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Yamamura, Eiji and Shin, Inyong

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Effect of consuming imported cultural goods on tolerance for immigrants from trade partners: Case of Japanese anime in Korea.

Eiji Yamamura (Seinan Gakuin University)

Inyong Shin (Asia University)

Abstract

Amount of consuming imported goods is thought to influence consumer's view and attitude toward the country which export the goods. This paper examines effect of viewing Japanese animation on attitude towards Japan in Korea. Major findings are that the more frequently adult Korean view Japanese animation, the more they are likely to accept Japanese as colleagues at work after controlling for endogeneity bias by using instrumental variables. This implies that, through consuming imported cultural goods, people learned the labor quality of the trade partner, which reduces the information asymmetry about the labor quality of the exported country. Consequently, people come to accept the labor force from the trade partner in the labor market. Labor market becomes more open to migrant from the exported countries. The modern cultural goods such as Japanese animation representing "Cool Japan" have the externality in the labor market of its imported country.

JEL classification: D12, D74, F16, Z11, Z18

Keywords: Anime; Immigrants; Work place; Neighbor; Trade; Externality; Cool Japan.

1. Introduction

Globalization through international trade, migration, and internet communication drastically changed the modern society. Principle of economics tells that international trade leads to increase the mutual benefit between trade partners. On the other hand, actually, as a consequence of globalization, frictions and tensions between people possibly increases which reduces the benefit from trade. Globalization increases the anti-foreigner sentiment by people who compete with immigrants in the labor market (Gang et al., 2013)¹. That is, globalization seems to cause the negative externality. However, not only increase in competition but also other factors such as culture are thought to affect people's perception towards immigrants (Epstein and Gang 2010, Abdulloev et al. 2014). One way to lessen conflict and tension might reduce the information asymmetry between people partly because they are misled by preconceived notions each other leading to intolerance. Mutual understanding is important by reducing the information asymmetry. 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)².

Even in the age of globalization, in order to mutual benefit of international labor mobility, it is important to consider not only the economic condition but also social and historical background between countries. People's attitude towards immigrants, to a certain extent, depends on the relation between countries. In the workplace, whether

¹ It is found that natives consider immigrant neighbors relatively less attractive and then immigrants settlement influences the housing prices (Saiz and Wachter 2011).

² It is found that a higher concentration of ethnic minority individuals leads to the hostile attitude of the majority population (e.g., Dustmann and Preston 2001, Gang et al., 2013). On the other hand, the probability of being racially harassed is found to be lower in areas with larger minority populations (Dustmann and Preston 2011).

migrant's contribution is equivalent to be the level which is expected depends on the condition. Even if migrants are sufficiently able and diligent, their contribution is below the level expected when native co-workers do not cooperate with them. Furthermore, people's attitude towards immigrants is reflected in the immigration policy and then openness of the labor market. From the viewpoint of economic factors, the education level of a people is considered to be the critical determinants of their attitude (Sheve and Slaughter 2001; Mayda 2006). As for non-economic factors, social and cultural prejudices are thought to be one of factors to determine attitude towards immigrants (Dustmann and Preston 2007).

Because of historical background, there is political tension and conflict between Korea and Japan. However, Korean's (Japanese) negative attitude towards Japan (Korea) possibly results in reduction in economic benefit. Japanese (Korean) popular culture industry is commonly called "Cool Japan (Korea)" and has been paid increasing attention as economic policy. Consuming cultural goods are possibly influences atmosphere in the society (Cheng 2006). The expected role of "Cool Japan" policy should be considered from the long-term view. First, it leads foreigners to prefer Japan's entertainment such as manga and anime, which eventually increase people who well understand Japan (Nihon Keizai newspaper 2013). That is, international trade of cultural goods is expected to create a ripple effect between people of trading partners by enhancing mutual understanding. In the field of economics, number of works dealing with modern cultural goods has been compiled (e.g. Belk 1987, Dewally and Ederington 2006; Wyburn and Roach 2012). However, they are not related with international trade and its outcome. On the other hand, attitude towards immigrants or foreigners has been increasingly analyzed from the view point of economics (e.g., Mayda 2006, Dustmann

and Preston 2007, Constant et al. 2009, Faccini and Mayda 2009, Fertig and Schmidt 2011, Akai et al., 2014, Faccini and Mayda 2012, Faccini et al. 2013). No works bridge the attitude with imported cultural goods. The contribution of this paper is the first to investigate how and the extent to which international trade of modern cultural goods exert an influence on people's perception. To this end, we explore effect of Korean's consumption of Japanese anime on attitude Japanese. Key finding is that viewing Japanese anime lead people to accept Japanese as colleague at work.

