

Japanese-Brazilians and the Future of Brazilian Migration to Japan

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ABSTRACT

The number of Japanese-Brazilians working in Japan grew from less than 15,000 in 1989 to more than 300,000 in 2006. This rapid growth in migration was initiated by a law change in Japan allowing third-generation Japanese-Brazilians to work in Japan, the “push” of poor economic conditions in Brazil, and the “pull” of a booming economy in Japan. Cultural links between Japan and the Japanese-Brazilians, together with the development of highly efficient organized labour recruitment networks, have acted to foster this, leading to the creation of what some experts believe to be a self-sustaining migration system. We use a new representative survey of Japanese-Brazilians to examine the sustainability of this migration flow. We find both the economic and cultural reasons for emigration to be weakening. Japanese-Brazilians now occupy the upper tiers of the income and occupational distributions in Brazil, and the majority of the third-generation are not participating in many aspects of the Japanese community in Brazil. Moreover, demographic analysis shows that over the next 20 years, the share of migration-age Japanese-Brazilians who are fourth-generation will rise considerably, with such individuals not eligible to migrate under current Japanese immigration law. As a consequence, we predict the rapid growth in the Japanese-Brazilian population in Japan will soon turn to a gradual decline in migrant numbers, and in the long term, erode the stability of this new migration system.

“[D]espite continuously changing economic conditions in Japan and Brazil, a stable migration system has now been established between the two countries that seems to assure the continued influx of Brazilian *nikkeijin* into Japan”

Tsuda (1999a: 23–24)

INTRODUCTION

It is now almost 100 years since a ship named the *Kasado-Maru* carried 791 bonded workers from Japan to the port of Santos in Brazil, ushering in an age of Japanese migration to Brazil. Subsequent waves of Japanese immigrants settled in Brazil, and together with their descendants, there are now almost 2 million Japanese-Brazilians, or *Nikkei*, in Brazil today

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(Goto, 2007).¹ A revision of Japanese law in 1990 coupled with an economic crisis in Brazil and booming economy in Japan gave rise to large migration flows in the reverse direction, as Japanese-Brazilians migrated to Japan to work. By 2006 there were 312,979 registered Brazilians working in Japan, sending an estimated US\$ 2.2 billion of remittances back to Brazil annually (IADB, 2006).

Cultural links between Japan and the Japanese-Brazilians, together with the development of highly efficient organized labour recruitment networks have acted to foster this emigration from Brazil, resulting in continued growth in the number of Japanese-Brazilians in Japan, even as economic pressures have subsided. This has led to some describing it as a stable migration system (Tsuda, 1999a, 2003). However, existing data do not allow us to study the sustainability of this migrant stream. The Japanese-Brazilians constitute less than two per cent of the overall Brazilian population, and are not separately identified in any of the main Government Brazilian surveys. Existing recent surveys of Japanese-Brazilians are ad hoc in nature, often just focusing on migrants or remittance receivers, and are hence not informative about the overall *Nikkei* population.

This paper addresses this issue by using a new representative survey of the Japanese-Brazilian population in Sao Paulo and Parana states of Brazil, conducted between October 2006 and March 2007, to study the current characteristics of the Japanese-Brazilian population, and analyse the sustainability of their migration to Japan. This new data leads us to question whether the emigration process of Japanese-Brazilians will continue to be sustainable over the next twenty years. There is negligible new Japanese immigration to Brazil, and a shift in the migration age *Nikkei* population towards third and fourth generation individuals, who are economically advantaged in Brazil and less culturally tied to Japan.

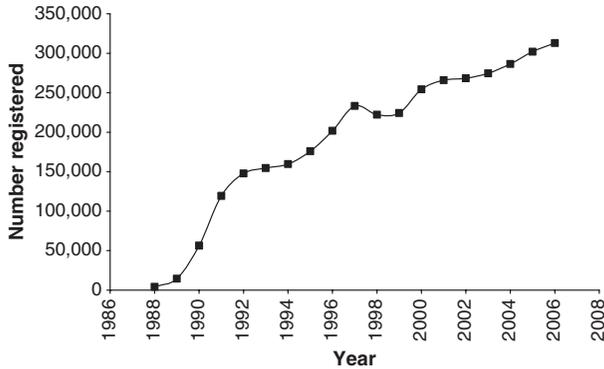
The paper begins with a description of the historic process of emigration from Japan to Brazil, and the reverse migration flows which began in earnest in 1990. Section 3 then discusses the existing survey data available on Japanese-Brazilians, and explains why currently available surveys are either not recent enough or not representative enough to allow examination of future trends. Section 4 describes the new Brazil-*Nikkei* Household Survey, which is used in Section 5 to analyse the economic status of Japanese-Brazilians today and their cultural ties with Japan. Section 6 uses the survey to examine the current involvement of *Nikkei* households in emigration, econometrically model the extent to which economic, cultural, and policy variables influence who migrates, and examines the motivations for migrating or not migrating. Section 7 concludes the paper with a discussion on why the available evidence suggests the current process of emigration of Japanese-Brazilians is not sustainable.

BACKGROUND AND AGGREGATE DATA

Japanese migration to Brazil began in 1908 with a ship carrying bonded labour to the coffee plantations.² High rates of migration from Japan to Brazil occurred from 1925–36 as the Japanese government subsidized emigration, and again from 1955–1961 as the Japanese government again promoted emigration during post-war rebuilding (Goto, 2007). The rate of emigration slowed thereafter, and was down to only 300 to 400 new Japanese emigrants a year by 1986. However, many of the workers had settled in Brazil, and a population of second-generation (*Nissei*) and third generation (*Sansei*) began to emerge. The population of Japanese descent in Brazil was estimated to have reached 1.2 million by 1987–1988 (Tsuda, 2003) and 1.9 million by 2006 (Goto, 2007).

