# Xenophobia and the Effects of Education

## Determinants of Japanese Attitudes toward Acceptance of Foreigners

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The aim of this study is to examine the determinants of Japanese attitudes toward acceptance of foreigners. It specifically focuses on the effects of education on xenophobia, and investigates which of the competing theories -labor market competition theory or contact theory - better accounts for the educational effects on attitudes toward foreigners. Analyzing the subsample of those currently employed, the results from logistic regression suggest that age, ratio of foreign residents in the prefecture, and economic threat are positively associated with xenophobia, whereas education, the ratio of Korean residents in the prefecture, and several contact factors are positively associated with pro-foreign attitudes. Although the results indicate that both the dynamics of labor market competition and contact with foreigners are crucial determinants, the effects of education on xenophobia act through the latter rather than the former. The study finds that contact theory provides a better explanation of xenophobia than labor market theory, and suggests that close personal contacts with foreigners such as family ties as well as friendship in neighborhood and workplace are important to promote positive attitudes toward foreigners.

Key words： JGSS, xenophobia, education, labor market competition theory, contact theory

## 排外意識と教育の効果－外国人受け入れに対する日本人の態度の規定要因－

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　本研究では外国人受け入れに対する日本人の態度の規定要因を探り、特に教育が排外意識に及ぼす影響に注目しながら、その関係を媒介する要因として、労働市場競争理論と接触理論のどちらがより大きな説明力を持っているかを考察する。分析対象を有職者に限ってロジスティック回帰分析を行った結果、年齢、都道府県別外国人居住率、失業不安が排外意識に正の影響を及ぼしているのに対し、教育年数、都道府県別居住外国人に占める韓国・朝鮮籍の割合、幾つかの接触経験は負の影響を及ぼすことが分かった。また、教育が受け入れに正の影響を与えるのは、学歴の高い人ほど外国人との接触経験が多いためであり、市場競争よりも接触経験の方がより多く教育の効果を説明することが確認された。特に家族や親戚に外国人がいる場合や、近所や職場での友達づきあいなどの密接で個人的な外国人との接触経験が、受け入れに積極的な態度を促進することが明らかになった。

キーワード：JGSS、排外意識、教育、労働市場競争理論、接触理論

## INTRODUCTION

The increase of the foreign worker population has become a major issue in Japan during the past three decades. In the late 1980s, nationwide debate on the question about whether to "close" or "open" the country to foreign workers reached its peak. The revision of immigration laws that began in 1989 opened the doors to large-scale immigration of workers of Japanese descent, predominantly from Latin America, and simultaneously closed the doors to others who seek low-wage work in Japan (Douglass and Roberts, 2000). As of 2003, the number of foreign residents in Japan is 1,915,030, which consists 1.5% of the total population in Japan (Ministry of Justice, 2003). While the ratio seems extremely small compared to other migrant societies, the recent increase of foreign residents is drastic. Compared to 10 years ago, the number of foreign residents has increased 1.5 times. Among the foreign residents, 32% are Koreans who have resided in Japan for generations, while the rest consists of recent migrants from China (24%), Brazil (14%), and Philippine (10%) etc. Besides these legal residents, the number of illegal foreign residents is reported to be over 220,000.

Reflecting the drastic increase of legal and illegal foreigners in Japan, the debate shifted into a new stage. Government and business leaders began to realize that inviting foreign labor force is crucial to sustain Japan's economy at the present level. Since accepting foreigners is becoming a national necessity as well as reality, we have come to the point where we need to consider Japanese public opinions toward foreigners, and examine the factors that determine these attitudes. Understanding the nature of public opinions about the acceptance of foreigners is crucial for policy makers to create effective policy that will decrease xenophobia among the Japanese, and create an environment in which the Japanese and the foreigners can live cooperatively. Since I find no systematic study on the determinants of xenophobia in Japan, I examine this issue through the use of the 2002 Japanese General Social Survey, which is the first large-scale national survey to ask attitudes toward foreigners as well as other questions that are considered theoretically relevant to such attitudes.

