

# **Community Support for Foreign Senior Care Workers in Rural Japan and the Factors that Affect Perception of Receiving Care**

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**Asian Growth Research Institute**

# Community Support for Foreign Senior Care Workers in Rural Japan and the Factors that Affect Perception of Receiving Care

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## Abstract

*Japanese senior care demands have seen significant growth over the last several decades from a dramatic increase in the senior demographic (+65 in age), a high senior concentration in the current Japanese society brought about by age longevity, and the improved quality standard of care and greater accessibility by the governments revision of the Long-term Care Insurance (LTCI) program. The supply side is also suffering from both a decreasing population growth of youth category (14 and younger) and a static graduation rate of new nursing that is not growing commensurate with the demand. The government has begun to understand these detrimental factors and further revised national immigration policy to categorize senior care aid workers as skilled labor. The growth in demand for senior care services, the static domestic labor structure, and the new leniency of immigration policies has created various opportunities for foreign workers who are considering Japan as their new country of residence. The greater inflow of migrants into Japan could be a solution that can bring the country back to an acceptable level of prosperity and high quality-of-life for the senior population that the nation once had in the stable-growth period.*

*However, there is a significant difference between attracting foreign migrants to the Japanese senior care industry and retaining the migrants once they are working in their full capacity. This paper introduces survey research to identify if community survey participants agree with migration in senior care and which factors affect their perception of receiving care from foreign caregivers. The survey includes 563 citizens within 12 different cities chosen randomly within*

*Hiroshima, Shimane, and Yamaguchi prefectures. Their feedback on the opinion has highlighted several weaknesses in society that can be mitigated through appropriate public policy revision, community development, and legal protections. It is important to react in the short term to reverse the negative trends; especially, since foreigners are becoming harder to attract due to the stagnation economic conditions of Japan and the continued growth of the senior citizen base in need of qualified care.*

Journal of Economic Literature (JEL) classification codes: J20 and F22

Keywords: Japanese immigration policy; senior care; foreign workers; rural communities; factors; perception

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## **1. Introduction**

Immigration control remains a highly debated public policy issues in many developed countries around the world. In contrast to these other developed countries, Japan maintains extremely tight regulations on immigration regardless of its rapidly declining working-age population, senior demographic, and lower fertility rates. Japan's population of roughly 127 million is expected to decline by 25.7% into the year 2065. Moreover, 38.4% of the Japanese population will be included in the senior demographic (+65 age). With the average Japanese woman having only 1.34 children (MHLW 2020), it is apparent that the next generation of native-born Japanese will be smaller than the current generation. Japan's economic sustainment depends heavily on the future of its demographic situation. However, why is immigration so unpopular to the Japanese population? The purpose of this paper is to introduce the complexities of the Japanese bias, introduce the Lamb Community Survey key descriptive statistic findings, as well as summarize the key logistical regression output to consider what factors affect community perception of receiving care from foreign caregivers.

There are many benefits from foreign migration that are widely known in the academic field. Immigration can increase both regional and National GDP of receiving countries (Dai and Hatta 2019; Saito 2017; World Bank 2019). However, there are still barriers to immigration that are prevalent in the Japanese collective society. Domestic workers often oppose inflows of immigrants due to threatened employment opportunities and/or lower wages in the domestic labor market. This is the most common excuse provided during public opinion polls and through empirical analyses confirming these effects: Saito et al. (2016) with Japan, Borjas (2003) with the U.S., and Felbermayr et al. (2010) with Germany. Academic research on the determinants of people's attitudes towards immigration has largely focused on two main categories of explanations as defined by Nakata (2017). The first emphasizes the importance of socio-cultural factors, which imply individuals are against immigration because foreigners represent different values and traditions that possibly pose a threat to the 'national identity' or the traditional 'way of life.' Much of the emphasis in this literature is placed on prejudice and stereotyping as the source of hostility to immigration (Nakata 2017; Sides and Citrin, 2007). The second strand of explanations is rooted in economic considerations. Its focus is on how attitudes are shaped by

individuals' concerns about competition for scarce resources and the consequent distributional effects of immigration (Dancygier and Donnelly, 2013; Dustmann and Preston, 2006; Nakata 2017).

While previous governmental and non-governmental surveys, which will be discussed later in the paper, ask very generic and macro-level questions on immigration, such as attitudes on immigration, the Lamb Survey is a more specialized survey intended to better understand the Japanese bias and how this impacts foreign migrants who are employed, both in the Japanese senior care sector and within the rural areas of Japan. This main audience for this paper focuses on the community sector of society with respect to William's (2020) three stakeholder in society. The community is viewed as the secondary support structure for the foreign care givers and their families outside of what direct economic benefits the migrant's primary employment provide. The community is important to foster a higher quality life that can retains foreign migrants and families and add intrinsic value for the community in the long-term. The main research question for this paper is as follows: Does the community support migration and which factors affect their perception of receiving care from foreign caregivers?

To test the primary research question, two separate sample groups were created within the community. The first survey targeted the employees and residents within the senior care private or public senior care businesses. These survey participants were given a survey during the initial senior care business survey deployment cycle. Each senior care facility was provided 10 extra community member surveys to distribute to their employees, residents, and/or to the appropriate family members. A total of 520 requests were made (10 community stakeholder surveys X 52 senior care business). Approximately 246 surveys were returned, thus demonstrating a response rate of 47.3%.

The second sample group was administered through the third-party survey company (NTT Com Online Marketing Solution) and generously funded by the Asian Growth Research Institute (AGI) in Kitakyushu. An additional 317 general community member surveys participants were collected and evenly selected within the three prefectures of Hiroshima, Shimane, and Yamaguchi. It was challenging for NTT to collect the appropriate level of people from the 12 sampled cities and fully meet the desired research sample parameters. Therefore, the survey participants were selected within the closest proximity to the 12 sampled cities. The community

stakeholder survey deployment and collection period lasted between June 15, 2020 and February 24, 2021.

The responses for each question were plotted in a Microsoft Excel database for analysis. Then, the effects of various independent variables, including community characteristics and the individual attribute of community members, on the dependent variables (responses for each question) are analyzed using logistic regression model.

## **2. Public Sentiment on Migration and Previous Surveys Conducted**

The most significant public policy changes that impacted migration reform, and are still highly relevant today, occurred in the 1990s. This period in Japanese history marked several major reforms brought about by societal pressures. This is the most appropriate time period to begin the discussion on immigration reform as it relates to the use of surveys. Surveys are a great method to collect data on public sentiment and is often a strategy of government. Such was the situation in the late 20th century and into the early 21st century. The reforms in the 1990s led to a significant expansion of public services in the areas of childcare and elder care services as a result of these demographic pressures. The policy revision that is most relevant to this research project is the Long-term Care Insurance (LTCI) program that was implemented in 2000. This program was a complete overhaul of the previous needs-based elder care system to provide an improved public-funded medical care system for seniors and individuals with disabilities. These public policy changes were passed due to the broad political support from key internal and external stakeholders.

During this time in history, the government engaged in widespread information dissemination programs to sway public opinion to support the governmental initiative. Public opinion polls began to suggest a noticeable change in citizen attitude towards elderly care. For example, polls in 1995 showed that 57% of Japanese adults strongly agreed with the statement: "It is the children's duty to care for their elderly parents." In 2003, the same question was asked and 73.3% of 2003 survey respondents believed elder care was now both family and state responsibility (Cabinet Office 2003). This period of time marked a paradigm shift in attitudes of the family structure.

There were several unexpected negative externalities that came to surface after the government's implementation of the Long-Term Care Insurance program. The specialized level of labor needed to support such a large public program quickly became evident. The government of Japan estimated that a sufficient labor structure, to include more nurses and senior care staff, would be needed to maintain the quality of senior care and match the growing level of demand. The Ministry of Health and Labor (2016) has reported that Japan has more than tripled its domestic senior care workforce from 549,000 in 2000 to 1.83 million in 2016. While this appears positive, Japan still remains at a deficit to the level of demand needed to match full senior demand. The MOHW (2016) projected an estimated 400,000–600,000 more care workers would be needed over the next ten years to effectively support the long-term care program, which brings the ideal labor target at 2.45 million health care workers. This target figure is in addition to the current domestic nursing aid growth rates.

The Japanese government began to test the public sentiment on the topic of foreign laborers in the 1990s and, ultimately, on the usage of foreign nurses and foreign care workers in the elder care sector in the 2000s. In combination with surveying the public, the government started an awareness campaign in the effort to generate widespread public awareness of the issue and strong public consensus in support of social care. Beginning in the early 2000s, and well into the 2010s, various articles were published in public magazines, academic articles, and newspapers by leading experts, reporters, and opinion leaders on immigration. These published papers were meant to address the immigration challenges with receiving migrants to support the senior care industry. However, public opinion polls show almost no change, or even a slight backlash, towards more positive views on immigration expansion and recruitment. This trend can be observed graphically in **Table 1** since it summarizes and organizes the findings conducted by the Cabinet Office (1990, 2000, and 2004) polls. Support for immigration has slightly increased from 1990 - 2004; however, support against immigration has outpaced this positive trend. Furthermore, foreign immigration to fill labor nursing shortages has seen a decrease in support and a general increase in individuals against immigration. The conclusions are that the widespread governmental information dissemination efforts were largely unsuccessful at swaying public opinion significantly.