The remainder of this paper is organized as follows. Section 2 provides an explanation regarding data and the empirical method used. Section 3 presents the estimation results and their interpretation. The final section offers some conclusions.

2. Data and Methods

2.1. Data

This paper used individual-level data from a 2008 KPSS (Korea General Social Surveys) conducted by the Survey Research Center of Sungkyunkwan University. KPSS use a two-stage stratified sampling method and have been conducted throughout Korea in 2008. The 2008 KPSS questionnaire included a question on the consumption of cultural goods such as viewing Japanese Anime. KPSS ask standard questions concerning individuals' characteristics via face-to-face interviews. In the sample used for the estimation, respondents' ages ranged between 18 and 91 years. Initial sample size 2500 and respondents are about 1500. So, the response rate is approximately 61.0%. The data cover information related to marital and demographic (age and gender) status, annual household income, years of schooling, and age. In addition, number of

respondent's children and their age and difference of genders are also available.

Concerning the key variable, a survey question asked, "How often do you watch Japanese anime?" Respondents could choose one of four responses: "1 (Not at all)," "2 (Seldom)," "3 (Sometimes)," and "4 (Often)". The frequency distribution of watching anime is illustrated in Figure 1, showing that almost half of respondents do not watch Japanese anime at all.

2.2. Preliminary observations.

Table 1 exhibit the definition and basic statistics of variables used in this paper. Korean's perception towards Japanese is captured by using three different dummy variables such as *JP_workplace* (*JP_neighbor* or *JP_family*). Perception towards Japanese as colleague at workplace is *JP_workplace*. Perception towards Japanese as neighbors is *JP_neighbor*. Perception towards Japanese as relatives is *JP_family*. Consumption level of imported cultural goods is captured by *Anime view* (the frequency of watching Japanese anime). As is explained later, instrumental variable used to control for endogenous bias from *Anime view* is number of children less than 12 years old (*Child*). Table 1 shows that mean value of *Child* is 0.49 while its maximum and minimum values are 4 and 0. Figure 2 demonstrates that the distribution of those who have young children is skewed towards 0.

These are key variables in this paper and Table 2 exhibit the correlation matrix of these variables. Significant positive correlations are observed among *JP_workplace* and *JP_neighbor* and *JP_family*, which is convincing. *Anime view* is positively correlated with *JP_workplace* (*JP_neighbor* and *JP_family*), which is statistically significant. So, those who more frequently view Japanese anime tend to be more tolerant towards

Japanese in various situations. However, it is unknown causality between *Anime view* and perception towards Japanese. The causality is scrutinized in the regression estimation reported in the subsequent section. Further, *JP_workplace* and *JP_neighbor* and *JP_family* is positively associated with *Internet*, which is statistically significant. This suggests that those who use internet as source of international news are more likely to be tolerant towards Japanese.

2.3. Econometric framework and estimation strategy

The estimated function of the baseline model takes the following form:

$$\begin{aligned}
 JP_workplace_i \text{ (} JP_neighbor \text{ or } JP_family) = & \alpha_1 Anime_view_i + \alpha_2 Family_member_i + \alpha_3 \\
 & TV_i + \alpha_4 Internet_i + \alpha_5 School_i + \alpha_6 Income_i + \alpha_7 Employ_i + \alpha_8 Age_i + \alpha_9 Male_i + \\
 & \alpha_{10} Marry_i + u_i,
 \end{aligned}$$

where $JP_workplace_i$ ($JP_neighbor$ or JP_family)_{*i*} represents the dependent variable in individual *i*. The dependent variable is dummy to have 1, otherwise 0. Hence, the Probit model is used for the estimation. Regression parameters are represented by α . The error term is represented by u_i . The *Anime view* is the key variable to examine the effect of viewing Japanese anime on perception towards Japanese in various situations. As explained earlier, values for *Anime view* range from 1 to 4.

TV and *Internet* is to capture the effect of media provide the information about international issue and so Japanese. If information through these media increases (decreases) the anti-Japanese sentiment, people's perception towards Japanese is intolerant (tolerant). Korean people can obtain information from various viewpoint

towards Japanese through internet because information is dispatched not only from Korean but also the rest of the world. In addition to it, for the purpose of capturing individual level economic and social conditions, the function control for household income, schooling years, job status, age, marital status and difference of gender.

