Wage Assimilation of Immigrants:

A Comparison of "New" and "Old" Asian Source Countries

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Abstract

The U.S. Immigration Act of 1965 increased inflows from previously under-represented countries, mainly from Asia and Latin America. Using data from multiple U.S. Censuses, this paper studies the wage-assimilation profiles of a group of immigrants from "new" Asian countries arriving to the U.S. after 1965, and compares their profiles to those of immigrants from "old" Asian countries also arriving in the same period. The wage-gap versus natives widens for all cohorts from new Asian countries after the second decade of stay. Cohorts from old Asian countries, who have a longer history of representation in the U.S., follow the well-documented narrowing albeit concave wage-gap profiles. The differences in slopes between new and old Asian cohorts are considered in the light of comparatively larger increases in new-Asian inflows, the formation of regional occupation niches among new Asian groups and their growing segregation vis-à-vis white workers after 1965. A conceptual framework examines the case if occupations are imperfect substitutes, and natives and immigrants are worse substitutes than entrant and established immigrants within occupations - the wages of the established immigrants may fall in response to a large inflow of entrants.

Keywords: wage assimilation profiles, Asian labor inflows, occupation niches

1. Introduction

Immigration, in recent years, has become a contentious political, economic and social topic in the U.S. The foreign-born population has surged after the enactment of the Immigration Act of 1965. This act abolished the national-origin quotas that had been in place in the United States since 1924.[1] As of 2015, one out of every six labor force participants in the U.S. is an immigrant, as opposed to one in every 20 in 1960.[2]

The 1965 Act was also instrumental in changing the ethnic composition of immigrants in the U.S. since the 20th century. Immigrants in the early 1900s originated from southern and eastern Europe. After 1965, more immigrants from developing countries, especially from Asia and Latin America, entered the U.S. The skill compositions of recent immigrants diverge from native skills. The changes in the foreign-born population have sparked a debate over entry-level gaps between natives and immigrants, the degree of labor market assimilation of immigrants and factors affecting the rate of assimilation (Borjas, 2015, 1995; Lalonde and Topel, 1992, 1997).

Several studies focus on the importance of accounting for ethnic and origin-country differences while studying immigrant assimilation (Vigdor 2011; Borjas 1987). Hatton and Leigh (2011) show that immigrants assimilate as communities, not just as individuals. The longer a specific immigrant community has been established in a host country, the easier the adjustment process for new cohorts of this group. This paper focuses on the labor market outcomes of immigrants from "new" Asian countries (India, Korea and Vietnam) who were under-represented in the U.S. until 1965 and examines a connection between their increasing labor supply and own wages. Immigrants from new Asian countries contrasted with those from old Asian countries - the Chinese and the Filipinos, who have had a longer history of stay in the U.S. since the early 20th century.

Various Asian source countries share similar observational and cultural characteristics, for example an emphasis on education as a path to economic success (Cheng and Starks 2002). Additionally, the Asian countries studied in this paper are among the top 10 immigrant-sending countries to the U.S. as of 2010 (Center for Immigration Studies 2012). However, the countries differ in their rates of increase of population in the U.S., and the timing of this increase – and these differences can spell heterogeneity in labor market outcomes. Using data from 1960-2000 U.S. Censuses and the American Community Survey (hereafter ACS) 2007, wage-gap profiles, vis-à-vis white natives, of cohorts from new Asia are compared to those of old Asians. Recent cohorts from all Asian countries have a larger entry-level wage-gap and lower rate of wage-gap convergence as they age. Declining labor market performance for recent immigrants is documented in the literature (Borjas 1994, 1995). The interesting and *unique* feature of new Asians is that wage-gap profiles are hump-shaped for all cohorts; the gap versus natives does not improve and in some cases widens after

their second decade of stay. For other immigrant groups, wage-gaps improve throughout their working life. The paper documents the differences in curvature of wage profiles between cohorts of new and old Asian immigrants.

The rationale behind studying this group of "new" Asian countries extends beyond the uniqueness of their wage-gap profiles. I can track the "deterioration" in quality, if any, from the pioneer to most recent cohorts. On average, Asian immigrants are "observationally" advantaged compared to other ethnic groups and natives, in terms of human capital. However, skill composition and occupational preferences have changed across cohorts from new Asia. The "pioneer" cohorts from new Asia, which arrived after the 1965 Act, had higher human capital and were employed in high-skill-high-wage occupations. Educational attainment of new Asians fell from 1970 to 1990, and there is an associated fall in high-skill workers. The differences in curvature of wage-gap profiles between new Asians and other groups persist even after observable characteristics are controlled. Changes in immigrant selection can extend to unobservable traits which can potentially explain the worse labor market outcomes of recent cohorts from new Asia, but selection cannot explain the rise in wage-gap after the second decade for all cohorts, including the pioneer.

Next, the paper considers the wage assimilation profile differences between new and old Asia in the light of an "immigrant clustering" phenomenon. It is known that country-specific enclaves and occupation niches persist across cohorts (Patel and Vella 2013). If occupations are imperfect substitutes, a large inflow of entrant immigrants must be absorbed by the occupation. Previous research has investigated the effects of a large inflow of foreign-born labor across different native and immigrant skill and experience groups (Borjas 2003, Card 2009, Ottaviano and Peri 2012). The nested Constant-Elasticity-of-Substitution (CES) production function provides a simple conceptual framework to investigate this idea. If natives and immigrants within the occupations are worse substitutes than established and entrant immigrants from the same country, an inflow will disproportionately affect immigrants compared to natives. Both established and entrant immigrants will be negatively impacted, though the degree will depend on the substitutability of these groups. This paper modifies the nested CES framework used by previous authors to discuss the wage assimilation trends.

The framework suggests that for entrant inflows to affect wages of new and old Asians differentially, the rate of increase in shares of the groups and their position in the labor force across time must differ. The share of new Asians in the immigrant labor force increased ten-fold, while that of old Asians doubled from 1965 to 2000.[3] Furthermore, the paper also documents the differing nature of geographic and occupational concentration between new and old Asian sources. The nature of segregation vis-à-vis white workers also follows different patterns. The Census Bureau projects by

2050 the Asian population will triple, maybe even quadruple – the economic choices of future cohorts and the effect on wages of existing Asian immigrants, is important in the context of immigrant labor market assimilation.

2. Related Research

This paper is related to two segments of the immigration literature - the study of cohort wage profiles and the correlation between wage assimilation and increasing immigrant inflows. The study of immigrant labor market outcomes has documented the changes in intercepts and slopes of wage profiles across immigrant cohorts extensively. The fall in entry-level wages for recent cohorts is attributed to the changing composition of the foreign-born labor force away from high-skill developed countries and towards low-skill developing nations. There is disagreement about the rate of assimilation, with some economists claiming that immigrants successfully learn U.S.-centric skills to bridge the wage-gap (Lalonde and Topel 1991) while others claim recent cohorts are of lower quality and always earn less (Borjas 2015).

The study of assimilation profiles is done in either a cross-sectional framework, or using quasi-cohorts or synthetic panels, or with longitudinal data. Different methodologies often yield divergent results about the slope of the assimilation profiles. Cross-sectional estimates rely on the assumption that unobserved traits of immigrants are stable across cohorts. Synthetic cohort methods that follow the same cohort over repeated cross-sections allow this assumption to be relaxed (Borjas, 1985; 1999). The method assumes that the characteristics of a cohort are stable throughout their lifetime in the host country. If less successful immigrants return home, assimilation profiles of immigrants created from longitudinal earning histories of immigrants are flatter than those estimated by cross-sectional data or synthetic cohorts (Lubotsky 2007; Beenstock et.al. 2010). This paper uses a synthetic cohort method, given the availability of multiple U.S. Census cross-sections. Implications for wage assimilation, relating to return migration, are discussed.

Asians are considered to be “successes” in the U.S. labor market. While entry level wages fell for more recent Asian cohorts, they achieved parity over their working life (Schoeni et. al. 1996; Zeng 2004).[4] Asian Americans have the lowest rates of poverty, highest rates of college graduation, highest median household and personal income (Pew Research Center 2013). However, Schoeni et. al. (1996) point that there are obvious differences in skill composition of immigrants from different Asian countries. Studies that group Asian immigrants together tend to overlook important differences in wage trends across countries.

Among the many factors affecting immigrant wage assimilation, the impact of rising immigrant labor supply on immigrants themselves has received less attention. Studies of this nature mostly focus on native outcomes, at an aggregate and disaggregate level. Borjas (1987) and Lalonde and Topel (1991) are notable exceptions who use the 1980 Census and show that a 10% increase in immigrant labor supply decreases the wages of substitutes, especially other recent immigrants, by 9-10%.

Given the differences in age and skill distributions within natives and immigrants, it would be incorrect to treat immigrants as a homogeneous group (Card, 2009). Education and experience groups are now treated as imperfect substitutes, as well as native and foreign-born workers within these skill classes. A nested Constant-Elasticity-of-Substitution (CES) production function provides a simple framework to study the relationship between demand for a particular kind of labor and relative supplies of other kinds of complement and substitute labor and their productivities (Ottaviano and Peri, 2012; Card, 2009; Borjas 2003). In the presence of imperfect substitutability across sectors, labor inflows is absorbed by particular sectors and affects the sector's relative wage. Furthermore, if natives and immigrants are less substitutable compared to entrant and established immigrants within a sector, a large inflow of entrant immigrant would affect immigrants more than natives. In section 5 of this paper, the traditional Constant-Elasticity-of-Substitution production function is modified to include an additional nest between established and entrant immigrants in an occupation. Imperfect substitutability among immigrants may arise from differences in proficiency in English, familiarity with local labor market and social institutions, and other unobservable skills, that are functions of the duration of stay. Hence previous research posits that differential sizes of labor supplies across ethnic groups, along with heterogeneous popularity of sectors among groups, can affect wages of ethnic groups differently. The paper also provides evidence of different degrees of immigrant clustering in regional occupations among new and old Asian groups.

Unlike papers in the "impact of immigration" literature cited above, the goal is not to estimate the degree of substitutability between different labor groups and calculate the loss in wages from a rise in inflows. The model acts as a conceptual tool to understand the relationship between changing labor supplies and wage trends.

