Immigrant Occupational Attainment in Japan and its Determinants; Is it a "Structured Settlement"?

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Abstract

Japan, as a "post-transitional society," has recently shifted to a "new" country of immigration, similar to southern European countries. However, there are few studies on the integration of immigrants into the Japanese labor market. In particular, it has been difficult to study the social stratification dynamics caused by the influx of immigrants in Japan, which is a "social laboratory" for this issue. This is due to the scarcity of relevant reports on the nationwide situation of immigrants' integration and its determinants.

Based on the above-mentioned context, the present study aims to reveal immigrants' occupational attainment in Japan, and its determinants, by comparing immigrants' occupational distributions to those of their Japanese counterparts using micro-data from the Japanese census, conducted in 2010.

The following findings were discovered: to the first question, we answered that socioeconomic compositional differences cannot explain the differences in the occupational distribution between immigrants and the Japanese, meaning that an immigrant might have a different probability of occupational attainment compared to a Japanese worker with equivalent status. With regards to the second question, it is revealed that—when an immigrant is a highly skilled or long-term resident, such as with Vietnamese refugees or Korean residents—the return on immigrant educational attainment is higher for immigrants than for the Japanese, partly due to the high level of international transferability of educational attainment among the highly educated, or due to the high ambition necessary for educational achievement. Additionally, females face a dual exclusion in terms of the evaluation of their educational attainment. Concerning the third question, we can argue that the mode of incorporation, the particular type of migration, and gender differences play an important role in determining which factor contributes to an immigrant's higher attainment. There is an "educational-attainment-driven" attainment for highly skilled males, as well as a "duration-of-residency-driven" attainment for married/family immigrants and females. To the fourth question, the settlement mostly promotes immigrant occupational

attainment, and mostly has a positive impact on the Japanese labor market; however, the expected occupational distributions in the medium-term might be a mosaic of positive and negative values, depending on the mode of incorporation.

Taken together, the relations between each determinant are similar to findings in previous studies in western developed countries. However, it is also revealed that Japan has simultaneously experienced multiple modes of incorporating immigrants; in other words, a "structured settlement" as a feature in a "new" country of immigration. This is a new, but an embryonic, concept in the present study.

Introduction

The number of international immigrants in Japan has doubled in the last two decades. Such rapid change is a result of the demographic transition in Japanese society over the last half-century.

Meantime, the Japanese government has, since the 1989 reform of the Immigration Control and Refugee Recognition Act (ICRA), taken several measures to maintain the global economic competitiveness of the Japanese economy, mainly by attracting highly skilled immigrants. Actually, many unskilled immigrants, such as Japanese-Brazilians and trainees from Asian countries, have also entered Japan, and the marginalization of their position in the labor market has become an issue (e.g. Yasuda 2010, Kajita et al. 2005). Moreover, their integration into the labor market is becoming an important social issue, because it has been repeatedly pointed out that more than a few of them have started to settle in Japan (Kajita et al. 2005).

Such change is similar to that experienced by southern European countries, which have recently changed from countries of emigration to countries of immigration, where the rapid inflow of unskilled immigrants is a matter of great concern (Calavita 2004; Cornelius 2004). Japan also had a history of emigration to North and South America until 1960s. However, it experienced an "international migration transition" in the 1980s (Ishikawa 2005: 345), and is now, as a result, a country of immigration (OECD 2011).

In the above-mentioned global context, research on immigrants' integration into the labor market has recently shifted to those "new" countries of immigration. In fact, many researchers have started to focus on southern European countries—such as Italy, Spain and Greece—examining the immigrants' integration into the labor market (e. g. Simón et al. 2011; Bernaridi et al. 2010; Demoussis et al. 2010; Dell'Aringa et al. 2012). In those studies, the theoretical perspectives that were developed in a "classical" country of immigration—such as the US, Canada, and Australia—are used, and their applicability to "new" countries of immigration is repeatedly examined. In this context,

the Japanese case can be regarded as a "social laboratory."

Yet, there are few studies on the Japanese case that are comparable to those in western, developed countries, mainly due to the scarcity of data on immigrants in Japan. Indeed, there are many interesting ethnographic research projects and journal reports. However, it has been difficult to draw conclusions on the nationwide situation of immigrant incorporation in Japan, because much of the research consists of small-scale or small-area reports. Moreover, studies on social stratification and social inequality in Japan have so far rarely focused on international migration. (Takenoshita 2006: 56).[1]

The present study aims to reveal immigrants' integration into the labor market in terms of immigrants' occupational attainment and its determinants. The dataset used in this study is based on micro-data from the Japanese population census conducted in 2010, which is the largest survey of immigrants in Japan. It focuses on 13 types of immigrants, representing their "mode of incorporation" (Portes and Zhou 1993), and clarifies the roles of three important factors—educational attainment, duration of residency, and mode of incorporation—with regards to the attainment of upper-white-collar status.

1. Literature Review

1-1. Immigrant Integration into the Labor Market

Many previous studies have explored immigrant economic assimilation in the US and Western Europe. They focused on individual attainment processes based on human-capital theory in economics and the structural contexts in which each immigrant was embedded, exemplified in sociology by segmented assimilation or mode of incorporation (Portes and Zhou 1993). In these studies, the labor market outcomes, which were unfavorable for the immigrants, were explained by immigrants' lower levels of educational attainment, training in a foreign country, language deficiencies, lower social classes, and ethnic and cultural attributes (Pichler 2011: 939). The existing literature has covered a wide range of aspects pertaining to immigrant incorporation and the international applicability of "traditional" theoretical frameworks, which have been repeatedly investigated.

1-2. Role of Human Capital in Occupational Attainment

Since Becker (1962), human capital, or a person's knowledge and skills, has usually been regarded as a driving force for a person's productivity and outcome in the labor market. This is also true of immigrants' occupational attainment, and formal education, in particular, has been seen as a key to the success of immigrants in the labor

market.

However, educational attainment has a limited effect on immigrants' occupational attainment. According to Chiswick and Miller (2008), good performance or positive selection among less-educated immigrants is mainly responsible for the lower payoff of schooling for foreign workers. Moreover, the limited international transferability of educational attainment among highly educated immigrants boosts that tendency, reflecting both how a person who immigrates to a foreign country tends to be competent despite a low level of education, and how the devaluation of schooling in a foreign country increases with educational attainment because the credentials are not recognized. Interestingly, the hypothesis emphasizing discrimination of foreign workers, which is the most intuitively plausible, is rejected. Hence, human capital is also important for immigrant occupational attainment; however, the payoff of schooling is lower than for native workers, due to positive selection among less-educated persons and the limited international transferability of highly educated persons.

1-3. Structural Factors Determining Occupational Attainment

Meanwhile, such structural factors as institutional settings and social distance, arising from cultural or physical differences between immigrants and natives, often negatively affect immigrants' occupational attainment. The mode of incorporation (Portes and Zhou 1993) is a concept that exemplifies these deficiencies in three dimensions. The first dimension is the policies of the receiving government, such as exclusion, passive acceptance, or active encouragement policy stances. The second dimension is a societal one, or the host society's attitude toward immigrants, which is closely related to their physical appearance, religion, language, education, and class background. These important factors determine whether a host society is prejudiced against immigrants (Portes and Rumbaut 2001: 47). The third is the communal aspect surrounding newcomers, such as co-ethnics, whose characteristics are important for determining the immigrant-adaptation path of the host society (Portes and Rumbaut 2001: 48). In these ways, structural factors, or the mode of incorporation, also affect immigrant's occupational attainment.

1-4. Course of Immigrant Incorporation

The duration of residency in the host society and intermarriage with natives sometimes lessens the above difficulties. Immigrants usually acquire country-specific knowledge through their domestic work experiences, improved language skills, and cultural adaptation to the host society, along with their duration of residency (e.g.,

Chiswick 1978). Additionally, intermarriage sometimes increases the acquisition process, because a native spouse can support an immigrant partner's adaptation to the host society (Meng and Gregory 2005). Human capital obtained by non-formal education also plays an important role in the immigrant's occupational attainment.

Such perspectives are based on assimilation theory, which emphasizes a straight-line convergence between immigrants and natives (Portes and Rumbaut 2001: 44); however, a segmented assimilation theory argues that the incorporation experiences of recent immigrants are more varied (Portes and Zhou 1993). They cited structural barriers that limit access to employment and other opportunities; such obstacles, which are often particularly severe for the most disadvantaged members of immigrant groups, can lead to stagnant or even downward mobility (Bean and Stevens 2003: 99-100). Structural factors, or the mode of incorporation, also determine the course of immigrant incorporation.

1-5. Applications to "New" Countries of Immigration

Although they were confirmed in some new countries of immigration, these findings mainly focused on the "classic" countries of immigration. For example, other than the above southern European case studies, Pichler (2011) explored immigrant occupational attainment in 28 European countries by focusing on how they attained upper-white-collar occupations. He concluded that workers with an international migration background do not necessarily show lower success in the labor market than the native-born majority. However, human capital, social mobility, and a cultural background explain these outcomes, suggesting the different accessibility if success in the labor market for each group of immigrants. As such, immigrants' integration into the host society's labor market has been explored in terms of the structural differences in occupational attainment and their applicability to "new" countries of immigration, such as southern European countries, and has been examined repeatedly.

Can we also apply these to the Japanese case? The Japanese case might be similar to those "new" cases from a demographic perspective; however, the composition of immigrants in Japan greatly differs from that in the southern European cases. Actually, Japan has a smaller proportion of undocumented immigrants than southern European countries, and many immigrants in Japan come from high- or middle-income countries, rather than from low-income countries. Consequently, immigrants in Japan are assumed to have a weaker tendency to settle than do those in other western, developed countries.

1-6. Japan as a New Country of Immigration

Many research projects have been conducted in Japan to examine immigrants' integration into the labor market. Many of these have paid attention to "the mode of incorporation" per se, such as the Immigration Control and Refugee Recognition Act and a recruitment system that hires immigrant laborers from abroad, rather than to the variances among individual immigrants. These studies have revealed many important findings.

In particular, several types of immigrants have been confirmed: "highly skilled immigrants," mainly from China and Korea; "married/family immigrants," such as the spouse of a Japanese citizen or an immigrant, coming from China, Korea, the Philippines, Thailand, etc.; Japanese-Brazilians return immigrants from South America; Vietnamese refugees of the Vietnam War; undocumented immigrants from Asian countries; and Korean residents as "old-comers" who have resided in Japan for several generations. These categories are closely related to visa statuses in the ICRA, which are considered as the first dimension in the mode of incorporation.

Some studies have discovered the relationship between these categories from a macro standpoint. Shimodaira (1999) pointed out, as did Piore (1979), that immigrant labors in Japan are classified into two layers: the primary and the secondary labor market. According to his statement, the primary market is composed of professionals with full employment security who have knowledge and abilities based on their ethnic background, and the secondary market is composed of unskilled labors who work for small and medium-sized enterprises in the manufacturing industry. Moreover, he also revealed that unskilled labors are stratified depending on their (1) visa status, (2) time of arrival, (3) gender, and (4) strength of their ethnic network. For example, the immigrants with the most advantages are employed in the manufacturing industry, followed by employment in the construction industry, for males, and in the service industry, for females. Nevertheless, he doubted the possibility of their permanently settling in the future, but foresaw a high possibility of "repeated immigration" to Japan.

Of course, he could not necessarily foresee the recent, post-2000s, development, such as highly skilled immigrants from Asian countries and a trend towards settling among all types of immigrants, due to the limited data available in the early 1990s. However, the stratification of immigrant labor was also confirmed in recent studies, such as Tanno (2002, 2007). It can be said that the basics have not changed in the last 20 years.