2.4. Instrumental variables

It seems that Koreans who feel familiar with Japanese are inclined to prefer Japanese culture and so view Japanese anime. This suggests that causality between consumption of Japanese cultural goods and perception towards Japanese is ambiguous. Hence, endogenous bias naturally arises. In order to control for the bias, this paper used the Instrumental Variables (IV) Probit model. Yamamura (2014) used data of Japan to provide the evidence that people are more likely to watch anime when they have children aged less than 12 years who have not yet entered junior high school. Small children are likely to interact with their parents. For instance, children cannot go to the movie theater to see anime by themselves if they want to do. Therefore, they ask their parents to go together to the theater. As a consequence, their parents see anime film even if they are not interested in it. After controlling for age of respondents, perception about Japanese is unlikely to be related to whether respondents have small child³. Hence, family structure is appropriate to be the instrumental variable for frequency of viewing Japanese anime. Table 2 shows the significant positive correlation between *Child* and *Anime view*, which is consistent with Yamamura

³ Age of respondents is thought to be negatively related with number of small children. On the other hand, Korea's perception about Japan depends on their experience about historical events. So, age is related with the perception about Japanese. Therefore, it is necessary to control for age to consider relation between perception about Japanese and number of small children.

(2014). On the other hand, there is no significant correlation between *Child* and *JP_workplace* (*JP_neighbor* and *JP_family*). Hence, *Child* is considered to be the appropriate instrument. Therefore, in this paper, number of respondent's children less than 12 years and its square are used as instrumental variables because effect of number of small children is not thought to be linear. Further, difference of gender of children are also included as instrumental variables; dummy has 1 if respondents have one daughter less than 12 years at least, otherwise 0.

3. Estimation Results and Discussion

3.1. Estimation results

The estimation results of the probit model are presented in Table 3. The results of IV Probit model are exhibited in Table 4. The set of independent variables and number of observations are same in all results. Furthermore, values without parentheses are marginal effects.

As presented in Table 3, sign of coefficient of *Anime view* is positive and statistically significant at the 1 percent level in all columns. That is, those who more frequently view Japanese anime are more likely to be tolerant towards Japanese in various situations.

Further, we now turn to Table 4 to consider the effect of *Anime view* after controlling for endogenous bias. *Anime view* has the positive sign in all columns. As for the first stage, *Child* is the positive sign and *Child*² is the negative sign. Further, they are statistically significant at the 1 percent level. This implies that number of children leads their parents to view Japanese anime. However, its effect decreases as number of children increases.

Further, marginal effect of number of children is 0.22. Hence, averagely, an additional small child increase the degree of viewing Japanese anime by 0.22 on the four point scale. This is consistent with Yamamura (2012). An over-identification test provides a method of testing for exogeneity of instrumental variables. Test statistics are not significant in any columns and thus do not reject the null hypothesis that the instrumental variables are uncorrelated with the error term. This suggests that the instrumental variables are valid. Concerning results of the second stage, It is statistically significant only when *JP_workplace* is dependent variable. In other words, frequency of viewing Japanese anime leads Korean people to be tolerant towards Japanese as colleague in workplace, but not as neighbors nor relatives. Marginal effect of *Anime view* on *JP_workplace* is 0.20, which means that one point increase of viewing Japanese anime on the four point scale leads to increase 20 % of the probability that Korean people accept Japanese as colleague at work.

4. Conclusions

Attitude towards immigrants appears to be influenced not only by economic factors but by the historical and cultural background. Does consumption of imported cultural goods possibly change the perception and attitude towards immigrants from trade partner? Does interaction through trade of cultural goods lessen the international friction and in turn open the labor market? In other words, it is question whether trade of cultural goods cause externality to enhance international labor mobility. This point has not been sufficiently explored thus far. This paper attempts to empirically deal with this issue by examining effect of Korean's viewing Japanese animation on attitude towards Japanese in Korea..

The key findings are that more frequently adult Korean view Japanese animation,

the more they are likely to accept Japanese as colleagues at work, as neighbors and as close kin by marriage. Furthermore, after controlling for endogeneity bias by using instruments, the effect disappears concerning Korean's attitude towards Japanese as neighbors and as close kin by marriage. On the other hand, the effect of viewing animation continues to make Korean more tolerant for Japanese as colleagues at work.