A research assessment was completed by Peng (2016) to review the media discourse at this time in Japanese history by reviewing 178 articles from the Yomiuri Shimbun and the Asahi Shimbun over the period of 1995 until 2014. Peng noted that 90 articles were pro-immigration, 71 were neutral, and 17 were anti-immigration. Peng was hypothesizing that public opinion polls would improve with respect to the increased public immigration image by the government. Peng further summarized public opinion polls throughout the years until 2014 and public sentiment remained ambivalent despite positive media communication and the government’s liberal immigration policy messaging.

**Table 1. Public Opinion Poll in Favor or Against Both Immigration and Migrant Nursing Care Workers to fill Labor Shortages**

Public Opinion on Immigration			
Public Opinion	Pro-Immigration	Neutral/Mixed	Against Immigration
1990 Public Poll – Q7	14.1%	56.5%	14.1%
2000 Public Poll – Q7	16.3%	51.4%	21.2%
2004 Public Poll – Q6	16.7%	39%	25.9%

Public Opinion on Accepting Foreign Labor to Fill Senior Care Labor Shortage			
Public Opinion	Pro-Immigration	Neutral/Mixed	Against Immigration
1990 Public Poll – Q11	* 18.9%	49.1%	26.6%
2000 Public Poll – Q11	17.1%	53.2%	23.1%
2004 Public Poll – Q7	15.3%	45.0%	29.1%

Source: (Cabinet Office 1990, Cabinet Office 2000, Cabinet Office 2004)

\* Note: 1990 public poll question asks about skilled labor shortages instead of nursing labor shortages

\*\* Note: Numbers do not equal 100% since “No Answer” responses were omitted

The Japanese Cabinet Office changed the question format on the public opinion polls in 2010 after consistently receiving less than satisfactory responses from the Japanese public. A new survey was created that focused less on the close-ended explicit questions about the approval of foreign workers and more on the opinions of both Japanese citizens and foreigners working abroad. The new survey was titled, “Public opinion survey on workers’ international mobility” (Cabinet Office 2010). Survey questions were categorized in two parts: 1) Awareness of working in a foreign country for Japanese citizens; and 2) Awareness of Foreign Workers within Japan. Peng (2016) concludes the change in the public opinion survey direction may be because by 2008 Filipina and Indonesian nurses and care workers de facto had already begun entering the



country through the Economic Partnership Agreement program. In the light of negative public sentiment, the Japanese government used economic and foreign policy tools to recruit foreign nurses and care workers. This created a new immigration channel for semi-skilled and low-skilled foreign workers to enter the country without visibly altering the existing immigration policy.

The Japanese Cabinet Office (2020) conducted the most recent survey in 2020 by surveying 1,572 Japanese citizens to assess the public's consciousness about the acceptance of foreigners. Again, this survey asked about certain quality of life questions instead of the explicit opinion on immigration. The survey revealed that 74.3% of survey respondents claimed the country needs to improve the environment and enhance living conditions for foreign residents. The follow-up question revealed a need to improve administrative concerns and matters related to daily life, such as residence status procedures, medical treatment, child care and legal protection to ensure safe working environments, as well as multilingual support and disaster preparedness.

There are many surveys conducted by various academic organizations, private organizations, and non-governmental organizations (NGOs) aimed at assessing Japanese perception on immigration. An example is a 2018 survey completed by the Pew Research Center (Stokes and Devlin 2018) that identified a mixed sentiment with regards to allowing more immigration. The Pew Research Center is a nonpartisan American think tank based in Washington, D.C. that provides research information on social issues, public opinion, and demographic trends shaping the United States and the world. When asked about allowing more immigrants to enter Japan, only 23% believe the Japanese government should allow more immigration. When asked whether Japan should accept more, fewer, or about the same number of immigrants, the majority (58% of sample) voiced the opinion that immigration numbers should stay the same, 23% believed Japanese should allow more immigrants, and 13% believe Japan should accept fewer immigrants. A second survey to exemplify the efforts to understand Japanese perception is the World Values Survey institution. The World Values Survey (WVS) is an international research program that administers a representative comparative social survey every 5 years to many countries around the world. With respect to Japan, responses reflect a deteriorating sentiment on immigration opinion from 2005 until 2019. The Wave 5 2005

(Inglehart et al 2005) survey asked the participant what the government should do with people who come here from other countries for work. The 2005 response show 2.6% are for allowing anyone to enter Japan, 39.1% for allowing immigration as long as there are jobs, 46.2% for placing strict limits, and 4.2% for prohibits any immigrant. The 2019 response (Haerpfer et al. 2020) show 1.5% are for allowing anyone to enter Japan, 39.4% for allowing immigration as long as there are jobs, 52.3% for placing strict limits, and 0.8% for prohibits any immigrant. The trend of the surveys shows fewer extremes as far as prohibiting foreigners or opening the door to immigration. The major growth is in the category of placing strict limits on the number of foreigners. The Lamb Survey builds off these previous surveys by incorporating more specialized questions about the impacts to migrants within the senior care sector, as opposed to macro-level questions on the acceptance of foreigners in general. The communities are an important support structure to retain migrants and this should be an area of focus for the government to consider.

### **3. Lamb Survey Results**

The independent survey Lamb Survey, was designed to seek the opinions of the senior care facility business stakeholders on the impacts of foreign caregivers in their own municipality for use as source data. The purpose is to review how the end-user is dealing with the impacts. Four categories of data collection were collected in the survey: demographic data, situational awareness data, stakeholder perception data, and general qualitative comments. Results of these categories will be introduced in the subsequent sections.

#### **3 (a) Sample Characteristics**

The selected sample of 563 community participants has provided some important characteristics to highlight. Since the main research question includes collecting various independent variables to understand what factors affect perception of foreign migrant care, data was collected in location, gender, age, education, employment sector, job title, and interaction with foreigners.

**Table 2. Summary of Relevant Survey Characteristics**

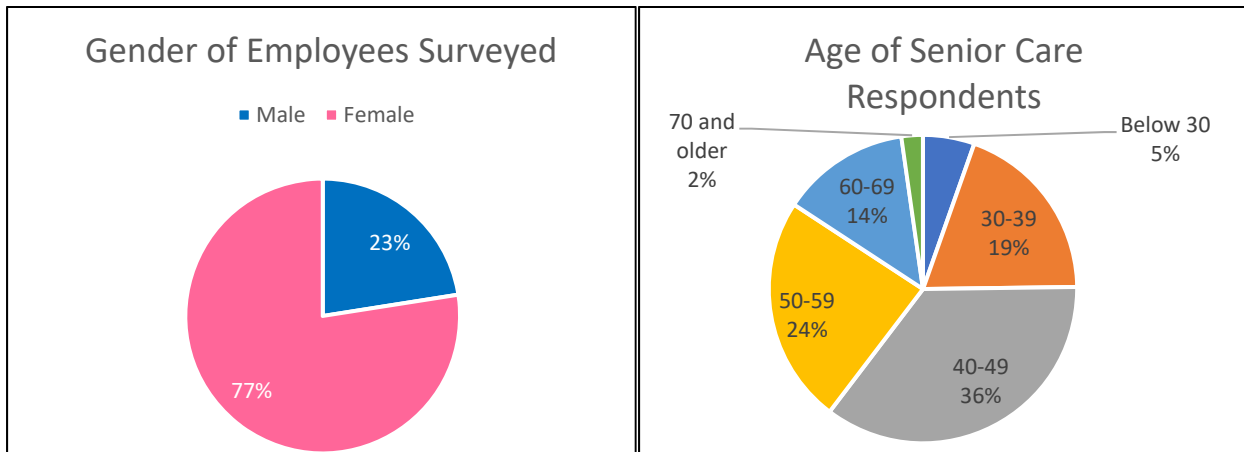
Relevant Variables	Results
Sample Distribution by Location	<p><b><u>Total samples of Hiroshima Prefecture: 174</u></b>                      Akitakata City : 21    Hatsukaichi City : 83                      Sera City : 45    Kure City : 25</p> <p><b><u>Total samples of Yamaguchi Prefecture: 171</u></b>                      Kudamatsu City : 41    Nagato City : 11    Hōfu City : 25                      Shimonoseki City : 66    Iwakuni City : 28</p> <p><b><u>Total samples of Shimane Prefecture: 218</u></b>                      Gōtsu City : 46    Unnan City : 132                      Tsuwano City : 10    Okinoshima City : 30</p>
Age	<p><u>Total sample (563) mean age : 53.07</u>                      Employee avg age : 46.94                      Senior patient avg age : 85.44                      Other community member avg age : 54.47</p>
Gender	Male (n=213, 37.83%), Female (n=350, 62.17%)
Highest Education Level	Less Than High School (n = 19, 3.44%) High School Equivalent (n = 229, 41.41%) College/Technical School (n = 305, 55.15%)
Occupation	n= 108 Private Company Employee (会社員) n= 11 Government Employee (公務員) n= 3 Doctor (医師) n= 219 Other Medical Personnel/ Senior Care n= 7 Welfare personnel (福祉関係者) n= 0 Specialist (Accountant, Lawyer, etc.) n= 40 Self-employed n= 24 Part-Time Employee n= 0 Student (学生) n= 140 Not Working/ Home Spouse/ Retired n= 18 Other (その他)
Job Title	n= 135 Manager or Lead Level n= 259 Non-Manager Level n= 169 No Response, unemployed, other
Foreign Interaction	Yes: n = 172 (30.77%) No: n = 387 (69.23%)