## THEORETICAL FRAMEWORK

In the U.S., Canada, and Europe, there are certain numbers of literatures that examined survey data on individual attitudes toward immigration, focusing on the determinants of anti-immigrant sentiments. These studies have concluded that education (especially higher education) plays a key role in reducing oppositional attitudes toward immigrants (Hainmueller & Hiscox 2004; Hjerm, 2001; Chandler&Tsai, 2001; Sheve and Slaughter 2001a; Case et.al., 1989). For instance, Hjerm (2001) compares the relationship between education and anti-immigrant sentiments across ten Western countries, and finds that despite substantial differences in educational systems, education significantly reduces the degrees of xenophobia in all ten countries.

While positive relationship between education and pro-immigration attitudes were found in almost all the studies, the interpretation of education effects on xenophobia is controversial (Hainmueller & Hiscox, 2004; Chandler&Tsai, 2001; Fetzer 2000; Case et. al. 1989). There are two opposing views that attempt to take account of the relationship between education and anti-immigrant sentiment.

One possible account is offered by labor market competition theory. What is critical in this respect is the threat to native workers' economic well being caused by immigration. The theory assumes that immigrants, who are often willing to work at the low wage and filling positions demanding few skills, will reduce the native-born working class wages and take away their jobs (Fetzer, 2000). In this view, people who are poorly educated and thus remain at the bottom of the occupational ladder have to compete with the newcomer foreigners in the labor market. For the sake of defending economic self-interest, the poorly educated will show oppositional attitudes toward foreigners. Taking this view, Sheve and Slaughter (2001) show that

anti-immigrant sentiments arise among the economically disadvantaged, and thus argue that the observed negative association between education levels and anti-immigration sentiments reflect labor market dynamics.

Alternative explanation is provided by what is known as contact theory, which developed out of the study of racial prejudice (Ihlanfeldt & Scafidi 2001; Allport, 1971). Proponents of this view posit that interracial contact acts to break down racial prejudice. Allport (1971) notes the importance of the nature of the contact, and distinguishes between "true acquaintance" (eg. being entertained as a dinner guest in someone's home) and "casual contact" (e.g. passing someone on the street). He maintains that while true acquaintance works to reduce prejudice, superficial casual contact actually increases it, because simply seeing a "visible out-group member" brings "to mind a recollection of rumor, hearsay, tradition, or stereotype by which this out-group is known (Allport 1979:263)." Contact theory sees that education encourages people to generate more diverse and cosmopolitan network and contact. Studies on attitudes toward immigrants that base their argument on contact theory points out that the highly educated people are more likely to support immigrants, because they are likely to have more cosmopolitan network that will generate tolerance and pro-outsider views of the world (Gang et al. 2002; Chandler and Tsai 2001; Espenshade and Hempstead 1996; Espenshade and Calhoun 1993).

I draw upon these works to examine the factors influencing Japanese attitudes toward foreigners. First task of the paper is to clarify the effects of education on xenophobia. Does education work to decrease opposition toward foreigners in Japan as well? Furthermore, previous studies have pointed out that the effect of education is not always linear. For instance, Chandler and Tsai (2001) reports that high school graduates were the least group to support immigrants in the U.S. Following this argument, I am going to test whether the linear relationship between education and xenophobia holds in Japan.

Next, there is a question about the interpretation of education effect. Is xenophobia determined mostly by the threat of economic competition, felt most acutely among less educated individuals? Or, is it a lack of contact with foreigners, which the less educated are least likely to experience? One way to test the labor market theory is to divide the survey sample into a set of respondents currently in the labor force (including those currently looking for job) and those out of the labor force, and compare if the relationship between education and anti-immigration sentiment holds for both subsamples (Scheve and Slaughter, 2001). However, as Hainmueller and Hiscox (2004) point out, the problem about this approach is that there are substantial differences in age and gender between the two groups, which are highly likely to affect the effect of education on anti-immigration sentiment. Rather than dividing the sample into two groups, I chose to examine only those who are currently employed, and see which of the theory is more applicable to this group of sample.

My hypothesis is that like other Western countries, as the level of education increases, people become more supportive of foreigners in Japan as well. I assume this relationship is more accounted for by contact theory rather than labor market theory. The latter probably has a weaker impact on attitudes toward foreigners, because the number of foreigners in Japan is still relatively few, and people may not directly associate foreigners with economic threat. Contact theory should be more plausible in explaining the positive effect of education, since in a country where foreigners are still small in its number, education should play a major role in providing people with access to generate true acquaintance with foreigners.