This implies that, through consuming imported cultural goods, people feel familiar with Japanese and so Korean's barrier towards Japanese is lowered. However, relation within a work place is weaker than the relation as neighbor and relatives. Therefore, the externality of cultural goods is restrictive to labor market. Even so, the modern cultural goods such as Japanese animation representing "Cool Japan" plays a role on making weak ties between Korean and Japanese to generate the benefit from making labor market more open. Consequently, as policy implication from this paper, it is valuable to promote international trade of the modern cultural goods to reduce the psychological barrier to immigrants from the trade partner, which increase the benefit of international trade.

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Table 1. Definition of variables and descriptive statistics

| | Definitions | Mean | Minimum | Maximum |
|----------------------|---|------|---------|---------|
| <i>JP_workplace</i> | Takes 1 if respondents accept Japanese as colleagues at work, otherwise 0 | 0.80 | 0 | 1 |
| <i>JP_neighbor</i> | Takes 1 if respondents accept Japanese as neighbors, otherwise 0 | 0.84 | 0 | 1 |
| <i>JP_family</i> | Takes 1 if respondents accept Japanese as close kin by marriage, otherwise 0 | 0.65 | 0 | 1 |
| <i>Anime view</i> | Frequency of watching the Japanese anime: Respondents had four response options: "1 (Not at all)," "2 (Seldom)," "3 (Sometimes)," and "4 (Often)" | 1.82 | 1 | 4 |
| <i>Child</i> | Number of children aged less than 12 years | 0.49 | 0 | 4 |
| <i>Daughter</i> | Takes 1 if respondents have daughter, otherwise 0 | 0.19 | 0 | 1 |
| <i>Family member</i> | Number of family members | 3.00 | 1 | 9 |
| <i>TV</i> | Takes 1 if sources of international news is TV, otherwise 0 | 0.79 | 0 | 1 |
| <i>Internet</i> | Takes 1 if sources of international news is internet, otherwise 0 | 0.46 | 0 | 1 |
| <i>School</i> | Years of schooling | 12.4 | 0 | 21 |
| <i>Income</i> | Total monthly household income (1000,000 Won) | 3.69 | 0 | 73 |
| <i>Employ</i> | Takes 1 if respondents are currently employed, otherwise 0 | 0.56 | 0 | 1 |
| <i>Age</i> | Respondent's ages | 44.5 | 18 | 91 |
| <i>Male</i> | Takes 1 if respondents are male, otherwise 0 | 0.45 | 0 | 1 |
| <i>Marry</i> | Takes 1 if respondents are currently married, otherwise 0 | 0.65 | 0 | 1 |

Note: Dummy variable takes 1 or 0; therefore its mean value can be interpreted as suggesting the rate of those who chose 1.

Table 2. Correlation matrix of key variables

| | <i>JP_workplace</i> | <i>JP_neighbor</i> | <i>JP_family</i> | <i>Anime view</i> | <i>Child</i> | <i>TV</i> | <i>Internet</i> |
|---------------------|---------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-----------------|
| <i>JP_workplace</i> | 1.00 | | | | | | |
| <i>JP_neighbor</i> | 0.64*** (0.00) | 1.00 | | | | | |
| <i>JP_family</i> | 0.44*** (0.00) | 0.47*** (0.00) | 1.00 | | | | |
| <i>Anime view</i> | 0.18*** (0.00) | 0.17*** (0.00) | 0.15*** (0.00) | 1.00 | | | |
| <i>Child</i> | 0.01 (0.69) | 0.01 (0.69) | -0.01 (0.69) | 0.13*** (0.00) | 1.00 | | |
| <i>TV</i> | -0.01 (0.61) | -0.02 (0.30) | -0.03 (0.19) | -0.10*** (0.00) | 0.001 (0.94) | 1.00 | |
| <i>Internet</i> | 0.20*** (0.00) | 0.19*** (0.00) | 0.15*** (0.00) | 0.35*** (0.00) | 0.11*** (0.00) | -0.19*** (0.00) | 1.00 |

Notes: Values in parentheses are p values. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Table 3. Estimation results of Probit model.