The first temporary return-migration from Brazil to Japan began in the early 1980s, with most of these first returnees first-generation (*Issei*). In 1985, the first advertisement for job

FIGURE 1
NUMBER OF BRAZILIANS REGISTERED IN JAPAN 1988–2006



Source: Japanese Ministry of Justice.

opportunities in Japan appeared in a Japanese newspaper in Brazil, and a booming Japanese economy coupled with economic crisis in Brazil saw a gradual increase in the number of *Issei* and *Nissei* going to work in Japan (Higuchi, 2003). However, by 1988, the total number of Brazilians registered in Japan was only 4,159. This increased rapidly following a revision of Japanese immigration law in 1990. The revised Immigration Control and Refugee Recognition Act allowed individuals of Japanese descent up to third generation (*Sansei*), along with spouses not of Japanese descent of *Nissei* and *Sansei* renewable visas, with unlimited access to Japanese labour markets. Figure 1 shows the large increase in Brazilians registered in Japan – growing from 14,528 in 1989, the year before the policy change, to 119,333 in 1991, the year after, 201,795 by 1996, and 312,979 in 2006.³ While still increasing, the rate of growth has slowed from an average annual (geometric) growth of 11.1 per cent per year over the 1991–1996 period, to 5.7 per cent per year over the 1996–2001 period, and 3.3 per cent per year over the 2001–2006 period. In the remainder of the paper, we will use new survey data on the *Nikkei* population in Brazil to try and assess the likelihood of continued or stable numbers of migrants in the future.

EXISTING SURVEYS OF JAPANESE-BRAZILIANS

To commemorate the first fifty years of Japanese migration to Brazil, a special census of Japanese immigrants and their descendants was carried out in 1958, enumerating over 400,000 individuals. Suzuki (1965) describes this survey and Hastings (1969) provides analysis. The results showed relatively little integration and assimilation over the first fifty years of Japanese migration. Over half of the Japanese were in rural areas, and those who had moved into urban areas were located in blue collar and low-level service occupations. The majority (52%) of *Nikkei* aged 15 and over were still first-generation, 45.5 per cent were second generation, and only 2.5 per cent were third or fourth generation. Inter-ethnic marriage rates were only 4.5 per cent among first-generation, and 7.6 per cent among second generation. Seventy-five per cent of the second generation still spoke Japanese.

This picture had changed by time of a 1987–1988 survey taken by the Sao Paulo Humanities Research Center, reported in Tsuda (2003).⁴ By this time, *Nikkei* are reported

to be urbanized and living in large cities, with 1.2 million in total, with 85 per cent living in the states of Sao Paulo and Parana. The first-generation *Issei* were then only 12.5 per cent of the total population, with second-generation *Nissei* 30.9 per cent and third-generation *Sansei* 41 per cent. Tsuda (2003) reports one study suggesting that the inter-ethnic marriage rate at that time was around 46 per cent.

The rapid growth of Brazilian migration to Japan since 1988 has seen the focus of survey work shift to surveys of Brazilians working in Japan. Examples include surveys taken by the Japan Institute of Labor in 1993 and 1998, discussed in Goto (2007), surveys taken between 1997 and 2000 by Higuchi (2003), and surveys taken by the Associação Brasileira de *Dekasseguis* (Brazilian Association of *Dekasseguis*⁵) in 2004, reported in Beltrão and Sugahara (2006). However, there has been less attention given to the non-migrant *Nikkei* population in Brazil. Instead, the few surveys which have occurred have focused on remittance receivers (Bendixen and Associates, 2004) or of return migrants (Beltrão and Sugahara, 2006).⁶ Such surveys, while providing valuable information on migrants and their families, do not provide information on the Japanese-Brazilian population as a whole, preventing them from being used to assess the current state of integration, and the likelihood of continuing future migration flows. We discuss next a new survey which is the first in at least 20 years to provide representative information on this population.

DESCRIPTION OF THE BRAZIL-NIKKEI SURVEY DATA

With 2008 signifying 100 years since the first Japanese emigration to Brazil, and rising interest in the Japanese-Brazilian population migration flows due to the large remittance stream, the World Bank was approached to conduct a new survey of Japanese-Brazilians. The survey was designed to provide information on characteristics of this population, the extent of their involvement with Japan (including participation in migration and receipt of remittances), and to allow study of the consequences of migration on Japanese-Brazilian households. Given that 85 per cent of Japanese-Brazilians are estimated to live in the states of Sao Paulo and Parana, the decision was made to focus on these two states, which together have a total population approaching 50 million. One of the authors of the current paper co-designed the questionnaire and sampling strategy for this survey. McKenzie and Mistiaen (2007) provide full details of the survey design, which we summarize here.

A representative sample of Japanese-Brazilian households in these two states was achieved by means of a two-stage stratified random survey, designed by the World Bank and implemented by the Brazilian survey firm *Sensus Data World*. The first-stage used the 2000 Brazilian Census to select 75 census tracts with probability proportional to the number of Japanese-Brazilian households in the tract as estimated in the Census. Between 20 October 2006 and 14 November 2006, a door-to-door listing was carried out of 22,539 dwellings in these Census tracts, in order to identify which dwellings contained *Nikkei*.

The listing detected 839 *Nikkei* households, either through direct interview of the household, or through reports of neighbors and building managers if no one was found at the household. The second-stage (January 2007-March 2007) then attempted to survey all *Nikkei* households identified in this first-stage. Some of the households identified by proxy reporting as *Nikkei* were found to be non-*Nikkei* during the more detailed second-stage, giving a target sample of 710 *Nikkei* households. We managed to survey 403 (57%) of these, with a refusal rate of 25 per cent, 14 per cent of cases where neighbors said there was a *Nikkei* household living in a dwelling, but no one was home on at least three attempts, and 5 per cent of cases where building managers said *Nikkei* lived in the build-

ing, but wouldn't allow the survey team to enter. Survey weights which allow for the different probabilities of being sampled for different households are then used for our analysis.