\* Note: Survey participants who did not respond were omitted from the figures and calculations above

Two unique observations noted of the employee survey data was the concentration of female survey participants in the senior care industry. Woman make up 77.48% (n=172) of the

senior care sector and 62.17% (n=350) of the entire sample population. This finding corresponds to the conclusions that females dominate the nursing and nursing aid fields (Ushiro and Nakayama 2010; Sakashita 2018). The second observation is the high age level in the sample that is commensurate with the national age demographics and the higher age demographics of the senior care work force. Resident age was taken out since seniors had a much higher age value and would not give a good representation of the issue. The sample showed out of the 222 senior-care employees surveyed, the average age was 46.94 years. These demographic observations parallel the Kaigo Long-Term Care Labor Stability Center (2018) nursing aid survey findings and the Nursing Care Stability Center (2017) report. The high average age evidences the negative trend that the nursing field is not replenishing with younger workers, which ties to the lower nursing graduation rate (OECD 2019). This trend will continue to degrade the situation without more foreign migrants filling in the employment gaps. **Table 3** provides a graphical representation of the age categories.

**Table 3 – Gender of Employees Surveyed, Age of Senior Care Respondents**



Source: (Lamb Survey 2020)

The objective of the Lamb Survey is to both validate the claims made in the previous governmental and research institution surveys conducted using an enhanced and specialized survey question approach, as well as comparing responses between the three stakeholders in society. This will provide a clearer picture of participant sentiment on the various topics within the various groups of society. Moreover, the survey is specialized in the senior care industry,

which is one of the industries most impacted by foreign labor. This advances academic study by collecting richer data and increasing the understanding of community sentiment. This is needed for immigration policy reform and to supplement the questions asked in the national surveys. The Japanese surveys ask vague and generic questions with immigration matters. An example of this is with the Japanese Cabinet Office 2010 survey; participants were asked whether they thought Japanese language ability was important when working in Japan and the 94.2% response of “yes.” Another question asked if the understanding of Japanese customs was important and 88.8% said “yes.” These questions do not go deep enough to yield sufficient responses that can be used for further research.

To answer the chapter research question, the Lamb Survey was engineered to **test five main hypotheses** the author has assumed in support of prior surveys and the assumption that the community will welcome more foreign migrants and support greater immigration reform. The last part of the Lamb Survey will identify which factors affect the community member perception of receiving care from foreign caregivers. Identifying these attributes will provide for continued research into understanding the biases for continued immigration reform.

1. The community will confirm that foreign senior care providers will also experience difficulties in the following service areas: medical care, educational opportunities, financial services, shopping & quality of life services, and legal services in support of the Cabinet Office (2020) survey.
2. The community participants will perceive equivalence with the quality of foreign caregivers in comparison to domestic Japanese caregivers after considering the MOHW (2019) Guidebook for Care Service Providers on Employment of Foreign Care Workers survey and the JOPUS (2019) published survey on communication barriers between Japanese and foreigners.
3. Survey participants in the senior care topic believe discrimination is still present in the communities as supported by the MOJ (2017) survey, the Worlds Value Survey Wave 7 (Haerpfner et al. 2020) and the Pew Research Study (2017).

4. The community is not satisfied with the local and national governmental support structure for foreign workers as supported by the World Values Survey Wave 7 (Haerpfer et al. 2020).
5. The community considers that the senior care situation will continue to worsen in support of government of Japan MOHW (2016) projections.

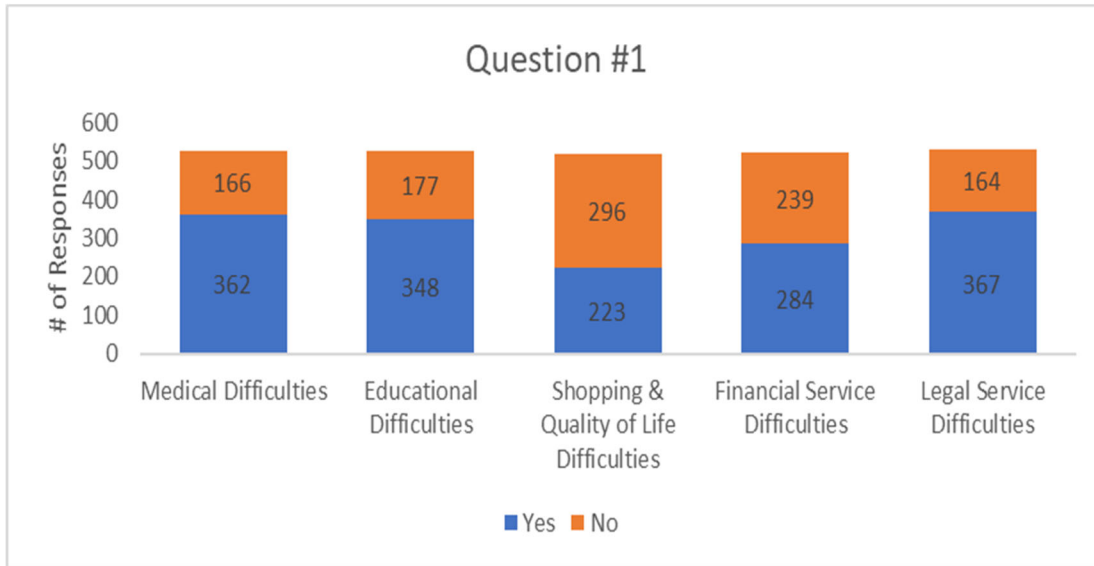
***Survey Finding #1 – Consensus from survey participants that migrants face challenges with satisfactory receiving medical care, educational opportunities, financial services, and legal services/representation. (Question 1)***

The first question of the Lamb Survey was meant to validate the quality-of-life claims made in the Japanese Cabinet Office (2020) survey. The first hypothesis assumed that the majority of community members will confirm that foreign care providers will experience difficulty with the quality-of-life services while residing in Japan, thus indicating an understanding of the struggle foreign residents may have. The result indicated the hypothesis is true through descriptive statistics of the question with the total of aggregate consensus of 60% of survey participants consider migrants to experience significant challenges with several quality-of-life services – satisfactory receiving medical care, educational opportunities, financial services, and legal services/representation. These findings are less severe as noted in the Japanese Cabinet Office (2020) survey; this survey revealed that 74.3% of survey respondents claimed the country needs to improve the environment and enhance living conditions for foreign residents.

Further result breakdowns show migrants will experience difficulty with medical care (68.6% agreement), educational opportunities (66% agreement), shopping & general quality of life difficulties (43% agreement), financial Serviced (54% agreement), and legal Support (69% agreement). These are evidenced graphically in **Table 4** below. Difficulty accessing services and support can contribute to poorer health, education, employment and social outcomes according to the Australian Institute of Health and Welfare (2016) and Schunck, Reiss, & Razum (2015) for a German study. Reduced access to services and support will also reinforce existing inequalities (Newman, Javanparast, Baum, & Hutchinson 2015). The challenges explained above are very similar challenges that most nations experience. Australia, for example, is experiencing

significant challenges with communicating government support serves to refugees and migrants from culturally and linguistically diverse backgrounds (O'Mara and Carey 2019).