## DATA and VARIABLES

The study draws data from the 2002 Japanese General Social Surveys (JGSS), which closely replicates the GSS in the United States for a comparative purpose. In 2002, 5,000 Japanese adults between the ages of 20 and 89 were selected on the basis of two-stage stratified random sampling. The response rate was 62%. The resulting samples of 2,953 individuals were asked a series of questions in interviews and questionnaires. In this study, I only analyze those who are currently in the labor force (1,809 respondents,

61% of the total). Excluding missing data, I was left with 1,548 cases for analysis.

**Table1: Descriptive Statistics for Variables in the Analysis (N=1,548)**

| Variables | MEAN | SD | % |
|---|---|---|---|
| Xenophobia | — | — | 53 |
| Age | 43.4 | 13.9 | — |
| Sex | | | |
| Male | — | — | 58 |
| Female | — | — | 42 |
| Years of Education | 13.0 | 2.4 | — |
| Level of Education | | | |
| Less than high school | — | — | 13 |
| High school graduate | — | — | 48 |
| Junior College Graduate | — | — | 12 |
| B.A. or more | — | — | 27 |
| Foreign Residents in Prefecture | 1.5 | 0.8 | — |
| Korean Residents in Prefecture | 31.0 | 18.0 | — |
| Fear of Losing Job | — | — | 21 |
| Worked together | — | — | 22 |
| Studied Together | — | — | 13 |
| Foreign Friends | — | — | 12 |
| Foreigner in Family or Relative | — | — | 6 |
| Hello to Foreigner | — | — | 13 |
| International Exchange activity | — | — | 6 |
| Other co-participating Activity | — | — | 7 |

*Data are weighted.

Table 1 presents descriptive statistics for variables used in the analysis[1]. Mean and standard deviation are shown for continuous variables, and the percentage in the category is shown for categorical variables. Xenophobia is my dependent variable, and the rest are independent variables.As for xenophobia, the JGSS 2002 included a question: "Do you approve or oppose foreigners increasing in your town?" I excluded cases where the respondents did not offer an answer. Since this is the only question in the survey that asked about the attitudes toward foreigners, I use this single question as a measure of xenophobia. A dichotomous answer is coded "1" if the respondents answered opposition to the increase of foreigners, and "0" if the respondents answered approval. From Table 1, pros (47%) and cons (53%) regarding the acceptance of foreigners are almost equal in numbers among the Japanese in the labor force. Here, since the question did not specify nationality or any other characters of foreigners (eg. SES), it is important to keep in mind that the dependent variable is a measure of people's oppositional attitudes toward "generic" foreigners.

For education, I recoded information on respondent's academic credentials into years of education as well as into four levels of education. The latter is coded as four dummies with B.A. or more as the reference category.

Fear of losing job is used to measure economic threat. Espenshade & Hempstead (1996) and Chandler & Tsai (2001) used perceived national economy as a measure of economic threat. However, since the JGSS 2002 did not contain a question about perceptions of economy, I used respondent's fear of losing job instead. Respondents were asked, "Do you think there is a possibility that you will lose job within an year?" I collapsed "Quite much" and "A little" answers, and coded "1," while collapsing "Not much" and "Not at all" answers, and coded "0." Don't know answers and no responses are excluded as missing data. Table 1 shows that about 21% of the respondents answered that they were afraid of losing their job[2].

Contact with foreigners is measured by seven questions in the JGSS 2002. Respondents were asked, "Do you have opportunities to meet foreigners in your everyday life? Check all that applies to your experience," and were given seven categories: "Work(ed) together," "Study/studied together at school," "Have/had (a) foreign friend(s)," "Being married to or have relatives married to a foreigner," "Say/said

hello to foreigners in the community," "Participated with foreigners in clubs or community activities that aimed at international exchange," and "Participated with foreigners in clubs or community activities that aimed at other than international exchange." For each question, "1" is coded if the respondents answered "Yes," and "0" if "No". Table 1 shows that people were most likely to meet foreigners as coworkers at workplace (21%), followed by as classmates at school (13%), close neighbors (13%), and as friends (12%). The rest of the experiences were relatively not very common. About 6-7% of the respondents met foreigners in clubs or community activity, and about 6% had a foreigner in their family[3].