Several characteristics of the *Nikkei* population were a challenge for survey response. Firstly, some individuals live in high-rise apartments secured by building managers or doormen. With crime a general concern in urban Brazil, some building managers were reluctant to allow entry into apartment buildings, although would at least inform us of the number of *Nikkei* in their building. Secondly, individuals working long hours are difficult to locate. Thirdly, there were a couple of well-publicized incidents of *Nikkei* returning from working in Japan and being targeted for crime.

Given these challenges, we were pleased with the response rates achieved. These were accomplished with close involvement of the Japanese-Brazilian community. Over 150 *Nikkei* associations were informed of the survey and asked for their support. Letters of support were obtained from several of the most well-known associations, and were given to the individuals selected for the survey. A mixture of Brazilian and Japanese-Brazilian interviewers were used, due to difficulties in hiring sufficient *Nikkei* who were interested in carrying out survey work (itself a reflection of the high occupational status of Japanese-Brazilians today). The Japanese-Brazilians were used to follow up on initial refusals, increasing response rates.

JAPANESE-BRAZILIANS TODAY

Data from our new survey show the Japanese-Brazilian population to be socio-economically advantaged relative to the overall Brazilian population, but becoming less linked to Japan. This will be important for considering the likelihood of future migration from this group.

DEMOGRAPHIC PROFILE AND ECONOMIC ASSIMILATION

Table 1 provides a demographic profile of Japanese-Brazilians in late 2006. The first-generation *Issei* now account for only 10.7 per cent of the *Nikkei* population. Given the negligible amount of new Japanese immigration to Brazil, this population is aging fast, with mean age of 68.⁷ Only 2.8 per cent of working age (18 to 60) *Nikkei* are first-generation, and only 1.4 per cent of 22 to 50 year olds are *Issei*. The second-generation *Nissei* are still the largest generation, accounting for 41.4 percent of *Nikkei*. However, their average age is now 54, and they account for a smaller share of the 22–50 year old *Nikkei* population than does the third-generation *Sansei*. The mean age of *Sansei* is 27. There are now as many fourth generation *Yonsei* as first-generation *Issei*, however the *Yonsei* are still young, with mean age 16. Mean schooling levels have risen with each generation.

The Japanese-Brazilians are now concentrated in the upper part of Brazil's income distribution, and work in relatively skilled occupations. Table 2 shows the occupational distribution, with many *Nikkei* working in professional occupations. Figure 2 plots the mean monthly wages income by decile for *Nikkei* workers, and compares this to the mean monthly wages by decile for all Brazilians, and for Brazilians in the richer Sao Paulo and Parana states, where the latter are taken from the 2005 PNAD survey. It shows that at every decile Japanese-Brazilian workers earn more than the average Brazilian workers. This is particularly pronounced in deciles 5 through 9. A *Nikkei* worker in the fifth decile of the *Nikkei* wage distribution would be in the seventh decile of the Sao Paulo-Parana distribution and eighth dec-

TABLE 1
DEMOGRAPHIC PROFILE OF JAPANESE-BRAZILIANS

	Nikkei generation				Number of Observations
	Issei	Nissei	Sansei	Yonsei	
% of Nikkei in each Generation	10.7	41.4	37.7	10.3	747
% of 18 to 60 year olds in each Generation	2.8	46.8	45.8	4.5	460
% of 22 to 50 year olds in each Generation	1.4	43.1	51.3	4.2	308
Mean age	68.2	53.9	27.3	15.9	730
Mean years of schooling for 25 and older	9.1	10.0	13.0	n.a.	414

Source: World Bank Brazil-Nikkei Household Survey.

n.a. Not available - There are insufficient Yonsei aged 25 and older to calculate this.

TABLE 2
OCCUPATIONAL DISTRIBUTION OF JAPANESE-BRAZILIANS

	% of workers
1 Managers and senior officials	13.1
2 Professional occupations	18.0
3 Associate professional and technical occupations	22.7
4 Administrative and secretarial occupations	14.5
5 Skilled trades occupations	12.2
6 Personal service occupations	1.8
7 Sales and customer service occupations	2.1
8 Process, plant and machine operatives	3.5
9 Elementary occupations	5.5
10 Not classified	6.7
Number of workers in sample:	242

Source: World Bank Brazil-Nikkei Household Survey.

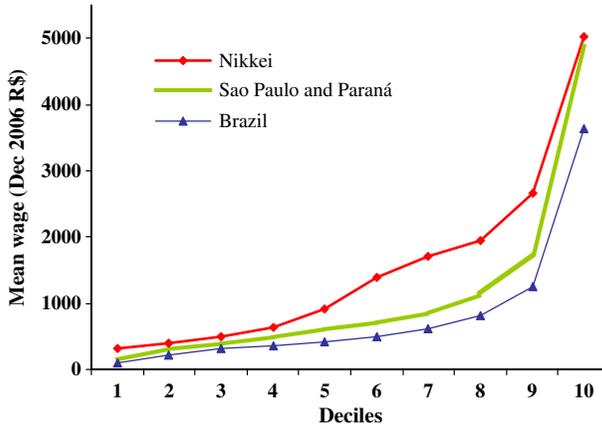
ile of the overall Brazilian wage distribution. Mean wages of *Nikkei* wage workers are 1440 Reais per month, approximately US\$ 720.

The high wealth of the Japanese-Brazilian population relative to all Brazilian households in Sao Paulo and Parana states can also be seen in terms of durable ownership. Sixty-two per cent of *Nikkei* households own a computer, compared to 28 per cent of all Brazilian households in these states.⁸ Eighty-nine per cent have a washing machine, compared to 54 per cent of all Brazilian households in these states; 44 per cent have a freezer compared to 18 per cent of all Brazilian households in these states, and 75 per cent have a cellphone compared to 65 per cent of all Brazilian households in these states. Our survey also finds 71 per cent of *Nikkei* households have private cars, and 68 per cent have DVD players.