From a micro viewpoint, many studies have been conducted on each type of immigrant. Among these, the Chinese occupy the largest proportion of the newcomers after 1990s. They began to reside in the inner cities of large metropolitan areas in Tokyo,

such as *Shinjyuku* and *Ikebukuro*, as students studying at Japanese language schools while working at a fast-food venues or small restaurants between school hours (Okuda and Tajima 1991: 85-90, 1993: 93-102). Recently, it was also revealed that many of them, particularly males, have begun to work as highly skilled professionals in Japanese firms, attaining a high occupational status (Tajima 2010: 195-200, 203-4, 210-2, Jiang and Yamashita 2005, Tsuboya 2000). Moreover, ethnic entrepreneurs have emerged in a large metropolitan area in *Ikebukuro*, Tokyo, called "New China Town" (Yamashita 2010). They have also started families, even acquiring homes (Tajima 2010: 195, Jiang and Yamashita 2005).

In this regard, Takenoshita (2004) revealed that their educational attainment in China is less valued than their educational attainment in Japan, suggesting that the international transferability of human capital is limited for highly skilled Chinese. However, Takenaka (2012) also pointed out the opposite result, the "negative assimilation" pattern among highly skilled immigrants in Japan, based on the Internet research conducted by her team, as have Chiswick and Miller (2011) in their research in the US. She argued that international transferability is high for highly skilled immigrants at the outset, but it decreases with settlement, which can be called "negative assimilation."

From the aforementioned fields, it can be said that highly skilled Chinese immigrants, mainly male, have been collectively participating in an occupational attainment for the last two decades. In that process, formal resources, such as educational attainment, play an important role, more so than informal resources obtained through marriage with Japanese citizen. Eventually, as a group they will represent a general path of immigrant settlement, if Japan starts to accept immigrants officially in the future.

Second, the number of married/family immigrants from Asian countries, such as China and the Philippines, has been increasing rapidly in the 1990s. This category has recently grown, gaining an importance in international migrations, due to its indiscrete characteristics with regard to the sovereign states.

For instance, many Filipinas remained in Japan as entertainers at nightclubs, where they marry the Japanese men who visit as customers. On the other hand, women from other Asian countries came to rural areas in Japan as "foreign brides,"[2] through recruitment by a local municipality or a private matrimonial agency. Recently, more than a few Asian women have also come to Japan to join a husband who had previously immigrated. In terms of visa status, they have "a spouse of the Japanese etc.," "a spouse of permanent resident," or "family visit" visa status, and, except for "family visit" visa

holders, they can work freely in Japan.

In spite of their legitimate visa status, their position in the labor market is ambiguous, due to not only to being an immigrant but also to a gender gap. For example, highly educated Chinese women tend to face a double exclusion, because they are immigrants from a socialist state where gender equality is fully guaranteed (Tsuboya 2000: 115). In the case of Filipinas, who tend to be married to Japanese men, they seek out work in order to send money to their families in the Philippines (Takahata 2011: 111). Otherwise, they tend to remain in the family due to their limited proficiency in Japanese (Matsuzaki 2001: 268-70). Moreover, they are pushed into low-paid jobs if they become a single mother raising a Japanese child or divorced from a Japanese spouse (Takahata 2011:112).[3] Additionally, after the great recession in 2008, it was also reported that some of them started to work as caregivers, to compensate for the loss of household income (Takahata 2011: 113-4). Due to the above-mentioned characteristics, many married/family immigrant females tend to be employed as non-regular workers (Takeda 2011: 209).

In a sense, the above-mentioned immigrant types are accessible to anybody who qualifies for the visa conditions; however, there are other types of immigrants who have a peculiar relationship with the host society. They are the Japanese-Brazilians, Peruvian return immigrants, Vietnamese refugees, and old-comer Korean residents from before the Second World War.

Japanese-Brazilians consist of *Issei*, the first generation of Japanese-Brazilians, who have Japanese citizenship, and *Nisei* and *Sansei*, the second and third generation respectively, who have a "resident" or "a Spouse or Child of Japanese National" visa status. They can work freely in Japan due to their Japanese citizenship or visa status. It has been revealed that they often work as non-regular workers in the manufacturing industry (e.g. Kuwahara 2001, Okubo 2005, Kajita et al. 2005, Tanno 2007). Moreover, such recruitment systems marginalize them in the labor market, and bring them into unstable employment conditions, resulting in frequent job changes (Kajita et al. 2005). In this regard, Takenoshita (2006) pointed out that the return on educational attainment for Japanese-Brazilians is much lower than for male Chinese immigrants, and the labor market for immigrants is stratified for each nationality. Indeed, because their population in Brazil is not so large, the Japanese-Brazilians are not a category that will grow rapidly in the future. Even so, this would be a pattern that further immigrants might follow, if Japan allows a free international labor movement in the future.

Japan accepted Indochinese refugees for the first time in 1975, and about 17,000 refugees have arrived in Japan. They were mostly from Cambodia, Lao P.D.R., and

Vietnam, and all have “resident” visa status. Among them, the Vietnamese are the largest group in terms of population size. Recently, they have been changing their visa from “resident” to “permanent resident” status, and, as the second generation grows up, their settlement has proceeded. For instance, “the Liaison Council for Vietnamese in Japan” was founded in 2000 (Kawakami 2002). They tend to live in public housing in the *Kanto* (near Tokyo) and *Kansai* (near Kobe) metropolitan areas, because public support centers for refugees were placed there. Men mostly work in the manufacturing industry, and women are mostly employed part-time to sustain their family income (Kawakami 2001: 159-60, 171-2). Indeed, Japan has hardly accepted refugees so far, and it will not change in the future; however, they might represent the worst case scenario of immigrant integration because the refugees usually face the hardest challenges in the settlement process.

Among immigrants in Japan, the Korean residents, who first came to Japan during its colonial era and have resided in Japan ever since, have the longest history. They are known to have experienced harsh discrimination, which has hindered their occupational attainment so far, despite holding a legal status permitting every economic activity in Japan (Lee et al. 2012). Their position might be similar to that of African-Americans in the US, because they are an ethnic minority whose chances for economic successes are strictly limited. Nevertheless, they have recently been employed by Japanese firms, even though they do not conceal their ethnic background. Additionally, many newly arrived Koreans also have noticeably started to find work as highly skilled immigrants in Japan, which is very similar to the case of the Chinese (Tajima 2010: 236-7).

Americans are the largest group of immigrants from the OECD countries, but there has been little research concerning them. This is because they are assumed to be highly educated and wealthy individuals, and therefore not likely to cause an integration problem. However, many types of immigrants exist among the Americans—highly skilled workers, managers dispatched from U.S. companies, spouses of Japanese citizens—who have settled in Japan for the same reasons as immigrants from other countries. Moreover, they might make a good reference case for examining the effect of modes of incorporation on attainment, in comparison with the cases from other countries in the present study.

Finally, the number of undocumented immigrants in Japan is small, about 67,000 or 3% of the total immigrants, compared to other western developed countries. The number peaked in 1993, remaining around 200,000 or more during the 1990s and the early 2000s, although it has decreased rapidly in recent years. In spite of the scarcity of undocumented immigrants, many researchers have focused on them, revealing that

many of them have resided in Japan for a long time. For instance, among undocumented male immigrants, occupational status and income increases alongside the duration of their settlement (Suzuki 2009). Moreover, a few have even received amnesty from the Japanese government, taking into account their history of residence in Japan (Tanno 2007: 281). Yet, they rarely succeed in settling in Japan and compose only a small part of immigrants in Japan, as Komai (2011: 246) pointed out. Therefore, it is not a major path toward immigrant settlement, a difference from the experiences of undocumented immigrants in southern European countries.

To summarize, these previous studies have revealed that Japan is one of the "new" countries of immigration that is facing challenges caused by the inflow of immigrants. However, these studies mostly examine only a small-sample and small area, from which we cannot deduce general conclusions on the state of immigrant integration in Japan. Therefore, the present study aims to assess immigrant integration by employing micro-data from the Japanese population census, conducted in 2010, which is the largest study of immigrants in Japan.

Table 1　Types of Immigrants in Japan and their Expected Occupational istributions

Types of Migrants	Target Group	Expected Occupational Distributions
Highly-Skilled	Highly educated Chinese Highly educated American	Upper white-collar
Marriage/Family	A spouse of the Japanese（Chinese、Filipina、Thai females, and American） A spouse of a migrant (Chinese female and American)	A part-time worker / non-regular employment, or upper white-collar for Americans
Return	Japanese Brazilians	A part-time worker / non-regular employment in a manufacturing industry
Refugee	Vietnamese refugees	An employment in a manufacturing industry
Undocumented	Undocumented Asian migrants	A part-time worker / non-regular employment in a restaurant business / manufacturing industry
Old-Comer	Korean residents	Traditionally, a self-employed or recently upper white-collar

2. Research Questions

There are four research questions in the present study. First, do the occupational distributions of immigrants differ from those of the Japanese, even after compositional differences in socioeconomic status are taken into account? In particular, this question focuses on the distribution in upper-white-collar status and the compositional difference in educational attainment and age distribution between immigrants and the Japanese. Second, is the return on educational attainment for immigrants lower than for the Japanese? This question clarifies the effect of positive selection among less-educated immigrants as well as the limited international transferability of human capital among highly educated immigrants. Third, do the effects of these factors differ for each mode of incorporation? This examines the effect of the above-mentioned five types of immigrants except undocumented immigrants. Fourth, does settlement promote immigrants' occupational attainment and what is its impact on the Japanese labor market? This is the question of settlement effect on an occupational attainment, closely related to a theory such as "segmented assimilation." Finally, these four questions will

reveal the characteristics immigrant integration into the labor market in a Japanese context.

3. Data and Methods

3-1. Data

The present study uses micro-data from the Japanese population census, conducted in 2010, to reveal the occupational distributions of immigrants and their determinants. In Japan, official statistics do not include information on an individual's citizenship or birthplace. Thus, the population census is the only large dataset, which can reveal the position of immigrants in the labor market.

Chinese, Koreans, Filipinas, Thai, Vietnamese, Brazilians, and Americans between 20 and 55 years old were selected as samples, in terms of the population size. The sample does not contain anyone older than 55 years in order to eliminate the effects of retirement. As for the Japanese, a 1% sample of the census records is used. To eliminate the effect of international students, individuals attending school are excluded.

In addition to nationality, the sample is classified into five types of immigrants in order to represent each mode of incorporation: "highly skilled immigrants," "married/family immigrants," "return immigrants," "refugees," and "old-comers." Additionally, gender is another important dimension.

Highly skilled immigrants are people who hold a visa status of "Engineer" or "Specialist in Humanities/International Services,"[4] and whose educational attainments are assumed to be more advanced than a two-year college degree.[5] International students in Japan usually obtain either status[6] when they begin to work in Japan after graduating. The largest group consists of Chinese men and women. Moreover, the sample is limited to immigrants who are not married to Japanese citizens in order to eliminate any effect of international marriage on their occupational attainment. This group might set the highest benchmark for economic success, because, among all types of immigrants, they most frequently attain an upper-white-collar status.

Married/family immigrants are gaining an importance globally, because it is a major component of migration flows in OECD countries. Moreover, it is a category that even sovereign states cannot fully control, due to the human right to family life. In Japan, many women from Asian countries who hold the visa status of "a Spouse or Child of Japanese National" belong to this category. The present study targets Chinese men and women, Filipinas, and Thai women who have Japanese spouses. Additionally, this study also includes Chinese women married to immigrants who have lived in Japan for more than 5 years, because many of the Chinese women residing in Japan are

spouses of permanent residents. These people are usually assumed to have a part-time job, but rarely have an upper-white-collar occupation.

