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Frequency of contact with foreigners in a homogeneous society: perceived consequences of foreigner increases

Eiji Yamamura

Abstract. Using individual data of Japan, this paper investigates how frequency of contact with foreigners is associated with the perceived outcomes of foreigner increases. Results showed that frequency of contact has a critical effect on perceptions and that its influence varies according to household income level.

Keywords: Immigration, perceived consequence, homogenous society

JEL classification: F1; F22; J15.

Introduction

A growing number of works have examined people's attitudes towards immigrants. Considering the competition among labor markets, the education of a people is considered one of the most critical determinants of their attitude (Sheve and Slaughter 2001; Mayda 2006). In addition to education, it has also been argued that social and cultural prejudices are crucial components of attitude (Dustmann and Preston 2007).

Immigrants are considered a minority in the host country. The ethnic composition of a locality seems to play an important role in determining attitudes toward immigrants. According to the contact hypothesis, frequency of contact with a minority is thought to alleviate the tension between the minority and majority (Rothbart and John 1993)¹. As shown in Fig. 1, although Japan can be thought of as a racially homogenous society, the rate of immigrants living in the country has risen consistently for the past 20 years. Thus, an examination of individual attitudes and perceptions toward foreigners will be increasingly important for the design of immigration policy in Japan. Although previous works have investigated immigrant issues in Japan (e.g., Yamanaka 1993, 1996; Mori 1996; Fuess 2003; Dekle 2004; Lavenex 2004), no studies have attempted to investigate the issue of attitudes and perceptions toward foreigners.

This paper uses individual level data of Japan to investigate how the frequency of contact with foreigners is associated with perceived outcomes of foreigner increases in a homogenous society.

¹ In addition to the ratio of foreigners to the population, the concentration of the ethnic minority population has been found to be associated with hostility between minorities and the majority; a higher concentration of ethnic minority individuals increases the hostile attitude of the majority population (Dustmann and Preston 2001). In contrast, it was subsequently found that the probability of being racially harassed is lower in areas with larger minority populations (Dustmann and Preston 2011).

Data and Methods

The Japanese General Social Survey (JGSS) project is designed to be the Japanese counterpart of the General Social Survey (GSS) project in the United States. The JGSS project started in the autumn of 1998. It was launched at the initiative of those Japanese researchers who benefited from GSS data while studying abroad in the 1980s; after returning to Japan, they advocated the necessity of conducting similar general social surveys regularly in Japan and making the survey data publicly available, thereby allowing researchers unable to participate in nationwide surveys access to the data for research and educational purposes in the field of social statistics. The initiative was directed by a research group led by Ichiro Tanioka (President of the Osaka University of Commerce) and the Institute of Social Science of The University of Tokyo, which had just started constructing the SSJ Data Archive at its Information Center for Social Science Research on Japan. The project's secretariat was at the Osaka University of Commerce, and it was initially financed jointly by the Osaka University of Commerce and The University of Tokyo. In April 1999, the Institute of Regional Studies of the Osaka University of Commerce was designated as a Key Institution on the Frontiers of Academic Projects (from FY1999 to FY2003) by the then Ministry of Education. Subsequently, after repeated discussions on the style and scope of the survey to be conducted, the first regular survey "JGSS-2000" was launched in October 2000 as part of the JGSS project.

The JGSS data comprised individual level data. The survey adopted a two-step stratified sampling method and was conducted throughout Japan between 2000 and 2008. The survey asks standard questions concerning the individual characteristics of various individuals through face-to-face interviews. Data from the JGSS conducted in 2003 were used for the estimations introduced in this paper². This data covers information related to the perceived

² Although the surveys were conducted from 2000 to 2008, data related to the perceived consequences of foreigner increases were collected only in 2003.

consequences of foreigner increases, the frequency of contact with foreigners, political orientation, household income, and marital and demographic (age and sex) status³. The survey collected data on 3663 adults, who ranged between 20 and 89 years old⁴. Further, according to the population size of geographical areas, sample points were divided into the three groups of large cities, other cities, and suburban districts.

The variables used for regression estimations are shown in Table 1, which includes the variable definitions and mean difference test results between the high and low income groups⁵.

With respect to dependent variables, the respondents were all asked separately about their perceived consequences of foreigner increases in area of residence. The possible answers to this question were “a decrease in employment opportunities,” “the filling of jobs where there are worker shortages,” and “the elimination of prejudice against foreigners”⁶. Respondents could select multiple answers. From these questions three dummy variables, FDEMP, FWORK and FELPRJ, were constructed, and they took a value of 1 if respondents agreed with the statement. FDEMP can be considered a negative effect caused by foreigner increases, whereas FWORK and FELPRJ are considered positive effects. I attempted to ascertain their determinants, and because they are dummy variables Probit estimation was employed⁷. The degree of frequency of contact with foreigners, regarded as a key independent variable, ranged from 1 (not at all) to 4 (frequently); this was denoted as FQFORE. The degree of education, also a key variable, was denoted as EDU.