3. History of Asian Immigration to the USA

3.1 The New Asian countries

The Immigration and Naturalization Act of 1965 attempted to end discriminatory immigration policies by changing the way quotas were allocated via the National Origins Formula instituted in 1921. Preference categories for admissions were created based on family ties, critical skills, diversity,

and refugee status. Immigrants from many developing Asian countries, which previously had sparse representation in the U.S., began to enter in large numbers. Beside the relaxation in U.S. immigration policy, domestic political and social changes in many Asian countries permitted immigration to the U.S.

Indians rarely immigrated to the U.S. before 1947, when India gained independence from British rule. In the early 20th century, a few thousand Indians worked in California, primarily in the lumber industry and railroads. Many discriminatory laws banning Asians from seeking citizenship and restricting the movement of workers from the "Pacific Barred Zone" virtually ended Indian immigration from the 1920s to the 1940s.[5] The first big wave of Indian immigrants was seen after 1965. These immigrants had high human capital and worked as doctors and engineers. Indian immigration has since continued unabated. The Information Technology boom in the late 1990s doubled the Indian population in the U.S. between 1990-2000. Indian Americans were the fourth largest immigrant group in the U.S. in 2000.[6]

The Japanese annexation of Korea in 1910 halted Korean immigration to the U.S. Furthermore, the Immigration Act of 1924 excluded cheap Korean agrarian labor from the U.S. Japan's defeat in World War II ended their occupation of Korea. In the aftermath, South Korea saw years of political insecurity under military dictatorship. After the Korean war of 1953, students and white-collar professionals entered the U.S. in small numbers. Larger waves of Koreans arrive after 1965, in search of better job opportunities. These waves, like the Indians, were highly-skilled. The 1980s and 1990s saw increased Korean entrepreneurship among immigrants who had moved to the U.S. in search of economic freedom. Koreans in 2000 accounted for 2.5% of the immigrant population and constitute the 10th largest immigrant group of the U.S.

Prior to 1975, there were few Vietnamese immigrants in the U.S., mostly spouses or children of American military personnel. Vietnamese refugees arrive in large numbers after the end of the Vietnam War in 1975, and this wave was mainly U.S.-sponsored evacuation of Saigon. The Indochina Migration and Refugee Assistance Act 1975 gave Vietnamese war refugees special status and Congress granted them relocation aid. The next wave of refugees entered the U.S. in the late 1970s and were less-skilled than the previous group. Unlike the first waves Korean and Indian immigrants, Vietnamese immigrants were less skilled. Recent cohorts from Vietnam are not refugees, rather economic migrants. As of 2000, Vietnamese Americans are the 5th largest group of immigrants, accounting for 3.4% of the foreign-born population.

3.2 The Old Asian countries

Chinese and Filipino immigrants have a longer history of stay in U.S. The Chinese immigrated to the U.S. in the early 19th century. They worked as farm labor and railroad workers. Exclusionary laws in the late 19th and early 20th century dampened Chinese immigration but the 1943 Magnuson Act repealed these laws and again permitted the entry of Chinese immigrants to the U.S. The 1965 act also boosted Chinese immigration in large numbers. The Filipino population grew in the 1900s, after the Philippines became a U.S. territory in 1898. The U.S. army employed Filipino immigrants. Since the 1960s, similarities in quality and structure of the nursing curriculum in the Philippines and the U.S. led to the migration of Filipino nurses to fill the shortfall in the U.S. As of 2000, the Chinese and the Filipinos are the second and third largest immigrant communities in the U.S., surpassed only by Mexicans.[7]

The changing shares of different groups in the foreign-born labor force of the U.S. from 1960 to the present is well-documented - the share of Asians and Latin Americans has increased, and that of Europeans has declined (Pew Research Center, 2015)**. Figure 1** further delves into the changing shares of new and old Asian groups from 1960 to 2007, and illustrates the differences in magnitude and timing of growth of these two groups.[8] In 1960, new Asian groups occupied merely 0.2% of the immigrant labor force; Old Asians were 3.5%. The proportion of new Asian sources increased nine-fold after the enactment of the 1965 Immigration Act (between the 1970 Census and ACS 2007), with the bulk of this increase taking place in the 1980s and 1990s. The share of old Asian countries doubled, reaching its peak in the 1980s and then stabilizing. The shares of other continents over the same time period are also presented for comparison in figure 1. **Figures 2(a)** and **2(b)** compare the duration composition of immigrants from new and old Asia between 1970 and 2007.[9] In 1970 and 1980, over 80% of immigrants from new Asia had immigrated within the last ten years, whereas 45% of immigrants from old Asia entered within the last ten years. By 2000, the duration compositions look similar for both groups – one-third of immigrants arrived in the last decade, and another third have lived in the U.S for over two decades.

4. Labor Market Trends 1970-2000

4.1 Wage-gap profiles of Asian cohorts vis-à-vis natives

The primary aim of this paper is to document the wage-gap profiles vis-a-vis natives for immigrants from new Asia and compare their outcomes to those of old Asian countries, and also show the changes across cohorts. This is done using data from U.S. Censuses 1960-2000 and ACS 2007[10], particularly the Integrated Public Use Microsamples (IPUMS, Ruggles et.al. 2010). This data is particularly suited for immigration assimilation studies due to the large sample of immigrants, information on their birthplace and duration of stay in the U.S. Each immigrant cohort is identified at

three points of stay in the U.S. - entry level 0-5 years, 10-15 years and 21+ years. This matches the 10-year gap between Censuses. Immigrants who arrived at ages below 20 are not included. Since this is a labor market study, the sample is restricted to working-age individuals of 25 to 65 years. Synthetic cohorts are aged appropriately over time, given the year they are observed.[11]

Wage-gap profiles vis-à-vis white natives for the 1970, 1980, 1990 and 2000 cohorts of each new Asian country are shown in **figure 3.1**.[12] These cohorts, as well as the 1960 cohort, from old Asian countries are studied in **figure 3.2.** The decision to include the 1960 cohort for old Asia, but not from new Asia is two-fold: first, prior to the 1965 Immigration law, the proportion of immigrants from new Asia in the labor force was small (see **figure 1**). Second, studying the 1960 cohort from China and the Philippines allows us to disentangle differences within old Asian cohorts, if any, brought about by the law.[13] The wage-gaps for the 1960, 1970, 1980, 1990 and 2000 cohorts of "other" Asian immigrants and non-Asian immigrants are also shown in **figure 3.2**.

Gaps are obtained from wage regressions as shown below:

$$\log w_{i,t} = \alpha_{c,t} + \beta_{c,A,t} I_{i,c,A,t} + \gamma_{c,t} X_{i,c,t} + e_{i,c,t} \quad [14] \qquad (1)$$

$\log w_{i,t}$ is the hourly log wage of an individual *i* in time *t*. It is calculated by summing the annual wage and salary income, and farm and business income, and then dividing it by total hours typically worked in the year. Total hours are the product of hours worked per week and weeks worked in the year. $I_{i,c,A,t}$ is a binary variable which equals 1 if an individual *i* is an immigrant belonging to Asian country *A*, of cohort *c*, in time period *t*. $I_{i,c,A,t}$ equals 0 if the individual is a white native.

The coefficient $\beta_{c,A,t}$ = average wage-gap between white natives and immigrants of country *A*, cohort *c* in year *t*. To clarify, separate regressions are run for each ethnic group/country of origin and for each cohort and the immigrants are compared to labor-force participant white natives in a certain year. Note that for any year *t*, a particular cohort *c* will be in a different duration of stay from another cohort *c'*, but for all cohorts in year *t* the comparison group of white natives is the same. The gaps are computed conditional on the vector of controls $X_{i,c,t}$. The model design imposes the assumption that returns to observable characteristics are similar for natives and the immigrant group and cohort. Returns can differ across cohort and immigrant group. $X_{i,c,t}$ includes standard Mincerian controls – education and a cubic in experience[15], as well as sex, marital status, family size, Census region and state of residence in the U.S.

The graphs in **3.1** and **3.2** show the controlled wage-gap profiles for new Asians and old Asians respectively. The 95% confidence interval estimates are also included. The pioneer cohort from India

and Korea arrives in the U.S. after the 1965 Immigration Act. This is the 1970 cohort. The pioneer cohort from Vietnam is the 1980 cohort, arriving after the Vietnam War. For all new Asian countries, the entry level wage-gap widened and rates of assimilation fell for recent cohorts compared to the pioneer. The 2000 cohort has a wage advantage compared to its predecessors – this is a result of favorable immigration policy in the 1990s that encouraged high-skill immigration. These features are also exhibited by the 2000 old Asian and non-Asian cohorts.

The *unique* feature of each wage-gap profile of immigrants from new Asia is the lack of convergence or rise in the wage-gap between the second and third decade of stay. The point estimates are mostly different from zero.[16][17] In fact, the wage-gap becomes more negative in the third decade for the 1980 and 1990 cohorts[18]– hence the shape is not indicative of assimilation towards a zero-wage-gap. Immigrants from old Asian countries and non-Asian immigrants bridge the wage-gap throughout their working life, though the profiles are concave. The difference in curvature of wage-profiles between the cohorts from new and old Asian countries is confirmed at a 5% level of significance using a Wald test. [19]

The graphs in **3.2** also include the 1960 cohorts from China and the Philippines, which arrived before the 1965 law was enacted. The improvement of wage-gaps for immigrants from old Asian countries is true across cohorts, irrespective of their time of arrival to the U.S. Figure 3.2 also includes "other" Asians. The composition of the other "Asian" ethnicity in the U.S. has changed before and after 1965. The 1960, 1970 and 1980 cohorts enjoyed continuous wage growth vis-à-vis natives, when the main "other" Asian group was from Japan, a country that had a long history of representation in the U.S. Since the late 1980s, Middle Eastern and Islamic immigration have increased (Center for Immigration Studies, 2002) and Japanese migrants have been returning home. The 1990 and 2000 cohorts exhibit the shape of the wage-gap profile of the "new" Asian immigrants.

Table 1 compares the observable characteristics of different immigrant groups and natives, using the 1990 census. Immigrants are not distinguished by duration of stay in the U.S. It is clear that Asian countries are dissimilar, a concern raised by previous authors (Schoeni, McCarthy and Vernez, 1992). Indians have the highest average levels of education, and enjoy a large representation in high-skill-high-wage occupations. Vietnamese immigrants are the least educated and earn lower wages compared to other groups. Koreans can be considered to be in the "middle", and the most comparable to white natives in terms of observable skill. The fact that the wage-gap profiles for these three countries follow a similar shape, despite the differences in characteristics, is even more puzzling.