Return immigrants mainly consist of Japanese-Brazilians. Their visa status is usually “Spouse or Child of Japanese National,” “Long-Term Resident,” or “Permanent Resident,” and almost all of the Brazilians living in Japan belong to one of these categories. The present study includes those people who have Brazilian citizenship but who are not marred to Japanese citizens, as a typical sample of a return immigrant.

Refugees refer to Vietnamese in this study. In terms of a visa status, they usually have “Long-Term Resident,” or “Permanent Resident,” status.[7] The present study selects those whose duration of residency in Japan is longer than five years. Additionally, refugees who have married Japanese citizens are excluded, to eliminate the effects of international marriage. According to previous studies, refugees usually work in the manufacturing industry.

Americans are not usually thought of as immigrant, because they come from the most advanced country; however, 25.8% of U.S. immigrants are “Permanent Residents” and 17.5% are the “Spouse or Child of Japanese National.” On the other hand, “Intra-company Transferee” and “Investor/Business Manager,” usually highly skilled workers dispatched from U.S. companies, compose only 4.3%. These percentages indicate that more than a few Americans might have settled in Japan, which has so far been neglected.

Korean residents mostly consist of “Special Permanent Residents.” This category consists of about 70% of the Korean citizens in Japan, although newcomer Koreans have recently come into Japan as international students. The present study includes those who have lived in Japan for longer than five years and do not have a marital relationship with a Japanese citizen.

Taken together, these modes of immigration can be used to specify 17 categories. The present study examines their labor participation rate, unemployment rate, ratio of upper-white-collar employment, and over qualification-rate.

Table 2　Types of Immigrants and their Definitions

Types of Migrants	Nationality, Gender	Other Conditions
Highly Skilled	Chinese (male, female) American (male, female)	Graduated from at least 2-year college, no marital relationship with the Japanese
Marriage/Family	Chinese (male, female)、 Filipina、Thai（female） American (male, female)	Married to the Japanese / Foreign residents with longer than five years of residency in Japan
Return	Brazilian（male, female）	-
Refugee	Vietnamese（male, female）	Longer than five years of residency in Japan, no marital relationship with the Japanese
Old-Comer	Korean（male, female）	Longer than five years of residency in Japan, no marital relationship with the Japanese

Note: A marital relationship with a foreign husband is limited to Chinese women.

3-2. Methods

The present study applies the following multivariate analysis to break down the distributional differences among immigrants into some key factors:

$$Att_i = \alpha_i + \beta_1 \cdot Fg_i + \sum_{m=1}^{3} \beta_{2m} \cdot (Fg_i \cdot Edu_{mi}) + \beta_3 \cdot Rsd_i + X_i' \cdot \beta_4 + e_{1i} \quad \cdots (1)$$

Att_i: Upper-white-collar/no-upper-white-collar employment (=1/0).

Edu_{mi}: Educational attainment: less than junior high school (m=1), two-year college (m=2), university or higher (m=3) (=1/0), (ref =high school graduate).

Fg_i: Foreign citizenship/Japanese citizenship (=1/0).

Rsd_i: More than five years of residency in Japan/less than five years (=1/0).

X_i': Other control variables (work experience measured in years and its square, educational attainment, marital status, place of residence (prefecture), employment industry), vector.

e_i : residuals at individual i.

$$LP_i = \alpha_i + V_i' \cdot \gamma_1 + e_{2i} \quad \cdots (2)$$

LP_i: Labor participation or lack thereof (=1/0).

V_i': Control variables (foreign citizenship, age and its square, educational attainment and cross-term with nationality, marital status, partner's labor force status, number of child(ren), place of residence (prefecture)), vector.

e_i : Residuals at individual i.

The first expression is a probit regression model, and the dependent variable is a binary variable of upper-white-collar [8] /non-upper-white-collar employment. Upper-white-collar employment includes managers and professional/technical jobs, who are thought to possess a superior position in the labor market (Ishida 2002, Erikson, Goldthorpe, and Portocarero 1979, Erikson and Goldthorpe 1992).

In the regression, each group of immigrants is paired with their Japanese counterparts, to reveal differences in the effects of each characteristic on occupational attainment. Additionally, the present study applies Heckprobit analysis (Van de Ven and Van Pragg 1981) to estimate the probability of labor participation simultaneously with the second expression.

In the following analyses, we would like to examine the relationship between the estimated results and the research questions.

To answer the first question, we ask whether the following rule is satisfied:

$$\beta_1 = \beta_{2m} = \beta_3 = 0 \quad \cdots (3)$$

If compositional differences in socioeconomic status between immigrants and Japanese can explain all of the differences in occupational distribution, then the relationship expressed in the third expression is satisfied. In more detail, these are the coefficients for foreign citizenship, a cross-term of foreign citizenship and educational attainment, and the duration of residency, all of which are assumed to be zero when the effects are the same as those of the Japanese.

Secondly, a dummy variable for foreign citizenship (Fg_i) is assumed to clarify the effect of the mode of incorporation on occupational attainment. This variable represents the consequences for each mode of immigration that cannot be explained by educational attainment or the duration of residency.

Dummy variables for educational attainments (Edu_{mi}) consist of the following: less than junior high school, two-year college, and university or higher. The reference case is a high school graduate. Moreover, their cross-terms with the dummy for foreign citizenship are included, in order to examine whether the effects of immigrants'

educational attainment differs from that of the Japanese. In particular, the present study calculates the deviation of the marginal effect of educational attainment between immigrants and the Japanese using the fourth expression. This is the answer to the second question.

$$\Delta\mathrm{Edu} = \beta_{23} - \beta_{24} \quad \cdots (4)$$

$\Delta\mathrm{Edu}$: The difference of the marginal effects of educational attainment between immigrants and the Japanese.

A dummy variable for duration of residency (Rsd_i) indicates whether an individual resided abroad five years. The present study regards an individual's place of residence to be Japan, if that individual has lived in Japan for longer than five years. This variable is assumed to show the effects of settlement on occupational attainment, thus it is only set for immigrants.

Indeed, this variable can only show the distributional differences that depend on an individual's place of residence five years ago, because the population census contains cross-sectional, rather than longitudinal, data. However, we carefully control for other socioeconomic descriptions in order to detect changes in occupational status about settlement at the individual level in the cross-sectional data.

Next, we would like to answer the fourth question with the expression below, clarifying the effect of settlement on educational attainment. Immigrants have a higher chance of occupational attainment, if Edu_m^k shows a positive value, and a lower chance if it shows a negative value. The results show a marginal change in social stratification from the existing structure that is seen among the Japanese.

$$Edu_m^k = \beta_1 + \beta_{2m} + \beta_3 \quad \cdots (5).$$

Edu_m^k: Effect of the duration of residency with educational attainment (m) by immigrant type (k).

Control variables (X_i') contain work experience measured in years and its square, educational attainment, marital status, place of residence (prefecture), and employment industry. Work experience measured in years is computed by the immigrant's age minus the minimum number of years necessary to finish the maximum degree attained by the individual. Additionally, the place of residence is an important variable, because the

residential distribution of immigrants greatly differs from that of the Japanese.

Lastly, the second formula controls for labor participation. Most of the variables are common to the first expression, except for a variable for the labor force status of a spouse, and for the number of children in a household. These variables assume Douglas-Arisawa's law, namely an alternative relationship between the husband and wife's employment. Moreover, if a correlation between the first and second expression is zero, we used only the probit regression, meaning no sample selection bias between two conditions.

1-4. Descriptive Statistics: Distributions of Socioeconomics and Occupational Status

1-4-1. Socioeconomic Status

Table 3-1 and 3-2 revealed that there is a great variety of socioeconomic status among types of immigrants. For example, among males, the mean age of Korean citizens (39.6 years old), Korean residents (39.3 years old), Chinese married/family immigrants (with a Japanese spouse) (38.7 years old), and male American married/family immigrants (40.5 years old) are all higher than among the Japanese (38.6 years old), while others are lower. Among females, the mean age of Korean citizens (40.4 years old), Korean residents (39.9 years old), Thai citizens (40.3 years old), and Thai married/family immigrants (with a Japanese spouse) (41.1 years old) are all higher than among the Japanese (38.6 years old), while others are lower.

Table 3-1 Sociodemographic Characteristics of Immigrants (Male)

	Mean Age (year)	Married (%)	A Spouse of the JP (%)	Univ. Graduate (%)	Labor participation rate (%)	Unemployment rate (%)	Non-regular employment (%)	Employed in Manufacturing Industry (%)	Upper White-collar (%)	Self-employed (%)	Longer than five years of residency (%)	Number of samples (N)
The Japanese	38.6	57.0	-	31.4	98.0	7.4	9.9	18.2	18.1	8.7	-	252,126
Korean	39.6	53.7	47.0	31.2	96.6	11.9	17.5	15.0	21.4	18.2	93.6	81,308
Korean resident	39.3	35.6	-	29.7	96.2	14.0	19.3	14.3	19.9	17.7	-	54,940
Chinese	33.1	64.0	17.5	32.2	96.7	7.0	35.5	50.0	20.1	3.8	52.6	93,823
Highly-skilled	34.2	66.9	-	81.3	96.3	6.8	19.0	36.0	45.8	2.7	68.5	30,249
Marriage/Family(JP.)	38.7	-	-	38.5	96.2	9.8	24.0	25.6	21.1	13.3	85.7	8,691
Vietnamese	29.7	39.7	9.2	16.7	98.0	5.3	44.8	77.1	8.3	2.1	39.0	9,149
Vietnamese refugee	35.5	64.6	-	15.1	96.7	12.1	42.7	60.7	10.3	5.7	-	3,076
Brazilian	37.4	65.9	9.2	7.0	99.0	8.4	65.4	83.2	2.7	2.1	83.8	46,496
Japanese Brazilian	36.9	60.0	-	6.7	98.9	8.7	66.0	83.3	2.4	1.9	83.7	39,136
American	38.0	69.5	59.2	72.1	94.7	5.6	25.8	2.4	72.6	11.4	60.4	14,273
Highly-skilled	34.1	24.2	-	96.4	96.4	3.2	24.8	2.2	83.1	4.9	36.2	4,520
Marriage/Family (JP.)	40.5	-	-	69.2	94.5	6.3	25.7	2.2	69.5	15.5	73.9	8,127

Note: The number of samples (N) is also the un-weighted number of Japanese. Source: Tabulated by the author

Table 3-2 Sociodemographic Characteristics of Immigrants (Female)