CULTURAL ASSIMILATION

The absolute and relative economic status of Japanese-Brazilians has greatly improved since the survey taken to commemorate 50 years of Japanese immigration. Table 3 explores the extent to which patterns of intermarriage and language fluency have also changed. The inter-ethnic mar-

FIGURE 2
MEAN MONTHLY WAGES BY DECILE OF JAPANESE-BRAZILIANS AND BRAZILIANS



Source: *Nikkei* wages from World Bank Brazil-Nikkei Household Survey; Wages of Brazilians from PNAD 2005 (converted to December 2006 Reais).

TABLE 3
CULTURAL ASSIMILATION

	Issei	Nikkei generation		
		Nissei	Sansei	Yonsei
% of married Nikkei married to Non-nikkei	6.4	21.6	25.4	n.a.
% who can read Japanese	58.1	28.1	19.7	0.0
% who can speak Japanese	88.8	61.9	35.2	2.6

Source: World Bank Brazil-Nikkei Household Survey
n.a. Not available - There are insufficient Yonsei who are married to calculate this

riage rate is only 6.4 per cent among the first generation, and has increased to 21.6 per cent among the second-generation, and 25.4 per cent among the third generation. Most fourth-generation *Nikkei* are still too young to have married yet. While increasing, these inter-ethnic marriage rates are still much less than the 46 per cent cited in Tsuda (2003). One partial explanation for this difference is that intermarriage rates may be much higher in states other than Sao Paulo and Parana, where the Japanese-Brazilian population is less concentrated. Much greater changes are seen across generation in terms of Japanese language fluency. Only 2.6 per cent of *Yonsei* and 35.2 per cent of *Sansei* speak Japanese, compared to 88.8 per cent of *Issei* and 61.8 per cent of *Nissei*. The percent who can read Japanese is even less, under 20 per cent among third-generation and currently at 0 per cent among fourth-generation. These differences in language fluency by generation are statistically significant and persist if we control for schooling, gender, and age in a probit regression.

Our survey also asked whether anyone in the household reads or watches Japanese media, whether they belong to a Japanese-Brazilian association such as a *Bunkyo* and whether in the last 12 months any household member had shopped at Japanese markets, eaten at Japanese res-

TABLE 4
PARTICIPATION IN THE NIKKEI COMMUNITY AND LINKS WITH JAPAN

Percent of Nikkei households who:	Generation in Household		
	Oldest Nikkei Issei	Nissei	Sansei
Go to Japanese grocery stores	60.5	48.2	56.4
Go to Japanese restaurants	48.4	50.2	50.9
Go to events organized by Bunkyo/Nikkei associations	46.8	28.8	30.3
Watch Japanese/Nikkei TV programs	45.0	16.2	14.1
Read Japanese/Nikkei books/magazines	35.0	12.3	5.7
Read newsletters from Nikkei associations	26.2	8.7	7.8
Belong to a Bunkyo or Nikkei association	26.0	21.7	16.8
Read Japanese/Nikkei newspapers	18.3	17.9	3.5
Go to Japanese language schools	10.7	3.5	11.6
Go to events organized by Japanese embassy/consulate	9.4	17.7	17.0
Listen to Japanese/Nikkei radio programs	8.7	11.7	2.4
Check Japanese/Nikkei websites on the internet	4.4	8.3	6.3
Number of Households	50	147	60

Source: World Bank Brazil-Nikkei Household Survey.

Too few households had only Yonsei (fourth generation) to allow tabulation for them.

restaurants, or participated in *Nikkei* community events. Table 4 shows the results, broken down according to the oldest generation in the household. About half of households shop at Japanese grocery stores and eat in Japanese restaurants during a 12 month period. This does not vary much by generation. However, other linkages with the Japanese community are much stronger for first-generation, and are less in households with only second or third generation *Nikkei*. For example, 45 per cent of households with an *Issei* member watch Japanese or *Nikkei* television programmes, compared to 16 per cent of households with a *Nissei* member as the oldest generation, and 14 per cent with a *Sansei* member as the oldest generation.

Most *Yonsei* are growing up in households with *Sansei* and sometimes *Nissei* members. Very few of these households are actively engaged in the *Nikkei* community. Only one in six is a member of an association, and only 30 per cent go to events organized by community organizations. Less than 10 per cent of *Sansei* households have members who read Japanese books or newspapers, listen to Japanese radio, or check Japanese websites on the internet. This shows a strong degree of cultural assimilation into Brazil, but also suggests that future generations will have less knowledge and experience of Japanese customs and life.

INVOLVEMENT OF JAPANESE-BRAZILIAN HOUSEHOLDS IN MIGRATION

Information was collected from each *Nikkei* household on all members currently living in the household, as well as on members who have moved to Japan and who lived in the household at the time of migration. Households were also asked whether they receive remittances from Japan. Table 5 shows the high current involvement of Japanese-Brazilian households in migration to Japan. Almost 20 per cent of households have a member currently in Japan, 18 per cent receive remittances, and 35 per cent have a member who has returned from working or studying in Japan. Few of the current migrants are *Issei* – 48 per cent are *Nissei* and 48 per cent *Sansei*.

TABLE 5
INVOLVEMENT IN MIGRATION

<i>Percent of Nikkei households who:</i>	Oldest Nikkei Generation in Household			
	Issei	Nissei	Sansei	All Nikkei
Have a Member currently abroad	28.3	19.7	8.1	19.6
Have a Member who has returned from Japan	45.3	30.3	21.0	35.0
Receives Remittances from Japan	15.1	25.0	9.7	17.9

Source: World Bank Brazil-Nikkei Household Survey.