Wage inequality between groups is explained less by observable characteristics and more by residual wage dispersion among workers with the same skills (Lemieux 2008). In light of this fact, we

see if the curvature differences in assimilation profiles persist in residuals. Residuals are obtained from a pooled wage equation (2) for the entire labor force for each census year.

$$\log w_{i,t} = \alpha_t + \gamma_t X_{i,t} + e_{i,t} \qquad (2)$$

Following Card (2009), controls in (2) include years of education, a dummy for an advanced degree, a cubic in experience, interactions between 5-year experience bins and four levels of education (high-school dropout, high-school graduate, some college and college graduate), sex, marital status, family size, number of children, a dummy for a small metro, a dummy for a small occupation,[20] a dummy for a full-time worker, a dummy for being in school, dummies for native ethnicities and their interactions with school category dummies. Census region and state controls are also included.

Residuals from equation (2) are regressed on origin and cohort-specific dummies to obtain the immigrant-native gap. The curvature differences persist in residual wage-gaps as well (**Figure 4**).

The shape of the wage-gap profiles is robust to occupation-specific differences. If immigrants from new Asia work in occupations where the experience profile is more concave than the experience profiles of occupations chosen by natives or immigrants from old Asia, then each new Asian cohort will exhibit a hump-shaped wage-gap profile versus natives, irrespective of changes in cohort size. Adding a quadratic term in occupation and experience interactions does not change the shape of the residual wage-gap profiles.[21] On the other hand, the experience profiles of immigrants from new Asia can hypothetically be more concave than natives in the same occupations if experience is a proxy for learning English or acclimatizing to U.S. culture and returns fade after certain years of stay in the U.S. This explanation is not likely given the differences in English proficiency within the new Asian countries. For example, Indian immigrants are more likely to know English at a level similar to Filipinos, rather than other new Asians.[22] Yet, the Indian wage profile resembles other new Asian profiles and not that of Filipinos.

Immigration literature has discussed the falling quality of recent cohorts. **Table 2** shows the changes in observable characteristics of immigrants from new and old Asia across cohorts. For comparison, the changes in characteristics of white natives and all immigrants are also presented. Both natives and immigrants increased their average years of education, and natives have more education than immigrants. As expected, entrants are younger and less educated than established immigrants. Cohort quality from new Asia deteriorates from 1970 to 1990, which is not the case for old Asia. While quality decline may explain a worse entry level gap and lower assimilation rates compared for recent cohorts from new Asia to the pioneer cohorts, it cannot explain the fall in wages between the second and third decade of stay for previous cohorts which, in some sense, were “better”.

Education is a good indicator of skill. There is evidence that immigrant workers sort into occupations and firms on the basis of skill (Kremer and Maskin 1996). Given the differences in education among Asian groups, and compared to natives, it is natural to expect ethnic differences in occupations. **Table 3** shows the occupational distribution for natives, all immigrants, entrant and established immigrants from old and new Asian countries for 1970-2000.[23] Occupations that need at least a college degree - managerial, professional and technical occupations - are defined as high-skill. Sales, crafts and administration are middle-skill, and most workers have finished high school. Service workers, operators and transport workers are low-skill and often have little formal schooling. Immigrants from new Asia moved away from high-skill occupations and towards low-skill occupations from 1970 to 1990. The 2000 cohort from all Asian countries is more educated and likely to work in high-skill occupations owing to the preferential immigration policy towards skilled labor in the 1990s. For all years, the bulk of natives work in middle-skill occupations, whereas immigrants work in high or low skill. This matches the education distribution of natives and immigrants.

An obvious concern with multiple cross-sectional analyses of quasi-cohorts is that it cannot deal with return-migration. Borjas and Bratsberg (1996) discuss that "poor performers" in the U.S. labor market are likely to return to their home country. If stayers are a selected group of high-skilled people with high wages, then cross-sectional wage assimilation profiles have an upward bias, compared to longitudinal earning histories of immigrants (Lubotsky, 2007).[24] Stayer selection can differ across cohorts.[25] If return migration explains the rising wage-gap of new Asians after the second decade, it implies that *"better"* immigrants are returning home, and stayers in the U.S. are negatively selected. Given the lack of longitudinal work histories, we track changes in observable characteristics of cohorts from new and old Asia as they continue to age and work in the U.S. (Appendix table A1).

There is some concern that returnees of the pioneer 1970 cohort from new Asia, are educated workers in the high-skill occupation sector. For all other cohorts, average education and representation in high-skill occupations increased or stayed stable across their stay in the U.S. This indicates that return migrants are not selected from the higher end of the skill distribution. Data from the Immigration and Naturalization Services shows that out-migration is common among source-countries that are rich and developed or that are geographically close.[26] Asian emigration (except Japanese) is less common than European or Latin American return migration. Also emigration is more likely in the first decade of stay.[27] All these pieces of evidence together imply that return migration cannot account for the shape of wage-gap profiles of cohorts from new Asia.

4.2 Location and Occupation choice of Asian immigrants

Given the inability of selection or return migration to produce the wage patterns seen in the previous, the paper now turns to other explanations. Persistence of country-specific preferred metropolitan areas and occupations in combination with large inflows of entrant immigrants are likely to impact the wages of competing Asian immigrants. Competition is less likely if entrants choose different occupations or locations from their predecessors or are spread over many occupations. This section documents the residential and occupation choices of new Asians to motivate this argument.

Authors have studied the prevalence and persistence of geographic ethnic enclaves; for example, Arab immigrants in Detroit (Abraham and Shyrock, 2000), Chinese immigrants in San Francisco (Wang, 2010) and Korean immigrants in Los Angeles (Light, 2006). Patel and Vella (2013) extended this idea to occupational concentration in local labor markets.

Figure 5 presents the spatial clustering of new Asians. We choose Korea to illustrate this point.[28] The horizontal axis shows the proportion of all Koreans, as a fraction of all immigrants in the year 1980 living in metropolitan *m*. The vertical axis shows the fraction of Koreans among all new entrants in the U.S. from 1990 to 2000 and in metropolitan *m*. We see that the metropolitan areas popularized by Koreans in 1980 continue to be the preferred locations for Korean entrants in 2000. The line fit of the scatter-plot has a R-squared of 0.35.

Figure 6 presents the occupation clustering phenomenon in metropolitan level labor markets for new Asians. Once again, we choose Korea as an example. The success of Korean enterprises in narrow geographic markets is attributed to efficient utilization of ethnic resources (Kim and Hurh, 1984; Light, 2006). The horizontal axis shows the proportion of established Koreans in occupation *o* and metropolitan *m*, as a fraction of all established Korean immigrants in the year 2000 living in metropolitan *m*. The vertical axis shows the fraction of Koreans arriving in the U.S. from 1990 to 2000 and living in metropolitan *m*, who work in occupation *o*. Only the top 150 metropolitan areas for Koreans are chosen, and for each, the three most preferred occupations are considered. The figure shows that new entrants in 1990-2000 continue to congregate overwhelmingly in the popular occupations of established immigrants. The line fit of the scatter-plot has a R-squared of 0.32.[29] Together, figures 5 and 6 point towards greater competition within occupations, at a regional level, for entrant and established immigrants from new Asian countries like Korea.

Table 4 further illustrates the point of occupation specialization at a disaggregated regional level and documents the changes in most preferred metropolitan and three-digit occupation of established and entrant immigrants from a new Asian source - Korea and an old Asian source - China for 1970-2000. The fraction of the relevant group in the occupation or metropolitan is shown in parentheses. Koreans, irrespective of duration of stay, live in the same metropolitan (Los Angeles) in larger percentages. The Chinese spread out to newer preferred locations. The other difference is seen in

terms of choice of occupation - Koreans in 1970 worked in high-skill occupations, but move to sales jobs in increasing numbers in latter decades. Chinese immigrants used to work as cooks but established Chinese immigrants are less likely to continue working in this low-skill occupation. This simple example suggests competition within Koreans increases between 1970 and 2000, which is not necessarily the case for Chinese. The trends seen for Korean immigrants also apply to other new Asian countries.[30][31]

In addition to the prevalence of country-specific preferred occupations, workplace concentration is common. Immigrants are more likely to have immigrant co-workers over native co-workers. Andersson et.al. (2014) attribute the perpetuation of coworker segregation among Japanese, Chinese, Korean and Vietnamese immigrants to their limited English language abilities. **Figure 7** shows co-worker segregation between natives and Asian immigrants across occupations, as a difference between isolation and exposure of white workers to immigrant workers. Isolation shows the probability a white native will work with another white native in occupation o; whereas exposure measures the probability that the white native will work with an entering immigrant from foreign-country c in the same occupation.[32] The index is created from the point-of-view of white natives since their proportions in regional markets are large enough for meaningful comparison. Following Hellerstein and Neumark (2008) and Hellerstein, McInerney and Neurmark (2010) the indices are corrected for random segregation, since bigger metropolitan areas or occupations will attract more workers.[33] Entrants from new Asian countries in 1970 were less segregated vis-à-vis white workers, compared to old Asians. New Asian entrant co-worker segregation rises for each successive year, whereas that of old Asians becomes lower. New Asians and white natives are increasingly likely to work in different occupations, which is not true for entrants from old Asia and native workers.

The evidence in this section points towards increasing country-specific occupation specialization at a metropolitan labor market level for new Asian countries. Old Asians disperse across occupations over their stay in the U.S. and are likely to have native co-workers. Conditions under which the labor supplies patterns lead to the documented wage assimilation profiles are explored in a conceptual framework in the next section.

5. Conceptual Framework

The effect of rising supply of immigrants on substitute and complement labor is studied through relative demand functions. If capital is elastically supplied at a fixed interest rate,[34] then a nested CES production function is well-suited to estimating demand for various kinds of labor and predicting the response to relative supplies and productivities of other groups (Borjas 2003, Card 2009).

Output Y in an economy is produced by labor in three broad occupation categories: high (H), middle (M) and low (L). Within each occupation category natives and immigrants are considered imperfect substitutes. Further, entrant immigrants and established immigrants are also imperfect substitutes within the occupation category. The rationale behind using occupation categories rather than education or experience categories, as is popular in the literature, is two-fold. Evidence on the persistence of country-specific preferred occupations has been documented. Secondly, the education and experience obtained in a foreign country that an immigrant "brings" to the host country are often not comparable to similar levels of attainment of natives. Entrants are seen to downgrade and accept jobs below their skill level (Dustmann, Frattini and Preston 2012). Substitutability between natives and immigrants is likely to be higher within an occupation rather than an education/experience cell.