**Table 4 – Results of Question 1, Migrant Difficulties in Quality-of-Life Care**



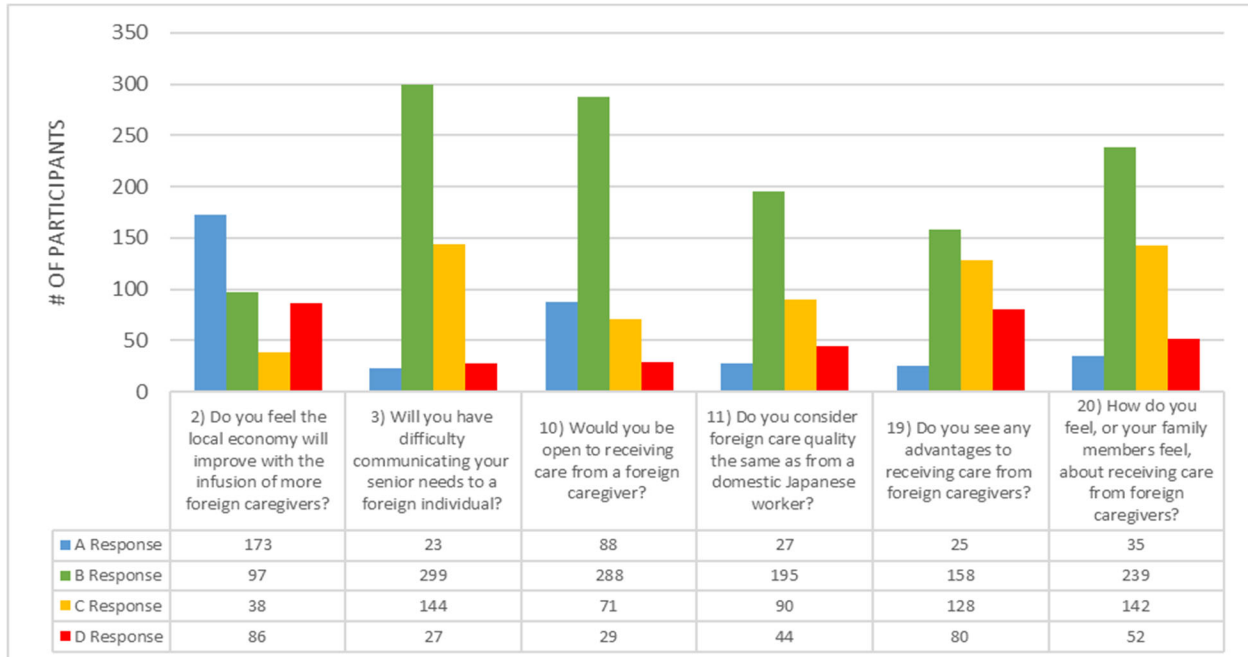
Source: Lamb Survey 2020

***Survey Finding #2 – Majority of community survey participants do not have a perceived difference on the quality of foreign caregivers in comparison to domestic Japanese caregivers, indicating improved sentiment. (Questions: 2, 3, 10, 11, 19, and 20)***

The second series of questions of the Lamb Survey asked the community survey participants the basic question if there was a perceived difference in quality of care between Japanese domestic care givers and foreign care givers. Furthermore, the question attempts to assess if foreign migrants are beneficial to the community and will not create any challenges to the level of care (i.e., communication of needs). Not only will this survey piece provide important insight on quality-of-care equivalency and acceptance of foreign care, but it will also serve to understand if the foreign migrants have a positive work environment to remain in Japan for the long-term, thus increasing the intrinsic value to the community and nation. **The second hypothesis assumed the majority of community survey participants and/or their extended family will not perceive a difference** between the quality of foreign caregivers in comparison to domestic Japanese caregivers. Furthermore, the hypothesis is that foreign migrants are

beneficial to the community and will not create any challenges to the level of care (i.e., communication of needs). Key findings for the Lamb Survey reveal the hypothesis is true. **Table 5** provides a graphical representation of the responses. However, the “I don’t know or not applicable” selections are not accounted for in the responses.

**Table 5 Results of Questions 2, 3, 10, 11, 19, and 20**



Source: Lamb Survey 2020

Notes: The response of “I Don’t Know or Not Applicable” has been omitted

**Question #2** asked if the local economy will improve with the infusion of foreign care givers. This question assesses the community survey participant’s opinion on the understanding of the intrinsic benefits of foreign workers in the local economy. Questions A and B indicate a favorable response and both indicate the same migration theory fundamentals of job creation, spending, resident retention, and remittances that are experienced in host nations. Questions C and D indicate a negative response that assumes growth without foreign caregivers or no growth at all with foreign caregivers. This question was engineered from the International Labour Organization Survey (2019) on public attitudes towards migrants’ workers in Japan. The ILO survey asked included 1,051 Japanese residents and asked them what effect do migrants workers



have on the national economy. Results showed 34% of the sample believed a positive effect, 25% believed there was a negative effect, and 6% believed no effect. The Lamb Survey assumes that this is not representative of the local communities and with respect to the senior care sector and a greater impact question is needed.

The result of the Lamb Survey concluded that 270 community survey participants (69% of sample) perceived foreign migrants as value-added. However, 124 respondents (31% of sample) did not have a positive perception of foreign migration. The senior care facility and government participants were asked the same question. The majority of senior care facility survey participants (29 participants or 76% of sample) answered that the economy will increase from job creation, spending, and resident retention. The majority of governmental survey participants (9 participants or 75% of the sample) collectively responded favorably on foreign resident value in the community. Responses from the Lamb Survey were more positive than the International Labour Organization Survey 2019 survey.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. community survey participants who have previous interactions with foreigners and/or participants within the healthcare sector believe the local economy will improve overall (positively) directly from an increase in migration. Another observation is community survey participants in general from higher GDP per Capita locations will share this positive economic prospective (not statistically significant, but within 90% confidence). With respect to adverse findings, females are statistically more likely to have a negative perspective on the level of economic growth directly caused from foreign workers. They will answer that the local economy will increase without foreign migration or that there is no growth expected with the infusion of more foreign workers. Another observation is the negative perspective on economic growth from foreign workers is shared with individuals from low GDP per Capita areas (not statistically significant, but within 90% confidence)

**Question #3** asked the community survey participant if they perceive difficulty in accurately communicating their senior care needs to a foreign individual. Questions A and B indicate a favorable response of no difficulty or slight challenge. Questions C and D indicate a negative response that assumes great difficulty or the inability to communicate needs to foreign

caregivers. This question was influenced by a private company JOPUS (2019) that published survey results revealing that 70% of foreign migrants experience difficulty communicating with Japanese domestic care providers. JOPUS is an online portal website for international job seekers and students who want to work in Japan. The Lamb Survey reverses this question to see if the resident and Japanese family member will have difficulty communicating their needs to foreign caregivers. The majority of the sample (322 participants or 65% of sample) stated that they would have little to no difficulty communicating their senior care needs to a foreign migrant. When the survey responses were further constrained to only the senior care staff and residents, the answer were even more optimistic with (196 senior care participants or 83% of sample) stated they would have little to no difficulty communicating their needs. This indicates a strong perception of equivalency.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Community survey participants who are employed in the medical/senior care industry and/or have previous interactions with foreigners will have high confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship. Another observation is both community survey participants from higher GDP per Capita locations and management-level employees will share this positive prospective (not statistically significant, but within 90% confidence). With regard to adverse findings, participants who are not employed in the medical/senior care industry and who have no previous interactions with foreigners will perceive great difficulty in communicating their needs to foreign care workers, which is a negative perception of fellowship. Another observation is both community survey participants from below average GDP per Capita locations will share this negative prospective (not statistically significant, but within 90% confidence).

**Questions #10, #11, and #19** asked the community survey participant if they perceive the quality of care between a foreign worker and a domestic Japanese worker as equivalent and then asked the community survey participant if they would be receptive to receiving care directly from a foreign caregiver. Answers A and B were positive and answer C and D were negative. This question was influenced from the Ministry of Health and Labour (2019) Guidebook for Care

Service Providers on Employment of Foreign Care Workers. The guidebook utilized the third-party research firm Mitsubishi UFJ Research and Consulting Co., Ltd to conduct a brief survey to inform senior care facilities how users and family members assess foreign care workers. The results of this survey show 65.1% of residents/family members are satisfied with receiving care from foreign migrants, 24.8% reflect average satisfaction, and 2.1% were unsatisfied. The guidebook was more optimistic than the results of the Lamb Survey.

For question #10, the majority of the community survey participants (376 participants or 79% of the sample) have stated that they would be open to receiving care from a foreign caregiver. For question #11, only 222 participants (62% of sample) have answered that quality between Japanese domestic workers and foreign workers is near equivalent. The “I don’t know” category has been omitted in these series of questions. However, an interesting concentration of community survey participant responses were within the “I do not know” category at 207 answers (37% of sample). This could indicate that no positive or no negative opinion was formed, which could support positive neutrality on the concept of equivalency. Question #19 builds off question #10 by changing the thought process into looking at migrant advantages. When asked if the community survey participant could see any advantages to receiving care from foreign caregivers, 183 participants (47% of sample) stated they foreign caregivers presented advantages, 128 participants (33% of sample) stated equivalency, and 80 participants (20% of sample) stated the foreign care giver had some disadvantages. As a special note, there were 158 participants (28% of sample) who selected the “I don’t know” response before this was omitted from the series of questions. Again, this could indicate that no positive or no negative opinion was formed, which could support positive neutrality on the concept of equivalency.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. In question #10, community survey participants employed in the medical/senior care industry are statistically likely to be open to receiving care from foreign caregivers. In question #19, individuals  $\geq 40$  years of age and/or employed in the medical/senior care sector have a favorable opinion on foreign caregivers and see advantages to their level of care in comparison to domestic caregivers. With regards to adverse trends, question #10 identifies that community survey participants not employed in the

medical/senior care industry are highly likely to be uncomfortable with receiving care or refusing the care from foreign caregivers. In question #19, participants under 40 years of age and those not employed in the medical/senior care industry statistically consider foreign caregivers' quality the same as domestic care, or see a few disadvantages to foreign care.

