

Article

Toward Coexistence of Immigrants and Local People in Japan: Implications from Spatial Assimilation Theory

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Abstract: We investigate the validity of spatial assimilation theory (SAT), which predicts geographical dispersion of immigrants from ethnically concentrated areas to non-concentrated areas as time elapses. This can be tested by analyzing the concentration tendency among immigrants who arrive in Japan from overseas and relocate within the country. Using spatial models, we find that immigrants from overseas tend to move to ethnically concentrated regions in Japan, which is in line with SAT. By contrast, this trend substantially weakens with their subsequent domestic relocation, and it differs by national group. The results reveal slow assimilation among nationals from countries characterized as being low-income or culturally dissimilar from Japan. Based on these findings, we discuss potential deficiencies in a new immigration policy (2018), which has been designed to increase the number of immigrants and compensate for a labor shortage in Japan.

Keywords: spatial assimilation; social integration; spatial interaction model; migration; Japan



Citation: Murayama, K.; Nagayasu, J. Toward Coexistence of Immigrants and Local People in Japan: Implications from Spatial Assimilation Theory. *Sustainability* **2021**, *13*, 3849. <https://doi.org/10.3390/su13073849>

Academic Editors: Amy Lubitow; Miriam J. Abelson

Received: 17 February 2021
Accepted: 29 March 2021
Published: 31 March 2021

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1. Introduction

Traditionally, Japan was not a popular destination among immigrants due to its geographical location, which is distant from many other countries and surrounded by the sea. Moreover, as a policy to prevent Western (Christian) culture from influencing the society and preserve traditional values, Japan was a closed country during the Edo period (1639–1854). The country was opened up in 1854 when the Convention of Peace and Amity was signed between the United States and the Empire of Japan in March 1854. As a result, Japan is historically very naive in terms of receiving immigrants, making it a country with one of the most restricted immigration policies in the world even today. According to the Migrant Integration Policy Index (MIPEX, 2020), which measures progress in integration policies for immigrants in 52 countries, Japan has scored a point less than the average and is considered clearly behind other advanced countries in terms of the implementation of integration policies (See <https://mipex.eu/japan>, accessed on March 31, 2021 for the definition of the MIPEX.).

This conservative approach toward immigration may be in contrast to rapidly progressing international migration. Due to cross-border deregulation and improved transportation systems, international labor mobility has increased and become a global phenomenon in past decades. As of 2019, 272 million people (3.5% of the world population) worldwide migrated to other countries, and remittances reached USD 714 billion [1]. Although it maintains a conservative stance and the increasing trend of immigration ceased during the COVID-19 pandemic, Japan is not an exception and has experienced a surge in migration along with economic development: most immigrants to Japan originate from South East Asia and South America, and popular destinations for emigration are Europe and North and South America.

Moreover, the most recent changes in Japan's immigration policy have arisen from domestic needs; demographic changes have forced alterations of such a conservative attitude and government policy toward immigration. In 2018, the Japanese government

announced the Basic Policy on Economic and Fiscal Management and Reform, which sets out a new immigration policy (While the government claims that this is not an immigration policy, the Basic Policy does relax entry requirements for foreigners who wish to work in Japan, and it is, therefore, considered such policy in this study.). This policy recognizes that Japan's labor shortage is becoming very serious and that foreign workers are needed to fill job vacancies. However, much to the surprise of many people (e.g., [2]), unlike immigration policies in other advanced countries, Japan's new policy is not limited to foreign personnel in traditional specialized and technical fields; it also includes those who have only basic expertise and language skills. Given that people with various backgrounds are arriving in Japan, it is important to ensure that they adjust themselves to Japanese culture and systems for a sustainable society.

However, it is generally believed that immigrants do not assimilate well into Japanese society [3]. Friction between Japanese people and foreigners has become more conspicuous. Along with increases in immigrants, the number of crimes committed by non-Japanese has risen from 483 cases in 1985 to 17,260 in 2019 (See the homepage of the National Police Agency <https://www.npa.go.jp/publications/statistics/kikakubunseki/index.html>, accessed on 31 March 2021). The arrest rate (defined as the number of crimes committed by non-Japanese divided by immigration numbers) has increased tenfold (from 0.06% to 0.6%) during this period. This reflects difficulties of immigrants living in Japan and implies that problems remain in their assimilation. Therefore, Japan's current situation is similar to Europe's past immigration experiences in that it lacks a social integration policy that would eliminate discord between foreigners and local individuals and prevent the former from feeling isolated from society.

Against this background, we examine the adaptability of foreigners in Japan by analyzing the relationship between their backgrounds and residential location. Spatial assimilation theory (SAT) can be used to examine the progress of immigrants' assimilation. According to SAT, the excessive concentration of foreigners in certain areas has been considered a failure of integration policy and has prevented their integration and participation in the destination countries [4–6]. For immigrants' children, growing up in an ethnically concentrated environment can have adverse economic effects. These effects can persist across generations, resulting in slow integration and difficulty in obtaining employment [7]. The spatial distribution of immigrants (i.e., spatial assimilation) is therefore considered a key integration indicator [8].

Based on SAT, we compare the concentration tendency of international migrants (i.e., immigrants from other countries to Japan) with that of foreign migrants relocating within Japan (i.e., migrants moving from one Japanese prefecture to another) using spatial econometric models that allow us to use information on their residential location (Japan consists of 47 prefectures, which are the first level of jurisdiction and administrative divisions of the country.). Our main focus is on immigrants intending to work in Japan, and not refugees and asylum seekers since their motivation and requirements for relocation are very different. With a relative lack of migration experiences and unique unwritten norms and common senses, Japan is probably one of the most challenging destination countries for immigrants. We therefore attempt to identify factors that prevent adaptation to Japanese society. To the best of our knowledge, the current study is the first comprehensive attempt to apply the SAT to the Japanese context in this way.

2. Spatial Assimilation Theory

The geographic concentration of immigrants has been used to evaluate SAT, which was first put forward in the early 20th century to study the integration of European immigrants with Americans in the United States [9]. According to SAT, immigrants will concentrate in the same ethnic part of city, not only to overcome disadvantages associated with language barriers, information uncertainty, and low socioeconomic status, but also to make the best use of employment and welfare conditions attributable to being in a community of immigrants. However, they can improve their local language skills, cultural fitness, and

socioeconomic status over time, and eventually move about the country freely, even to suburban areas where few immigrants reside [10]. In this way, increases in mobility reduce the geographical isolation of immigrants [11], and they eventually make more contact with local people and become assimilated into society.

Such assimilation is said to continue and progress across generations [12]; however, the time required for spatial assimilation will be comparatively shorter if there are similarities (rather than dissimilarities) between immigrants and the local people of the target destination. Similarities can be measured in terms of their level of human capital, language proficiency, and religion. Immigrants who have cultural and linguistic characteristics similar to those of the local people are, from the very start, less likely to settle in ethnically concentrated areas [13]. It follows that assimilation patterns may differ according to the immigrants' backgrounds.