³ Data for this secondary analysis, "Japanese General Social Surveys (JGSS), Ichiro Tanioka," was provided by the Social Science Japan Data Archive, Information Center for Social Science Research on Japan, Institute of Social Science, The University of Tokyo.

⁴ Respondents did not completely respond to all questions, and therefore the number of samples used for the regression estimations was 1305.

⁵ High and low household incomes are defined as being higher and lower than 6 million yen.

⁶ In addition to the 3 answers given here, there were 16 additional answers, for a total of 19 answers to the question.

⁷ There were respondents who agreed with FDEMP, FWORK and FELPRJ at the same time. This is why the Multinomial Probit estimation was not employed.

Table 2 provides a cross-tabulation with respect to the three variables FDEMP, FWORK and FELPRJ. It shows the percentage of respondents who chose “yes” for both FDEMP and FWORK, the percentage of respondents who chose “yes” for both FDEMP and FELPRJ, and the percentage of respondents who chose both “yes” for FWORK and FELPRJ. Respondents who chose “yes” for FDEMP were not likely to choose “yes” for FWORK, because this would indicate that their choices were contradictory and therefore unreliable. However, as shown in Table 2, the percentage of respondents who answered this way was only 2.5 %, and hence the data set is reliable. Furthermore, the rate of respondents who chose “yes” for the three variables FDEMP, FWORK, and FELPRJ, a statistic not reported in Table 2, was only 0.8 %. Hence, there was no problem related to selection issues with the data.

To compare individuals with high income to those with low income, in addition to estimations using full samples, samples were split into two groups depending on whether the respondent reported having a high or low household income; estimations were then conducted.

Following the estimation functions used by the existing literature on attitudes toward immigrants (e.g., Dustmann and Preston 2007; Facchini and Mayda 2006; Mayda 2006), other independent variables, including unemployment, household income, political orientation, and demographic characteristics, were included in the estimation function. In Table 1, FDEMP, FWORK, FELPRJ and MALE are dummy variables. Hence their values can be interpreted as ratios. For example, FDEMP is 0.08 for the high income group, which means that 8 % of the high income group respondents chose “yes” for FDEMP. In addition to these dummy variables, Table 1 shows that the ratio of frequency of contact with foreigners is 2.42 for the high income group, which is larger than the ratio of 2.20 for the low income group; this difference was statistically significant at the 1 % level. This finding suggests that people with higher incomes are more likely to have opportunities to meet foreigners while earning higher incomes. The average number of years of schooling is 12.3 for the high income group, which

is higher than the number of 11.3 for the low income group. This difference was statistically significant at the 1 % level. Human capital accumulated through schooling is considered to contribute to the increase of income. It follows from this, then, that highly educated people are better at foreign languages (especially English) and therefore also have better opportunities to earn higher incomes by meeting highly skilled foreign laborers. Thus, those with higher incomes are predicted to have better attitudes toward foreigners compared to those with low incomes.

Estimation Results

Table 3 shows the estimation results. Columns (1)–(3), (4)–(6), and (7)–(9) show the FDEMP, FWORK, and FELPRJ results, respectively. Columns (1), (4), and (7) show the results using all samples. Columns (2), (5), and (8) show the results using the low income group samples. Columns (3), (6), and (9) show the results from the high income group.

As for FQFORE, in all estimations its coefficients yielded positive signs. In addition, the estimations were statistically significant at the 1 % level when all samples were used. This indicates that contact with foreigners caused respondents' perceptions to become more elastic to foreigner increases. With respect to any negative economic effects of foreigners, captured by FDEMP, the t-statistic for respondents with low incomes was 2.80, which was statistically significant at the 1 % level. On the other hand, the t-statistic for those with high incomes was 0.20, which was not significant. This indicates FQFORE tends to lead people to perceive decreases in employment opportunities only among those with low incomes. Furthermore, the coefficient of FQFORE was 0.03 for the low income group. This is interpreted to mean that a 1 point increase of FQFORE leads to a 0.03 % increase in the likelihood that people perceive decreases in employment opportunities.