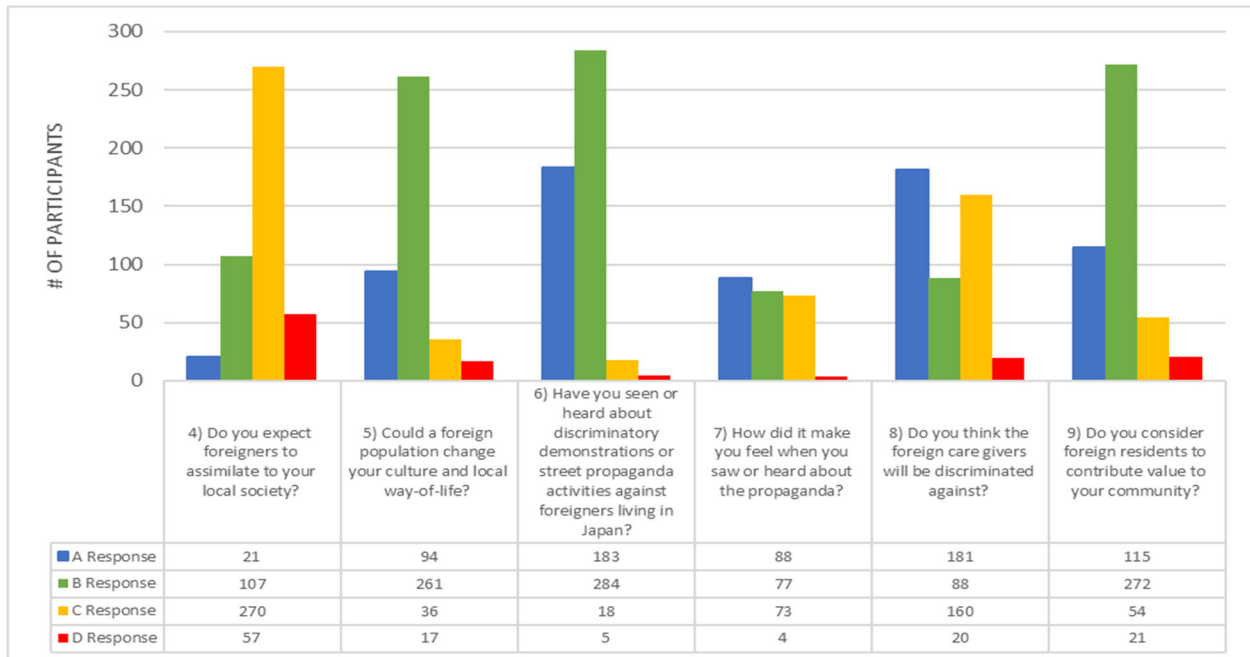
**Question #20** was the last question to gauge labor equivalency. This question was meant to trigger an emotional response by introducing the family element to the community survey participant. The question asking them to consider their own family and see if they would be receptive to their family member receiving care from a foreign migrant. Responses of A, B, and C indicate a favorable perspective that the community survey participant would be positive or not have any negative opinion on themselves, or their family receiving care from a migrant. Response D is the negative response that indicates a negative experience or opinion. The highest concentration of results indicates a substantial majority (416 participants or 89% of sample) would feel comfortable with a foreigner providing care for the family member. Lastly, the question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) and there were no statistically significant variables present with this question.

***Survey Finding #3 – Discrimination is still prevalent in the local community and presents challenges for the long-term retention of foreign care givers. (Questions: 4-9)***

The third series of questions of the Lamb Survey focuses on the topic of discrimination and tries to understand how the various stakeholders perceive foreign residents in their communities. Discrimination is an unfortunate cultural stigma that is deeply engrained in societies around the world. Japan is no different and is known for discriminatory practices deeply rooted in the culture, which draws into the political system, judicial system, and societal structure (Matsuura 1980; Arudou 2015; Aspinall 2017; Gong 2015). In the last several decades, the government of Japan has begun to identify discriminatory practices within its populous and increase its regulatory posture with ensuring equal freedoms. This seemed to happen in conjunction with the deficit of foreign labor within the economy. The Japanese Ministry of Justice (MOJ) has played a significant role in conducting several surveys with foreigners to collect their opinions on discriminatory

practices by the Japanese citizens. An important survey commissioned by the MOJ (2017) and conducted by the Center for Human Rights Education and Training was “The Analytical Report of the Foreign Residents Survey.” Several of the survey questions used in the Lamb Survey were engineered from the MOJ survey. **The main hypothesis is quite different and assumes the Japanese community survey participants will not perceive a difference between the quality of foreign caregivers in comparison to domestic Japanese caregivers and that there are beneficial sentiments from foreign care providers.** This is the direct result of the government initiatives and the deficit in labor within the senior care industry and the positive influence this has on the community with regards to foreign labor. **Table 6** provides a graphical representation of all the responses. As a special note, all “I don’t know” responses have been omitted.

**Table 6. Results of Questions 4-9**



Source: Lamb Survey 2020

Notes: The response of “I Don’t Know or Not Applicable” has been omitted

**Question #4** asked the community survey participant if they expected the Japanese foreign migrants if they should assimilate to your local society. This question assesses the level of discrimination in the local population based on the answers from the sample. Indirect

discrimination can occur when individuals consider a foreign group as needing to conform to the culture of the native group. Responses of A, B, and C indicate a healthy balance of assimilation but uniqueness. Response D is the negative perspective or opinion that foreign migrants must assimilate. The largest concentration of answers (270 participants or 59% of sample) admitted that Migrants must assimilate to the community and share their cultural differences. Cultural assimilation is defined as the process in which a minority group resembles the values and behaviors of the majority group. The responses indicate the Japanese citizens expect this of the foreigners. The smallest minority of the sample (21 participants or 5% of sample) was the most positive and stated that foreigner care workers should not assimilate; they should express their own cultural differences.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Community survey participants who have college-level education and/or are employed in the medical/senior care industry are statistically more accepting to foreign migrant cultural differences and believe that foreigners should remain unique and not entirely assimilate to society. With respect to adverse findings, participants who are not employed in the medical/senior care industry are statistically likely to believe that migrants have selected to reside in Japan and must assimilate fully to Japanese culture. While not statistically significant, participants who have high school education or less than high school also share this opinion on foreign assimilation.

**Question #5** measures the emotional impact that a foreign individual will have on the community survey participant. This question was meant to trick the participant as selection A indicates someone who is unbiased about foreign labor. Responses of B, C, and D indicate there is a bias and image that foreign residents will have a negative impact. The majority of sample responses (314 participants or 77% of sample) identifies that the survey participant will experience some form of negative disruption. Only 94 participants (23% of sample) stated that foreign residents will not change my culture, they will enrich it. This was the most favorable response.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Participants who are male and/or have previous interactions with foreigners have a positive perspective on the impacts foreigner populations present in the participant's daily life and are statistically significant in selecting a

single answer "A" on the survey. It is a likely assumption that these two variables will support migration policy revision. With respect to adverse findings, female participants who are not employed in the medical/senior service industry have answered selection C and D with statistical significance that foreign populations will significantly impact and disrupt way of life.

**Question #6 and Question #7** is a two-part question to ask about discriminatory practices and tests how the respondent felt about the situation. This question was engineered similarly to the Ministry of Justice survey (2017) question that was targeted to be answered by foreign migrants residing in Japan; the Lamb Survey targeted the Japanese community survey participant. The MOJ asked foreign community survey participants if they have any experiences seeing or hearing about discriminatory demonstrations or street propaganda activities against foreign nationals living in Japan. Combining the participants who answered "Often" and "Occasionally," 20.3% said "I have seen them in person," 42.9% said "I have seen or heard about them in the media such as TV, newspapers or magazines," 33.3% said "I have seen them online." The follow-up question asked how the respondents felt when they saw discriminatory demonstrations or propaganda activities. Roughly 64.9% said "I felt uncomfortable," 26.6% said "It made me have a worse view of Japanese people and society," 22.0% said "It made me feel anxious and fearful to be living in Japan," and 18.9% said "I felt that it was unforgivable." Furthermore, 47.1% said "I wondered why they would do such a thing" (MOJ, 2017).