While SAT has a strong sociological aspect, economists recognize that multiple changes in the residential location of immigrants stem from information uncertainty [14]. A moderate concentration of immigrants creates a positive externality through cooperation among themselves, but excessive concentration is known to create an uncontrollable externality. There is a considerable body of research on the impact of the geographical concentration of immigrants on society and on immigrants themselves. Ethnic segregation, whereby foreigners are geographically isolated from the local people, leads to a failure to educate immigrants and can increase their reliance on social welfare as well as higher unemployment rates and higher poverty [4,5]. Moreover, higher geographical concentrations of foreigners are also known to increase tension and concerns among the local residents of those target destinations [6]. In fact, violence among foreigners has emerged in several European cities, including London, Paris, and Amsterdam [15].

Many US studies that analyze immigration concentration support SAT. For example, ethnic groups who have had a long history of living in the United States tend to be more spatially distributed [16]. Moreover, residential location and socioeconomic status are found to strongly correlate. Higher-income African-Americans are more likely to move from the center of a large city to the suburbs [17]. Moreover, those with high English skills, long-term stays in the United States and high incomes, tend to be well connected with local people in the United States [18]. Indeed, Hispanic immigrants with a higher socioeconomic status and higher English proficiency are more likely to move from ethnically concentrated areas [19] (Many other studies have shown the sluggish rate at which African-Americans in the United States spatially integrate [20,21]). Immigrants with lower English skills, education, naturalization rates, and lower-income ethnically concentrated immigrants, tend to stay in the same ethnic community. However, even they move to the non-concentrated suburbs after economic success [22].

Similarly, the experience of Europe frequently supports SAT. Zorlu and Mulder [15] demonstrate that asylum-seekers and non-Western immigrants are most likely to move to ethnically concentrated areas in the Netherlands. In contrast, many immigrants from Western countries, i.e., countries associated with high levels of human capital and socioeconomic status, and proximate to the Dutch in terms of language and religion, enter the country mainly as workers and with their families, and do not reside in ethnically concentrated locations. Tammaru and Kontuly [23] show that in Estonia, Estonian-language proficiency among immigrants and the possession of Estonian citizenship promote the movement from ethnically concentrated areas to non-concentrated regions. In contrast, Chinese immigrants reportedly relocate, on a repeated basis, to ethnically concentrated areas of the United Kingdom [24], and other studies show that immigrants remain undispersed on account of discrimination and their preference for their own ethnic community [25]. Traditionally, SAT-related studies have focused on residential relocation of immigrants to suburbs from a city, and studied if immigrants tend to concentrate in the latter. However, in recent years, geographers and sociologists have argued that the topic of spatial integration among immigrants should be expanded to focus on interregional movements [26] because SAT assumes that immigrants use socioeconomic resources to choose residence in the best

possible areas. In Japan, prefecture-level relocation data are available, making it possible to focus on the movement of foreigners among prefectures (i.e., interregional migration) in addition to that of immigration from overseas.

3. Econometrics for Relocation Analysis

We use gravity models to investigate the residential relocation of international and regional migrants; these models have been previously used to analyze international trade. However, unlike the gravity models of trade, the random utility maximization model serves as a theoretical basis for migration analysis [27,28], where migrants will pay the cost of the move as an investment in their own human capital to maximize future utility. This premise is known as the human capital investment theory of migration [14]. Until the mid-1980s, there was the misconception that international and domestic migration are fundamentally distinct phenomena. Today, however, the idea that migration is a form of human capital investment is a fundamental unifying theme of migration theory in economics [14]. The standard gravity model is shown in Equation (1).

$$Y_{od} = K \frac{X_o^{\beta_1} X_d^{\beta_2}}{dist_{od}^{\beta_3}} \quad (1)$$

The subscript o denotes origin, and d destination. Y_{od} is the amount of migration from o to d . K is a constant, and X_o and X_d represent the unique characteristics of the origin and destination, respectively. $dist_{od}$ is the geographical distance between o and d , and β_1 , β_2 , and β_3 are parameters. In empirical analysis, Equation (1) is examined in the natural log form.

$$\ln Y_{od} = \ln K + \beta_1 \ln X_o + \beta_2 \ln X_d - \beta_3 \ln dist_{od} \quad (2)$$

Both international and regional migration models use X_o and X_d , which include unemployment rates, per-capita gross domestic product (GDP), and population. X_d also includes the concentration rate of foreigners, as per SAT. Unemployment rates and income are economic factors that are thought to strongly relate to migration [29]. The population of a destination is used to proxy the size of the labor market, with a large destination population encouraging emigration from elsewhere [14]. The distance is a proxy for the transaction costs of migration.

We extend the standard spatial model to capture spatial autocorrelation between migration flows by using a spatial weight matrix devised by LeSage and Pace [30]. LeSage and Pace [30] introduced another spatial weight matrix known as W_w . However, when origins and destinations are configured in different regions, W_w cannot be created with the Kronecker product. Therefore, W_w is omitted from analyses of international transfers [31] and our study.

$$Y_{od} = \rho_o W_o Y_{od} + \rho_d W_d Y_{od} + \iota \alpha + X_o \beta_o + X_d \beta_d + dist_{od} \gamma + \varepsilon \quad (3)$$

This is known as the spatial interaction model, and it has been used in inter-state migration analysis [31] and interregional traveler analysis [32], for example. In (3), ι is a unitary term, ε is a residual, and ρ_o , ρ_d , α , β_o , β_d , and γ are parameters. W_o and W_d are origin and destination-based spatial weight matrices, respectively.

Figure 1 depicts the theoretical implications of spatial weights on migration flows (Y_{od}). The origin-based matrix (W_o) assigns greater weight to “flows to d from areas close to o ” than to “flows to d from areas remote from o ”. Therefore, $W_o Y_{od}$ is a variable that captures the stronger spatial correlation between flows that originate from nearby areas. Similarly, the destination-based matrix (W_d) assigns greater weight to “flows to areas near d ” than to “flows to areas distant from d ”. Thus, $W_d Y_{od}$ is a variable that captures the stronger spatial correlation between flows to nearby destinations.

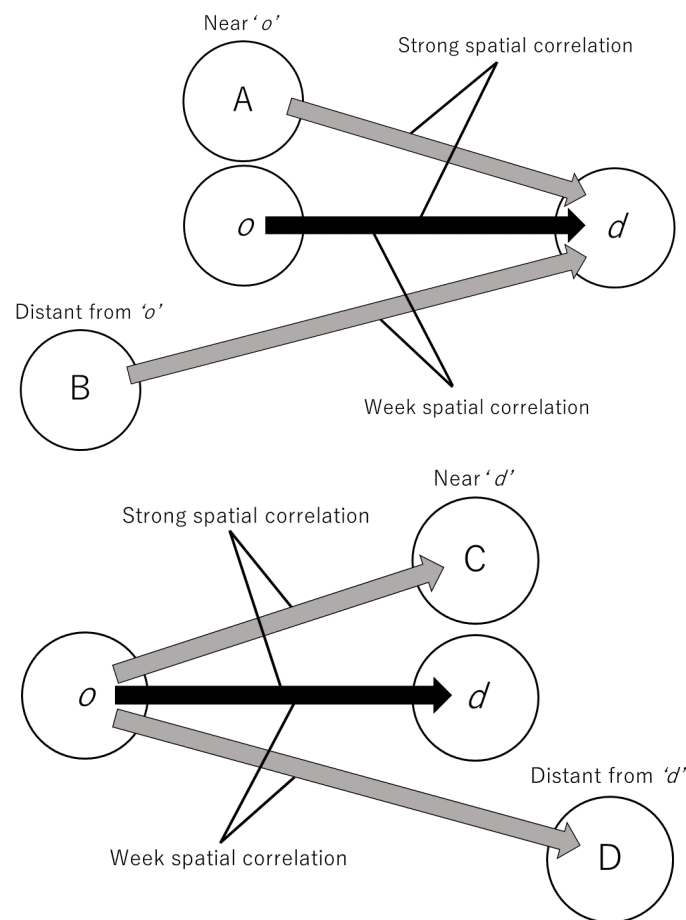


Figure 1. Origin-based dependence (**top**) and destination-based dependence (**bottom**) of migration.