With respect to the determinants of FWORK, FQFORE produced positive signs not only for the low income group but also the high income group. FQFORE, however, was

statistically significant only for the high income group. This result suggests that FQFORE tends to lead people to perceive that jobs are filled by immigrants when there is a worker shortage only for the high income group. Furthermore, the fact that the coefficient of FQFORE was 0.06 for the high income group means that a 1 point increase of FQFORE leads to a 0.06 % increase in the likelihood that people perceive that jobs are filled by immigrants when there is a worker shortage.

As for the results related to the positive effect of foreigners on non-economic-related negative attitudes toward foreigners, captured by FELPRJ, FQFORE showed a significant positive sign for both the high and low income groups. Furthermore, the value of FQFORE for the high income group (0.06) was 1.5 times larger than that for the low income group (0.04). These results imply that contact with foreigners has a positive effect on perceptions, and further, that this effect is not related to economic issues for either the low income or high income groups, despite there being a difference in magnitude between them. The fact that the coefficient of FQFORE was 0.06 for the high income group means that a 1 point increase of FQFORE leads to a 0.06 % increase in the likelihood that people with high incomes perceive that prejudice towards foreigners does not exist. On the other hand, the coefficient of FQFORE was 0.04 for the low income group. This means that a 1 point increase of FQFORE results in a 0.04 % increase in the likelihood that people with low incomes perceive that prejudice towards foreigners does not exist.

Taking these results as a whole, and considering the dual effects of FQFORE, it can be concluded that while increased contact with foreigners has a negative influence on low income individuals' perceived outcomes of foreigner increases, contact has a positive impact on the perceived outcomes of those with high incomes.

As for FDEMP, as shown in column (2) of Table 3, EDU was not statistically significant for the low income group although it took a positive sign. On the other hand, EDU for the high income group, shown in column (3), yielded a significant negative sign. Such data indicates

that EDU reduced FDEMP only for the high income group. That is, only those with higher incomes hold the belief that more educated Japanese workers are less likely to suffer from competition with immigrants in the labor market⁸. Further, the fact that the absolute value of the coefficient of EDU was 0.01 for the high income group suggests that a 1 year increase of schooling leads to a 0.01 % decrease in the likelihood that people with high incomes perceive decreases in employment opportunities.

Conclusion

The major conclusions of this study on the perceived consequences of foreigner increases based on individual data are as follows. (1) In general, frequency of contact with foreigners makes people's perceptions more elastic to the effects of foreigner increases. (2) Frequency of contact leads those with lower incomes to predict negative economic outcomes of foreigner increases, but this is not the case among those with higher incomes. (3) Those with more education are less likely to predict a reduction in employment opportunities, but this true for only higher income individuals and not those of lower incomes. Taken together, the results of this study suggest that in a homogenous society in which foreigners are relatively rare, not only education but also experience of contact with foreigners play a critical role in forming perceptions about the outcomes of foreigner increases. Furthermore, the effects of contact with foreigners vary according to individual income level.

⁸ It has been asserted that highly skilled and educated immigrants increased over time in Japan (Fuess 2003). This alone, however, does not lead skilled labor markets to become more competitive.

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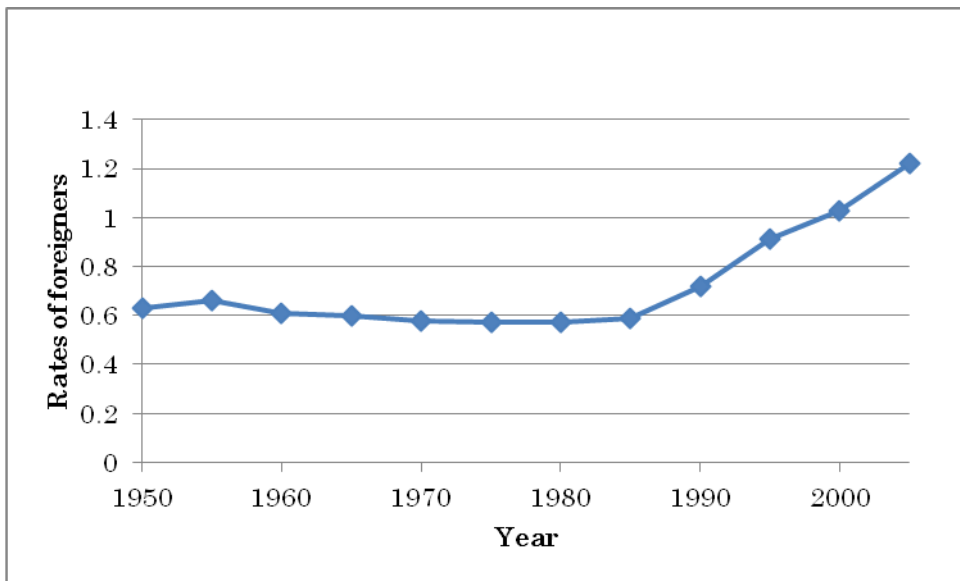


FIGURE1
Rates of foreigners in Japan (%).