Output can change across time, the subscript t is suppressed for convenience. No is the total labor supply in occupation category o and $o = H, M, L$.

$$Y = f(N_H, N_M, N_L) = [\theta_H N^{\rho}{}_H + \theta_M N^{\rho}{}_M + \theta_L N^{\rho}{}_L]^{1/\rho} \qquad (3)$$

where $\rho = \frac{\sigma - 1}{\sigma}$ and σ = elasticity of substitution across two occupations. The inverse elasticity of substitution $\frac{1}{\sigma} = 1 - \rho$. θ_os are occupation-specific productivity weights which can vary over time.

The inverse demand function for occupation o:

$$w_o = \frac{\partial Y}{\partial N_o} = \theta_o N_o^{\rho - 1} Y^{1-\rho} \qquad (4)$$

The expression for relative log wages, given a pair of occupations o and j, shows that balanced immigration with flexible capital would leave this relative wage ratio unaffected (provided productivity weights do not change over time):

$$\log\left(\frac{w_o}{w_j}\right) = \log\left(\frac{\theta_o}{\theta_j}\right) - \frac{1}{\sigma}\log\left(\frac{N_o}{N_j}\right) \qquad (5)$$

Equation (5) assumes that immigrants and natives in an occupation are perfect substitutes. Differences in knowledge of English or U.S. markets and consumer preferences introduce imperfect substitutability. [35]Legality of residence or visa status can also lead to differential access to jobs within occupations. Natives (X) and immigrants (I) are combined in occupation o by the elasticity of substitution σ_{oXI}. Then for each occupation category o:

$$N_o = \left[\alpha_{X_o} X_o^{\gamma_o} + \alpha_{I_o} I_o^{\gamma_o}\right]^{1/\gamma_o} \qquad (6)$$

where $\gamma_o = \frac{\sigma_{oXI} - 1}{\sigma_{oXI}}$

$X_o = \text{native labor force in occupation } o$ and $I_o = \text{immigrant labor force in occupation } o$

α s are productivity weights for native and immigrants, and can vary by occupation and year.

The relative native-immigrant wage differential in occupation *o* is:

$$\log\left(\frac{w_{X_o}}{w_{I_o}}\right) = \log\left(\frac{\alpha_{X_o}}{\alpha_{I_o}}\right) - \frac{1}{\sigma_{oXI}}\log\left(\frac{X_o}{I_o}\right) \tag{8}$$

Equation (8) assumes established (*S*) and entrant (*E*) immigrants are perfect substitutes. Immigrants with different durations of stay can differ in their unobservable U.S. labor market experience and assimilation, especially if learning occurs over the working-life of an immigrant. Recent cohorts might also differ in ability. Also, as a country builds their occupational niches in the host country, entrants from the home country who join may not be well suited to the job. Conversely, a large network lowers information and search costs and new cohorts may be well-suited to the occupations, in which case the substitutability between entrants and established is high.[36] Allowing σ_{Fo} to be the elasticity of substitution between entrant and established foreign-born workers in occupation *o*, the model adds another nest to the production function. Immigrant labor force as defined below in equation (9) is then substituted in equation (8) to derive the correct relative native-immigrant wage-gap in occupation *o*. The immigrant labor supply in occupation *o* is:

$$I_o = \left[\beta_{E_o} E_o^{\eta_o} + \beta_{S_o} S_o^{\eta_o}\right]^{1/\eta_o}$$

where $\eta_o = \frac{\sigma_{F_o} - 1}{\sigma_{F_o}}$

$S_o = \text{established immigrants in occupation } o$ $E_o = \text{entrant immigrants in occupation } o$

βs are productivity weights for entrant and established immigrants that can vary by occupation.

The wage of an established immigrant in occupation *o* is:

$$\log w_{S_o} = \log(\theta_o \alpha_{I_o} \beta_{S_o}) + \frac{1}{\sigma}\log Y - \left(\frac{1}{\sigma} - \frac{1}{\sigma_{oXI}}\right)\log N_o - \left(\frac{1}{\sigma_{oXI}} - \frac{1}{\sigma_{F_o}}\right)\log I_o - \frac{1}{\sigma_{F_o}}\log S_o$$

$$= \log\theta_o + \log\alpha_{I_o} + \log\beta_{S_o} - \frac{1}{\sigma}\log\left(\frac{N_o}{Y}\right) - \frac{1}{\sigma_{oXI}}\log\left(\frac{I_o}{N_o}\right) - \frac{1}{\sigma_{F_o}}\log\left(\frac{S_o}{I_o}\right) \tag{10}$$

From equation (10), when $\left(\frac{1}{\sigma} > \frac{1}{\sigma_{oXI}}\right)$ and $\left(\frac{1}{\sigma_{oXI}} > \frac{1}{\sigma_{F_o}}\right)$, wages of immigrants decrease. In other words, a large inflow of entrants could depress wages of the established immigrants, leading to

the hump-shape of cohort wage profiles if this chain of inequality holds - occupations are imperfect substitutes compared to native and immigrant workers within an occupation, and natives and immigrants should be less substitutable compared to substitutability between entrant and established immigrants. The maximum decrease will occur in the limiting case of perfect substitution among immigrants $\frac{1}{\sigma_{F_o}} \approx 0$. An increase in entrants E_o causes N_o and I_o to increase, and depress logw_{So}. The total effect of entrant inflow on the wages of established immigrants is a *combination* of scale and substitution effects.

The framework presented in this paper may offer a plausible explanation of the wage-gap profiles of cohorts from new Asian countries. While we do not calculate the elasticities of substitution between different labor groups in this paper, previous literature on impact of immigration has calculated elasticities of substitution across broad worker classes, as well as within-group elasticities. Ottaviano and Peri (2012) present national estimates of 0.2 - 0.3 for cross-experience elasticities and estimates of 0.4 - 0.5 for cross-education group elasticities. There is a small degree of imperfect substitutability between natives and immigrants; however, when combined with the larger degree of imperfect substitutability across education or experience groups, the impact of immigration on native wages differs by skill level. Card (2009) finds that substitutability between high-school dropouts and high-school graduates is almost perfect. Substitutability is imperfect between college graduates and high-school equivalents (0.25 - 0.4). He concludes the large inflow of high-school dropout immigrants in recent years should not affect native wage inequality since they can get absorbed in the much larger high-school equivalent sector, as opposed to only the dropout sector.

Substitutability is likely to be lower across experience or education groups, compared to workers within these groups. We can extend this argument to occupations, and workers within them. Basu (2013) uses the geographic concentration of country-specific niches to calculation cross-occupation and within-occupation substitutability. Established and entrant immigrants from the same countries are almost perfect substitutes within occupations, while natives and immigrants are imperfect substitutes. Finally, workers in high skill occupations are not substitutable for middle or low skill occupation workers. Combining the documented clustering and segregation trends in this paper with past research on elasticity estimates, it is probable that large inflows from new Asian countries affect own-country workers, rather than natives or other immigrants.

6. Conclusion

This paper contributes to our understanding of the impact of country-specific immigration on existing immigrants. It focuses on a group of immigrants from Asian countries previously under-

represented in the U.S. labor market. Since 1965, immigrants from new Asia have entered the U.S. in large numbers and their share in the overall U.S. labor force has increased 20-fold. Immigrants are typically found to bridge the wage-gap vis-a-vis natives over their working life. However, this paper finds that the wage-gaps for new Asians widen between the second and third decades of stay. Changing cohort quality or return migration has limited role in explaining this curvature. Instead the shape is examined in the light of increased immigrant inflows and country-specific occupation clustering. The much larger surge in their numbers combined with the fact that immigrants are seen to establish country-specific occupational niches in metropolitan labor markets and become more segregated vis-à-vis native workers, suggests that a larger fall in the wages of new Asians compared to other immigrant groups is probable.

Although the conceptual framework in this model tries to explain the hump-shaped wage-gap profiles of immigrants from new Asian countries, it can be generalized to study the impact of immigration on any group that has experienced a large inflow of immigrants after 1965. The building of regional occupational niches is not a unique feature of Asian immigrants. Furthermore, given immigrant and native labor supply data for occupations, the elasticities of substitution can be calculated and wage-gaps between immigrant groups and natives can be recreated. If entrants repeatedly select into occupations of existing immigrants, this can adversely affect the assimilation of the foreign-born population. Thus, the model has implications regarding the granting of visas for future cohorts of immigrants.

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[1] The 1965 Immigration act, also known as the Hart-Cellar Act (1), maintained a cap on the overall number of immigrants entering U.S. Numbers from the Eastern and Western Hemispheres were regulated at 170,000 and 120,000 respectively.

[2] Source: Bureau of Labor Statistics.

[3] As a share of the total labor force, new Asians grew 20 times and old Asians increased five-fold.

[4] Zeng and Xie (2004) identify foreign education as the main source of earnings disadvantage for Asians relative to white natives.

[5] Hinduism, the dominant religion of India, deterred its followers from crossing the "black waters" into America.

[6] Pakistan and Bangladesh can also be counted among the new Asian countries. However, it is difficult to track the 1970 cohort. At the entry level, the cohort originates from Pakistan. After the Bangladesh Independence War in 1971, the 1970 cohort has different origins. Wage-gaps for post-1970 cohorts from Bangladesh and Pakistan resemble other new Asian countries.

[7] Japanese immigration to the U.S. also has a long history. In recent years, economic development in Japan has successfully incentivized migrants to return home. Consequently, Japan no longer ranks in the top 20 sending countries to the U.S. (Center for Immigration Studies, 2012).

[8] To make graphs and tables comparable, we only use data from ACS 2007, not later ACSes. Our last year of wage data is from 2007.

[9] The 1960 Census does not ask questions on duration of stay for immigrants.

[10] The sample size in the ACS is smaller compared to the Census. The ACS is collected annually. The last ACS year for which hourly wage data is compatible with previous Censuses is 2007. Weeks worked per year are reported in discrete categories from 2008 onwards, rather than actual weeks worked. Hence 2008 onwards, hourly wage is "imputed" for many workers. Furthermore, macroeconomic factors can affect the wage structure of Asian sub-groups and natives differentially, so data for the recession years (2008 and after) is not used.