| | (1) <i>JP_workplace</i> | (2) <i>JP_neighbor</i> | (3) <i>JP_family</i> |
|----------------------|----------------------------|---------------------------|-------------------------|
| <i>Anime view</i> | 0.04*** (3.60) | 0.04*** (3.58) | 0.05*** (3.66) |
| <i>Family member</i> | -0.01 (-1.40) | -0.01 (-0.84) | -0.02** (-2.48) |
| <i>TV</i> | 0.04 (1.57) | 0.01 (0.80) | 0.01 (0.43) |
| <i>Internet</i> | 0.08*** (3.14) | 0.07*** (3.10) | 0.07** (2.28) |
| <i>School</i> | 0.01*** (3.54) | 0.01*** (3.27) | 0.01*** (4.02) |
| <i>Income</i> | 0.03 (1.17) | 0.03 (1.03) | 0.07 (1.33) |
| <i>Employ</i> | -0.05** (-2.30) | -0.05*** (-2.72) | -0.03 (-1.24) |
| <i>Age</i> | -0.0002 (-0.29) | 0.0001 (0.16) | 0.001 (1.20) |
| <i>Male</i> | -0.01 (-0.38) | -0.01 (-0.61) | 0.02 (0.76) |
| <i>Marry</i> | -0.001 (-0.03) | -0.002 (-0.13) | 0.01 (0.63) |
| Wald-statistics | 98.7 | 91.1 | 82.7 |
| Observations | 1461 | 1461 | 1461 |

Note: Values without parentheses are marginal effects. Values in parentheses are z values calculated using robust standard errors. Constant is included but its result is not reported. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Table 4. Estimation results of IV (Instrumental variables) Probit model.

| | (1) <i>JP_workplace</i> | (2) <i>JP_neighbor</i> | (3) <i>JP_family</i> |
|--|----------------------------|---------------------------|-------------------------|
| <i>Anime view</i> | 0.20* (1.89) | 0.10 (1.00) | 0.11 (1.05) |
| <i>Family member</i> | -0.01 (-1.39) | -0.01 (-0.91) | -0.02** (-2.57) |
| <i>TV</i> | 0.04* (1.88) | 0.02 (0.91) | 0.01 (0.56) |
| <i>Internet</i> | 0.04 (0.91) | 0.06* (1.85) | 0.05 (1.17) |
| <i>School</i> | 0.01 (1.65) | 0.01** (2.43) | 0.01*** (2.75) |
| <i>Income</i> | 0.003 (1.31) | 0.003 (1.05) | 0.007* (1.77) |
| <i>Employ</i> | -0.03 (-1.54) | -0.05** (-2.34) | -0.02 (-1.04) |
| <i>Age</i> | 0.002 (1.15) | 0.001 (0.60) | 0.002 (1.07) |
| <i>Male</i> | -0.004 (-0.20) | -0.01 (-0.51) | 0.02 (0.82) |
| <i>Marry</i> | 0.01 (0.54) | 0.003 (0.13) | 0.02 (0.79) |
| First-stage estimation | | | |
| <i>Child</i> | 0.36*** (3.48) | 0.35*** (3.72) | 0.35*** (3.64) |
| <i>Child²</i> | -0.14*** (-4.22) | -0.13*** (-3.88) | -0.13*** (-3.79) |
| <i>Daughter dummy</i> | 0.03 (0.42) | 0.04 (0.57) | 0.05 (0.65) |
| Marginal effect of Child in the first stage. | 0.22 | 0.22 | 0.22 |
| Over-identification test | 4.38 p-value=0.11 | 4.46 p-value=0.11 | 2.19 p-value=0.33 |
| Wald-statistics | 154.1 | 91.8 | 78.6 |
| Observations | 1461 | 1461 | 1461 |

Note: Values without parentheses are marginal effects. Values in parentheses are z values calculated using robust standard errors. Constant is included but its result is not reported. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively. Amemiya-Lee-Newey minimum chi-square statistics is used for Over-identification test.