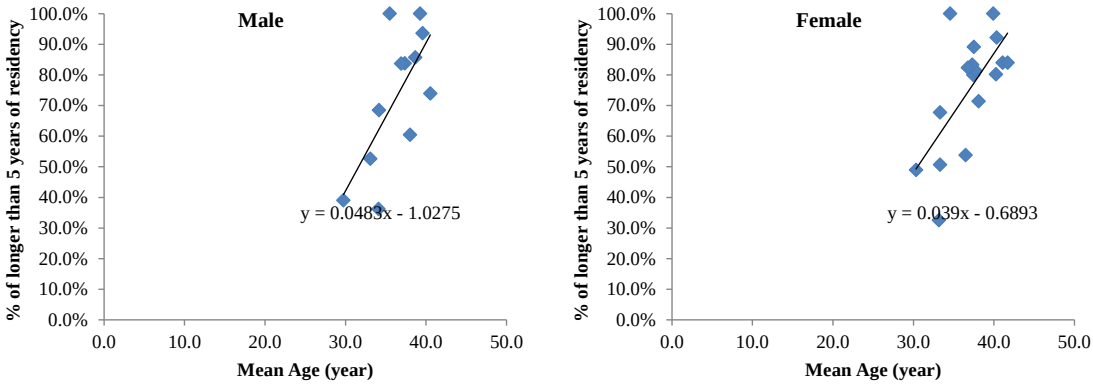
	Mean Age (year)	Married (%)	A Spouse of the JP %)	Univ. Graduate (%)	Labor participation rate (%)	Unemployment rate (%)	Non-regular employment (%)	Employed in Manufacturing Industry (%)	Upper White-collar (%)	Self-employed (%)	Longer than five years of residency (%)	Number of samples (N)
The Japanese	38.6	63.7	-	17.0	73.9	5.6	48.5	7.5	20.1	6.7	-	250,167
Korean	40.4	60.4	55.5	20.5	64.8	10.2	53.5	11.3	15.1	14.1	92.2	104,776
Korean resident	39.9	37.7	-	19.5	75.2	11.1	50.0	10.6	15.2	12.7	-	62,375
Chinese	33.3	68.4	57.6	20.8	70.8	5.8	54.6	54.9	7.8	4.3	50.7	180,344
Highly-skilled	33.3	60.5	-	71.5	70.1	8.4	39.7	28.2	27.2	3.6	67.7	32,375
Marriage/Family(Mig.)	37.5	-	-	38.8	57.8	8.8	58.0	28.5	16.5	7.0	89.1	29,523
Marriage/Family (JP.)	38.1	-	-	21.1	46.9	9.2	71.8	33.9	8.3	11.9	71.4	60,622
Filipina	37.5	82.0	89.2	16.3	61.0	8.9	81.5	46.5	3.1	6.3	80.0	92,303
Marriage/Family (JP.)	37.7	-	-	14.5	51.3	7.5	84.4	45.3	2.5	8.5	81.3	63,191
Thai	40.3	83.7	93.3	12.9	51.7	9.9	79.5	43.6	8.2	14.0	80.1	18,134
Marriage/Family (JP.)	41.1	-	-	12.5	41.6	8.2	84.5	42.3	7.2	16.7	84.0	13,245
Vietnamese	30.3	57.7	40.0	11.6	77.1	4.7	64.5	71.8	4.0	2.7	48.9	8,587
Vietnamese refugee	34.6	68.2	-	9.2	74.4	9.6	73.8	55.6	5.7	3.8	-	2,835
Brazilian	37.3	72.8	13.5	9.4	78.7	9.5	76.7	76.3	4.2	1.9	83.3	40,284
Japanese Brazilian	36.8	68.5	-	8.6	80.0	9.8	76.7	78.3	3.8	1.6	82.3	34,281

Note: The number of samples (N) is also the un-weighted number of Japanese. Source: Tabulated by the author

Table 3-2 Sociodemographic Characteristics of Immigrants (Female) Cont.

	Mean Age (year)	Married (%)	A Spouse of the JP %)	Univ. Graduate (%)	Labor participation rate (%)	Unemployment rate (%)	Non-regular employment (%)	Employed in Manufacturing Industry (%)	Upper White-collar (%)	Self-employed (%)	Longer than five years of residency (%)	Number of samples (N)
American	36.5	56.5	58.0	71.4	72.8	4.2	33.8	3.2	74.6	8.8	53.8	5,680
Highly-skilled	33.2	32.4	-	93.4	82.9	2.9	26.1	1.6	84.6	4.3	32.6	2,948
Marriage/Family (JP.)	41.7	-	-	65.3	56.6	3.7	50.1	5.2	63.8	19.3	84.0	1,746

Note: The number of samples (N) is also the un-weighted number of Japanese. Source: Tabulated by the author



Source: Tabulated by the author using micro-data from the Japanese census of 2010

Figure 1　The Relationship between Mean Ages and % with Longer than Five Years of Residency

As the background to these higher mean ages, Korean residents are rapidly aging due to the naturalization of younger generations. Additionally, their length of residency is increasing. Actually, you can see that the longer the length of residency, the higher the mean ages (Figure 1).

Marriage, which has been considered as a major path for immigrant settlement in Japan, greatly varies depending on the type of immigrant. For instance, 24.2 % of highly skilled American men are married, which is much lower than among the Japanese (57.0 %), on the other hand, 66.9% of highly skilled Chinese men are married. Among women, only 32.4% of highly skilled American women are married, but as many as 83.7% of Thai women are married; these results are much lower and higher, respectively, than they are among the Japanese (63.7%). Moreover, the proportions of those with a Japanese spouse also vary: among men, only 9.2% of Vietnamese and Brazilian immigrants, but as many as 47.0% of Korean citizens, have married Japanese women. On the other hand, despite a high variability—ranging from 13.5% of Brazilians to 93.3% of Thai—women tend more toward marriage with the Japanese.

Indeed, there is also some variation within the same nationality. For example, Vietnamese refugees have higher marriage rates than do the Vietnamese as a whole, meaning that both family formation and settlement are progressing among the Vietnamese refugees. On the other hand, Korean residents have a lower marriage rate than do Koreans as a whole, implying that marriages between Korean residents are currently decreasing.[9]

We can see that the proportions of university graduates among the following demographics are higher than, or at the same level as, that of the Japanese (31.4%):

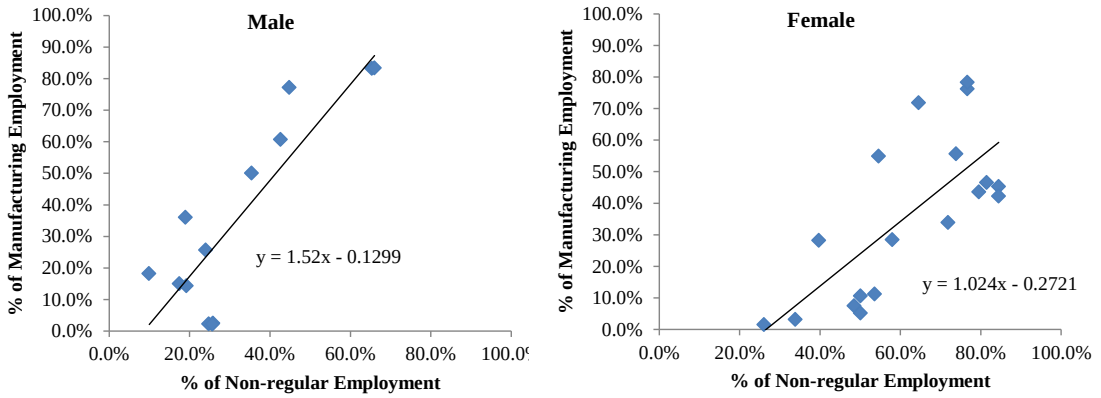
Korean men (31.2%), male Korean residents (29.7%), Chinese men (32.2%), highly skilled Chinese and American immigrants (81.3%, 96.4%), and male Chinese and American married/family immigrants (38.5%, 69.2%). Among women, Korean women (20.5%), female Korean residents (19.5%), Chinese women (20.8%), highly skilled Chinese and American immigrants (71.5%, 93.4%), Chinese married/family immigrants (with an immigrant spouse) (38.8%), and Chinese and American married/family immigrants (with a Japanese spouse) (21.1%, 65.3%) show higher proportions than do the Japanese (17.0%).

It is noticeable that there is a higher proportion of university graduates among Koreans than among the Japanese, implying that Korean residents might be "the model minority," similar to Asian-Americans in the US Moreover, Chinese married/family immigrants have a higher proportion of university graduates than both the Chinese as a whole and the Japanese, meaning that those individuals who are not selected based on their human capital are not necessarily less-educated people.

It is also revealed that almost all of the male immigrants except students are working; however, many of the females—except for the Korean residents, Vietnamese, Vietnamese refugees,[10] Brazilians, Japanese-Brazilians, and highly skilled American immigrants—have lower labor participation rates than the Japanese (73.9%). Moreover, female married/family immigrants tend to have a lower rate of labor participation than Japanese women, implying that female immigrants face a huge gender gap.

Unemployment rates among male Korean residents (14.0%) are higher than among the Japanese, Koreans as a whole (11.9%), male Chinese married/family immigrants (9.8%), Vietnamese refugees (12.1%), Brazilians (8.4%) and Japanese-Brazilians (8.7%). Note that Korean residents have a very high unemployment rate. On the other hand, women tend to have unemployment rates not only higher than among men, but also the Japanese, implying also a huge gender gap.

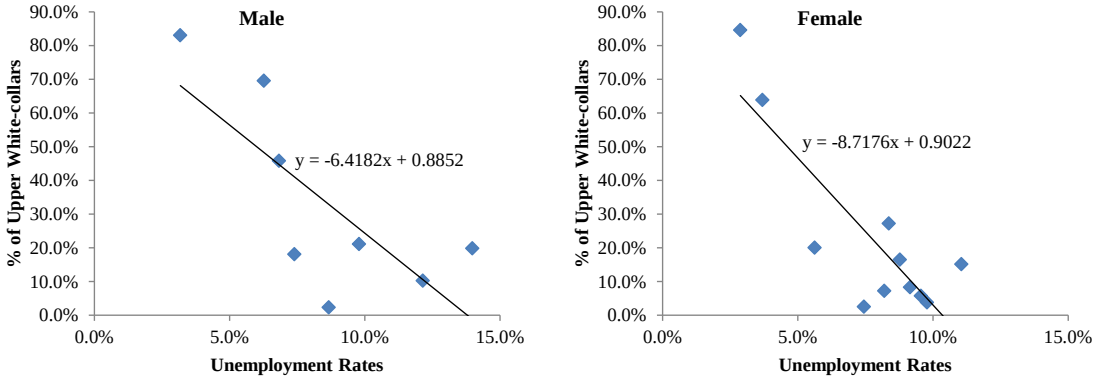
Concerning the relationship between labor-related indexes, Figure 2 shows that the proportions of non-regular workers and those of people who are employed in the manufacturing industry have a positive correlation, meaning that almost all non-regular workers are employed in this industry. In particular, Japanese-Brazilians and Vietnamese refugees, who are known to be employed in this industry, have a high proportion of workers in these industries. In contrast, the correlation is weaker among women, implying that many non-regular workers are employed in an industry other than manufacturing, such as a services industry.



Source: Tabulated by the author using micro-data from the Japanese census of 2010

Figure 2 The Relationship between % of Non-Regular and Manufacturing Employment

On the contrary, the proportions of upper-white-collar workers, non-regular workers, and unemployment rates show a negative correlation (Figures 3 and 4).[11] Hence, we can conclude that examining either proportion is sufficient for revealing their position in the labor market.[12]



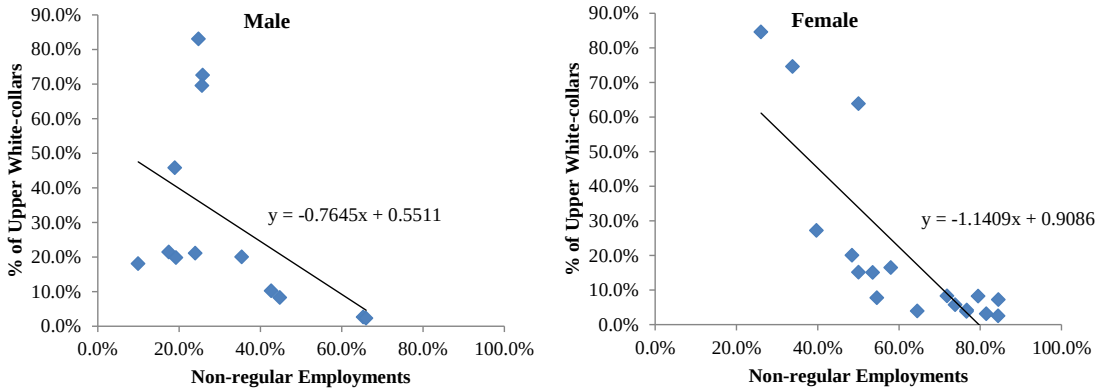
Source: Tabulated by the author using micro-data from the Japanese census of 2010

Figure 3 The Relationship between Unemployment Rates and % of Upper-White-Collar Workers

Meanwhile, it is known that ethnic entrepreneurship is another major path toward economic assimilation for immigrants. In this regard, Korean citizens, Korean residents, Thai women, Chinese/Thai/Filipina married/family immigrants, and all but the highly skilled American citizens have higher likelihood of being self-employed than do the Japanese. However, Japanese-Brazilians and Vietnamese refugees have a lower likelihood of self-employment than do the Japanese, meaning that, overall, ethnic

entrepreneurship is a minor path towards economic assimilation for immigrants in Japan.