The Lamb Survey followed the question format of the MOJ survey and the follow-up question. However, the "I don't know" response was kept in the analysis. A significant concentration of respondents (307 participants or 55% of the sample) have seen or heard of demonstrations or street propaganda events and 256 (33% of sample) have not heard of or do not know of these events. This is a high concentration of people in general who have been exposed in some capacity to hate speech or street demonstrations around the three prefectures. The next question asks the survey participant how they felt about the events or demonstrations. The majority of respondents (321 participants or 57% of sample) chose not to respond or didn't know. The next concentration (238 participants or 42% of sample) felt uncomfortable or negative about the propaganda. Only 4 participants (1% of sample) claimed to express positive feelings from the demonstrations.

The questions #6 and #7 was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. While not statistically significant, managers are the only variable that answer selection "A" at the 94.5% confidence; they did not hear of any discriminatory demonstrations or street propaganda activities against foreigners living in Japan. For question #7, male participants are the gender that feel the most uncomfortable about discriminatory demonstrations or street propaganda activities against foreigners living in Japan. The results were very close to statistically significant; they were within 90% confidence.

**Question #8** queries the community survey participant if they feel that foreign caregivers could be directly discriminated against by the community. The majority of community survey participants (429 participants or 96% of sample) selected either answer A, B, and C and perceive those foreign caregivers will be discriminated against in some capacity. Only 20 participants (4% of sample) answered that they don't think there will be discrimination. The governmental stakeholders and the senior care services business stakeholders were asked the same question in their survey and the senior care services stakeholders had similar results. The vast majority of senior care services participants (40 participants or 89% of sample) selected answer A, B, and C. The significant concentration of the governmental participants (5 participants or 71% of sample) also considered there to be discrimination for foreign caregivers.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. The analysis did not find statistically significant results. However, while not statistically significant, male participants in locations that have a higher-than-average GDP per Capita are likely to not expect any discrimination against foreign residents within 90% confidence. With respect to adverse findings, female participants in locations that have a lower-than-average GDP per Capita are likely to expect discrimination against foreign residents (not statistically significant but within 90% confidence).

**Question #9** asks the community survey participant if they consider foreign residents to contribute value to the community. It is a straight-forward question that indicates the participant's knowledge of various migration research. This question was influenced from the World Values Survey Wave 7 (Haerpfer et al. 2020) which asked the community survey



participant if immigrants are impacting Japan favorably; results were balanced at 29% for positive impact, 34 for neutral impact, and 28% for a negative impact. The question was also engineered off the Pew Research Study (2017) which asked survey respondents if immigrants strengthen the country; results were about 65% who say that immigrants strengthen the country because of their hard work and talents and 26% say that immigrants are a burden because they take jobs, housing and health care. A Responses of either A or B indicate a positive response, while responses of C and D would evidence a perspective of bias.

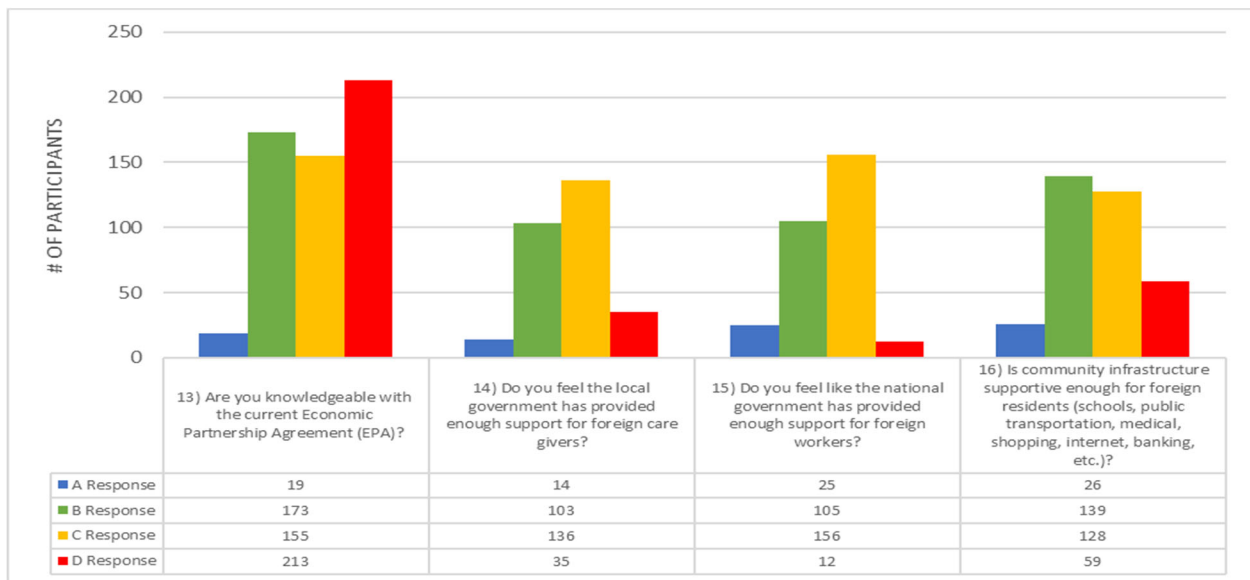
The majority of community survey participants (387 participants or 84%) perceive the foreign caregivers as value added to the community. Only 75 participants (16% of sample) answered negatively about the foreign residents. The governmental stakeholders and senior care services stakeholders were asked the same question in their survey. The overwhelming majority of responses (45 participants or 94% of sample) have identified the value that an inflow of migrants can provide in the community. This is understandable as the commercial senior care sector is the employer of migrants and understand the importance to the senior care facility labor structure. The full sample of the government participants (11 participants or 92% of sample, only 1 “not applicable” response) considered foreign caregivers as value-creation to the community. The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Male community survey participants and/or community survey participants employed in the medical/senior care industry are the statistically significant group that believe foreign populations bring value to the community. With respect to adverse findings, female participants and/or participants not employed in the medical/senior care industry are the two groups that believe foreign populations abuse public resources or are detrimental to the community.

***Survey Finding #4 – The community would like better support from the government on foreign workers. (Questions: 13-16)***

The fourth series of questions was meant to identify the community survey participant’s opinion on the governmental support structure available. Retaining migrants for the long-term must be a task taken by all the three stakeholders. However, the government must play a role in

ensuring an adequate support structure in place for migrants. The hypothesis made is that the community is not satisfied with the local and national governmental support structure for foreign workers. The four questions in this category have identified that the community understands the importance that government plays in society and desire the government to assist with the foreign labor force. **Table 7** provides the graphical representation of the responses. These series of questions were engineered from the World Values Survey Wave 7 (Haerper et al. 2020) which asked the community survey participant how confident they are in the government. The results were that 39.9% of the sample had confidence in the government and 52.1% were not confident in the actions of the government. The Lamb survey changes the question to ask about the local, prefectural, and national government with the survey frame consisting of the senior care factors. As a special note, the “I don’t know” response was omitted from questions 14, 15, and 16.

**Table 7. Results of Questions 13-16**



Source: Lamb Survey 2020

Notes: The response of “I Don’t Know or Not Applicable” has been omitted

**Question #13** assesses the community stakeholder’s knowledge on existing regional trade agreements in place known as the Economic Partnership Agreement (EPA). The majority of community participants (371 participants or 66% of sample) do not have any knowledge on the EPA; only 31% have hear about it and 3% understand it. However, the opposite is true for the senior care services business stakeholders and government stakeholders. On the average, they

knew more about this regional agreement than the community participants. This makes sense as the senior care services business participants should understand since they directly benefit with labor and the municipality deals with immigration protections. The majority of senior care services business stakeholders (37 participants or 71% of sample) claimed to have at least a minimal understanding and the majority of government survey participants (9 participants or 75% of sample) are aware of the international agreement.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Male participants and/or participants who have interacted with foreigners in the past have a statistically significant understanding of what the Economic Partnership Agreement (EPA) is. Female participants, participants with education at or below high school, and/or participants who have not interacted with foreigners in the past understand are statistically more unaware of the EPA.

**Question #14 and Question #15** is a two-part question that asks the opinion of the community survey participant on the level of support the local and national governments provide with respect to immigration and foreign labor. This question was based on the Pew Research Center (2017) survey that asked for participant opinion on the approval rating of the United States government to assess the views of government social safety net. A significant concentration of answered responses (I don't know responses omitted) in the Lamb Survey (171 participants or 59% of sample) stated that the local government was not providing enough support and 168 participants (56% of sample) stated that the national government was not providing enough support. The support for local and national governments were 41% and 44%, respectively. The senior care services business stakeholders were asked this question during their respective survey. The majority of senior care services business survey participants (20 participants or 51% of sample) have stated that local government does not provide enough support the foreign residents in the community senior care services business and 16 participants (38% of sample) stated the national government doesn't provide enough support for foreign workers.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. With question #14, participants who

have interacted with foreigners in the past generally approve of the local government's use of resources for foreigners. Male survey participants generally approve of the national government's use of resources for foreigners as opposed to others in question #15. With respect to adverse findings, participants on question #14 who have not interacted with foreigners are more critical of the support offered by the local government. This may indicate that the survey participants are naïve to the programs offered by the local government. Participants who answer question #15, and are under 40 years of age, statistically do not approve of the national government's use of resources for foreigners as opposed to others. This indicated that youth and working age participants agree to more governmental support of foreigners.