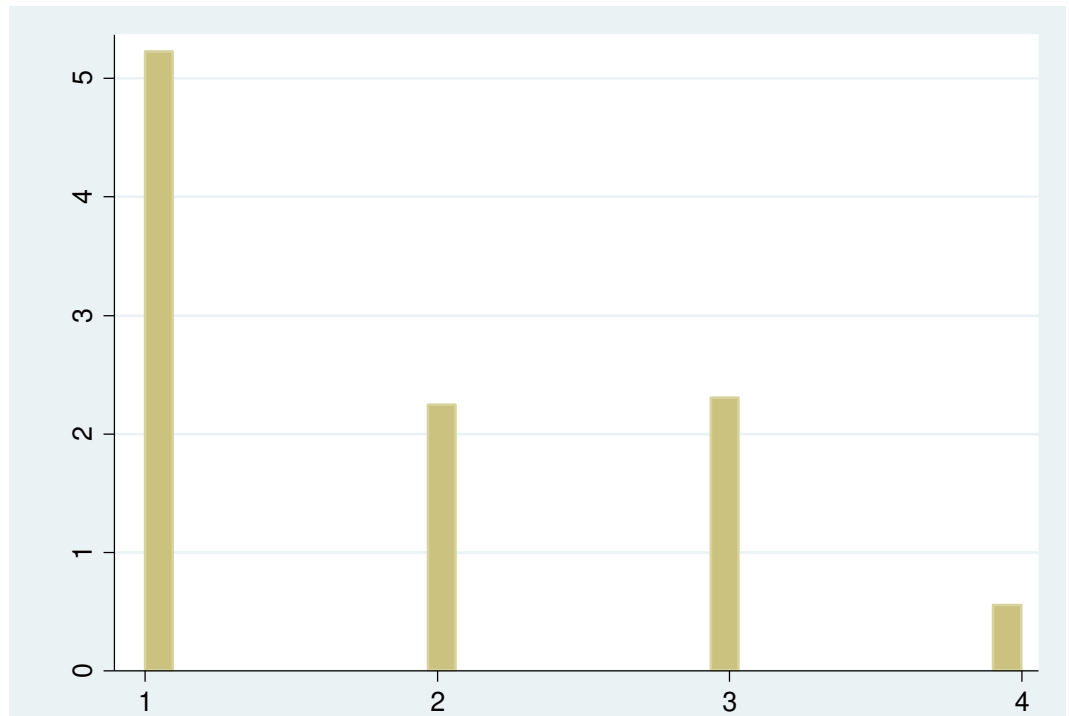


Figure 1. Distribution of frequencies of viewing Japanese anime.

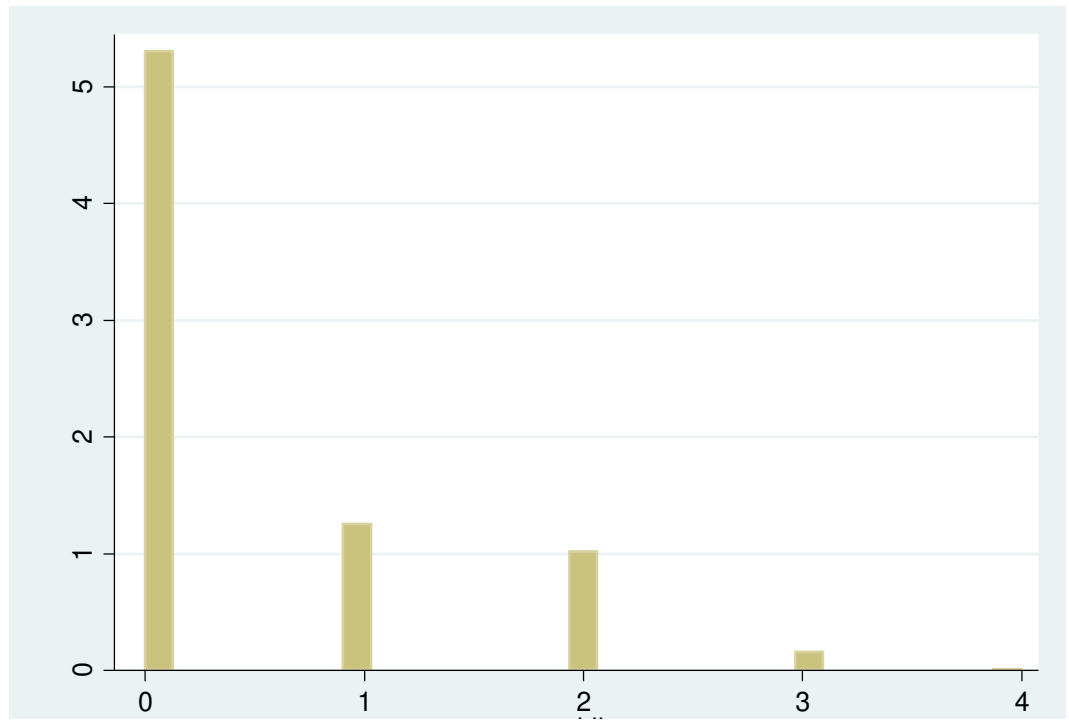


Figure 2. Distribution of number of children below 12 years old.