More precisely, in our international migration analysis featuring k origin countries ($k = 10$) and 47 destination prefectures, W_o can be constructed using the following specification of \tilde{W}_o .

$$\tilde{W}_o = \begin{pmatrix} \mathbf{0} & W_{12} & W_{13} & \cdots & W_{1k} \\ W_{21} & \mathbf{0} & W_{23} & \cdots & W_{2k} \\ W_{31} & W_{32} & \mathbf{0} & \cdots & W_{3k} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ W_{k1} & W_{k2} & W_{k3} & \cdots & \mathbf{0} \end{pmatrix}$$

where $\mathbf{0}$ is a 47×47 nil matrix. The diagonal elements of W_{12} are an inverse of the squared distance between capitals of origin countries 1 and 2, and other elements are 0. W_o is a 470×470 matrix that can be obtained by dividing all elements of \tilde{W}_o by the row sum of \tilde{W}_o .

Similarly, W_d is a 470×470 matrix comprising W .

$$W_d = \begin{pmatrix} W & \mathbf{0} & \mathbf{0} & \cdots & \mathbf{0} \\ \mathbf{0} & W & \mathbf{0} & \cdots & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & W & \cdots & \mathbf{0} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \mathbf{0} & \mathbf{0} & \mathbf{0} & \cdots & W \end{pmatrix}$$

The elements of W are

$$w_{ij} = \begin{cases} \frac{dist_{ij}^{-2}}{\sum_{j=1}^{47} dist_{ij}^{-2}}, & \text{if } i \neq j \\ 0, & \text{otherwise.} \end{cases} \quad (4)$$

w_{ij} is a 47×47 matrix that is constructed using the distance between prefectures i and j ($dist_{ij}$). Because it is normalized to the row, the row sum of W_d is 1. Since we have 10 origin countries and 47 destination prefectures for Y_{od} in Equation (3), W_d is also a 470×470 matrix.

In our analysis of inter-prefectural migration, the origins and destinations involve 47 Japanese prefectures. Therefore, $W_o = W \otimes I$ and $W_d = I \otimes W$, where W is a 47×47 matrix with diagonal elements equal to w_{ij} in Equation (4) and other elements 0, I is a 47×47 unitary matrix, and \otimes is the Kronecker product. There are 2209 combinations of o and d for Y_{od} in Equation (3), and W_o and W_d are therefore both 2209×2209 matrices.

Finally, as the spatial lag variables ($W_o Y_{od}$, $W_d Y_{od}$) may be endogenous, to estimate Equation (3), we use spatial two-stage least squares (S2SLS) to eliminate any endogeneity bias. We follow Badinger and Egger [33], who set all exogenous explanatory variables to Z , and the instrumental variables for the endogenous variables $W_o Y_{od}$ and $W_d Y_{od}$ to $H = (Z, W_o Z, W_d Z, W_o^2 Z, W_d^2 Z, W_o W_d Z)$. Here, all explanatory variables, other than spatial lag variables, are used as Z .

4. Data

Our analysis is based on regional and international data. In particular, we collected immigrant and non-Japanese population data from 47 prefectures (Figure 2), which are political subdivisions of Japan and cover the entire country. Migration data are from the Statistics Center of the Ministry of Internal Affairs and Communications (MIAC). The National Census 2010 (*Kokuseichosa*) (At the time of writing, this survey is the most recent one providing us with disaggregate data.), the most comprehensive survey conducted every five years in Japan, captured the number of foreign migrants (aged 15–64) who have settled in 47 prefectures and that of foreign nationals who moved to other prefectures, between October 2005 and October 2010. The top 10 countries of origin (in descending order of number of immigrants) are China, (North and South) Korea, Vietnam, the Philippines, Brazil, Indonesia, the United States, Nepal, Peru, and the United Kingdom.

According to the Ministry of Health, Labour, and Welfare (MHLW), foreign workers in Japan can be categorized as per the following employment status typology: those who (1) are eligible to work, (2) conduct designated activities, (3) participate in technical intern-training programs, (4) conduct non-qualified activities, and (5) stay based on their status. People who stay based on their status include permanent residents and those married to Japanese. Under the status of “designated” activities, foreign nationals are permitted to work only in activities designated by the Ministry of Justice. In 2019, the distribution of foreign workers among the five categories was approximately 20%, 2%, 23%, 22%, and 32%, respectively. Many foreigners from the United States, the United Kingdom, and South Korea, most of whom are relatively wealthy, are employed in professional and technical fields. Filipino, Brazilian, and Peruvian individuals tend to be permanent or long-term residents. Many people from Brazil and Peru are Japanese descendants, and many Filipinos have obtained permanent residency through intermarriage with Japanese people. The majority of Nepali immigrants are engaged in non-qualified activities with student status. The proportions by employment type are illustrated in Figure 3. These suggest significant differences in employment status by country groups that are used in the subsequent analysis: the East Asian Group (Korea and China), the Southeast Asian Group (Vietnam, the Philippines, Indonesia, and Nepal), the South American Group (Brazil and Peru), and the Western Group (the United Kingdom and the United States).



Figure 2. Japanese regions (prefectures). There are 47 prefectures that are the main subdivision of Japan.

The choice of variables to explain migration is based on immigrants' utility maximization behaviors [27,28]. Economic incentives are very important factors when making immigration decisions, and there is a strong tendency for immigrants to move to wealthier neighboring countries. Moreover, a common language and religion become extra motivations [34–42].

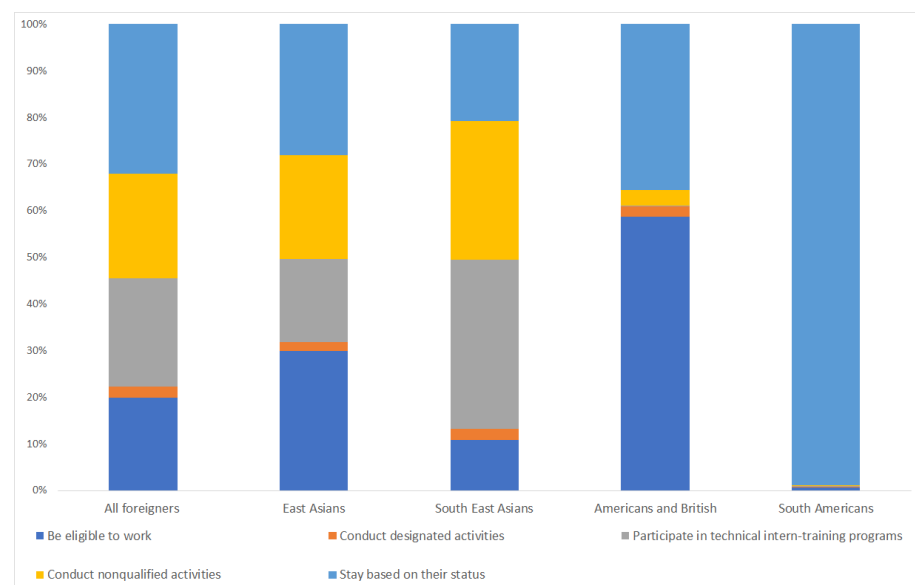


Figure 3. The percentage of foreign residents in Japan by employment status (2019). The data source is the Report on Employment Status of Foreigners produced by Ministry of Health, Labour, and Welfare.