Several other factors are considered as control variables. Respondents' residential demographics are likely to affect the attitudes toward foreigners as well as the contact with foreigners and fear of losing job (Fetzer 2000; Gang 1994). Unfortunately, the JGSS data did not contain any information about the number of foreigners at a neighborhood level. Thus, I drew data from the survey led by the Ministry of Justice (2002), and included in my analysis the ratio of foreign residents living in respondent's prefecture. Furthermore, one might expect that the characteristics of foreigners in the respondents' region would have impact upon xenophobia. Hence, I included the ratio of Koreans among foreign residents living in respondent's prefecture. The ratio of other ethnic groups (eg. Chinese, Brazilian, South East Asians) did not have significant effects, and therefore they were not used.

Finally, since previous studies have identified that age and sex have significant impact upon attitudes toward immigrants, I included respondent's age (in years) and sex (male=1) in my analysis.

In the following section, I first take up each proposed independent variable and cross-tabulate it with xenophobia. I then use logistic regression to assess the linear effect of education on xenophobia, net of other effects. Then I compare the extent to which economic and contact factors mediate the effect of education on xenophobia. Finally, I present a full regression model to identify crucial factors that determine people's attitudes toward foreigners. Weighted observations were used in the cross-tabulation as well as in the logistic regression analysis.

## RESULTS

### 1. Results from Cross-tabulation

Table 2 shows the result of cross-tabulation of xenophobia by selected variables.

Age is clearly associated with people's attitude toward the acceptance of foreigners. Older people tend to be more opposed to foreigners than the younger ones. Almost 70% of those who are age 50 and older shows oppositional attitude toward foreigners, compared to only 38% of those who are in their twenties. On the other hand, sex does not seem to affect people's attitude toward the acceptance of foreigners. Men are slightly more likely to oppose foreigners than women, but the difference is not statistically significant.

As for education, we see that those who graduated from junior college tend to be the least likely group to oppose foreigners, followed by those with B.A. and advanced degrees, high school graduates, and finally those with less than high school education. The difference between those with less than high school education and those with college education is striking. While nearly two-thirds of the former group shows negative attitudes foreigners, only less than half of the latter group does so. Since junior college graduates are less likely to oppose foreigners than college graduates, we are not sure if people tend to show less opposition to foreigners as the level of education increases, net of other effects. I will come back to this question in the next section.

**Table2: Per Cent Xenophobia by Selected Variables (N=1,548)**

| | Per cent Xenophobia | Percentage Base | chi-square | d.f. | p-value |
|---|---|---|---|---|---|
| Age | | | 75.33 | 4 | .000 |
| 20-29 | 38 | (228) | | | |
| 30-39 | 47 | (276) | | | |
| 40-49 | 52 | (364) | | | |
| 50-64 | 67 | (547) | | | |
| 65 & over | 68 | (133) | | | |
| Sex | | | 2.67 | 1 | .102 |
| Male | 55 | (690) | | | |
| Female | 51 | (858) | | | |
| Level of Education | | | 47.60 | 3 | .000 |
| Less than High School | 72 | (244) | | | |
| High School Graduate | 55 | (740) | | | |
| Junior College Graduate | 42 | (184) | | | |
| B.A. or more | 46 | (380) | | | |
| Foreign Residents in R's Prefecture | | | 12.59 | 1 | .000 |
| Below 2% | 47 | (574) | | | |
| More than 2% | 57 | (974) | | | |
| Koreans among Foreigners in R's Prefecture | | | 11.56 | 2 | .003 |
| Below 20% | 59 | (326) | | | |
| 20-40% | 52 | (703) | | | |
| more than 40% | 49 | (519) | | | |
| Fear of losing job | | | 13.72 | 1 | .003 |
| Yes | 62 | (322) | | | |
| No | 51 | (1,226) | | | |
| Contact with foreigners | | | | | |
| A. Worked together | | | 7.06 | 1 | .008 |
| Yes | 47 | (319) | | | |
| No | 55 | (1,229) | | | |
| B. Studied together | | | 16.47 | 1 | .000 |
| Yes | 39 | (173) | | | |
| No | 56 | (1,375) | | | |
| C. Foreign Friends | | | 38.97 | 1 | .000 |
| Yes | 33 | (174) | | | |
| No | 56 | (1,374) | | | |
| D. Foreigner in Family or Relatives | | | 6.29 | 1 | .012 |
| Yes | 40 | (85) | | | |
| No | 54 | (1,463) | | | |
| F. Hello to Foreigners in Neighborhood | | | 11.29 | 1 | .001 |
| Yes | 43 | (206) | | | |
| No | 55 | (1,342) | | | |
| G. International Exchange Activity | | | 12.69 | 1 | .000 |
| Yes | 36 | (95) | | | |
| No | 55 | (1,453) | | | |
| H. Other Co-participating Activity | | | 13.97 | 1 | .000 |
| Yes | 36 | (101) | | | |
| No | 55 | (1,447) | | | |
| **TOTAL** | 53 | (1,548) | | | |