[11] Adding, say, a 4th wage-gap point to the assimilation profiles requires immigrants to reside for 30+years in the U.S. By then, most original cohort members have aged out of the labor force.

[12] White natives are the chosen base group so that immigrants can be compared with the dominant labor market demographic. Including all natives does not change our qualitative results.

[13] An immigrant's year of arrival is not reported in the 1960 Census. Only birthplace is reported. The entrants of the 1960 cohort are identified using the "migration" question – those who lived in a different country five years back. Additionally, the hours and weeks worked variables are reported in intervals instead of actual values in 1960. The 10-15 and 21+ years of stay points of the 1960 cohort, derived from 1970 and 1980 Census data are comparable to later cohorts.

[14] $e_{i,c,t}$ is a random error term.

[15] Experience is calculated as (age – years of education – 6). Since both potential experience and education are controls, age cannot be added due to collinearity.

[16] The age structures of a cohort and the native population differ after the first decade, with immigrants getting older. This paper assumes immigrants compete with all working age natives. The curvature differences persist whether Asians are compared to natives in their age-bracket or all natives.

[17] Raw wage-gaps, estimated without observable controls, are not shown for space constraints. The controlled wage disadvantage is larger since Asians often have higher human capital compared to natives. The curvature differences of the assimilation profiles persist in raw wages.

[18] For the 1980 and 1990 cohorts from Vietnam and Korea, the difference in wages between the decades is confirmed using a differences test.

[19] The regressions include a control for an individual's sex. 43-45% of employed immigrants from new Asia are women, and this number is about 55% for old Asia. The fall in wages after the second decade is separately seen for both male and female wage-gap profiles. Point estimates of the wage-gaps are different.

[20] A small metropolitan area is outside the top 100 areas in terms of population size. A small occupation is outside the top 50 occupations in the metropolitan area. For immigrants, a dummy variable for being outside their country's top 10 preferred occupations is also included.

[21] Occupations are defined at a two-digit level.

[22] English is an official language in India and the Philippines.

[23] Tables 2,3 and 4 do not include data from the ACSes. This is mainly done to compare Census years. The ACSes continue the trends of the 2000 Census, and the statistics are available upon request.

[24] One-third of all immigrants return to their home country at some point in time (source: Department of Homeland Security).

[25] Wadhwa et. al. (2009) states bureaucratic red-tape associated with U.S. immigration policy, cultural shocks and improved home country immigration and economic policies increased the number of young Indian and Chinese return migrants in recent years.

[26] Returns and removals are most common for Mexican immigrants (Migration Policy Institute 2014).

[27] See Borjas and Bratsberg (1996) and Jasso and Rosenzweig (1990).

[28] Light (2006) discusses the formation of Korean niches in Los Angeles and the successes of Korean immigrants over time in retail and services sectors. The concentration of Korean immigration in certain metropolitan areas is induced by chain migration.

[29] Residential and occupation clustering scatterplots for other new and old Asian countries are available upon request.

[30] As of 2000, the preferred location for Indian immigrants is New York-New Jersey metropolitan, and the preferred occupation is computer software development. Vietnamese immigrants prefer Los Angeles-Long Beach-Orange County. Depending on the sex, the preferred occupations are electrical equipment assemblers and hairdressers.

[31] Mandorff (2007) shows that complementarity between social interactions and production in certain occupations creates an absolute advantage for the ethnic group, which leads to ethnic specialization in that occupation.

[32] Co-worker segregation for the whole country =

$$\sum_{o}\left(\frac{\#\text{white natives in o}}{\#\text{ white natives}}\right)*\left(\frac{\#\text{white natives in o -1}}{\#\text{total workers in o}}\right)-\left(\frac{\#\text{new entrants from country c in occo}}{\#\text{total entrants from country c}}\right)*\left(\frac{\#\text{white natives in o}}{\#\text{total workers in o}}\right)$$

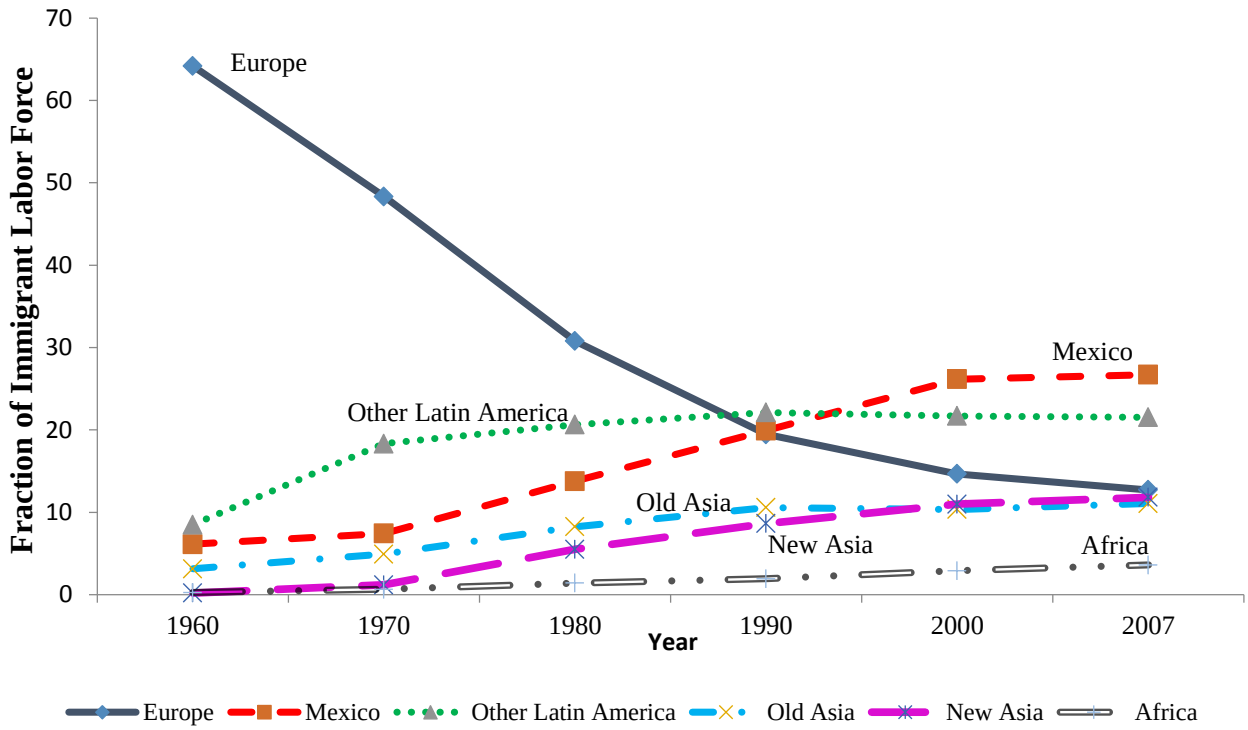
[33] The difference (isolation – exposure) is sensitive to proportions of each group across the labor force, even if the ethnic distribution across regional occupations stays constant.

[34] Per capita supply is considered to be elastic though local supplies can vary. Ottaviano and Peri (2012) find that capital adjusts within a short period to immigration flows.

[35] For example, Peri and Sparber (2011) show that occupation choices differ between immigrants and natives with graduate degrees. Immigrants specialize in occupations requiring quantitative and analytical skills. Their native counterparts opt for occupations requiring interactive and communication skills.

[36] The idea of joining occupations popularized by previous immigrants comes from network theory. Connections in immigrant communities constitute a source of social capital (Waldinger, 1997).

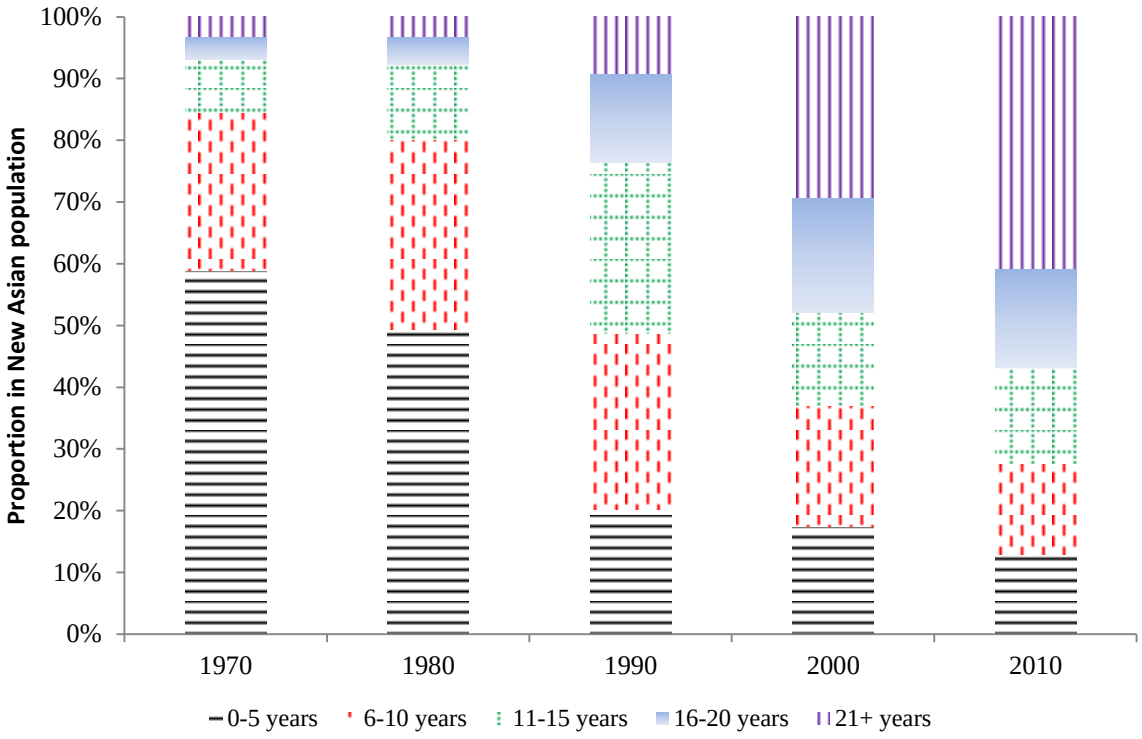
Figure 1: Change in the Share of Different Source Countries in the Foreign-born Labor Force of the U.S.: 1960 - 2007.