However, the model specification is slightly different between international and interregional migration analyses. In terms of international migration analysis, X_o consists of unemployment rates, the natural log of population, and per-capita GDP in US dollars. All data were drawn from the International Monetary Fund's (IMF's) World Economic Outlook (For Korea, we use only information pertaining to South Korea as there are no official diplomatic relations between Japan and North Korea). Similarly, per-capita GDP in X_d was converted to US dollars using the average yen-to-US dollar exchange rate published by the IMF (Figure 4). The distance is proxied by the natural log of the shortest geographical distance between the capital of each country and the government of each prefecture. The concentration rate equals the number of foreign nationals as a percentage of the total population in each prefecture. Data pertaining to these explanatory variables are from 2005 (see Table 1).

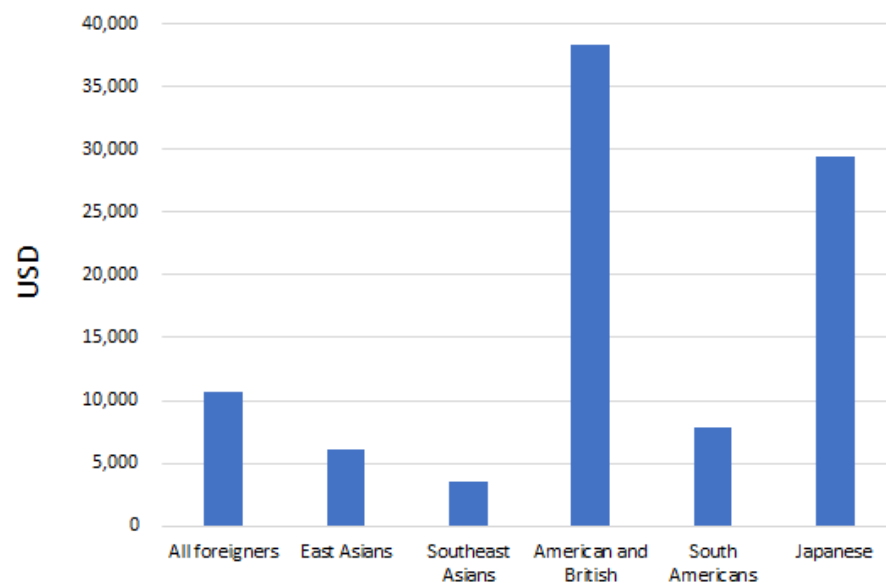


Figure 4. GDP per capita (2005). GDP per capita of each country group is obtained using data on GDP per capita (USD) and population of each country.

Table 1. Descriptive statistics. Standard deviation (SD). All variables are in natural log except number of migrants that includes 0, and unemployment rates and foreigners' rates that are expressed in terms of percentage.

	Mean	SD	Min	Max
Immigration of foreigners to prefectures (100 people)	6.34	16.70	0.00	180.00
Unemployment rates of foreign countries	6.86	3.45	1.86	11.40
Real GDP per capita of foreign countries	9.22	0.85	8.04	10.70
No. of population of foreign countries	4.78	1.06	3.33	7.18
Inter-prefectural migration of foreigners (100 people)	0.37	1.88	0.00	42.20
Unemployment rates of prefectures	5.94	1.34	4.24	11.90
Real GDP per capita of prefectures	10.10	0.16	9.83	10.80
No. of population of prefectures	14.50	0.74	13.32	16.30
Foreigners' rates of prefectures	0.85	0.50	0.26	1.83
Distance between foreign countries and prefectures	8.52	0.93	6.29	9.84
Distance between prefectures	5.98	0.80	2.35	7.72

In our inter-prefectural migration study, no single nationality had enough people migrating to Japan's many prefectures to provide a sufficiently large sample. Therefore, we classify foreign nationals into the above-mentioned four country groups. This immigrant typology is based on intragroup similarities in terms of culture, location, and economic

conditions For example, in the East Asian Group, China and Korea are adjacent nations and their cultural spheres have historically used the same alphabet (*Kanji*). They also share the traditional practice of Mahayana Buddhism. Vietnamese, Filipinos, and Indonesians (the Southeast Asian Group) have different religions and languages, but their home countries are in close proximity and their income levels are relatively similar. Nepalese also belong to this group. Despite speaking different languages, Brazilians and Peruvians (the South American Group) have similarities in terms of distance to home countries, and most citizens are Catholic. Americans and British nationals (the Western Group) have commonalities (e.g., speak English and are Christian) and per-capita GDP is higher than that of Japan.

Y_{od} is the flow of inter-prefectural migrants, and it equals 0 if $o = d$. X_o contains unemployment rates, the natural log of per-capita GDP (in Japanese yen), and the number of foreigners belonging to each of the aforementioned groups if $o \neq d$; it equals 0 if $o = d$. X_d contains the natural log of per-capita GDP of d , unemployment rates, the natural log of the total population, and the concentration rate of foreigners if $o \neq d$; it equals 0 if $o = d$. The distance variable is the natural log of the inter-prefectural distance when $o \neq d$; it equals 0 when $o = d$. Data pertaining to these explanatory variables are also from 2005 (Table 1). As can be seen, foreign nationals accounted for a small percentage (0.85%) of Japan's population in that year. Finally, the distance between prefectural capitals is measured again by the shortest geographical distance (In the analysis of Japanese labor mobility, Murayama and Nagayasu [28] use different definitions of spatial weights, such as proximity based on goods flows and economic structure in addition to geographical distance. They present many similar results from these different weight matrices.).

The results of Moran's I test from the spatial weight matrices are reported in Table 2. In all cases, the p-value was less than 0.0001, and the null hypothesis of no spatial correlation was rejected. Therefore, there is evidence of spatial correlation in migration. Moreover, with respect to international immigration, W_d has a larger Moran's I statistic and a smaller standard deviation than W_o . Hence, a country has a strong spatial autocorrelation based on destination (Figure 1); immigrants tend to move from overseas to prefectures near certain destinations. Moran's I statistic for inter-prefectural migration is at most 0.33, and less than the statistic associated with W_d for international immigrants. Moreover, there are variations in the spatial weights for inter-prefectural migration by group. For East and Southeast Asians, the statistic is larger than that for Western countries and South Americans. These results confirm that it is important to consider residential location in migration studies.