Too few households had only Yonsei (fourth generation) to allow tabulation for them.

Table 5 also shows that participation in migration is greatest in households with an *Issei* member as the oldest generation: 28 per cent of these households have a migrant currently abroad. In contrast, 20 per cent of households with a *Nissei* as the oldest generation have a migrant currently abroad, and only 8 per cent of those with *Sansei* as the oldest generation.

The mean age of departure for current migrants is 35.1, with an interquartile range of 22 to 45. The average duration abroad of return migrants is between 2 and 2.5 years. Return migrants were asked their monthly income in Brazil before migrating, and occupations and monthly income while in Japan. Mean monthly income in Brazil was 1,397 Reais (US\$ 700), with mean income in Japan of 3,038 Reais (US\$ 1500). The most common occupations in Japan are still unskilled factory work, such as production and assembly line workers. Mean income in Japan is thus 2.18 times that earned by the same workers in Brazil. Although a doubling of income, this is much less of a gain than possible in the early 1990s, when Tsuda (1999a) reports that Japanese-Brazilians working as unskilled factory workers in Japan could earn five to ten times their middle-class Brazilian incomes.

ECONOMETRIC MODELING OF THE DETERMINANTS OF MIGRATION

The new survey data can be used to examine econometrically which characteristics are associated with an individual ever migrating to Japan to work. We first consider all adults (aged 18 and above), and estimate the following probit equation for individual i :

$$\Pr(\text{evermigrate}_i) = \alpha + \beta' \text{DEMOGRAPHIC}_i + \gamma' \text{ECONOMIC}_i + \theta' \text{CULTURAL}_i + \varepsilon_i$$

Where DEMOGRAPHIC is a vector of demographic variables such as gender, age, and *Nikkei* generation; ECONOMIC is a vector of proxies for economic status, including education and an index of household durable assets⁹; and CULTURAL are measures of *Nikkei* or Japanese cultural participation. We construct an index of cultural participation as the sum of six items of household cultural participation: reading Japanese or *Nikkei* newspapers, listening to Japanese or *Nikkei* radio, watching Japanese or *Nikkei* television, reading Japanese or *Nikkei*, reading newspapers from *Nikkei* associations, and checking Japanese or *Nikkei* websites on the internet.¹⁰ As a second indicator of cultural affinity we include a dummy variable for whether or not the individual can read and write Japanese. Finally we include a dummy variable for the Sao Paulo region.

The survey asks households to report on all children ever born, and captures information about individuals currently in Japan, as well as those who have returned from working in

Japan. A common concern in destination country-based migration surveys is that the survey will omit entire households which move. This is much less of a concern in the current case than in many other migrant movements, due to the temporary nature of the migration, and to the fact that the survey asks about children ever born, not just those currently considered household members. Thus, so long as adults have a surviving parent, they should be captured in the survey.

Table 6 then reports marginal effects from this probit estimation. Column 1 begins by including the demographic variables, education, and region. We see women are eight percentage points less likely to be migrants than men, that the probability of ever migrating is increasing in age at a decreasing rate, and that those with university education are twelve percentage points less likely to have ever migrated. There are large differences by generation: conditional on age and the other variables, *Issei* are 18 percentage points more likely to have migrated (back) to Japan for work, while *Yonsei* are 28 percentage points less likely. Migration is less common among *Nikkei* in Sao Paulo than in Parana.

Column 2 then adds the cultural variables and the household asset index. We see strong and statistically significant positive effects of both living in a household with a high degree of cultural participation, and of being able to read and write in Japanese. Those who read and write Japanese are 21 percentage points more likely to have ever migrated.¹¹ Controlling for language and cultural engagement makes *Issei* no more likely to migrate than *Sansei*. However, this does not greatly change the large and significant negative effect of being *Yonsei* on migration. Since we are controlling for age and culture, the *Yonsei* variable is likely capturing the regulatory barrier to *Yonsei's* migrating.

In terms of economic determinants, we continue to see a strong negative impact of education on the likelihood of migrating, consistent with those at the upper end of the income distribution in Brazil being less likely to want to migrate to do unskilled work in Japan. We do not find any additional impact of household wealth on the likelihood of migration. Recall household wealth is an index of household durable goods, measured after migration has occurred. To the extent that migration and remittances are leading households to be able to purchase these assets, the durable goods measure will be biased upward. So the small negative coefficient may still be consistent with wealth being negatively associated with migration, or the lack of significance may reflect that education captures the economic motive better than household assets.

Columns 3 through 6 of Table 6 then conduct robustness analysis. We first drop *Issei* and see in Columns 3 and 4 that the results do not change. Hence the results are not being driven by first generation *Nikkei*. Finally, in Columns 5 and 6 we restrict our analysis to non-*Issei* aged 18 to 49. Dropping older individuals makes it more likely that migrants have at least one surviving parent or household member remaining in Brazil who can report on them in the survey. The estimates are robust to this check as well. Overall then, the probit results show support for economic, cultural, and policy reasons all determining migration.