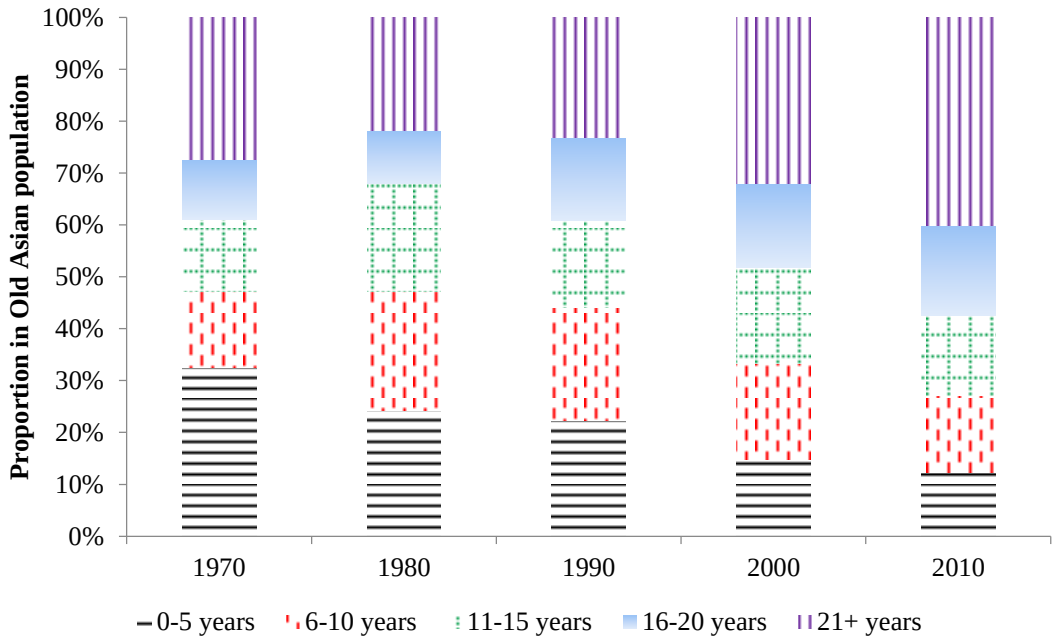
Source: Census 1960 and 1970 1% sample, Census 1980, 1990 and 2000 5% samples, ACS 2007 sample. Sample includes immigrants in the U.S. labor force aged 25 to 65.

Figure 2: Changes in Duration Composition

(a) Duration Composition of Immigrants from New Asia



(b) Duration Composition of Immigrants from Old Asia



Data source: Census 1970 1% sample, Census 1980 - 2000 5% samples, ACS 2007 sample. Sample includes labor force participants ages 25 to 65 from new and old Asian countries.

Figure 3.1: Controlled Wage Gap Profiles of New Asian Immigrants by Cohort

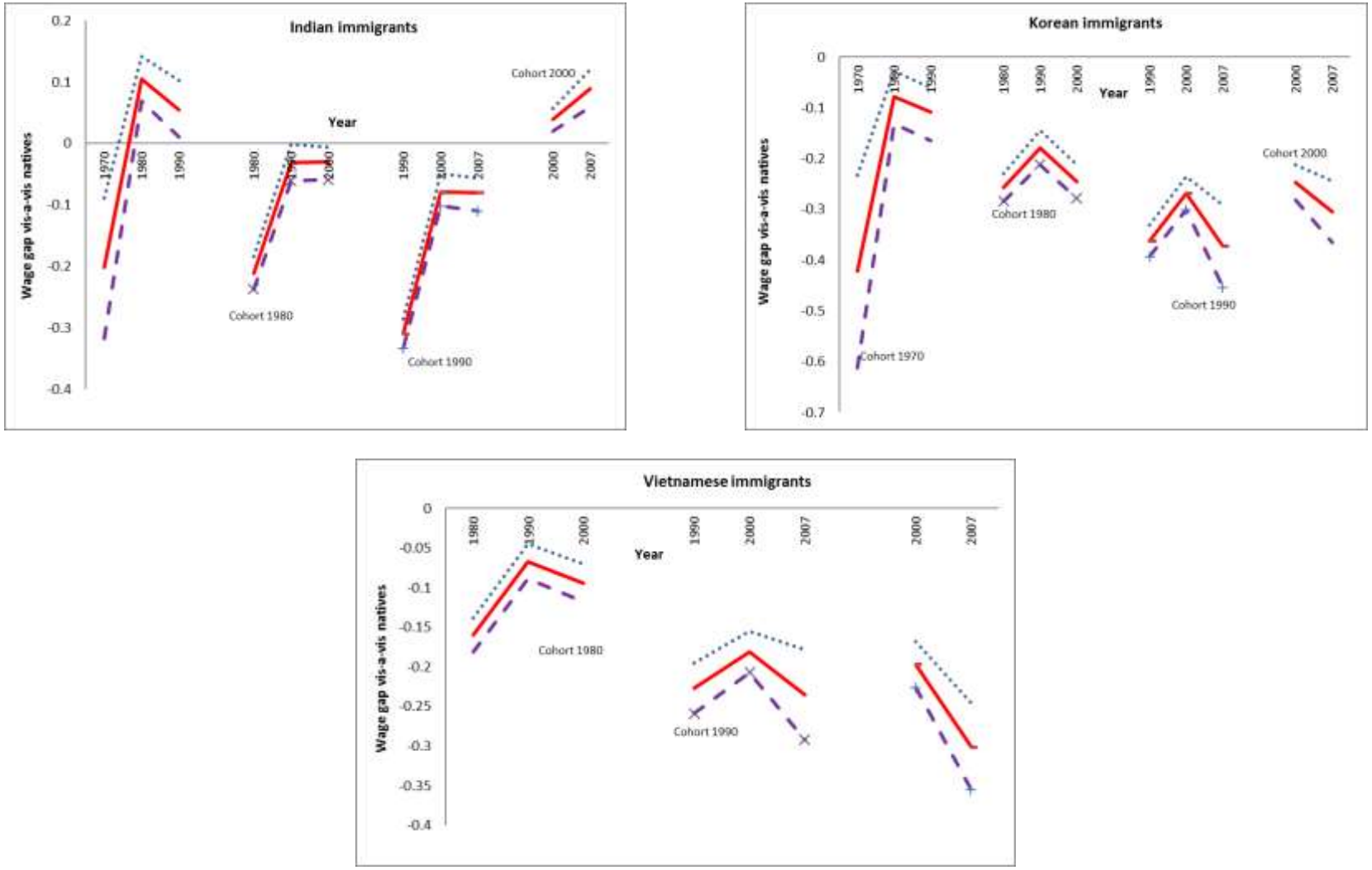
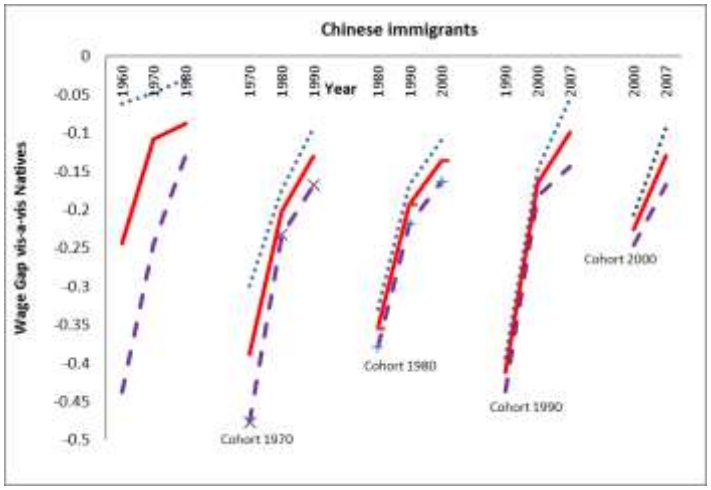
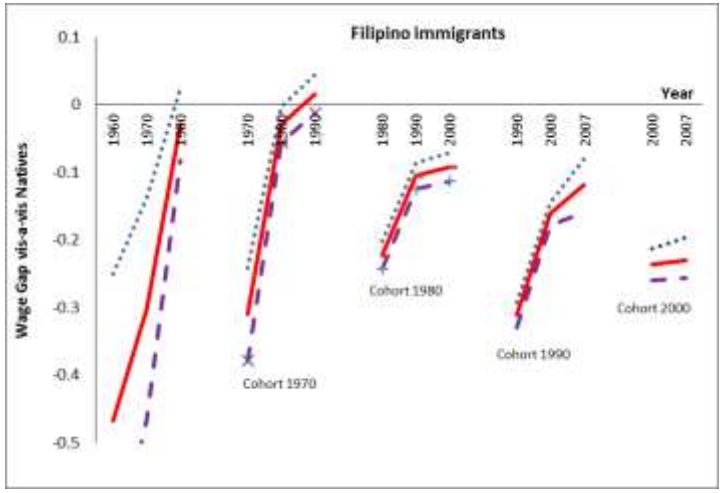
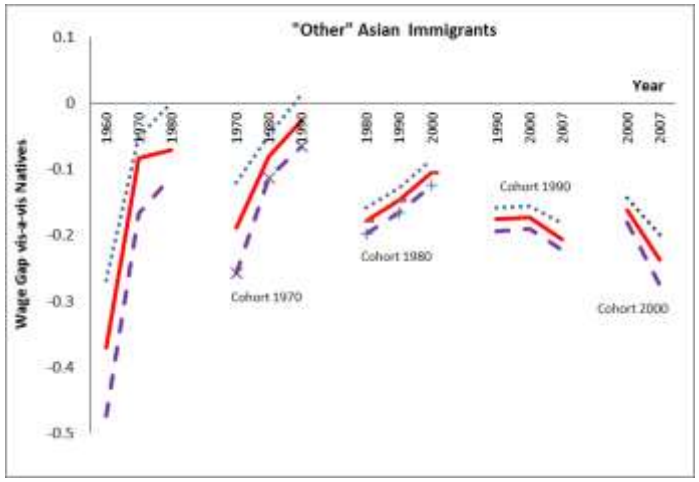
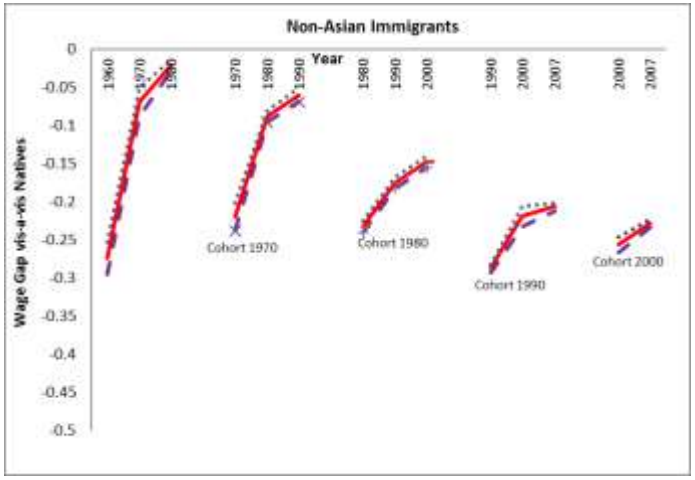