Source: <http://www.stat.go.jp/info/kenkyu/kokusei/kankei/pdf/06sk.pdf> (accessed Feb 25, 2009).

TABLE 1

Variable definitions and mean difference test results between the high and low income groups

Variables	Definition	Mean Values for (whole sample.	Mean Values for (high income group)	Mean Values for (low income group)	t-statistic
FDEMP	Takes 1 if one expects an increase in foreigners to lead to a decrease of employment opportunities, otherwise it takes 0.	0.09	0.08	0.09	—
FWORK	Takes 1 if one expects an increase in foreigners to leads to jobs being filled where there worker shortages, otherwise it takes 0.	0.11	0.12	0.10	—
FELPRJ	Takes 1 if one expects an increase in foreigners to lead to the elimination of prejudice toward foreigners, otherwise it takes 0.	0.21	0.22	0.19	—
FQFORE	Degree of frequency of contact with foreigners in one's neighborhood, ranging from 1 (not at all) to 4 (frequently).	2.34	2.42	2.20	4.95**
EDU	Years of schooling.	11.9	12.3	11.3	11.1**
UNEMP	Takes 1 if one does not have a job, otherwise it takes 0.	0.08	0.07	0.09	2.95**
HINCOM ^a	Household income.	5.73	9.21	2.99	59.3**
POLIT	One's political orientation, ranging from 1 (conservative) to 5 (progressive).	2.89	2.90	2.87	0.74
AGE	Age.	53.0	50.4	57.4	12.5**
MALE	Takes 1 if male, 0 if female.	0.43	0.42	0.44	—

Note:^a Millions of yen.

* and ** indicate significance at the 5 and 1 percent levels, respectively.

TABLE 2

Cross tabulation about FDEMP, FWORK and FELPRJ

(1)

Variables	FDEMP=1	FWORK=1	FELPRJ=1
FDEMP=1	_____		
FWORK=1	2.5%	_____	
FELPRJ=1	1.6%	5.1%	_____

TABLE 3
Estimation results (Probit model)

Variables	(1) FDEMP All	(2) FDEMP Low income	(3) FDEMP High income	(4) FWORK All	(5) FWORK Low income	(6) FWORK High income	(7) FELPRJ All	(8) FELPRJ Low income	(9) FELPRJ High income
FQFORE	0.02** (2.45)	0.03** (2.80)	0.002 (0.20)	0.03** (3.56)	0.01 (0.84)	0.06** (4.02)	0.05** (3.72)	0.04** (2.83)	0.06** (2.67)
EDU	-0.001 (-0.46)	0.004 (1.06)	-0.01* (-2.31)	0.02** (4.32)	0.02** (4.63)	0.008 (1.28)	0.03** (5.53)	0.03** (4.16)	0.04** (3.87)
UNEMP	0.02 (0.76)	0.05 (1.29)	-0.02 (-0.38)	0.004 (0.11)	0.02 (0.56)	-0.03 (-0.46)	0.07 (1.47)	0.04 (0.81)	0.15 (1.58)
HINCOM	-0.0003 (0.02)	0.05 (0.71)	-0.02 (-0.63)	0.006 (0.30)	0.12 (1.49)	-0.02 (-0.64)	0.03 (1.21)	0.19* (1.82)	0.07 (1.37)
POLIT	0.004 (0.71)	0.01* (1.70)	-0.01 (-0.91)	0.006 (0.85)	0.009 (1.16)	0.004 (0.31)	0.006 (0.60)	-0.002 (-0.19)	0.02 (1.16)
AGE	0.001** (2.70)	0.002** (3.21)	0.0007 (0.74)	0.001* (1.96)	0.001* (2.04)	0.001 (1.10)	-0.001* (-2.23)	-0.001 (-1.41)	-0.003 (-1.64)
MALE	0.02 (1.37)	0.02 (1.02)	0.02 (0.87)	0.03* (2.10)	0.04* (1.90)	0.01 (0.60)	-0.02 (-0.93)	0.05 (1.63)	-0.11** (-3.08)
<i>Pseudo R-square</i>	0.03	0.05	0.04	0.05	0.07	0.04	0.07	0.09	0.07
Sample size	1299	732	567	1299	732	567	1299	732	567

Notes: Reported numbers are marginal effects. Numbers in parentheses are t-statistics. * and ** indicate significance at the 5 and 1 per cent levels, respectively (one-sided tests). Constant terms are included with estimations, but these are not reported here to save space.