SELF-REPORTS OF THE MOTIVATIONS FOR MIGRATING OR NOT

We can compare the econometric results with self-reports of the reasons for migrating. Return migrants were asked the importance of different factors for their initial decision to migrate to Japan to work, and for their decision to return back to Brazil. Table 7 shows the results. In accordance with earlier studies of Japanese-Brazilian migration to Japan (e.g., Tsuda, 1999a), the most important reasons for migrating are economic. Seeking opportunities to improve one's life, escaping unemployment, and supporting one's family are the three reasons

TABLE 6
DETERMINANTS OF EVER MIGRATING TO JAPAN FOR WORK
MARGINAL EFFECTS FROM PROBIT ESTIMATION ON ALL NIKKEI INDIVIDUALS AGED 18 AND ABOVE

	All			Non-issei		Non-issei and <50	
	(1)	(2)	(3)	(4)	(5)	(6)	
Female	-0.0820** (0.0328)	-0.0785** (0.0328)	-0.0928*** (0.0347)	-0.0914*** (0.0342)	-0.0629 (0.0488)	-0.0638 (0.0500)	
Age	0.0117* (0.00669)	0.0136* (0.00729)	0.0110 (0.00827)	0.0116 (0.00900)	0.118*** (0.0240)	0.133*** (0.0245)	
Age Squared	-0.000162** (6.97e-05)	-0.000190** (7.97e-05)	-0.000158* (9.16e-05)	-0.000170* (0.000102)	-0.00180*** (0.000352)	-0.00204*** (0.000362)	
Issei (1st generation)	0.182* (0.110)	0.0440 (0.113)	0.0440 (0.113)	0.0440 (0.113)			
Nissei (2nd generation)	0.0329 (0.0529)	0.00305 (0.0563)	0.0224 (0.0538)	0.00597 (0.0576)	0.0614 (0.0621)	0.0501 (0.0754)	
Yonsei (4th generation)	-0.278*** (0.0413)	-0.259*** (0.0465)	-0.280*** (0.0395)	-0.259*** (0.0449)	-0.262*** (0.0574)	-0.226*** (0.0683)	
University education	-0.120*** (0.0451)	-0.146*** (0.0429)	-0.121*** (0.0449)	-0.150*** (0.0434)	-0.147*** (0.0546)	-0.216*** (0.0526)	
Index of Japanese Cultural Engagement		0.0648*** (0.0180)		0.0687*** (0.0198)		0.104*** (0.0265)	
Reads Japanese		0.215*** (0.0700)		0.224*** (0.0767)		0.296*** (0.0974)	
Sao Paulo	-0.109** (0.0487)	-0.101** (0.0483)		-0.108** (0.0500)		-0.125** (0.0595)	
Index of Household Durable Assets		-0.00819 (0.0123)		-0.0130 (0.0125)		-0.0236 (0.0150)	
Observations	581	581	527	527	335	335	

Notes: Robust standard errors in parentheses clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.
Omitted category for Nikkei generation is Sansei (third generation).
Source: own analysis based on World Bank Brazil-Nikkei Household Survey.

TABLE 7
REASONS FOR MIGRATING AND REASONS FOR RETURNING AMONG RETURN MIGRANTS

	Very important	Important	Of little importance	Not important
A: Reasons to migrate				
To seek opportunities to improve life	81.5	12.4	0.2	5.8
To escape from unemployment in Brazil	67.3	14.5	5.2	13.0
To support family	53.5	14.7	2.6	29.3
To save money to set up your own business in Brazil	32.2	29.4	9.9	28.5
To obtain work experience	25.7	13.8	7.8	52.7
To obtain better education	22.1	13.4	2.6	62.0
To accompany family	19.0	3.5	3.8	73.7
To get to know Japan (out of curiosity or longing)	17.5	26.3	6.3	49.8
To obtain resources to pay for studies	7.5	8.7	11.4	72.4
To settle in Japan	5.1	10.6	4.6	79.8
B: Reasons to return				
Because of homesickness	62.9	13.3	7.6	16.2
To be with family members who were not able to move to Japan	43.2	13.8	4.4	38.6
The cost of living in Japan was higher than I had thought it would be	37.6	6.2	26.9	29.3
I had saved the target amount of money I wanted to earn in Japan	36.6	22.7	9.4	31.3
To be with my own culture	24.5	9.9	16.3	49.3
I lost my job in Japan/could not find a job in Japan	17.1	3.8	5.8	73.3
So that my children could attend school in Brazil	13.3	6.3	7.0	73.4
It was difficult to adapt myself to Japan	12.7	5.1	16.3	66.0
End of job contract	8.5	5.6	6.7	79.2
I was dissatisfied with the job/salary in Japan	8.5	11.5	2.4	77.7
To support family business in Brazil	5.2	7.9	7.9	78.9

Source: World Bank Brazil-Nikkei Household Survey.

that a majority of return migrants say were very important in their migration decision. In contrast, cultural factors are much less important. Only 17 per cent say that getting to know Japan was a very important reason, with 50 per cent saying it was not important.

While the self-reported reasons for migrating are mostly economic in nature, the main factors given for returning are social. Homesickness and a desire to be with family members who did not migrate are the most important reasons given for return. Twenty-five per cent say that “to be with my own culture” was a very important reason for return, consistent with the notion that they do not feel culturally at home in Japan (Tsuda, 2003). Thirty-seven per cent cite the high cost of living in Japan as a reason for returning, suggesting that the gap in monthly wage incomes may be offset somewhat by the higher costs of living in Japan. Finally, 59 per cent say saving the target amount of money was a very important or important reason for return, consistent with the idea of temporary migration to earn a set amount.

Return migrants were also asked what the most important difficulties they faced when in Japan were. The three most important difficulties given were communication, reported by 46 per cent as the main difficulty, adaptation to the habits and customs of Japan, given by 18 per cent as the main difficulty, and longing for Brazil, given by 17 per cent as the main difficulty.