Table 2. Moran's I tests for migration flows. Expec and SD express the expectation value and standard deviation of the null distribution in Moran's I test. W_o and W_d are origin- and destination-based spatial matrices, respectively.

Spatial Weight Matrix	Moran's I	Expec.	SD	p-Value
W_o Immigration to Japanese prefectures	0.203	−0.002	0.036	0.000
W_d Immigration to Japanese prefectures	0.738	−0.002	0.025	0.000
W_o Inter-prefectural migration_all foreigners	0.334	−0.000	0.011	0.000
W_d Inter-prefectural migration_all foreigners	0.294	−0.000	0.011	0.000
W_o Inter-prefectural migration_East Asians	0.306	−0.000	0.011	0.000
W_d Inter-prefectural migration_East Asians	0.259	−0.000	0.011	0.000
W_o Inter-prefectural migration_SE Asians	0.317	−0.000	0.012	0.000
W_d Inter-prefectural migration_SE Asians	0.321	−0.000	0.012	0.000
W_o Inter-prefectural migration_Americans & British	0.193	−0.000	0.011	0.000
W_d Inter-prefectural migration_Americans & British	0.171	−0.000	0.011	0.000
W_o Inter-prefectural migration_S. Americans	0.183	−0.000	0.012	0.000
W_d Inter-prefectural migration_S. Americans	0.225	−0.000	0.012	0.000

5. Empirical Results

5.1. International Immigration

The results of analyzing migration from overseas to 47 Japanese prefectures are reported in Table 3. Column (A) presents the results for ordinary least squares (OLS), which suggest that economic motivations are driving forces of international migration. Low income and large population in o (origin countries) increase immigration to Japan, particularly to highly populated prefectures. Moreover, the concentration rate of foreigners is

significantly positive; foreigners find particular prefectures containing many foreign nationals attractive. These results align with SAT and those of many previous studies [34,35,42,43]. Interestingly, the unemployment rates in o are significantly negative. As such, unemployment does not serve as an adequate explanation for economic motivation pertaining to immigration. Nonetheless, this result is consistent with DeWaard et al. [44] and suggests that many people cannot afford to migrate internationally from countries with a high unemployment rate. In the current study's context, the majority of foreigners are originally from China and South Korea, which have low-unemployment conditions.

Table 3. Results from international immigration models. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Subscripts “ o ” and “ d ” represent origin and destination regions, respectively.

Dependent Variable	Immigration to Prefectures from Abroad		
	(A)	(B)	(C)
Intercept	−169.789 (93.595)	−118.835 * (51.818)	−113.013 * (54.819)
Unemployment rate_ o	−0.936 *** (0.187)	−0.474 ** (0.159)	−0.585 *** (0.172)
Real GDP per capita_ o	−4.370 *** (0.732)	−2.888 ** (0.921)	−2.933 ** (0.886)
No. of population_ o	6.397 *** (0.874)	2.781 *** (0.723)	3.066 *** (0.833)
Unemployment rate_ d	−0.004 (0.635)	0.446 (0.535)	0.502 (0.548)
Real GDP per capita_ d	11.568 (9.565)	8.468 (5.666)	7.454 (5.805)
No. of population_ d	5.048 *** (1.040)	1.925 (1.485)	1.580 (1.415)
Foreigners' rate_ d	36.197 *** (9.441)	15.999 ** (5.399)	
East Asians_ d			19.261 * (9.628)
Southeast Asians_ d			42.820 ** (16.223)
Americans and British_ d			−12.875 (31.529)
South Americans_ d			10.886 (6.039)
Distance_ od	−0.106 (0.581)	2.127 (1.294)	3.110 * (1.465)
$W_o Y_{od}$		0.233 (0.173)	0.275 (0.172)
$W_d Y_{od}$		0.570 *** (0.076)	0.563 *** (0.079)
Sample size	470	470	470
AIC	3654.615	3448.405	3455.068

The results from the spatial model, which fits the data better than the OLS model according to the Akaike information criterion (AIC), are similar to those from the OLS model (Column B). Interestingly, the spatial lag variable $W_d Y_{od}$ is significantly positive, but $W_o Y_{od}$ is not found to be significant. The latter suggests that migration flows are not strongly affected by those from various other countries. The decision to leave one's home country must in itself be a momentous decision for immigrants to Japan. On the other hand, the significantly positive parameter for $W_d Y_{od}$ implies that immigrants from the same home country tend to move to prefectures that are geographically close to each other.

Given heterogeneity among foreign nationals, Column (C) investigates their preferences in terms of the concentration of certain groups of immigrants who share many similarities. For this analysis, we create concentration rates for the four groups (i.e., East Asian, Southeast Asian, South American, and Western). We then confirm different preferences among the groups in terms of residential location in Japan. The concentration rates of the East and Southeast Asian Groups are found to be significantly positive. However, the other groups do not show such strong preferences that manifest as concentrations in particular Japanese prefectures. These findings are in line with those of Simpson and Finney [24], who report that Chinese immigrants prefer to stay in particular regions in the United Kingdom. Interestingly, the groups with positive and significant concentration rate estimates share some common features. For example, the per-capita GDP of their home

country is lower than that of Japan, and this phenomenon is consistent with Zorlu and Mulder's results [15] and predictions derived from SAT. SAT also explains the Southeast Asia Group's high concentration rate. It differs from Japanese society in terms of culture, language, and religion. On the other hand, Koreans and Chinese (i.e., the East Asian Group) have a stronger affinity with Japanese society in these respects. However, the per-capita GDP of their home country is lower than that of Japan. In particular, many Chinese technical interns live in Japan and attempt to compensate for their relatively low human capital and weak socioeconomic positions by cooperating with their ethnic community.

Immigrants within the South American and Western Groups appear to be spatially dispersed. The concentration rate of the South American Group is insignificant at the 5% level ($p = 0.072$). Although they do not possess strong socioeconomic status, many Brazilians and Peruvians living in Japan are descendants of Japanese immigrants. Their affinity with Japanese society at the time of entry is therefore higher than that of foreigners belonging to either the East or Southeast Asian Group, and their need to concentrate upon entry is relatively small. Likewise, the concentration rate of the Western Group is insignificant because its members do not need to concentrate upon entering the country given their high socioeconomic status. Both Americans and British immigrants come from countries with higher per-capita GDP values and in many cases work in specialized fields.

Finally, the impact of distance (*dist*) between origin country and Japanese prefecture on immigration is, on many occasions, uncertain. This finding runs counter to the results of previous studies on international immigration, where the expected sign is significantly negative. According to Ramos and Surinach [45], adjoining borders have the effect of significantly increasing immigrant inflows. Because Japan is an island country with tight immigration control, it is presumed that short distance does not act as a pull factor among immigrants.

5.2. Interregional Migration

The results of analyzing foreigners' inter-prefectural migration are reported in Tables 4 and 5. The OLS results are presented in Table 4, while the S2SLS results with the addition of the spatial lag variable are summarized in Table 5. These tables provide evidence that spatial assimilation has occurred in Japan, but that the speed of assimilation differs significantly by nationality.