Finally, it is shown that many immigrants have settled in Japan; the proportion of immigrants who have resided in Japan for more than five years is high among many of the immigrant categories. In particular, it is noticeable that even large proportions of highly skilled Chinese immigrants and American married/family immigrants have settled, endorsing the previous studies that argued that many immigrants have already settled in Japan.



Source: Tabulated by the author using micro-data from the Japanese census of 2010

Figure 4 The Relationship between % of Non-Regular Employment and Upper-White-Collar Workers

1-4-2. Occupational Distributions

Occupational and industrial distributions are divided into 12 occupations and 21 industries, for a total of 252 categories. However, it is redundant to look at each of them. Thus, we have computed a dissimilarity index[13] for each type of immigrant for comparison with the Japanese (Figure 5).

As a result, it is revealed that there is a huge gap between immigrants and the Japanese. For example, the smallest gap is between Korean residents and the Japanese, showing 0.24 and 0.20 for men and women respectively. These are smaller than the gap between Japanese men and women, which is 0.42 (not shown in the table). Next, Chinese married/family immigrants (with a Japanese spouse) show 0.27 and 0.42 for men and women respectively. Otherwise, immigrants have higher values than those mentioned above; for example, American married/family immigrants have 0.48 and 0.49 for men and women respectively. In particular, both Japanese-Brazilians and Vietnamese refugees show very high values, due to the fact that many of them are

employed as manufacturing and processing workers in the manufacturing industry.

Table 4 Differences in Occupational and Industrial Distributions between Immigrants and the Japanese, by the Dissimilarity Index

Types of Migrants	Nationality	Male	Female
Highly-skilled	China	0.39	0.38
	The US	0.48	0.46
Marriage/Family			
A Spouse of the JP.	China	0.27	0.42
A Spouse of the JP.	Philippine		0.59
A Spouse of the JP.	Thailand		0.57
A Spouse of the JP.	The US	0.48	0.49
A Spouse of Mig.	China		0.41
Japanese Brazilian	Brazil	0.66	0.73
Vietnamese Refugees	Vietnam	0.53	0.63
Korean Residents	Korea	0.24	0.20

Source: Tabulated by the author using micro-data from the Japanese census of 2010

The proportions of upper-white-collars workers by duration of residency and among university graduates show the effects of settlement and of the under-qualification of educational credentials (OECD 2013b: 13)) (Table 5-1 and 5-2).

First, it is clarified that, for male immigrants, the longer the duration of residency, the higher the proportion of upper-white-collar workers among married/family immigrants. On the other hand, the opposite relationship is confirmed among highly skilled immigrants. Meanwhile, Japanese-Brazilians have a very small proportion of upper-white-collar workers (2.5%), which does not increase with the duration of settlement. To summarize, settlement has a positive effect only among married/family immigrants.

Additionally, the proportion of upper-white-collar workers among male university graduates, except for Japanese-Brazilians, is higher than that of the Japanese, meaning that the educational attainment of male immigrants may be more positively valued than that of the Japanese. In particular, it is very high for highly skilled immigrants, implying that the Japanese labor market sufficiently values their educational attainment. Moreover, it is also high for male Korean residents, male Vietnamese refugees, and male married/family immigrants, none of whom are selected based on their human capital. Therefore, educational attainment is an important element of occupational

attainment for male immigrants.

Yet the same is not true for female immigrants. Women tend to receive a positive effect from settlement more frequently than do men. However, they also tend to have a lower proportion of upper-white-collar workers among university graduates, implying that the educational attainment of women is valued less than that of men.

Table 5-1 The Proportion of White-Collar Workers by Type of Immigrant, Male (%)

	Nationality	Total	D/R ≺5 yrs.	D/R ≧5 yrs.	University Degree
The Japanese	Japan	18.1	-	-	32.6
Highly-skilled	China	45.8	48.4	44.6	52.8
Highly-skilled	The US	83.1	85.8	78.1	83.8
Marriage/Family（JP.）	China	21.1	15.5	21.9	36.9
Marriage/Family（JP.）	The US	69.5	67.8	70.1	76.4
Japanese Brazilian	Brazil	2.4	2.5	2.3	12.0
Vietnamese Refugees	Vietnam	10.3	-	-	44.3
Korean Residents	Korea	19.9	-	-	39.0

Note: D/R means duration of residency.

Source: Tabulated by the author using micro-data from the Japanese census of 2010

Table 5-2 The Proportion of White-Collar Workers by Type of Immigrant, Female (%)

	Nationality	Total	D/R ≺5 yrs.	D/R ≧5 yrs.	University Degree
The Japanese	Japan	20.1	-	-	37.6
Highly-skilled	China	27.2	23.8	28.6	33.9
Highly-skilled	The US	84.6	89.4	74.0	86.3
Marriage/Family（Mig.）	China	16.5	8.6	17.1	32.4
Marriage/Family（JP.）	China	8.3	4.6	9.4	21.2
Marriage/Family（JP.）	Philippine	2.5	1.6	2.6	7.8
Marriage/Family（JP.）	Thailand	7.2	11.2	6.8	18.6
Marriage/Family（JP.）	The US	63.8	67.8	63.3	75.9
Japanese Brazilian	Brazil	3.8	2.9	4.0	13.5
Vietnamese Refugees	Vietnam	5.7	-	-	32.1
Korean Residents	Korea	15.2	-	-	33.9

Note: D/R means duration of residency.

Source: Tabulated by the author using micro-data from the Japanese census of 2010

Looking into the detailed industrial distribution for each type of male immigrant, almost half of all highly skilled male Chinese immigrants (45.0%) are employed in the information and communications industry (Table 6-1), and many of them are considered engineers in the Information and Communication Technology (ICT). Male married/family immigrants have a higher proportion of employment than the Japanese in the medical, health care, and welfare industries, but a lower proportion of employment in the manufacturing and the education and learning support industries. A very small proportion of Japanese-Brazilian men have upper-white-collar jobs as a whole; however, they show a higher proportion than the Japanese do in the services industry. Male Vietnamese refugees also have a lower proportion of upper-white-collar jobs as a whole; however, they show a higher proportion in the manufacturing (23.3%), information and communications (26.9%), scientific research, and professional and technical services (19.2%) industries. Americans are concentrated in education and learning support, which is assumed to refer to teaching English at language schools, regardless of the type of immigrant and gender. Finally, male Korean residents share a similar distribution with the Japanese, except for a lower distribution in the manufacturing industry.

On the contrary, the proportion of upper-white-collar jobs for the Japanese men is higher in the manufacturing (15.7%), information and communications (17.5%), scientific research, professional and technical services (12.8%), education, learning support (15.5%), and medical, health care and welfare (15.1%) industries, among which upper-white-collar jobs are almost evenly distributed.

As for women, the Japanese have high concentrations in the medical, health care and welfare industry. In contrast, female immigrants have a lower concentration in the medical, health care and welfare industry, but high concentrations in the manufacturing, information and communications, wholesale and retail trade, scientific research, professional and technical services industries.

From these findings, the socioeconomic status of immigrants in Japan has been revealed. In the following pages, a multivariate analysis is used to explore the relationship between educational attainment, settlement, and the mode of incorporation in the occupational distributions.

Table 6-1 Industrial Distributions of Upper-White-Collar Workers, Male (%)

	The Japanese	Highly-skilled Ch.	Highly-skilled US	Marriage/Family Ch.	Marriage/Family US	Japanese Brazilian	Vietnamese Refugees	Korean Residents
Manufacturing	15.7	18.4	3.1	9.0	2.6	13.1	23.3	8.2
Forestry	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fisheries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining and Quarrying of Stone and Gravel	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.1
Construction	6.3	1.1	0.2	1.5	0.2	1.3	2.0	5.0
Agriculture	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Electricity, Gas, Heat Supply and Water	0.9	0.0	0.0	0.1	0.0	0.0	0.4	0.0
Information and Communications	17.5	45.0	4.5	20.3	8.6	9.3	26.9	18.4
Transport and Postal Activities	1.1	0.5	0.1	0.8	0.2	0.6	1.2	1.0
Wholesale and Retail Trade	4.9	6.7	1.7	10.7	1.9	4.7	6.5	7.3
Finance and Insurance	1.2	0.8	1.5	1.3	2.5	2.8	0.0	1.3
Real Estate and Goods Rental and Leasing	0.7	0.3	0.3	0.8	0.2	0.4	0.0	2.8
Scientific Research, Professional and Technical Services	12.8	11.5	6.2	10.4	10.5	10.3	19.2	12.0
Accommodations, Eating and Dining Services	0.5	1.2	0.2	2.7	0.2	0.5	0.0	2.5
Living-Related and personal Services and Amusement Services	1.4	0.7	2.1	2.7	2.0	8.1	0.8	7.5
Education, Learning Support	15.5	8.6	64.6	10.4	63.8	15.3	6.1	13.4
Medical, Health Care and Welfare	15.1	2.5	0.8	25.9	1.1	4.3	1.6	14.5
Compound Services	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Services, N.E.C.	3.3	2.3	5.9	2.6	4.4	22.8	9.4	5.6
Government, Except anywhere Classified	2.1	0.0	8.6	0.1	1.4	3.8	0.0	0.1
Unable to Classify	0.3	0.2	0.1	0.5	0.1	2.5	1.2	0.3

Source: Tabulated by the author using micro-data from the Japanese Census of 2010

Table 6-2 Industrial Distributions of Upper-White-Collar Workers, Female (%)