In each household without a current or return migrant, a randomly selected 18 to 60 year old was asked the importance of different factors for explaining why they had not taken part in migration to Japan. Table 8 shows these reasons. The most important reason given is that individuals are happy with their lives in Brazil, which 58 per cent say is very important for explaining why they haven't migrated. The second most important reason is not wanting to move away from family members who cannot or do not want to work in Japan: Sixty-eight per cent say this is a very important or important reason. The perceived cost and uncertainty of finding a job offer are barriers for a sizeable minority – despite an organized labour brokerage system which advertises jobs in Japanese-Brazilian newspapers,

TABLE 8
REASONS FOR NOT MIGRATING AMONG THOSE IN A HOUSEHOLD WITHOUT MIGRANTS

	Very important	Important	Of little importance	Not important
I am satisfied with my life in Brazil and no desire to move	58.3	15.5	5.8	20.4
I do not want to move away from family members	48.0	19.5	7.6	24.9
I have an on-going business/job in Brazil which I can't leave	25.6	11.9	11.5	51.0
I can not afford the cost of an airfare to Japan	24.0	7.1	12.4	56.6
I do not think I can find a job offer in Japan	17.0	7.0	13.4	62.7
I am not eligible to go to Japan to work	13.9	7.6	9.3	69.1
I do not feel my Japanese language ability is good enough	13.4	14.2	13.0	59.5
I do not want to take my children out of school in Brazil	10.7	8.9	8.8	71.7
I think I can earn more money staying in Brazil	9.9	12.9	18.0	59.1
I do not know how I can obtain information about going to Japan to work	5.2	7.6	15.2	72.0

Source: World Bank Brazil-Nikkei Household Survey.

provides some assistance in paying for travel and set-up costs, and provides other information.

THE FUTURE AND SUSTAINABILITY OF JAPANESE-BRAZILIAN MIGRATION

The large expansion in Japanese-Brazilian migration to Japan was triggered by the combination of factors: the 1990 law change, allowing *Sansei* and non-*Nikkei* spouses of *Nissei* and *Sansei* access to the Japanese labour market; and the push of poor economic conditions in Brazil combined with the pull of a booming economy in Japan. Ethnic ties between the two countries were a catalyst in this process on both ends. Tsuda (1999a: 9) notes that when the economic crisis of the late 1980s created pressure to emigrate, the Japanese-Brazilians naturally turned to Japan because of “a strong consciousness of transnational ethnic connections to their ancestral homeland”, while from the Japanese side, a sense of common ties based on blood and racial descent provided the ideological justification necessary to make the policy politically acceptable.

However, although the data collected in our new representative survey of Japanese-Brazilians show that economic, cultural, and policy factors are all important determinants of migration, the data also suggest that all three factors – the share of the Japanese-Brazilian population covered by the law, the wage gap between the countries, and the sense of connection to Japan – have weakened, casting doubt on the future sustainability of this migration stream.

The first factor that leads us to suggest this is a change in the generational composition of the Japanese-Brazilian population in Brazil. The majority of migrants leave for Japan between ages 22 and 50. Assuming no new migration from Japan, and random mortality across generations within this age group, we can use the current age distribution in our survey to predict what the generational composition of migration-age *Nikkei* will look like five, ten, and twenty years after the survey. Table 9 shows these projections. Currently only 4.2 per cent of 22 to 50 year old *Nikkei* are *Yonsei*, who are not allowed to emigrate to Japan under the current law. The probit results show *Yonsei*'s are much less likely to emigrate than other generations. As time passes, these *Yonsei* will account for an increasing share of all migrant-age *Nikkei*, making more and more of the *Nikkei* ineligible to migrate under current law. By 2016 we predict that 15 per cent of the migrant-age *Nikkei* will be *Yonsei*, and by 2026, 24 per cent will be. Correspondingly, the aging of the second-generation *Nissei* will reduce their share of the migrant-age *Nikkei* from 43 per cent in 2006 to only 8 per cent by 2026.

Secondly, the economic motivation for migration has lessened. As we have shown, the Japanese-Brazilian population is concentrated in the upper part of Brazil's income distribution, occupying white collar jobs. The income earned by Japanese-Brazilians in Japan now averages only 2.18 times the average income of these workers at home, a far cry from the five to ten-fold increases experienced in the early years. Moreover, the purchasing power parity exchange rate suggests that one needs 1.68 times as much income to purchase the same basket of goods in Japan as in Brazil. The effective gain in income from migrating is thus of the order of 50 per cent. Furthermore, although the Japanese economy was booming and the Brazilian economy in crisis during the late 1980s, since 1995 the annual growth rate in per capita GDP has been similar in both countries (Figure 3). The push of poor economic conditions and pull of a strong economy in Japan have thus substantially weakened.

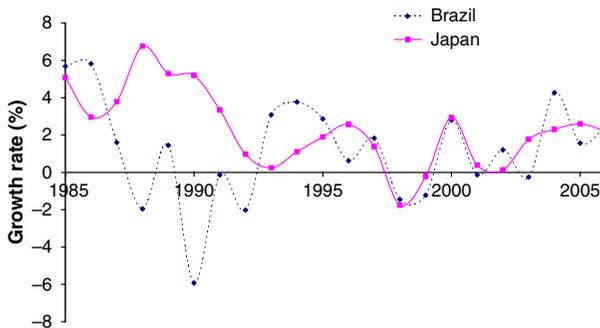
Our probit regressions showed migration is less likely for those with university education. 54 percentage of the *sansei* generation have university education, compared to 32

TABLE 9
 EXPECTED FUTURE GENERATIONAL DISTRIBUTION OF 22 TO 50 YEAR OLD NIKKEI

Year	Percent of 22 to 50 year old Nikkei in each generation			
	Issei	Nissei	Sansei	Yonsei
2006	1.4	43.1	51.3	4.2
2011	1.4	24.8	63.6	10.2
2016	1.2	17.3	66.3	15.2
2026	0.9	7.9	67.2	24.0

Source: own projections based on World Bank Brazil-Nikkei Household Survey.

FIGURE 3
 ANNUAL REAL GDP PER CAPITA GROWTH RATES 1985–2006



Source: World Bank World Development Indicators, 2007.

per cent of the *nissei* and 15 per cent of the *issei*. If, as expected, the *yonsei* continue this path of increasing education by generation, the younger, more educated *sansei* and *yonsei* will be less likely to desire low-skilled work abroad.