In both tables, the concentration rate of foreigners is insignificant in analyzing all foreign nationals (i.e., overall) and the East Asian Group. The insignificant concentration rate for members of the East Asian Group derives from their proximity to Japanese culture, and the overall result is affected by the results of the East Asian Group since the majority of immigrants in Japan are Chinese or Korean. Like Japanese, Chinese and Koreans (the East Asian Group) have a long history of Mahayana Buddhism and have linguistic, cultural, and religious characteristics relatively similar to those of Japan. Moreover, they belong to a cultural area that has used Chinese characters (*kanji*) since ancient times and had a history of immigrating to Japan before World War II. The insignificant concentration rate of foreigners for inter-prefectural migration is consistent with the findings of previous studies [15,16,46] and the predictions deriving from SAT. Given our finding of a high concentration tendency in their international movements, a low concentration tendency in inter-prefectural analysis for the East Asian Group suggests that Chinese and Koreans have improved their socioeconomic status in Japan, and that their social integration is progressing successfully. Their assimilation into Japanese culture sharply contrasts with their behavior in the United Kingdom, where Chinese tend to congregate over a protracted period [24]. We hereby confirm the conventional implication of SAT that immigrants find it easier to assimilate themselves into societies that resemble their own.

Table 4. OLS results from inter-prefectural migration models. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Subscripts “o” and “d” represent origin and destination regions, respectively.

	All Foreigners	East Asians	Southeast Asians	Americans and British	South Americans
Intercept	−0.079 ** (0.028)	−0.066 ** (0.021)	−0.002 (0.002)	−0.001 (0.001)	0.006 ** (0.002)
Unemployment rate_o	0.068 (0.035)	0.063 * (0.025)	0.006 * (0.002)	−0.001 (0.002)	0.007 ** (0.002)
Real GDP per capita_o	−0.945 (0.898)	−0.435 (0.562)	−0.111 (0.065)	−0.013 (0.031)	−0.023 (0.024)
No. of foreigners (same group)_o	0.440 *** (0.098)	0.281 *** (0.063)	0.060 *** (0.010)	0.020 *** (0.005)	0.030 *** (0.003)
Unemployment rate_d	0.055 (0.043)	0.050 (0.034)	0.007 (0.004)	−0.002 (0.002)	0.000 (0.003)
Real GDP per capita_d	−0.057 (0.889)	−0.213 (0.577)	0.015 (0.065)	−0.008 (0.037)	−0.053 (0.030)
No. of population_d	0.533 *** (0.097)	0.333 *** (0.074)	0.050 *** (0.008)	0.016 ** (0.005)	0.057 *** (0.010)
Foreigners’ rate (same group)_d	0.053 (0.122)	0.179 (0.121)	0.253 *** (0.055)	0.591 ** (0.215)	0.232 ** (0.045)
Distance_od	−0.720 *** (0.153)	−0.445 *** (0.112)	−0.079 *** (0.014)	−0.026 *** (0.007)	−0.075 *** (0.010)
Sample size	2209	2209	2209	2209	2209
AIC	8584.404	7160.988	−1295.597	−4448.364	35.530

Table 5. S2SLS results from inter-prefectural migration models. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Subscripts “o” and “d” represent origin and destination regions, respectively.

	All Foreigners	East Asians	Southeast Asians	Americans and British	South Americans
Intercept	−0.042 (0.308)	−0.023 (0.215)	−0.000 (0.034)	0.033 (0.022)	0.050 (0.044)
Unemployment rate_o	0.100 ** (0.035)	0.090 *** (0.026)	0.005 (0.004)	−0.002 (0.002)	0.007 ** (0.002)
Real GDP per capita_o	−0.499 (0.570)	−0.176 (0.320)	−0.121 ** (0.047)	−0.025 (0.015)	−0.010 (0.030)
No. of foreigners_o	0.466 *** (0.128)	0.320 ** (0.102)	0.060 *** (0.013)	0.025 ** (0.010)	0.027 *** (0.004)
Unemployment rate_d	0.032 (0.029)	0.025 (0.019)	0.008 * (0.003)	−0.003 (0.002)	−0.002 (0.003)
Real GDP per capita_d	−0.430 (0.602)	−0.456 (0.380)	0.022 (0.036)	−0.009 (0.016)	−0.106 (0.055)
No. of population_d	0.470 ** (0.163)	0.305 ** (0.118)	0.051 *** (0.014)	0.022 * (0.009)	0.085 *** (0.021)
Foreigners’ rate (same group)_d	0.068 (0.109)	0.052 (0.223)	0.243 *** (0.058)	0.742 * (0.334)	0.335 *** (0.101)
Distance_od	−0.720 *** (0.181)	−0.458 ** (0.140)	−0.080 *** (0.018)	−0.033 ** (0.012)	−0.083 *** (0.017)
$W_o Y_{od}$	0.238 (0.316)	0.269 (0.334)	−0.006 (0.040)	−0.264 (0.514)	−0.496 (0.351)
$W_d Y_{od}$	−0.239 (0.288)	−0.284 (0.315)	0.005 (0.037)	−0.104 (0.496)	0.291 (0.184)
Sample size	2209	2209	2209	2209	2209
AIC	8577.211	7156.315	−1277.948	−4153.134	169.017

While the spatial assimilation of foreign nationals in Japan is generally in progress, the concentration rates of other country groups (i.e., the Southeast Asian, South American, and Western Groups) are significantly positive. Immigrants in the first two groups earn relatively low incomes in their home countries, are linguistically and religiously distant from Japanese, and have a weak socioeconomic position in Japan. This result is consistent with the behavior of non-Western immigrants in the Netherlands [15]. These immigrants, who are both linguistically and religiously distant from the Dutch, choose ethnically concentrated areas, regardless of whether their migration is international or domestic.

Among these three country groups, there are some differences in their residential choice. It is interesting to note that immigrants from the Southeast Asian Group, whose concentration rate was also significant during international migration (Table 3), fail to improve their socioeconomic status and carry out cultural transformation within Japan. In contrast, since their concentration rate was insignificant for international migration

(Table 3) but significant for inter-prefectural migration, the South American Group and Western Group seem to start residing close to each other some time after arriving in Japan.

Besides a tendency for some immigrants to concentrate, there are some differences between the empirical results of international and inter-prefectural migration analyses (Based on the AIC, the spatial model is more appropriate for all foreigners and the East Asian Group (Table 5), while the OLS model is better for the other groups (Table 4).). For example, while there was a strong tendency for workers to relocate to highly populated prefectures during domestic migration, such a tendency was very weak in the spatial analysis of international migration. Moreover, while economic motivations remain important with respect to domestic migration, job opportunities (rather than higher income) tend to be the motivation behind relocation. In the case of international immigration, increases in unemployment rates in origin countries reduce workers' economic gains and emigration. However, in the case of inter-prefectural migration, unemployment rates (o) are often significantly positive. Foreigners living in Japan already have the economic power to move between nations, and domestic travel costs are significantly lower than international travel costs. These facts facilitate foreign nationals' movement to other prefectures that offer better employment opportunities.

Additionally, the distance functions more consistently with theoretical predictions of inter-prefectural movement than with those of international immigration. Unlike the case of migrating from outside the country, in the inter-prefectural analysis, the distance variable is correctly signed and both significant and negative. Compared to cases of international movement where there is no adjacent foreign country, prefectural borders, which are more likely to be adjacent to each other in domestic movement, are associated with a cost of movement (i.e., between neighboring prefectures) that is significantly lower and more affordable. We therefore obtain the predicted result that the distance between prefectures negatively correlates with the number of migrants.