				Marriage/Family							
	The Japanese	Highly-skilled Ch.	Highly-skilled US	Chinese (Mig.)	Chinese (JP.)	Filipina (JP.)	Thai (JP.)	The US(JP.)	Japanese Brazilian	Vietnamese Refugees	Korean Residents
Manufacturing	2.1	12.7	1.1	11.2	9.1	3.2	5.1	1.3	5.3	12.1	2.8
Forestry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fisheries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining and Quarrying of Stone and Gravel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Construction	0.5	0.9	0.0	0.6	1.3	2.6	0.6	0.0	0.1	1.0	1.1
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity, Gas, Heat Supply and Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Information and Communications	4.4	29.3	1.3	24.5	9.9	1.5	1.7	3.0	3.0	13.1	8.1
Transport and Postal Activities	0.1	0.5	0.1	0.6	1.4	0.4	0.0	0.0	0.0	0.0	0.2
Wholesale and Retail Trade	3.7	10.3	0.8	10.4	9.1	3.3	2.8	1.0	1.0	7.1	6.8
Finance and Insurance	0.2	0.7	0.3	0.7	0.5	0.1	0.0	0.3	0.6	0.0	0.3
Real Estate and Goods Rental and Leasing	0.3	0.5	0.1	0.5	0.5	0.8	0.3	0.3	1.1	0.0	1.4
Scientific Research, Professional and Technical Services	3.7	12.3	2.6	12.6	10.5	4.7	6.5	7.9	7.1	14.1	6.6
Accommodations, Eating and Dining Services	0.7	1.4	0.2	1.9	2.1	3.2	2.0	0.2	0.3	1.0	2.0
Living-Related and personal Services and Amusement Services	1.3	1.1	0.8	0.7	3.2	1.2	4.0	1.3	3.0	1.0	4.6
Education, Learning Support	23.7	17.6	74.8	24.5	23.7	59.4	14.4	75.4	34.0	8.1	24.3
Medical, Health Care and Welfare	57.0	7.0	1.2	6.9	21.5	8.2	60.2	4.8	11.8	22.2	37.9
Compound Services	0.1	0.1	0.0	0.2	0.2	0.0	0.3	0.0	0.0	0.0	0.0
Services, N.E.C.	0.8	4.8	6.5	4.0	4.6	6.0	2.0	2.7	12.4	15.2	3.2
Government, Except anywhere Classified	1.2	0.5	10.4	0.6	2.0	5.2	0.3	1.7	18.9	3.0	0.3
Unable to Classify	0.1	0.3	0.1	0.2	0.3	0.1	0.0	0.0	1.2	1.0	0.2

Source: Tabulated by the author using micro-data from the Japanese census of 2010

1-5. Multivariate Analysis: Occupational Distributions in terms of Educational Attainment, Settlement, and Mode of Incorporation

The results (Table 7-1 and 7-2) show that the third expression in the first research question is not true. To put it differently, the compositional differences between immigrants and Japanese cannot explain the occupational differences between them, nor why an immigrant who has the same socioeconomic status as a Japanese citizen has a different chance of attaining an upper-white-collar status

In computing the differences in the marginal effects of educational attainment between immigrants and Japanese(ΔEdu), it is revealed that highly skilled male Chinese immigrants, Japanese-Brazilian men, Vietnamese refugees, and female Korean residents all have a higher ΔEdu than the Japanese; other immigrants have only the same or smaller ΔEdu than the Japanese. In terms of gender, men tend to receive a higher return than do women, except in the case of Korean residents, which might be a dual exclusion, as revealed by Tsuboya (2000:115).

Moreover, these excesses are not due to positive selection among less- educated people, but to positive selection among the highly educated. In other words, the hypothesis on the limited international transferability of educational attainment is not necessarily true, which implies that even highly educated immigrants might have a higher probability of occupational attainment.

To prove the above-mentioned finding, we would like to examine the effect of the place of education, namely the effect of educational attainment in Japan, on occupational attainment using the sixth expression, found below. This expression compares a highly skilled Chinese immigrant between 22 and 30 years old, who graduated from a university and has resided in Japan for longer than five years, to a graduate from a Japanese university.[14]

$$Att_i = \alpha_i + \beta_1 \cdot Rsd_i + X_i' \cdot \beta_2 + e_{1i} \quad \cdots (6)$$

Att_i: Upper-white-collar / not upper-white-collar (=1/0).

Rsd_i: More than five years of residency in Japan/less than five years (=1/0).

X_i': Other control variables (work experience measured in years and its square, educational attainment, marital status, place of residency (prefecture), employment industry), vector.

e_i : Residuals at individual i.

As a result, β_1 are significantly negative for men and women, indicating that a

university degree obtained in Japan has a negative effect on their occupational attainment. This finding is consistent with Takenaka et al. (2012), who argued that human capital obtained abroad has a positive effect on an immigrant's occupational attainment and settlement in Japan, rather than a negative effect, or "negative assimilation."[15] Moreover, Tajima (2010: 211) pointed out that it is easy for Chinese immigrants to find employment in the information and communications industry if they can speak English and possess knowledge of computer programming. They usually migrate to Japan with a preexisting job offer, or as demand-driven labor immigrants who are selected based on their human capital at entry. No previous study can tell whether this is also true of highly educated Japanese-Brazilians; however, that is a reflection of the fact that the labor market for highly skilled immigrant workers is distinct from the market for the Japanese, as Shimodaira (1999) and Kajita (1994) have revealed.

However, this is not true of long-term residents, such as Vietnamese refugees and Korean residents, because they are assumed to attend Japanese universities. Their high values of ΔEdu might be a consequence of their high aspirations for education, as is the case with Asian-Americans in the US

Based on these findings, we can argue that a higher return on educational attainment is confirmed for highly skilled Chinese men or among long-term residents, such as Vietnamese refugees and female Korean residents with high educational aspirations, as is the case with Asian-Americans in the US Moreover, women tend to benefit less from their educational attainment than men do, implying that they may face a dual exclusion from the labor market, due to being female immigrants. These are the answers to the second research question.

Table 7-1 The Results of the Multivariate Analysis on Occupational Distributions by Types of Immigrant, Male

	Highly-skilled, Chinese	Highly-skilled, US	Marriage/Family, Chinese(JP.)	Marriage/Family, The US(JP.)	Japanese Brazilian	Vietnamese Refugees	Korean Residents
Educational Attainment							
Less than Junior Hg. School	-	-	0.22*	0.31	0.09	0.46*	0.09
Two-year college	-0.49***	-0.01	-0.11	-0.08	-0.05	0.14	-0.02
Higher than University	-	-	0.07	-0.27***	0.09*	0.99***	0.03
Duration of Residency							
Longer than 5 years	-0.20***	-048***	0.16*	-0.02	-0.05	-	-
Nationality	0.69***	1.41***	-0.05	0.95***	-0.59***	-0.54***	0.20***

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

Note: Marriage/Family (JP.) is estimated by a probit regression model.

	Highly-skilled, Chinese	Highly-skilled, The US	Marriage/Family Chinese (JP.)	Marriage/Family, The US (JP.)	Japanese Brazilian	Vietnamese Refugees	Korean Residents
ΔEdu	0.49	0.00	-0.22	-0.27	0.09	0.53	0.00

Note: Coefficients with a significance level of less than 5% are regarded as zero.

Table 7-2 The Results of the Multivariate Analysis on Occupational Distributions by Type of Immigrant, Female

	Highly skilled, Chinese	Highly skilled, US	Marriage/Family					Japanese Brazilian	Vietnamese Refugees	Korean Residents
			Chinese (Mig.)	Chinese (JP.)	Filipina (JP.)	Thai (JP.)	US (JP.)			
Educational Attainment										
Less than Junior Hg. School	-	-	-	-0.13	-	-0.13	-0.66	-0.01	0.14	-0.27**
Two-year college	-	-0.30	-	-0.46***	-	-0.63***	-0.95***	-0.47***	-0.13	-0.13***
Higher than University	-	-	-	-0.33***	-	-0.74***	-0.39**	-0.58***	0.43*	-0.12***
Duration of Residency										
Longer than 5 years	0.10***	-0.29**	0.38***	0.16***	0.26**	0.04	0.04	0.11*	-	-
Nationality	0.32***	1.45***	0.08	0.06	-0.85***	0.36*	1.10***	0.16**	0.05	0.21***

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

Note 1: A probit regression model without educational attainment and its cross-terms with nationality is used, because the estimation does not converge for the Chinese (Mig.).

Note 2: The cross-terms between educational attainment and nationality are excluded due to the non-convergence of the estimation for Filipinas (Jpn.)

Note 3: Variables for an educational attainment are omitted for the highly skilled Chinese immigrants, because the estimation does not converge with those variables.

	Highly-skilled, Chinese	Highly-skilled, US	Marriage/Family					Japanese Brazilian	Vietnamese Refugees	Korean Residents
			Chinese (Mig.)	Chinese (JP.)	Filipina (JP.)	Thai (JP.)	The US (JP.)			
ΔEdu	-	0.00	-	-0.33	-	-0.74	-0.39	-0.58	0.43	0.15

Note: Coefficients with a significance level of less than 5% are regarded as zero.

Table 8 Effects of the Place of Education on Occupational Distribution among Highly Skilled Immigrants

(University graduates, 22-30 years old)

	Male	Female
More than 5 yrs. of D/R	-0.37***	-0.24***

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

Meanwhile, the effects of the duration of residency are negative among highly skilled immigrants, except for Chinese women. In contrast, married/family immigrants, particularly women, tend to benefit from them. Actually, in all of the categories that contain both sexes, females show a higher value of Rsd_i than males, even though the values are negative or statistically insignificant. This implies that the duration of residency has a different effect depending on the immigrant's mode of incorporation, particularly gender.

This is because highly skilled immigrants have already reached their highest status at the beginning of their residence, and their status will then decline with the extension of their residency. On the other hand, the occupational distributions of married/family immigrants are more similar to that of Japanese women, rather than Japanese men, meaning that they are employed in more flexible occupations that do not necessarily require a long-term commitment, a situation peculiar to "the Japanese style of management."

We can also regard the dummy variable for foreign citizenship (Fg_i) as a settlement effect for Korean residents and Vietnamese refugees, because their duration of residency tends to be longer than those of other types of immigrants. The coefficient β_1 of Korean residents shows a positive value, meaning that their long-term residency in Japan might have a positive effect on their occupational attainment. However, the same is not true of the Vietnamese refugees, who have settled in Japan for 20 to 30 years, implying that its effects do not necessarily increase monotonically over time.

Besides these, Fg_i reflects not the effect of the length of residency, but rather the mode of incorporation itself. The results demonstrate that it is positive for highly skilled Chinese immigrants and Americans and Japanese-Brazilian women; on the other hand, it is zero or negative for married/family immigrants, except for those from Thailand. The results for the highly skilled Chinese and American immigrants are consistent with their realized high statuses, although the reasons for the Japanese-Brazilian women and Thai married/family immigrants are not necessarily clear.[16] Note that such a large negative value for Filipina married/family immigrants is consistent with previous

studies, revealing that they are at a serious socioeconomic disadvantage.

Considering these results together, we would like to respond to the third research question, which concerns the consequences of the mode of incorporation, by comparing the characteristics of each type of immigrant. We plot the coefficients of Fg_i, ΔEdu, Rsd_i in the radar charts below (Figures 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7).

Highly skilled Chinese immigrants show large positive values in nationality and educational attainment, although they have a negative value in their duration of residency. In terms of gender differences, it is revealed that men have higher values of Fg_i, ΔEdu than do women, namely an "educational-attainment-driven" characteristic; on the other hand, women are more duration-of-residency-driven in that sense. Their example suggests that the selection of immigrants according to their human-capital at entry works well for their occupational attainment. This is a positive aspect of immigrant integration.

Married/family immigrants tend to have a positive value for duration of residency. Even so, they have large negative values in educational attainment and nationality, implying that they compensate the loss of opportunity from those two factors by extending their duration of residency. In terms of the gender gap, you can see the same pattern as is present in highly skilled Chinese immigrants. Their example suggests that immigrants who are not selected for their human-capital directly at entry can still attain high occupational status in their settlement.

Japanese-Brazilians are a disadvantaged group, as they are driven by neither educational attainment nor duration of residency. The effect of their nationality is largely negative; however, the effect of the duration of residency is not significantly different from zero, while that of educational attainment is just slightly positive for men. For women, the effects of the duration of residency and nationality are slightly positive, but that of educational attainment is negative. In terms of the gender gap, their pattern is the same as the other types. The cause of their large disadvantages might be the migration system that recruits them as a non-regular workers in the manufacturing industry, as Kajita et al. (2005) have revealed. This suggests that the free entry of labor immigrants might cause a significant problem for integration, underlining the importance of any type of selection according to their human-capital ate entry.