1.Percentage based on weighted frequencies.
2.Percentage base shows unweighted frequencies.

The ratio of foreign residents living in respondent's prefecture is positively associated with xenophobia. More foreigners in the prefecture promote more negative attitudes toward accepting foreigners among the Japanese residents[4].

People living in a prefecture with higher proportion of Korean residents tend to be more supportive of foreigners. This holds true even after controlling for the number of foreign residents, which I will show in the following sections. This is an interesting result, especially when we consider that other ethnic groups did not have significant impact upon xenophobia, net of the number of foreigners in the respondents' prefecture. What is special about the prefectures with many Koreans, who are the oldest ethnic group in Japan? One possible interpretation is that these prefectures, which are concentrated in western Japan, have become the hubs of civil rights movement that strive for dismantling institutional

discrimination and racism against Koreans since the 1970s (Park, 1999). The Korean grassroots movement started to involve Japanese residents in the late 1970s, and they together challenged institutional barriers that prohibited Koreans from practicing equal rights. The Korean-concentrated prefectures have been the cutting-edge of Japan's multiculturalism, and that we can assume that such environment socialize the residents to be more tolerant of cultural diversity.

Fear of losing job certainly contributes to xenophobia. On the other hand, we see that seven variables that describe different types of contacts with foreigners are all negatively associated with xenophobia.

## 2. Assessing the Linear Effects of Education on Attitudes toward foreigners

The next step is to examine the effect of education on xenophobia, net of individual's social background. Logistic regression model is used for this purpose. The log odds of xenophobia are regressed on years of education, age, and sex, and the result is shown in Model 1 in Table 3. We see that the increase in the years of education leads to significantly lower log odds of opposing foreigners, holding constant age and sex. For instance, the predicted probability of xenophobia for an average (=43) year old individual who has only 9 years of schooling is 63%, compared to 56% for a 43 year-old with a high school degree, and 47% for a 43 year-old with a bachelors degree[5].

Particular interest here is whether education really has a linear effect on the attitudes. For example, the result of cross tabulation suggests the possibility that only less than high school education has significant effect on xenophobia. To test this, I created Model 2, which posits variation in the level of education around any linear trend in the log odds of xenophobia. If substantively sensible deviations from linearity are observed, Model 2 might be accepted as a new model. The assumption of linearity can be tested via adjusted Wald test[6], by examining whether the coefficients associated with the dummy variables collectively equal zero. The result is not statistically significant ($F$=0.75 with 3, 1545 *d.f., p*=.522), which suggests that we cannot reject the null hypothesis. Therefore, I accept a linear-trend model as the most parsimonious model. As the year of education increases, people are more likely to accept foreigners.

## 3. What Factors Mediate the Effects of Education on Attitudes toward Foreigners?

Now I consider whether the association between education and xenophobia is better accounted for by labor market theory or by contact theory. I created two new models for this purpose. Model 3 adds economic threat measured by "fear of losing job" to Model 1, and test the claim made by labor market theory, which posits that those who feel economically threatened are more likely to show negative attitudes toward foreigners. In contrast, Model 4 adds seven contact variables to Model 1, and tests the adequacy of contact theory, which maintains that, the more personal contact with foreigners, the more positive attitudes toward them. Two demographic variables －the ratio of foreign residents and the ratio of Koreans among foreign residents in the respondent's prefecture－are added as control variables to both models at this point.

Comparing Model 3 with Model 1, the result of Wald test indicates that Model 3 fits significantly better than Model 1 ($F$=9.52 with 3, 1545 *d.f., p*=.000). Inspecting the coefficients, I find that economic threat significantly increases the log odds of being opposed to accepting foreigners, net of sex, age, and demographic variables. That is, holding other predictors constant, those who feel insecure about their economic status are more likely to oppose foreigners. This result seems to be consistent with the claim posited by the labor market theory.