6. Conclusions

Using regional data on migrants in Japan, we demonstrated that spatial assimilation among foreigners in Japan is in slow progress. Analysis of international migration data revealed that the effect of the prefecture-level concentration of foreigners on immigration was significantly positive for the East and Southeast Asian Groups, both of which come from regions with lower per-capita GDP than that of Japan. By contrast, inter-prefectural migration analysis indicated that the East Asian Group (Chinese and Korean), which is characterized by similarities with Japan in terms of language, culture, and religion, had a weaker tendency to concentrate during domestic migration. This finding aligns with SAT predictions. However, for each of the Southeast Asian, Western, and South American Groups, which are relatively different from Japan in terms of culture, language, and religion, the concentration rate is significantly and positively correlated with migration. This finding suggests that the integration of Chinese and Korean immigrants into Japanese society is progressing at a faster rate than that of other immigrant groups.

In Japan, a country that is aiming for a massive influx of foreign labor, it is urgently necessary to prepare a social integration policy for foreigners because the new immigration policy brings more people from developing countries who have only basic skills and earn minimum wages. Our empirical results suggest that Japanese public policy could especially target immigrants with low wage and different cultural backgrounds (e.g., Vietnamese, Filipinos, and Brazilians). First, higher levels of Japanese proficiency (both communication and writing skills) may be requested for new immigrants, otherwise they end up working in low paid jobs. Japanese consists of more than 2000 characters and has never been a global language, as well as requiring considerable efforts to master. Hence, there is a greater hurdle to improve the current slow assimilation process in Japan compared with Western countries or those using UN official languages.

Second, given that sizable numbers of immigrants' children do not attend school in Japan, investment in education on Japanese culture and history is needed to establish

an immigration policy that will have positive impacts on Japanese society. A survey (2005–2006) conducted in 11 cities by the Ministry of Education, Culture, Sports, Science, and Technology identified the following reasons for immigrant children's, who are entitled to receive public (free) education, absence from school: Financial problems (15.6%), language difficulties (12.6%), return to home country in the near future (10.4%), cultural differences (8.9%), academic difficulties (8.1%), and need to work (8.1%) (Public schools do not charge tuition fees, but parents often need to pay nominal fees for school excursions, lunch, and so on. Financial problems probably reflect families' difficulties in paying rents and purchasing food.). Our analysis broadly confirms that the results from the survey are not limited to these cities but a nationwide phenomenon (https://www.mext.go.jp/a_menu/shotou/clarinet/003/001/012.htm, accessed on 31 March 2021). The deficiencies in education are one reason for a low MIPLEX score in Japan as well. The second generation (immigrants' children) should assimilate in destination countries more easily and quickly than the first. However, unless some improvement can be made to understand the Japanese language and culture, we cannot expect this, resulting in failures of the new immigration policy. Without such an integration policy, the new immigration policy will result in social problems and widening social divisions and make the society unsustainable.

Finally, despite the popularity of STA in migration studies, it is a theoretical framework to assess immigrants' assimilation processes from the perspectives of residential relationships only. Migrant integration is a more multifaceted concept and a complex, dynamic phenomenon. For example, the MIPLEX index is compiled using information on eight policy areas: labor mobility, family reunification, education, political participation, permanent residence, access to nationality, anti-discrimination, and health. STA is directly related to labor mobility but less to other areas. To draw a more general (and probably sensible) conclusion about progress in immigrants' assimilation, further research can therefore be usefully conducted to also examine political and social aspects.

Author Contributions: Conceptualization, K.M. and J.N.; methodology, K.M.; software, K.M.; validation, K.M.; formal analysis, K.M.; investigation, K.M.; resources, K.M. and J.N.; data curation, K.M.; writing—original draft preparation, J.N.; writing—review and editing, J.N.; visualization, K.M. and J.N.; supervision, J.N.; project administration, J.N.; funding acquisition, J.N. Both authors have read and agreed to the published version of the manuscript.

Funding: This research was partially supported by the Tohoku Forum for Creativity via the thematic program (Environmental and Financial Risks).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data used in this research are available upon request from the first author (K.M.). However, based on the agreement with the MIAC regarding use of data, prefectural migration data need to be purchased from the Statistical Center for other parties to conduct research.

Acknowledgments: We would like to thank Teodora Todorovic and three anonymous referees for constructive comments on the earlier version.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. International Organization for Migration. *World Migration Report 2020*; International Organization for Migration: Geneva, Switzerland, 2019.
2. Akimoto, D. Japan's Changing Immigration and Refugee Policy. *The Diplomat*, 12 March 2021.
3. Iguchi, Y. *Economics of Intergenerational Interests*; Yachiyo Publisher: Tokyo, Japan, 2011. (In Japanese)
4. Andersson, R. Socio-Spatial Dynamics: Ethnic Divisions of Mobility and Housing in Post-Palme Sweden. *Urban Stud.* **1998**, *35*, 397–428. [[CrossRef](#)]
5. Bolt, G.; van Kempen, R. Escaping Poverty Neighbourhoods in the Netherlands. *Hous. Theory Soc.* **2003**, *20*, 209–222. [[CrossRef](#)]