This is not to deny that there are *some* Japanese-Brazilians earning relatively low wages for whom the wages available in Japan are attractive, and the gains higher, just to note that the economic motive is less than it once was, and does not apply very strongly to the majority of *Nikkei*. Furthermore, previous empirical and theoretical literature has shown that migration is often driven by relative income considerations, as well as absolute income gains (Stark and Taylor, 1989, 1991). Figure 2 shows the high position of even the poorest Japanese-Brazilians relative to the poorest Brazilians. To the extent that relative income plays a role in determining migration, and that more assimilated Japanese-Brazilians consider the Brazilian population as a whole as the reference group, this will further weaken the motive for migration.

Finally, while it is possible that in the future Japan could change its laws to allow *Yonsei* to emigrate, and that economic conditions between the two countries could again diverge, the *cultural* ties between the two countries are becoming weaker. The majority of *Yonsei* and *Sansei* do not speak Japanese, and live in households without strong participation in the Japanese community in Brazil. The probit analysis showed that both Japanese literacy and cultural engagement were strong determinants of migration. Return migrants already are expressing difficulties with communications and custom while in Japan, and that a sense of

longing for Brazil and desire to be with their own culture are reasons for return. The sense of strong ethnic ties to Japan which helped foster the initial migration is hence weakening, suggesting that in the future third- and fourth-generation *Nikkei* will be less drawn culturally to Japan, and the probit shows that weakened cultural ties are associated with a lower likelihood of migrating.

Although many of the jobs in the early phase of migration were ones in which Japanese language ability was not required, Mori (2002) notes a change beginning around 1996, in which knowledge of Japanese has become more important. The two reasons given are restructuring processes in Japanese companies (which have led to workers requiring more Japanese language), and the fact that more migrants are coming with their children, who must attend Japanese schools. The falling Japanese proficiency among the third- and fourth-generations thus is likely to matter more in the future than it has in the past.

Indeed, few individuals in households without migrants think it is likely they will go to work in Japan in the next five years. Only 2.6 per cent say it is very likely they will go to work in Japan in the next five years, 11.1 per cent say it is likely, 17.2 per cent say it is unlikely, and 69.1 per cent say that it is very unlikely. In contrast, 25 per cent of return migrants say it is likely or very likely they will go to work in Japan in the next five years.

While our analysis suggests that the underlying reasons for large migration flows from Brazil to Japan will weaken over the next twenty years, this is likely to be a gradual process. The stock of individuals already in Japan and the return migrants who plan to go back will continue to shore up the numbers of Brazilians working in Japan for the next few years. However, over time it appears there is likely to be less and less interest among the younger *Sansei* in emigrating, and neither interest nor legal authority for the *Yonsei* to emigrate.

More generally, the paper illustrates the limitations of a country with low immigration levels relying on ancestral connections as a means of ensuring a continued supply of low-skilled workers. Many countries have increasingly targeted their immigration policies towards high-skilled workers, with limited options available for low-skilled immigration. One important category which allows unskilled workers into many developed countries is through family visas, allowing relatives of existing immigrants the chance to migrate. However, in countries without large existing stocks of immigrants, other means of obtaining low-skilled workers are required. Japan has remained very cautious about admission of low-skilled workers, with concern over the impact of their migration on Japanese society (Ninomiya and Tanaka, 2004; OECD, 2006). Japan's solution has been to rely on ancestral connections, linked to Japan's earlier wave of emigration.¹² This has succeeded in allowing for unskilled emigration in the short-term without the country having to confront the political issue of creating an explicit visa system for low-skilled workers. However, this system does not seem indefinitely sustainable, suggesting that Japan will have to modify its immigration policies to get the low-skilled workers it needs in the future.

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NOTES

1. We will use the terms Japanese-Brazilian and *Nikkei* interchangeably to refer collectively to Japanese immigrants to Brazil and their descendants. Tsuda (2003, p. x, p.49-51) notes that the terminology Japanese-Brazilian is not generally used in Brazil, with *japonês*, *dekasegi*, and *nikkeijin* used depending on context. Given the ambiguity present with some of these other terms, and the fact that we are writing in English, we follow Tsuda's lead in using Japanese-Brazilian, with *Nikkei* used for brevity at times.
2. More detailed accounts of the history of Japanese migration to the Brazil and the initiation of reverse flows back are found in Cardoso (1972), Tsuda (2003), Higuchi (2003) and Goto (2007).
3. Note that *Issei* (first generation) are not counted as Brazilians, nor are other generations who have attained Japanese nationality.
4. The sampling methodology, sample size, and response rates are not discussed in Tsuda (2003).
5. The term *dekassegui* is used among Japanese-Brazilians to denote individuals of Japanese descent who emigrate to Japan for work.
6. Neither study reports detailed information on sampling techniques, nor do they report refusal rates or other information necessary to assess the accuracy of the surveys.
7. For comparison, the 2000 Brazilian Census gives a mean age of *Issei* (the only generation that can be identified precisely in the Census) of 65.
8. Data on all Brazilian households is taken from the 2005 PNAD survey.
9. This is constructed as the first principal component of a set of 14 durable asset ownership indicators (Filmer and Pritchett, 2001). The fourteen assets are landline telephone, cellphone, tv, video, dvd, radio, computer, freezer, microwave, washing machine, dryer, air conditioner, motorcycle, and car.
10. Similar results are obtained using the first principal component of these six items – we use the simple sum for easy of interpretation.
11. Of course there may be some reverse-causality here, if individuals learn to read and write Japanese while in Japan. However this is not very common – we use reading and writing rather than speaking, as individuals are more likely to learn to speak a few words, than to become literate while working abroad.
12. The United Kingdom Ancestry Visa is similar in effect, allowing Commonwealth citizens with a British grandparent the right to work for up to five years in the United Kingdom, without imposing any skill requirement. However, it accounts for a much smaller share of Britain's immigrant workforce than is the case in Japan.

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