Moving on to Model 4, which adds contact variables as well as demographic variables to Model 1, I find that this model also fits better than Model 1 ($F$=6.29 with 9, 1539 *d.f., p*=.000). Of the seven contact

variables, experience of having foreign friends and having a foreigner in family, saying hello to foreigners, and co-participating in activities with foreigners all significantly contribute to decreasing xenophobia, net of sex, age, and demographic variables. This result indicates that the more personal and intimate contact with foreigners promote more positive attitudes toward the foreigners, which is consistent with the contact theory argument.

While the results suggest support for both theories, the effect of education on xenophobia appears to be better explained by contact theory rather than labor market theory. Comparing $Y^*$-standardized coefficients[7] associated with the years of education in Model1 and Model3, we see that it hardly changes even after adding economic variable and the two demographic variables (from -.050 to -.049). On the other hand, adding contact variables significantly reduces the effect of education on xenophobia. $Y^*$-standardized coefficients for the years of education drops from -.050 to -.033 when seven contact variables and two demographic variables are added to Model 1.

Thus, I conclude that the effect of education on attitudes toward foreigners is better accounted for by people's contact and experience with foreigners rather than labor market competition. From this result, it is assumed that more educated people tend to support foreigners coming to Japan not so much because they feel that they do not need to compete with the foreigners in the labor force, but because they have more personal contact and experience with foreigners compared to the poorly educated.

## 4. What Are the Crucial Determinants of Attitudes Toward Foreigners?

Finally, I consider the crucial determinants of people's attitudes toward accepting foreigners by examining a full model, which includes all the theoretical variables described above. Model 5 in Table 3 shows the result. Wald test indicates that Model 5 fits significantly better than Model 4 ($F$=9.03 with 1, 1547 *d.f., p*=.003). From the table, we see that age, education, two demographic variables, economic threat, and four of the contact variables significantly affect people's attitudes toward foreigners.

The positive effects of increasing years of education in diminishing xenophobia remains, even after including economic and contact factors in the model. The result suggests the possibility of other factors that mediate the effects of education on the attitudes toward foreigners.

Respondent's demographic characteristics also have significant impact. People living in a prefecture with more foreigners are more likely to oppose foreigners, net of all other effects. The result is consistent with contact theory, which states that increasing experiences of superficial contact such as passing by foreigners on the street rather enhances xenophobia (Allport, 1954). On the other hand, we also see that people living in a prefecture with more Koreans are more likely to be pro-foreigners, holding constant all other effects. Aforementioned, multiculturalism and civil rights movement have developed in these Korean-concentrated prefectures, and the residents may be more likely to be exposed to cosmopolitan values in their everyday life environment.

Among economic and contact variables, I compare $Y^*$-standardized coefficients to examine the relative magnitude of each variable's effect on xenophobia.   From the table, we see that having foreign friends has the largest impact with $Y^*$-standardized coefficient of -.336. This is followed by being married to or having a relative married to a foreigner. Next comes an economic factor, with the coefficients of .233. Then, this is followed by another two contact variables: saying hello to foreigners, and by working together with a foreigner. These results again show more support for contact theory than labor market theory. The effect of friendship with foreigners on attitudes is remarkable. Having foreign friends reduces the odds of opposing foreigners by 46%, net of all other variables. On the other hand, economic threat increases the odds of xenophobia by 1.5, net of other predictors. This is to say that not experiencing economic threat reduces the odds of xenophobia by 35%, holding constant other predictors.