In previous studies, refugees are known to be the most deprived group; however, Vietnamese refugees show positive values in an educational attainment. Indeed, the effects of their nationality are negative for men, and statistically insignificant from zero for women, but they can compensate for those weaknesses through their higher educational attainment. Their example suggests that long-term residency might push the

most disadvantaged immigrants toward upward mobility, a path that other immigrants might follow in the long run.

Korean residents show a similar pattern concerning these three factors to the Japanese. Coefficients for nationality are positive for both men and women, and the return on educational attainment is positive for women but statistically insignificant for men. This implies that they have fully adjusted to Japanese society, and that they might be "the model minority" in the process.

Finally, the case of Americans is quite impressive; except for their very high values of nationality, they share the basic characteristics with other immigrants. For instance, it is confirmed that highly skilled immigrants are more driven by educational-attainment, and American married/family immigrants are more driven by their duration of residency. This means that all immigrants might be operating under the same social system in Japan.

From these findings, we can argue that the mode of incorporation, namely the type of immigrants and their gender, play an important role in determining which factors contribute to higher occupational attainment. In particular, male and highly skilled immigrants tend to be driven by educational attainment, in contrast to female and married/family immigrants, who tend to be driven by their duration of residency. However, Japanese-Brazilian immigrants fit neither of these situations, due to their status as free-labor immigrants. Moreover, long-term residents, such as Vietnamese refugees and Korean residents, show other immigrants the possibilities for adaptation to Japanese society in the long-term.

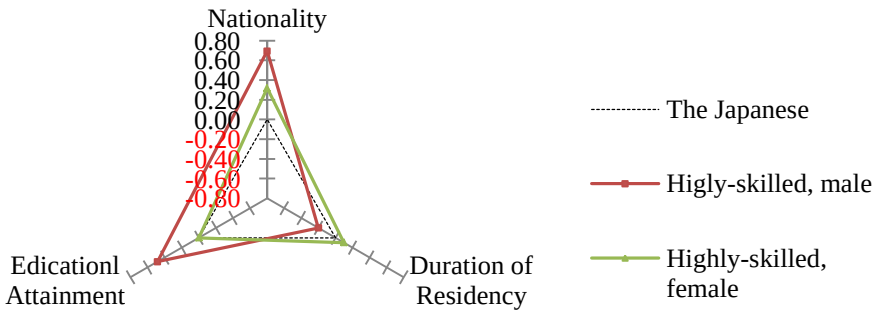


Figure 5-1 The Relationship between Determinants, Chinese Highly Skilled

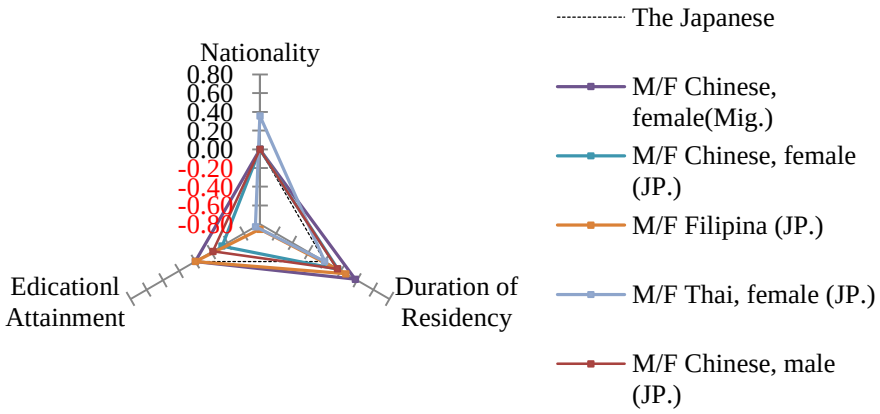


Figure 5-2 The Relationship between Determinants, Married/Family

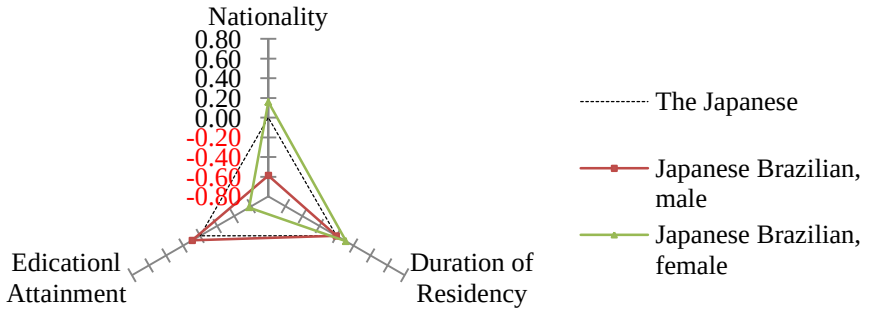
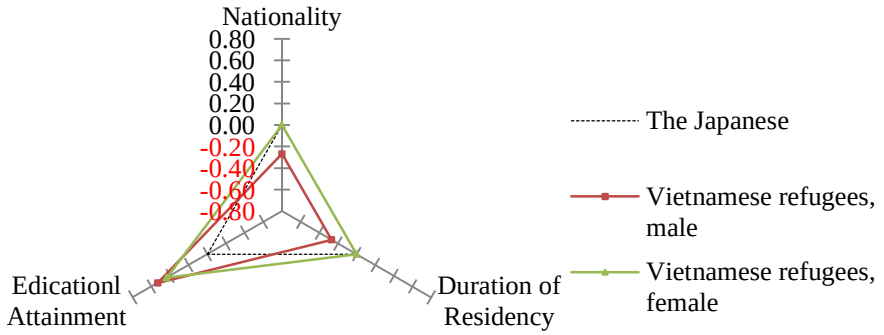
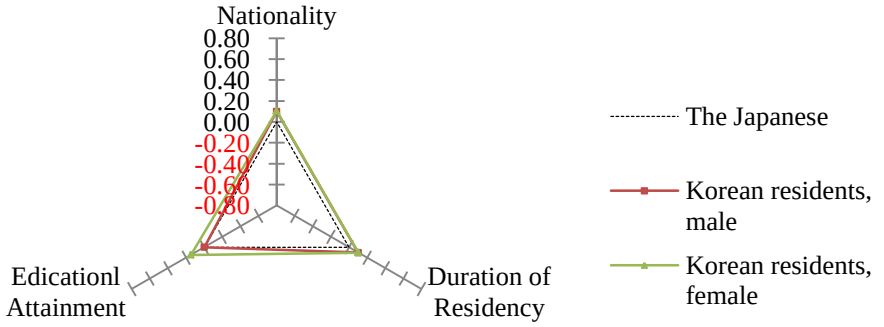


Figure 5-3 The Relationship between Determinants, Japanese-Brazilian



Note: A coefficient of nationality is allocated fifty-fifty to both nationality and duration of residency

Figure 5-4 The Relationship between Determinants, Vietnamese Refugees



Note: A coefficient of nationality is allocated fifty-fifty to both nationality and duration of residency

Figure 5-5 The Relationship between Determinants, Korean Residents

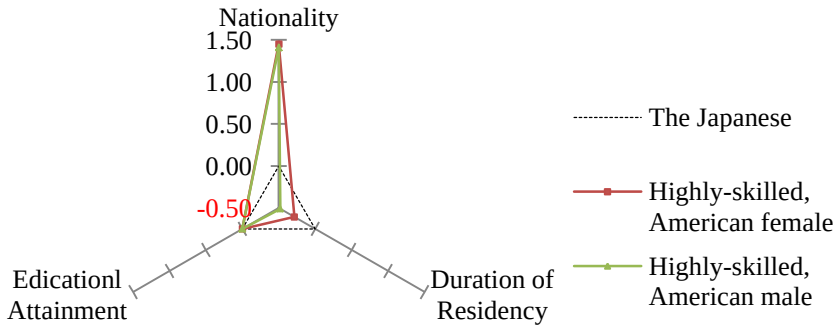


Figure 5-6 The Relationship between Determinants, Americans (Highly Skilled)

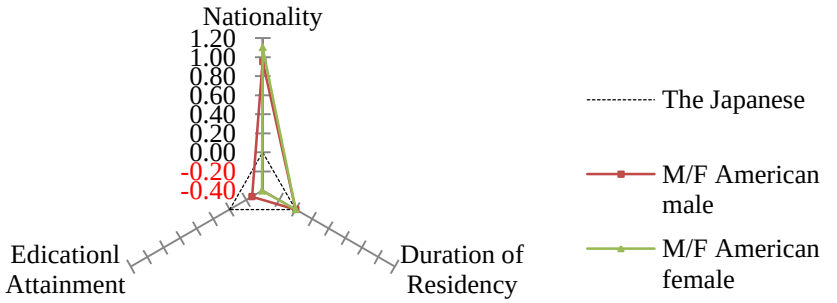


Figure 5-7 The Relationship between Determinants, Americans (Married/Family)

In the end, it is the combination of nationality, length of residency, and educational attainment (the fifth expression) that indicates the expected outcome of immigrants' occupational distribution in the medium- and long-term (Table 9-1 and 9-2).

The results reveal that highly skilled Chinese and American immigrants have

positive values, meaning that they have the most advantages in their occupational attainment among all the types of immigrants. This is due to the large value of their nationality, despite their "negative assimilation" pattern of settlement.

On the contrary, married/family immigrants tend to have higher values when less-educated and lower values when highly educated. For example, Chinese women with Japanese spouses have a positive value only when they are less-educated, but have a negative value when highly educated. Such a pattern is confirmed for the other married/family immigrants, including Americans, reflecting a common characteristic of married/family immigrants. Filipinas are the most disadvantaged group in this category, which is consistent with previous studies. As a whole, their attainments are not much worse, or often better, than those of the other types of immigrants, including highly skilled immigrants, although they are not selected based on their human-capital.

As for Japanese-Brazilians, men have negative values in all educational attainments, due to the large negative value in nationality and the lack of any boost from other factors. On the other hand, women show a positive value only among the less-educated, due to the large negative value of educational attainment among highly skilled, but they have a positive value in their duration of residency and nationality. These findings are consistent with previous studies that argue that many Japanese-Brazilians are locked into the lower position in the labor market. However, this study presents a new finding, clarifying that males are more disadvantaged than females.

The case of Vietnamese refugees shows negative values in lower-educated men, and zero or positive values for highly educated men and women, reflecting the high returns on their educational attainment and the gender gap in nationality and duration of residency. As a result, men are worse off than women are, even though educational attainment is an important for both of them. On the whole, their attainment level is not so much worse than that of the other types of immigrants, such as the Japanese-Brazilians and a subset of the married/family immigrants.

Americans have very large values in all categories, due to their large values in nationality, however they share the basic pattern common to each type of immigrant in the rest of factors.

Lastly, Korean residents have positive values in almost all categories, mainly due to the large value of their nationality. Women also possess a positive value due to their educational attainment. This finding is different from previous studies, suggesting that women have been severely disadvantaged in the labor market.

Consequently, we can respond to the fourth research question by saying that immigrants have different patterns of occupational attainment, and the expected occupational distribution in the medium-term might be a mosaic of positive and negative values, depending on their mode of incorporation. Immigrants who settle in Japan have a positive impact on the Japanese labor market as a whole; however, there are some exceptions, such as with Filipinas and Japanese-Brazilian men.

