						

† p < .1, * p < .05, ** p < .01, *** p <.001

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