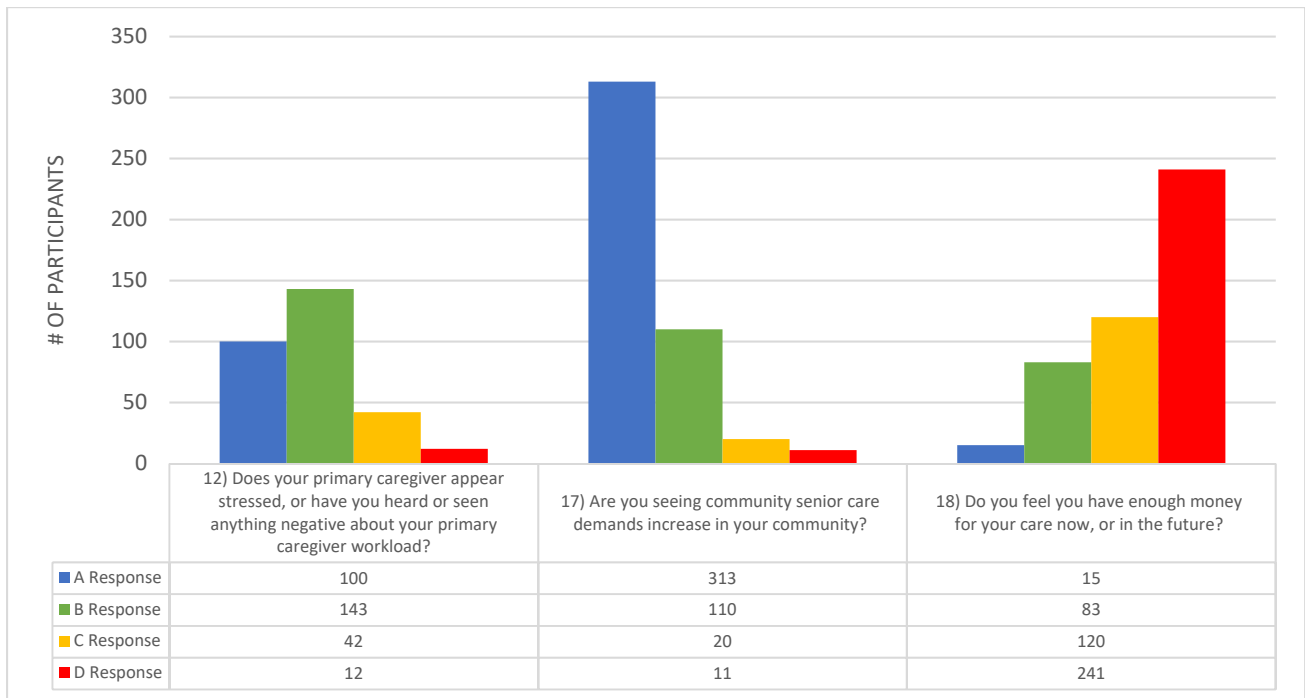
**Question #16** assesses the participant's opinion on infrastructure within the local community to support foreign caregivers. Having sufficient and ample infrastructure in place will help retain them within Japan for the long-term. The majority of community participants who made a selection (187 participants or 53% of sample) stated that the community does not have basic infrastructure in place to support foreign caregivers by selecting C and D. The remaining participants (165 participants or 47% of sample) stated there is basic or sufficient infrastructure in place. The government stakeholders were asked the same question in their respective survey and they provided a more negative response (11 participants or 92% of sample) by stating there is not sufficient infrastructure in place. The question was run through a logistical regression analysis without no statistically significant correlations were identified.

***Survey Finding #5 – The community perceives continued growth in the senior care industry and understands the pressures on the domestic care givers. (Questions: 12, 17, and 18)***

The last survey finding identifies that the community perceives continue growth in the senior care industry and understands the stresses that domestic care givers experience in the workplace. Senior care needs are growing and the community understands this. The senior care services business surveys indicated that the majority of senior facilities are at full occupancy, or quickly heading to full occupancy. Many of the domestic care employees are above the age of 45 and there are not enough recent graduates replacing them. When employees are too stressed to maintain their composure, this indicates a lack of labor resources for the senior care services

business. These survey questions are an attempt to assess participant opinion on this situation. The main hypothesis is that the community understands the demands on the senior care sector and would agree with more foreign labor. The results of the Lamb Survey confirm this hypothesis using descriptive statistics. **Table 8** shows a graphical representation of the survey responses. As a special note, the “I don’t know” response has been omitted in this series of questions.

**Table 8. Results of Questions 12, 17, and 18**



Source: Lamb Survey 2020

Notes: The response of “I Don’t Know or Not Applicable” has been omitted

**Question 12** assesses the sufficiency of labor resources by asking the participant’s opinion on the various work-life balance stresses that the senior care workers experience. Senior care needs are growing and the senior care services business surveys indicated that the majority of facilities do not have occupancy or are facing their limit. Many of the domestic care employees are above the age of 45 and there are not enough recent graduates replacing them. The majority of answered respondents (243 participants or 82% of sample) stated that they have heard their caregiver express concerns about the lack of support or appear to have a high level of stress.

Only 54 participants (18% of sample) feel that the level of work stress is appropriate for the workplace.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Participants employed in the medical/senior care industry are statistically more likely to agree that their care worker, or co-workers, are stressed or experience major concerns while employed in their positions. This indicates the demand of caregivers is high and not sufficient labor is present to have an ideal number of staff. An interesting observation that participants who have interacted with foreigners in the past will assume caregivers are stressed (not significant, but within 90% confidence). With respect to adverse findings, participants not employed in the medical/senior care industry are statistically more likely to assume caregivers are not stressed and have sufficient work demands put on them that do not justify higher demand.

**Question #17** asks the participant's opinion on the level of consumer demands within the senior care industry. A growing level of stress on the current labor force and a growing level of senior care service demand will evidence a deficit of labor needed to satisfy this level of demand. The results identifies that community demands for senior care are perceived to be increasing. The majority of answered responses (313 participants or 69% of sample) stated that the level of demand for senior care is growing greatly. The remaining 141 participants (31% of sample) perceive minor growth, stability, or a decline of growth. The government participants and the senior care services business participants were asked the same question in their respective survey. The majority of government participants (9 participants or 75% of sample) perceived a high level of growth in senior care demand. It was interesting observation that only 13 senior care services business participants (25% of sample) stated that demand is increasing greatly in the local area and 29 participants (56% of sample) see slight growth. The senior care services business participant survey answers do not align to the community and government survey participant responses.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. While not statistically significant, male participants consider senior care demands to be increasing in the community. This is within 94%

confidence. With respect to adverse findings, participants under the age of 40 consider senior care demands to be stable or decreasing in the community; this is not statistically significant, but within 94% confidence.

**Question #18** asks the participants if they have sufficient financial resources to pay their senior care costs right now or in the future. The purpose of this question is to assess the participant's awareness of the senior care sector and to understand how the participant embraces this in their normal lives through financial resources. The majority of survey responses (361 participants or 79% of sample) indicated the participant does not have enough funds saved for their own needs. Only 98 respondents (21% of sample) stated they have adequate reserves in place to pay senior care expenses.

The question was run through a logistical regression analysis to find statistically significant correlations ( $P \leq 0.05$ ) with several independent variables. Male participants and/or participants employed in the medical/senior care sector feel they have enough money for senior care now or in the future. This may indicate a naïve stance from males in future planning or indicate participants already within senior care or the age of being cared for have sufficient monetary resources. Participants under the age of 40 and/or participants not employed in the medical/senior care sector feel they do not have enough money saved for their senior care needs.