Figure 3.2: Controlled Wage Gap Profiles of Old Asian Immigrants by Cohort



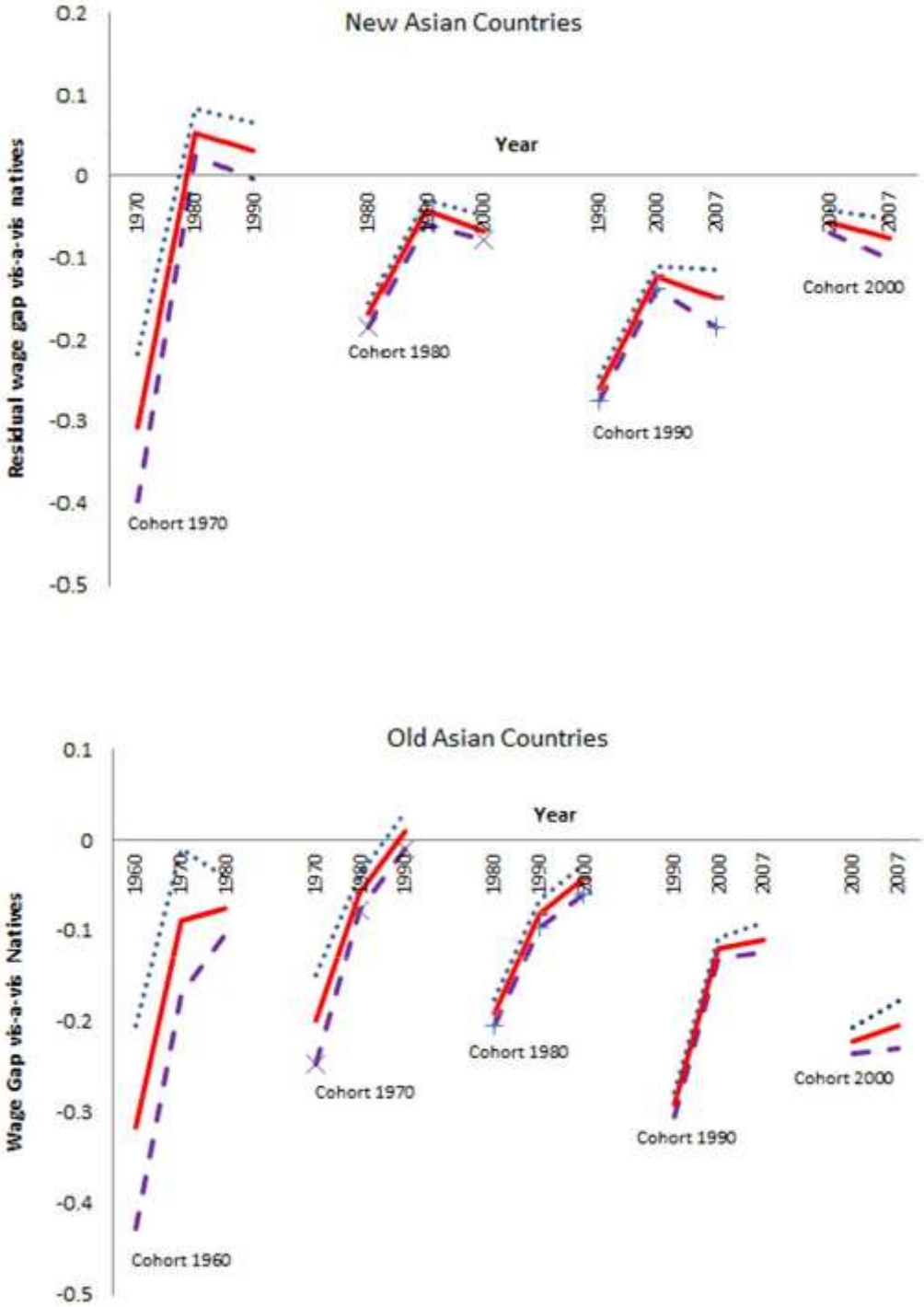






Data source for figures 3.1 and 3.2: Census 1960 and 1970 1% sample, Census 1980 - 2000 5% samples, ACS 2007 sample. Appropriate Census weights used in calculation of gaps. Sample includes labor force participants ages 25 to 65. Wage gap of the immigrant group for all panels is calculated vis-à-vis white natives. See text for regression equation.

Figure 4: Residual Wage Gap Profiles of Asian Immigrants by Cohort



Data sources: Census 1960 and 1970 1% sample, Census 1980 - 2000 5% samples, ACS 2007 sample. Sample includes labor force participants 25 to 65 years old. Upper panel figure compares white native and new Asian immigrants. Lower panel graph compares white natives and old Asians. See text for wage specification from which residuals are derived.

Figure 5: Settlement Patterns of Korean Immigrants across U.S. Metropolitan Areas.

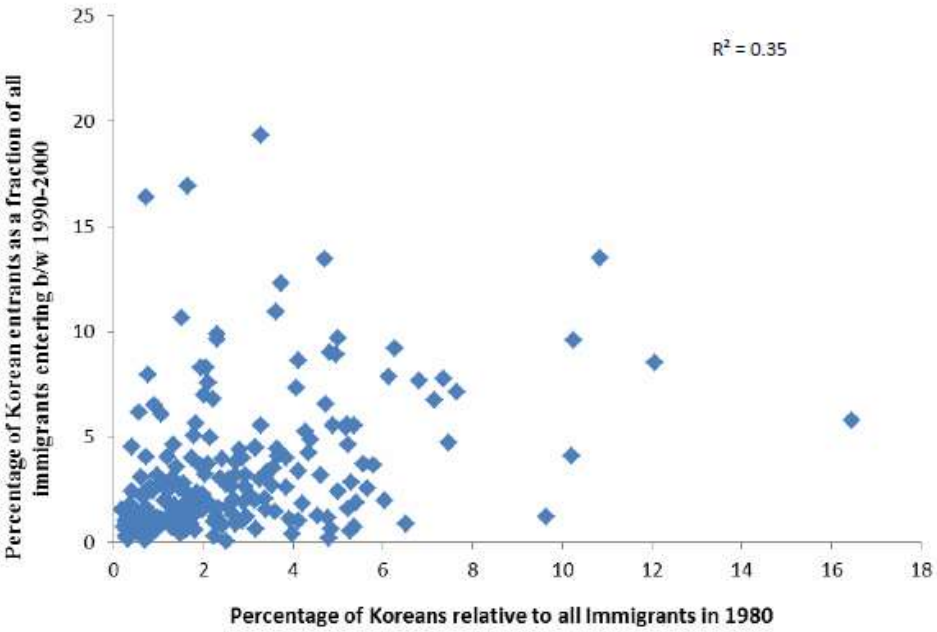
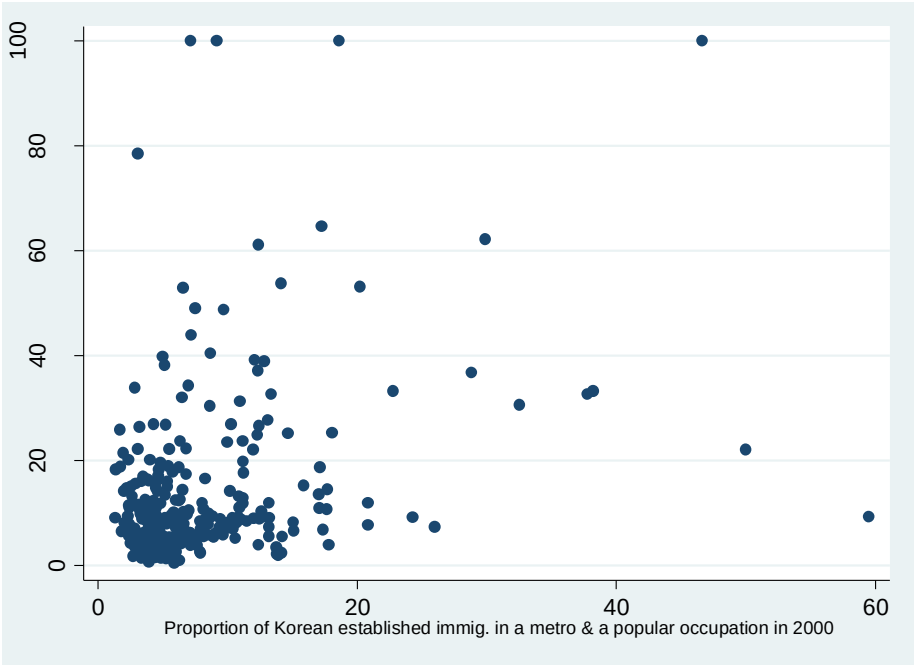
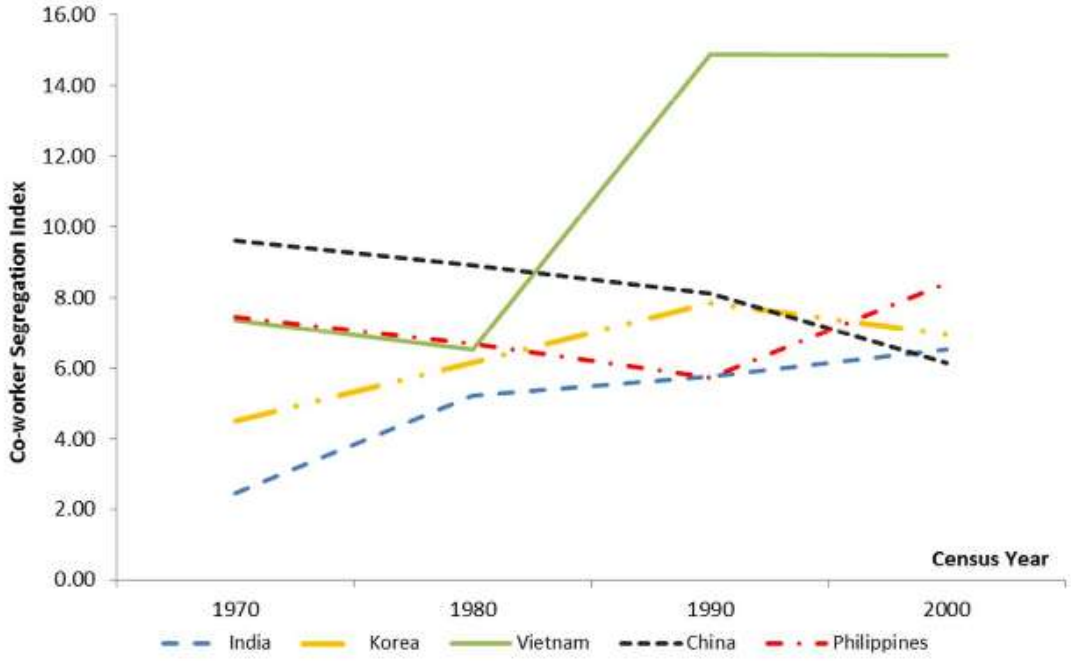