6. Wright, R.; Ellis, M. Race, Region and the Territorial Politics of Immigration in the US. *Int. J. Popul. Geogr.* **2000**, *6*, 197–211. [[CrossRef](#)]
7. Asselin, O.; Dureau, F.; Fonseca, L.; Giroud, M.; Hamadi, A.; Kohlbacher, J.; Lindo, F.; Malheiros, J.; Marcadet, Y.; Reeger, U. Social Integration of Immigrants with Special Reference to the Local and Spatial Dimension. In *The Dynamics of International Migration and Settlement in Europe: A State of the Art*; Penninx, R., Berger, M., Kraal, K., Eds.; Amsterdam University Press: Amsterdam, The Netherlands, 2006; pp. 134–170.
8. Alba, R.D.; Foner, N. *Strangers No More: Immigration and the Challenges of Integration in North America and Western Europe*; Princeton University Press: Princeton, NJ, USA; Oxford, UK, 2015.
9. Park, R.E.; Burgess, E.W. *Introduction to the Science of Sociology*; University of Chicago Press: Chicago, IL, USA, 1921.
10. Massey, D.S.; Denton, N.A. Spatial Assimilation as a Socioeconomic Outcome. *Am. Sociol. Rev.* **1985**, *50*, 94–106. [[CrossRef](#)]
11. Alba, R.D.; Logan, J.R. Variations on Two Themes: Racial and Ethnic Patterns in the Attainment of Suburban Residence. *Demography* **1991**, *28*, 431–453. [[CrossRef](#)]
12. Alba, R.D.; Nee, V. *Remaking the American Mainstream*; Harvard University Press: Cambridge, MA, USA, 2003.
13. Zorlu, A.; Mulder, C.H. Location Choices of Migrant Nest-Leavers: Spatial Assimilation or Continued Segregation? *Adv. Life Course Res.* **2010**, *15*, 109–120. [[CrossRef](#)]
14. Bodvarsson, Ö.; Simpson, N.B.; Sparber, C. Migration Theory. *Handb. Econ. Int. Migr.* **2015**, *1*, 3–51.
15. Zorlu, A.; Mulder, C.H. Initial and Subsequent Location Choices of Immigrants to the Netherlands. *Reg. Stud.* **2008**, *42*, 245–264. [[CrossRef](#)]
16. Jones, R.C. The Segregation of Ancestry Groups in San Antonio. *Soc. Sci. J.* **2003**, *40*, 213–232. [[CrossRef](#)]
17. Clark, W.A.V. Race, Class, and Place. *Urban Aff. Rev.* **2007**, *42*, 295–314. [[CrossRef](#)]
18. Hall, M. Interstate Migration, Spatial Assimilation and the Incorporation of US Immigrants. *Popul. Space Place* **2009**, *15*, 57–77. [[CrossRef](#)]
19. South, S.J.; Crowder, K.; Chavez, E. Geographic Mobility and Spatial Assimilation among U.S. Latino Immigrants. *Int. Migr. Rev.* **2006**, *39*, 577–607. [[CrossRef](#)]
20. Crowder, K. Residential Segregation of West Indians in the New York/New Jersey Metropolitan Area: The Roles of Race and Ethnicity. *Int. Migr. Rev.* **1999**, *33*, 79–113. [[CrossRef](#)] [[PubMed](#)]
21. Denton, N.; Massey, D.S. Racial Identity among Caribbean Hispanics: The Effect of Double Minority Status on Residential Segregation. *Am. Sociol. Rev.* **1989**, *54*, 790–808. [[CrossRef](#)]
22. Allan, J.P.; Turner, E. Ethnic Residential Concentration with Above-Average Incomes. *Urban Geogr.* **2009**, *30*, 209–238. [[CrossRef](#)]
23. Tammaru, T.; Kontuly, T. Selectivity and Destinations of Ethnic Minorities Leaving the Main Gateway Cities of Estonia. *Popul. Space Place* **2011**, *17*, 674–688. [[CrossRef](#)]
24. Simpson, L.; Finney, N. Spatial Patterns of Internal Migration: Evidence for Ethnic Groups in Britain. *Popul. Space Place* **2009**, *15*, 37–56. [[CrossRef](#)]
25. Bolt, G.; van Kempen, R. Ethnic Segregation and Residential Mobility: Relocations of Minority Ethnic Groups in the Netherlands. *J. Ethn. Migr. Stud.* **2010**, *36*, 333–354. [[CrossRef](#)]
26. Goodwin-White, J. Dispersion or Concentration for the 1.5 Generation? Destination Choices of the Children of Immigrants in the US. *Popul. Space Place* **2007**, *13*, 313–331. [[CrossRef](#)]
27. McFadden, D. Conditional Logit Analysis of Qualitative Choice Behavior. In *Frontiers in Econometrics*; Zarembka, P., Ed.; Academic Press: Cambridge, MA, USA, 1974; pp. 105–142.
28. Murayama, K.; Nagayasu, J. Spatial Dependence, Social Networks, and Economic Structures in Regional Labor Migration. *MPRA Paper 95691* **2019**, 1–34.
29. Sjaastad, L.A. The Costs and Returns of Human Migration. *J. Political Econ.* **1962**, *70*, 80–93. [[CrossRef](#)]
30. LeSage, J.P.; Pace, P.K. Spatial Econometric Modeling of Origin-Destination Flows. *J. Reg. Sci.* **2008**, *48*, 941–967. [[CrossRef](#)]
31. Beenstock, M.; Felsenstein, D. Double Spatial Dependence in Gravity Models: Migration from the European Neighborhood to the European Union. In *Spatial Econometric Interaction Modeling*; Patuelli, R., Arbia, G., Eds.; Springer: Berlin, Germany, 2016; pp. 225–251.
32. Marrocu, E.; Paci, R. Different Tourists to Different Destinations. Evidence from Spatial Interaction Models. *Tour. Manag.* **2013**, *39*, 71–83. [[CrossRef](#)]
33. Badinger, H.; Egger, P. Estimation of Higher-Order Spatial Autoregressive Cross-Section Models with Heteroscedastic Disturbances. *Pap. Reg. Sci.* **2011**, *90*, 213–235. [[CrossRef](#)]
34. Backhaus, A.; Martinez-Zarzoso, I.; Muris, C. Do Climate Variations Explain Bilateral Migration? A Gravity Model Analysis. *IZA J. Migr.* **2015**, *4*, 1–15. [[CrossRef](#)]
35. Clark, X.; Hatton, T.J.; Williamson, J.G. Explaining U.S. Immigration, 1971–1998. *Rev. Econ. Stat.* **2007**, *89*, 359–373. [[CrossRef](#)]
36. Fitzgerald, J.; Leblang, D.; Teets, J. Defying the Law of Gravity: The Political Economy of International Migration. *World Politics* **2014**, *66*, 406–445. [[CrossRef](#)]
37. Kim, K.; Cohen, J.E. Determinants of International Migration Flows to and from Industrialized Countries: A Panel Data Approach Beyond Gravity. *Int. Migr. Rev.* **2010**, *44*, 899–932. [[CrossRef](#)]
38. Mayda, A.M. International Migration: A Panel Data Analysis of the Determinants of Bilateral Flows. *J. Popul. Econ.* **2010**, *23*, 1249–1274. [[CrossRef](#)]

39. Ortegay, F.; Peri, G. The Effect of Income and Immigration Policies on International Migration. *Migr. Stud.* **2013**, *1*, 7–74. [[CrossRef](#)]
40. Passel, J.S.; Suro, R. *Rise, Peak, and Decline: Trends in U.S. Immigration 1992–2004*; Pew Hispanic Center: Washington, DC, USA, 2005.
41. Sardadvar, S.; Rocha-Akis, S. Interregional Migration within the European Union in the Aftermath of the Eastern Enlargements: A Spatial Approach. *Rev. Reg. Res.* **2015**, *36*, 51–79. [[CrossRef](#)]
42. Belot, M.; Ederveen, S. Cultural Barriers in Migration Between OECD Countries. *J. Popul. Econ.* **2012**, *25*, 1077–1105. [[CrossRef](#)]
43. Pedersen, P.J.; Pytlikovab, M.; Smith, N. Selection and Network Effects—Migration Flows into OECD Countries 1990–2000. *Eur. Econ. Rev.* **2008**, *52*, 1160–1186. [[CrossRef](#)]
44. DeWaard, J.; Kim, K.; Raymer, J. Migration Systems in Europe: Evidence from Harmonized Flow Data. *Demography* **2012**, *49*, 1307–1333. [[CrossRef](#)]
45. Ramos, R.; Suriñach, J. A Gravity Model of Migration Between the ENC and the EU. *Tijdschr. Voor Econ. Soc. Geogr.* **2017**, *108*, 21–35. [[CrossRef](#)]
46. White, M.J.; Glick, J.E. The Impact of Immigration on Residential Segregation. In *Immigration and Opportunity*; Bean, F.D., Bell-Rose, S., Eds.; Russell Sage Foundation: New York, NY, USA, 1999; pp. 345–372.