Table 9-1 Accumulated Effects of Settlement by Types of Immigrants, Male

	Highly-skilled, Chinese	Highly-skilled, The US	Marriage/Family, Chinese(JP.)	Marriage/Family, The US(JP.)	Japanese Brazilian	Vietnamese Refugees	Korean Residents
Education							
Less than Junior High School	-	0.93	0.37	0.95	-0.59	-0.08	0.20
High School	-	0.93	0.16	0.95	-0.59	-0.54	0.20
Two-year Collage	0.01	0.93	0.16	0.95	-0.59	-0.54	0.20
Higher than University	0.49	0.93	0.16	0.68	-0.50	0.45	0.20

Note: Coefficients with a significance level less than 5% are regarded as zero.

Table 9-1 Accumulated Effects of Settlement by Types of Immigrants, Female

			Marriage/Family							
	Highly-skilled, Chinese	Highly-skilled, The US	Chinese (Mig.)	Chinese (JP.)	Filipina (JP.)	Thai (JP.)	The US (JP.)	Japanese Brazilian	Vietnamese Refugees	Korean Residents
Education										
Less than Junior High School	-	-	0.38	0.16	-0.59	0.36	1.10	0.27	0.00	-0.06
High School	-	-	0.38	0.16	-0.59	0.36	1.10	0.27	0.00	0.21
Two-year Collage	-0.03	1.16	0.38	-0.29	-0.59	-0.27	0.15	-0.20	0.00	0.08
Higher than University	0.38	1.16	0.38	-0.17	-0.59	-0.38	0.71	-0.30	0.43	0.08

Note: Coefficients with a significance level less than 5% are regarded as zero.

1-6. Discussion: Immigrant Occupational Attainment and its Determinants; Is it a "Structured Settlement"?

The Japanese society, which is a post-transitional society, is now a "new country of immigration," similar to southern European countries; however, there is little research revealing the degree to which immigrants are integrated into the Japanese labor market. In particular, there is little research discussing their integration at a nationwide level, and the factors that determine it. This is due to the scarcity of social surveys about immigrants in Japan, although there are many interesting ethnographies that focus on individual cases. Consequently, it has been difficult to discuss the social stratification dynamics caused by immigrant incorporation in Japan, which might be termed a "social laboratory" on this issue.

By contrast, there have been many studies of immigrants' integration into the labor market of western, developed countries. These studies have clarified how human capital, such as an educational attainment, the mode of incorporation, such as an immigration policy and social attitudes toward immigrants, and immigrants' settlement, represented by their duration of residency, all play a role in their occupational attainment.

The present study aims to clarify immigrants' occupational attainment and its determinants by comparing the occupational distributions of immigrants and the Japanese, using micro-data from the Japanese population census, conducted in 2010. In particular, there are four research questions in the present study. First, does the occupational distribution of immigrants differ from that of the Japanese, even after compositional differences in socioeconomic status are taken into account? Second, is the return on educational attainment for immigrants lower than for the Japanese? Third, do the effects of those factors differ for each mode of incorporation? Fourth, does settlement promote immigrants' occupational attainment, and what is its impact on the Japanese labor market? Finally, these four questions reveal the characteristics of immigrants' integration into the labor market in a Japanese context.

To answer these questions, we first examined the socioeconomic characteristics of immigrants, such as mean age, marriage rate, marriage to a Japanese spouse, university education, and duration of residency in Japan. As a consequence, it was discovered that there is a great deal of variation in these aspects. Additionally, we confirmed the negative correlation between the labor participation rate, unemployment rate, and the proportion of non-regular workers and upper-white-collar workers; therefore it was revealed that either one of these indices can explain immigrants' occupational attainments.

Next, we compared the industrial and occupational distribution of each type of

immigrant with that of the Japanese, and found not only that there are great disparities in those distributions, but that some disparities are smaller than those between Japanese men and women. Moreover, it was also found that these disparities are largely caused by the high concentration of immigrants working as manufacturing and processing workers in the manufacturing industry.

The duration of residency and the proportion of upper-white-collar workers among university graduates indicated how settlement and the evaluation of immigrants' human capital play a role in their occupational distribution. Consequently, we found that settlement tends to have a positive effect for married/family immigrants but, on the other hand, it tends to have a negative effect for highly skilled immigrants. Moreover, women tend to have a lower value placed on their educational attainment than men.

Based on above-mentioned contexts, we used the probit regression analysis to answer to these questions. To the first question, we found that compositional differences in socioeconomic status cannot explain the differences in occupational distribution between immigrants and the Japanese, meaning that an immigrant might have a different probability of occupational attainment compared to Japanese with equivalent characteristics. Regarding the second question, it was revealed that the returns on an immigrant's educational attainment are higher than that of the Japanese, if the immigrant is either highly skilled or a long-term resident, such as with Vietnamese refugees and Korean residents. This is partly due to the high level of international transferability of educational attainment among the highly educated, and to the high level of ambition necessary for educational achievement. Additionally, women face a dual exclusion in terms of the evaluation of their educational attainment. Regarding the third question, we can argue that the mode of incorporation, the particular type of migration, and gender difference each play an important role in determining which factors contribute to their higher occupational attainment. There is an "educational-attainment-driven" attainment for highly skilled immigrants and men, as well as a "duration-of-residency-driven" attainment for married/family immigrants and women. Concerning the fourth question, immigrant settlement mostly promotes immigrants' occupational attainment, and has a mostly positive impact on the Japanese labor market; however, the expected occupational distributions in the medium-term might be a mosaic of positive and negative values, depending on the immigrant's mode of incorporation.

In conclusion, these findings are similar to those in western developed countries. For instance, the cases of Japanese-Brazilians, Vietnamese refugees, and Koreans residents, all of whom have been settled in Japan for a long time and were not selected

based on their human capital, are similar to the findings in "classical" countries of immigration, such as the US, Canada, and Australia. The findings on married/family immigrants, who have recently settled in Japan, are similar to the findings in European countries. Moreover, the case of highly skilled immigrants resembles the "negative assimilation" in the US and Canada.

Therefore, we can argue that Japan, as a new country of immigration, experiences a "structured settlement." In a structured settlement, each type of immigrant experiences the settlement process; however, the relationship between human capital, gender, and the duration of residency is structured according to collective characteristics, such as the mode of incorporation. This is innovative insofar as it argues that the settlement process is itself structured, or multifold, rather than assuming a single assimilation process and deviations from it, as seen in the many derivative theories of the assimilation perspective. It is a new, but embryonic, concept in the present study.

Indeed, it is similar to findings that have been repeatedly mentioned since "segmented assimilation" (Portes and Zhou 1993) was introduced for western societies, introduced by Shimodaira (1999) and Kajita (1994) in Japan. Nevertheless, this is the first time that it has been pointed out, quantitatively and comprehensively, that each type of immigrant experiences settlement simultaneously but via a different course, each having its own dynamic social stratification in terms of human capital, gender, duration of residency, etc. Moreover, we can argue that a "structured settlement" can be applied to other new countries of immigration now and in the future, because it might reflect the complexities of their recent immigrant policies.

Last but not the least, the present study has identified several challenges. First, it aims to reveal occupational attainment at the individual level; however, it used a cross-sectional dataset. These cross-sectional differences are carefully interpreted as longitudinal changes at the individual level. Hence, it is necessary to establish a longitudinal dataset on this subject in the future. Moreover, creating an appropriate dataset is necessary to cover the variables in this survey, because the items in the population census are broad but ambiguous when it comes to clarifying immigrants' occupational attainment. Third, it is necessary to take into account temporal effects; in 2010, only a year has passed since the great recession in 2008. The dataset from the 2020 population census will solve this problem.

[1] In contrast, there are several studies about the role of ethnicity on educational attainment in the field of the educational sociology, as seen in Shimizu et al. (2009: 255-9). We assumed this to be the reason that the increase in new-comer immigrants in

schools is easily identified by researchers.

[2] Foreign brides traveling to rural areas attracted attention for the first time in 1985, when the town of *Asahi* in *Yamagata* prefecture first attempted to bring them to their village (Takeda 2011: 66). There are known to be three routes for a foreign bride: by an arrangement with a local municipality, private matrimonial agency, and by a personal arrangement made by a foreign bride who already resides in the area (Takeda 2011: 61).

[3] In the reform of the Nationality Act in 2009, a child born outside of marriage but acknowledged by the Japanese father can obtain Japanese citizenship. As a result, more than a few "abandoned" children born to Filipina mother and a Japanese father have applied for Japanese citizenship, with mothers accompanying their children as the "long-term residents" who raise the Japanese child (Takahata 2011: 110).

[4] It is assumed that they mostly change their visa status to "permanent resident" after several years of residency.

[5] All of them require more than two-year college degree as a condition (*Shutsunyukokukankeihoreikenkyukai* 2012: 26, 30).

[6] Ministry of Justice (2010: 25)

[7] The number of international students from Vietnam has recently increased; however, the number of Vietnamese who have remained in Japan after graduating between 2000 and 2005 is estimated at 244 people. Hence, their influence is negligible among the Vietnamese whose duration of residency exceeds five years.

[8] Upper-white-collar workers consist of administrative and managerial workers, and professional and engineering workers. In the present study, administrative and managerial workers whose employment status is "business owner" are excluded.

[9] The reason that Japanese-Brazilians have a higher marriage rate than Brazilian immigrants is explained by the expression below.

$$\frac{a}{b} - \frac{a+c}{b+c} = \frac{c(a-b)}{b(b+c)} \leq 0$$

$$\because a \leq b$$

a=Married people (excluding the partners of the Japanese)
b=Total population
c=Partners of the Japanese

[10] The Vietnamese also show a higher labor participation rate than the Japanese partly due to their participation as technical interns and trainees. In fact, as of the end of 2010, about 20% of Vietnamese, excluding short-term visitors, are in those positions.

[11] Some types of visa statuses do not allow unemployed individuals to remain in Japan. Therefore, only the types of immigrants who are allowed to remain if unemployed are plotted on the figure. Actually, we could not find a negative correlation if all of the immigrants are plotted.

[12] The relationship between labor participation rates and the proportions of upper-white-collar workers differ between men and women. Men show a positive relationship between them, but women show a negative one, implying that the relationship between the reservation wage and the marginal welfare of leisure differs between the genders. This clarifies the necessity of simultaneously estimating labor participation and occupational attainment.

[13] A dissimilarity index is computed by the expression below. It indicates what proportion of people should shift their current status to adjust their distributions to be the same.

$$\text{Dissimilarity Index} = \frac{1}{2}\sum_{k=1}^{m}\left|\frac{p_{ik}}{P_i} - \frac{p_{jk}}{P_j}\right|$$

P_i=Total population of group i.
P_j=Total population of group j.
p_{ik}=Population of the subset of people (ik) who are employed in a certain occupation within a certain industry.
p_{jk}=Population of the group jk who are employed in a certain occupation within a certain industry.

[14] More than 90% of Chinese who are 22 to 25 years old are university students, meaning that the Chinese who have resided in Japan for more than 5 years and have a university degree are assumed to have graduated from a Japanese university.

[15] The coefficient of Rsd_i in the sixth expression for the U.S. and the U.K. citizens is a positive value, which is statistically insignificant. The coefficient of Rsd_i for Chinese married/family immigrants is a positive value, which is statistically insignificant.

[16] In terms of the occupational distribution among the upper white collar workers, Thai women are mostly concentrated in the medical, health care and welfare industry, implying that they might take advantage of their massage skills. As for Japanese-Brazilian women, they are mostly employed in the education and learning support industry, implying that they might be employed as Portuguese language teachers at Brazilian schools for their children.

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