Figure 6: Occupation Clustering of Korean Immigrants across U.S. Metropolitan Areas.



Data Source for figures 5 and 6: Census 1990 and 2000 5% Census.

Figure 7: Co-worker segregation index of native white workers vis-à-vis Asian immigrants



Data sources: Census 1970 1% sample, Census 1980 - 2000 5% samples.

Table 1: Descriptive Statistics for Natives and Immigrants from the 1990 Census

	White Native	Non-Asian Immigrants	Immigrants from "Old" Asia	"New" Asian Countries		
				India	Korea	Vietnam
Years of Education	13.57 (2.48)	11.75 (4.33)	14.13 (3.71)	15.9 (3.3)	13.76 (3.4)	12.3 (3.9)
Percentage with college degree	26 (44)	20.1 (38.7)	48 (50)	70.3 (45.7)	37.15 (48.3)	19.3 (39.5)
Percentage with advanced degree	9.3 (29.2)	8.75 (27.2)	16.9 (34.4)	43.5 (49.6)	13.8 (34.4)	4.9 (21.5)
Percentage male	55.3 (49.7)	58 (49.4)	49 (50)	64.7 (47.8)	49.2 (50)	58.3 (49.3)
Age	40.75 (10.5)	40.1 (10.6)	40.85 (10.1)	39.8 (9.2)	40.3 (9.6)	37.25 (9)
Percentage with good English	99.1 (7.85)	57.3 (49.5)	57.2 (49.5)	76.4 (42.5)	34.7 (47.6)	29.1 (45.5)
Percentage in high-skill occupations	34.85 (47.2)	26 (42.3)	41.1 (49.1)	59 (49.3)	30.5 (45.9)	26.34 (43.8)
Percentage in middle-skill occupations	41.75 (48.6)	35 (46.6)	30.05 (45.2)	26.4 (43.6)	40.7 (48.8)	31.5 (45.3)
Hourly Wage (in USD)	12.35 (48.7)	11.17 (49.75)	12.5 (51.75)	15.25 (70.3)	11.85 (40.1)	10.95 (19.5)
N	**3851075**	**377231**	**51549**	**12701**	**13305**	**11314**

Source : Census 1990 5% sample. Sample includes labor force participants aged 25 to 65.

Table 2: Change in Observable Characteristics of Natives and Immigrants 1970-2000.

	1970			1980			1990			2000		
	Years of Education	**Age**	**Sex**	**Years of Education**	**Age**	**Sex**	**Years of Education**	**Age**	**Sex**	**Years of Education**	**Age**	**Sex**
WHITE NATIVES	11.7	43.1	65.9	12.9	41.1	60	13.6	40.8	55.3	13.9	42.6	53.8
ALL IMMIGRANTS												
All established immigrants	10.6	48.3	62.1	11.8	44.2	56.1	12.35	42.4	55.3	12.61	42.8	55
All entrant immigrants	10.75	37.8	61.2	11.4	35.1	60.4	11.9	35.8	60.7	12.5	36.1	59.4
NEW ASIA												
Established immigrants	-	-	-	16.5	40.5	63.5	14.6	41.7	53.9	14.4	42.4	55.5
Entrant immigrants	15.7	32.7	70.5	14.1	35.9	57.6	13.5	36.6	60.8	14.3	36.8	59.1
OLD ASIA												
Established immigrants	12.1	46.9	73.64	13.7	42.5	55.1	14.3	43	49.5	14.7	44.2	48.2
Entrant immigrants	13	36.1	57.3	13.75	36.9	48.6	13.9	38.1	48.6	14.6	38.4	47.8

Source : Census 1970 1% sample, Census 1980, 1990 and 2000 5% samples. Sample includes all labor force participants between ages 25 to 65.

Table 3: Change in Skill-based Occupation Composition for Natives and Immigrants 1970-2000.

	1970			1980			1990			2000		
	High	**Middle**	**Low**	**High**	**Middle**	**Low**	**High**	**Middle**	**Low**	**High**	**Middle**	**Low**
WHITE NATIVES	27.8	42.6	30.2	30.6	43.5	26	33.7	41.8	24.5	36.5	40.3	23.2
ALL IMMIGRANTS												
All established immigrants	26	38	36	27	37.5	35.5	29.7	36.3	34	30	34.5	35.5
All entrant immigrants	25	30	45	25.3	30	44.8	25.4	31.3	44.4	28	29.5	42.5
NEW ASIA												
Established immigrants	-	-	-	62.3	22.3	15.4	44.4	32	23.6	42.9	32.4	24.8
Entrant immigrants	69.2	15.6	15.2	37.8	32	34	32.8	33.7	32.5	43.2	23.8	33
OLD ASIA												
Established immigrants	32.4	21.8	45.9	42.2	27.1	30.7	44.6	30.7	24.8	44.9	30.7	24.4
Entrant immigrants	42.7	23.3	33.5	35.5	29.1	35.4	34.8	30	35.2	44.7	24	31.2

Source : Census 1970 1% sample, Census 1980, 1990 and 2000 5% samples. Sample includes all labor force participants between ages 25 to 65.

Table 4: Preferred Location and Occupation Choices of Korean and Chinese Immigrants 1970-2000.

KOREA	**1970**	**1980**	**1990**	**2000**
Existing Cohorts				
Preferred Metro	-	Los Angeles (16.5)	Los Angeles (19)	Los Angeles (19.1)
Preferred Occ.	-	Managers (9.1)	Sales Supervisor (10.1)	Sales Supervisor (9.5)
Entrants				
Preferred Metro	Los Angeles (15.1)	Los Angeles (22.2)	Los Angeles (24)	Los Angeles (20)
Preferred Occ.	Physician (12.1)	Electrical Equipment Assembler (7)	Sales Supervisor (10)	Sales Supervisor (8.7)
CHINA	**1970**	**1980**	**1990**	**2000**
Existing Cohorts				
Preferred Metro	New York City (21)	New York City (22)	New York City (16.3)	NY (16)/ LA (15)
Preferred Occ.	Cooks (12.3)	Cooks (9.4)	Cooks (7.6)	Cooks (6.1)
Entrants				
Preferred Metro	New York City (20.5)	New York City (19.2)	NY/ LA (18% each)	NY (16)/ LA (12.75)
Preferred Occ.	Cooks (9.6)	Cooks (12.6)	Cooks (12.2)	Comp. Software Dev. (7.4) Cooks (9.1)
NATIVES	**1970**	**1980**	**1990**	**2000**
	LA (3.35)/NY(3.7)	LA (3.7)/ NY(2.87)	LA (3.04)/ NY(2.84)	LA (2.38)/ NY(2.48)
	Physicians (0.35)	Elec. Equip. Assem. (1.5)	Sales Supervisor (3.2)	Sales Supervisor (3)
	Cooks (1.4)	Cooks (1.52)	Cooks (1.67)	Cooks (1.76)

Source: Census 1970 1% sample, Census 1980, 1990 and 2000 5% samples. Sample includes all labor force participants between ages 25 to 65 - native or immigrant born in Korea or China. Numbers in parentheses show the percentage of the relevant group in the preferred metropolitan or occupation.

Table A1: Changes in Observable Characteristics of Cohorts across their Stay in the U.S.

		New Asian Group					Old Asian Group				
Cohort	Observable Characteristic	*Year*					*Year*				
		1970	1980	1990	2000	2007	1970	1980	1990	2000	2007
1970	Avg. Yrs. Educ.	16.01	17.07	16.82	.	.	13.41	14.86	14.8	.	.
	% College Grad.	74.02	76.04	74.8	.	.	51.45	54.15	55.14	.	.
	% in High Skill Occ.	69.25	67	65.7	.	.	30.75	38.81	41.72	.	.
1980	Avg. Yrs. Educ.	.	13.37	13.86	13.94	.	.	13.47	14.04	14.31	.
	% College Grad.	.	30.75	38.81	41.72	.	.	42.64	48.1	52.4	.
	% in High Skill Occ.	.	28.33	35.96	37.61	.	.	26.91	39.08	42.9	.
1990	Avg. Yrs. Educ.	.	.	13.61	14.01	14.4	.	.	13.83	14.67	14.77
	% College Grad.	.	.	39.92	44.75	45.93	.	.	47.77	56.09	55.33
	% in High Skill Occ.	.	.	30.1	37.65	40.71	.	.	32.17	44.63	46.72
2000	Avg. Yrs. Educ.	.	.	.	14.94	15.29	.	.	.	14.65	15.17
	% College Grad.	.	.	.	63.79	65.01	.	.	.	57.77	59.55
	% in High Skill Occ.	.	.	.	55.23	56.82	.	.	.	46.58	48.65

Source: Census 1970 1% sample, Census 1980, 1990 and 2000 5% samples and ACS 2007. Sample includes labor force participants from new and old Asian countries between ages 25 to 65.