**Table 3. Effect Parameters for Various Models Predicting Xenophobia (N=1,548)**

| Variable | Model 1 | | | | Model 2 | | | Model 3 | | | | Model 4 | | | | Model 5 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | b | std. error | p | Y*-std. coef. | b | std. error | p | b | std. error | p | Y*-std. coef. | b | std. error | p | Y*-std. coef. | b | std. error | p | Y*-std. coef. | exp(b) |
| **Intercept** | -.046 | .431 | .916 | -.025 | -1.399 | .119 | .554 | -.237 | .278 | .294 | -.850 | -.283 | .260 | .533 | -.154 | -1.221 | .458 | .319 | -.248 | – |
| **Age** | .029 | .004 | .000 | .016 | .0278 | .005 | .000 | .029 | .005 | .000 | .015 | .030 | .005 | .000 | .017 | .030 | .004 | .000 | .017 | 1.031 |
| **Sex** | | | | | | | | | | | | | | | | | | | | |
| Female | – | | | | – | | | – | | | | – | | | | – | | | | – |
| Male | .214 | .115 | .063 | .118 | .176 | .119 | .139 | .210 | .121 | .067 | .088 | .169 | .119 | .157 | .092 | .162 | .120 | .174 | .088 | 1.176 |
| **Years of Education** | -.090 | .026 | .000 | -.050 | .010 | .160 | .953 | -.090 | .026 | .001 | -.049 | -.061 | .027 | .024 | -.033 | -.054 | .027 | .046 | -.029 | .947 |
| **Level of Education** | | | | | | | | | | | | | | | | | | | | |
| Less than High School | | | | | .776 | 1.175 | .509 | | | | | | | | | | | | | |
| High School Graduate | | | | | .354 | .687 | .606 | | | | | | | | | | | | | |
| Junior College Graduate | | | | | -.015 | .404 | .970 | | | | | | | | | | | | | |
| B.A. or more | | | | | – | | – | | | | | | | | | | | | | |
| **Foreign Residents in Region** | | | | | | | | .293 | .079 | .000 | .161 | .321 | .082 | .000 | .175 | .326 | .082 | .000 | .177 | 1.386 |
| **Korean Residents in Region** | | | | | | | | -.011 | .003 | .001 | -.006 | -.012 | .003 | .000 | -.007 | -.013 | .003 | .000 | -.007 | .987 |
| **Fear of Losing Job** | | | | | | | | .418 | .142 | .003 | .230 | – | | – | | .429 | .143 | .003 | .233 | 1.535 |
| **Worked Together** | | | | | | | | | | | | -.261 | .148 | .077 | -.142 | -.307 | .150 | .040 | -.166 | .736 |
| **Studied Together** | | | | | | | | | | | | -.086 | .194 | .660 | -.047 | -.090 | .195 | .641 | -.049 | .913 |
| **Foreign Friends** | | | | | | | | | | | | -.644 | .199 | .001 | -.351 | -.620 | .200 | .002 | -.336 | .538 |
| **Foreigner in Family or Relatives** | | | | | | | | | | | | -.512 | .258 | .047 | -.279 | -.538 | .258 | .037 | -.291 | .584 |
| **Hello to Foreigners** | | | | | | | | | | | | -.377 | .171 | .027 | -.205 | -.395 | .170 | .021 | -.214 | .674 |
| **International Exchange Activity** | | | | | | | | | | | | -.307 | .272 | .260 | -.167 | -.280 | .272 | .304 | -.152 | .756 |
| **Other Co-participating Activity** | | | | | | | | | | | | -.525 | .253 | .038 | -.286 | -.499 | .256 | .052 | -.270 | .607 |
| **F-ratio** | 24.92 | | .000 | | 13.29 | | .000 | 16.63 | | .000 | | 10.17 | | .000 | | 10.09 | | .000 | | |
| **Degrees of Freedom** | 3, 1545 | | | | 6, 1542 | | | 6, 1542 | | | | 12, 1536 | | | | 13, 1535 | | | | |

*Data are weighted.

While these results do not negate labor market theory, they suggest that economic factor plays less major role in determining attitudes toward foreigners than experience with foreigners.

Now I look into the nature of experiences that contribute to positive attitudes toward accepting foreigners. The strong effects of having foreign friends and having a foreigner in family or relatives on reducing xenophobia indicate that friendship and family ties with foreigners are crucial factors promoting positive attitudes toward accepting foreigners. These social ties imply stronger relationships than "true acquaintance" which contact theory argues as important in reducing prejudice. The result also suggests the importance of neighborhood contact. Saying hello to the foreigners in neighborhood reduces the odds of xenophobia by 33%, net of all other predictors in the model. Finally, working together reduces the odds of xenophobia by 26%, holding constant all other predictors in the model. We see that once economic threat is introduced to the model, the effects of working together change from non-significant to significant. Interdependency and shared goals often characterize workplace, thereby it is assumed that the Japanese and the foreigners generate true acquaintance in such cooperative working environment.

**CONCLUSION**

Three things were found in this study. First, increase in the years of schooling significantly reduces xenophobia among the Japanese in the labor force. This result is consistent with the findings in other Western countries. Secondly, the results indicate that the effects of education on attitudes toward foreigners act through contact with foreigners, rather than through economic self-interest. The better educated tend to be more pro-foreigners not so much because they have less fears of labor market competition, but rather because they have more cosmopolitan networks and contacts. This finding suggests that higher education provides people with more opportunities to meet and interact with foreigners. Finally, analysis of full model reveals crucial determinants of Japanese attitudes toward foreigners. Age, ratio of foreign residents in the prefecture, and economic threat are all positively associated with xenophobia, whereas the ratio of Korean residents in the prefecture and several contact factors are all positively associated with pro-foreign attitudes. Although the result indicates that the dynamics of labor market competition and contact with foreigners are both crucial determinants, I find that contact theory provides a better explanation of xenophobia than labor market theory. Strong social bonds such as friendship and family ties with foreigners are the most important factors in reducing xenophobia. Contact with foreigners in neighborhood and workplace is also important, provided that the environment is ethnically integrated to the extent that it generates true acquaintance between the Japanese and the foreigners. The fact that the number of foreigners at prefecture level is positively associated with xenophobia also suggests that it is personal contact and acquaintanceship that promote tolerance and friendly attitudes toward foreigners. As contact theory posits, superficial casual contact seems more likely to increase prejudice against foreigners.

Policy implication from these findings is that it is necessary to create more opportunities for the Japanese to meet and exchange words with foreigners in a non-threatening everyday environment. School (especially at elementary and junior high school), neighborhood, and workplace are where government programs can intervene and provide institutional support to increase friendly interaction between the Japanese and the foreigners.

My study is limited to the extent that it only provides the determinants of people's attitudes toward "generic" foreigners. Previous studies have shown that people have different attitudes toward different types of immigrants (eg. ethnic differences as well as SES differences. See Fetzer, 2000; Hainmueller et. al. forthcoming). Survey data that allows examining respondent's views about foreigners from different

countries will be necessary for the further investigation.

## ACKNOWLEDGEMENT

## NOTE

1. All the data are weighted by the WEIGHT variable included in the JGSS 2002 data.

2. Another way to measure economic threat is using respondent's income (Chandler & Tsai, 2001), but since it was not a statistically significant predictor of xenophobia in any of my models, it was dropped from the subsequent analysis.

3. It is important to point out that cause-effect relationship between contact and attitudes toward foreigners is not very clear. Pettigrew (1986), for instance, warns that some findings of prejudice can be interpreted not as results of contact but as indications that more tolerant people seek contact with outsiders (also see Ihlanfeldt and Scafidi 2002). While paying attention to this point, since the respondents were asked "past experience" with foreigners, which happened before they made decisions about their attitudes toward foreigners, the study assumes that cause-effect direction flows from contact to attitudes.

4. Since foreigners are more likely to be concentrated in big urban cities, one might suspect that it is not the number of foreigners, but the population size and the level of urbanization that is positively associated with xenophobia. However, the size and the character (urban/rural) of the respondents' residential area did not have significant impact upon xenophobia in any of my models, and the effect of the ratio of foreign residents in the respondents' prefecture remained significant.

5. The probability = $100*[\text{odds}/(1+\text{odds})]$. For a 43 year-old individual with 9 years of education, the estimated log odds of opposing foreigners is $-.046+.029*43+.21*.58-.09*9=.513$. Then, the estimated odds is $Exp(.513)=1.67$, which leads us to calculate the probability $100*[1.67/(1+1.67)]=62.5\%$.

6. When using weighted data as in this study, adjusted Walt test should be used to choose a preferred model instead of utilizing a pseudo log-likelihood for which the relation to chi-square does not hold (Treiman 2005).

7. $Y^*$-standardized coefficients indicate the expected change in the standard deviation of the latent dependent variable for a one-unit change in the independent variable. This is an extremely useful way to compare the effect of categorical variables within and across the models, since full standardization is not appropriate for categorical variables in that they are affected by the relative size of the category as well as by the size of metric effect (see Treiman, 2005).

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