#### **4. Which factors affect their perception of receiving care from foreign caregivers?**

The community support system plays a vital role with the retention of foreign workers. This is particularly of importance in the senior care industry where labor shortages are present and the situation will continue to degrade without the retention of these foreign laborers. The data collected from the Lamb Survey was run through statistical analysis to understand which attributes impact the community member's perception of receiving care from foreign caregivers. The Lamb Survey seeks to understand and classify behavior-based bias with Japanese society. The goal is to look for a clear and statistically significant correlation to what characteristics affect perception of care from foreign care workers. A logistical regression analysis was run on several of the survey variables to identify the probability of a certain individual as seen in Table 9(a) and (b). The results for the seven independent variables used in the analysis are as follows:

Table 9 (a). Regression Results of Positive Outlook

	Positive Variables						
	Per Capita GDP of City	Age of Partipant	Gender of Participant	Highest Education Level	Employment Sector	Current Job Title	Interaction with Foreigners?
	National Avg is \$38,000 Above (≥) Nation Avg = 1 Below (<) Nation Avg = 0	Set Age of 40 years old Above (≥) 40 = 1 Below 40 = 0	Gender Male = 1 Female = 0	University Attendance College (≥ 2yrs) = 1 ≤ High School = 0	Employed in Senior Care Yes = 1 No = 0	Management Level Manager/Supervisor = 1 Noon-Manager/Spv = 0	Interaction with foreigners Yes = 1 No = 0
Questions 2	Significance (P-value 0.073)	X	X	X	Statistical Significance (P-value 0.002)	X	Statistical Significance (P-value 0.021)
Questions 3	Significance (P-value 0.058)	X	X	X	Statistical Significance (P-value 0.001)	Significance (P-value 0.069)	Statistical Significance (P-value 0.004)
Questions 4	X	X	X	Statistical Significance (P-value 0.090)	Statistical Significance (P-value 0.003)	X	X
Questions 5	X	X	Statistical Significance (P-value 0.010)	X	X	X	Statistical Significance (P-value 0.021)
Questions 6	X	X	X	X	X	Significance (P-value 0.066)	X
Questions 7	X	X	Significance (P-value 0.055)	X	X	X	X
Questions 8	Significance (P-value 0.092)	X	Significance (P-value 0.092)	X	X	X	X
Questions 9	X	X	Statistical Significance (P-value 0.003)	X	Statistical Significance (P-value 0.001)	X	X
Questions 10	X	X	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 11	X	X	X	X	X	X	X
Questions 12	X	X	X	X	Statistical Significance (P-value 0.001)	X	Significance (P-value 0.071)
Questions 13	X	X	Statistical Significance (P-value 0.001)	X	X	X	Statistical Significance (P-value 0.001)
Questions 14	X	X	X	X	X	X	Statistical Significance (P-value = 0.037)
Questions 15	X	X	Statistical Significance (P-value 0.044)	X	X	X	X
Questions 16	X	X	X	X	X	X	X
Questions 17	X	X	Significance (P-value 0.055)	X	X	X	X
Questions 18	X	X	Statistical Significance (P-value 0.002)	X	Statistical Significance (P-value 0.001)	X	X
Questions 19	X	Statistical Significance (P-value 0.011)	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 20	X	X	X	X	X	X	X



**Table 9 (b). Regression Results of Negative Outlook**

	Negative Variables						
	Per Capita GDP of City	Age of Partipant	Gender of Participant	Highest Education Level	Employment Sector	Current Job Title	Interaction with Foreigners?
	<u>National Avg is \$38,000</u> Above (≥) Nation Avg = 0 Below (<) Nation Avg = 1	<u>Set Age of 40 years old</u> Above (≥) 40 = 0 Below 40 = 1	<u>Gender</u> Male = 0 Female = 1	<u>University Attendance</u> College (≥ 2yrs) = 0 ≤ High School= 1	<u>Employed in Senior Care</u> Yes = 0 No = 1	<u>Management Level</u> Manager/Supervisor = 0 Non-Manager/Spv = 1	<u>Interaction with foreigners</u> Yes = 0 No = 1
Questions 2	X	X	Statistical Significance (P-value 0.018)	X	X	X	X
Questions 3	Significance (P-value 0.062)	X	X	X	Statistical Significance (P-value 0.001)	X	Statistical Significance (P-value 0.013)
Questions 4	X	X	X	Significance (P-value 0.091)	Statistical Significance (P-value 0.003)	X	X
Questions 5	X	X	Statistical Significance (P-value 0.024)	X	Statistical Significance (P-value 0.003)	X	X
Questions 6	X	Statistical Significance (P-value 0.005)	X	X	X	X	X
Questions 7	X	X	Statistical Significance (P-value 0.050)	X	X	X	X
Questions 8	Significance (P-value 0.092)	X	Significance (P-value 0.092)	X	X	X	X
Questions 9	X	X	Statistical Significance (P-value 0.002)	X	Statistical Significance (P-value 0.001)	X	X
Questions 10	X	X	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 11	X	X	X	X	X	X	X
Questions 12	X	X	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 13	X	X	Statistical Significance (P-value 0.001)	Statistical Significance (P-value 0.011)	X	X	Statistical Significance (P-value 0.001)
Questions 14	X	X	X	X	X	X	Statistical Significance (P-value 0.036)
Questions 15	X	Statistical Significance (P-value 0.044)	X	X	X	X	X
Questions 16	X	X	X	X	X	X	X
Questions 17	X	Significance (P-value 0.057)	X	X	X	X	X
Questions 18	X	Statistical Significance (P-value 0.002)	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 19	X	Statistical Significance (P-value 0.011)	X	X	Statistical Significance (P-value 0.001)	X	X
Questions 20	X	X	X	X	X	X	X

## **Occupation**

The occupation level of the survey participant was used as an independent variable because the Lamb Survey has identified that individuals answer survey questions very differently if they are currently employed within the senior care industry. As such, the statistical binary numbers of 1 and 0 categorize the survey participant as within the senior care sector or outside the senior care sector. This independent variable was the most statistically significant occurring indicator and was identified 16 times during the analysis. This itself is an interest finding and indicates a deeper level of understanding to foreign care givers coming directly from within the industry as opposed to the community at large.

Survey results reveal that Participants within the healthcare sector are statistically more likely to believe the local economy will improve overall directly from an increase in migration, as well as statistically more likely to agree that foreign populations bring value to the community. Participants who are employed in the medical/senior care industry are more accepting to foreign migrant cultural differences and believe that foreigners should remain unique and not assimilate to Japanese society. Participants employed in the medical/senior care industry are statistically more likely to be open to receiving care from foreign caregivers and are statistically more likely to have confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship. Interestingly, individuals employed in the medical/senior care sector have a favorable opinion on foreign caregivers and are statistically more likely to see advantages to their level of care in comparison to domestic Japanese caregivers. Lastly, Participants employed in the medical/senior care industry are highly likely to agree that their care worker, or co-workers, are overworked, indicating the demand of caregivers is high and there is not a sufficient labor structure in place.

On the other side of the analysis, participants who are not employed in the medical/senior care industry are statistically more likely to perceive great difficulty in communicating their needs to foreign care workers. Participants who are not employed in the medical/senior care industry discriminate more and statistically are more likely to believe that migrants have chosen to reside in Japan and must assimilate fully to Japanese culture. Female participants who are not employed in the medical/senior service industry have answered with high statistical significance

that foreign populations will significantly impact and disrupt their culture and daily life and are statistically more likely to consider foreign caregiver quality lower than domestic care. Participants not employed in the medical/senior care industry statistically are more likely to believe that foreign populations take advantage or are detrimental to the community. Participants not employed in the medical/senior care industry are highly likely to be uncomfortable with receiving care or refusing the care from foreign caregivers. Lastly, participants not employed in the medical/senior care industry assume caregivers are not stressed and have sufficient work demands put on them and do not justify higher demand.

### **Foreign Interaction**

Foreigner interaction is an important factor to consider as survey participants answer differently if they have previously interacted with a foreigner acquaintance or colleague. The statistical binary numbers of 1 and 0 categorize the survey participant as either having a relationship with a foreigner or not having any interaction with a foreigner. The most impressive finding from other individual characteristics is that a respondent having a foreign acquaintance tends to substantially favor immigration. The magnitude of this effect is sizable and suggests the important role of personal attachment or human network in the formation of policy preferences. The effect of personal acquaintance with foreigners on his/her attitude toward immigrants should be particularly strong in Japan, where foreign residents are extremely few. This strong effect of personal attachment, in line with the previous report on Japan by Yamamura (2012) and Tomiura et.al (2016).

Survey results show participants who have previous interactions with foreigners are statistically more likely to believe the local economy will improve overall directly from an increase in migration and are statistically more likely to express a positive response that a foreign population will enrich the participant's personal life and cause no negative impact. Participants who have previous interactions with foreigners are statistically more likely to have higher confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship. Although not statistically significant, but within 93% confidence, participants who have interacted with foreigners in the past will mostly agree that

their care worker, or co-workers, are stressed from a lack of labor while employed in their current positions. This indicates the demand of caregivers is high and not sufficient labor is present to have an ideal number of staff. Participants who have interacted with foreigners in the past are statistically more likely both to understand what the Economic Partnership Agreement is and approve of the local government's use of resources for foreign residents. This could indicate the community member could interact with the migrant and has heard feedback from the migrant on the opportunities and level of support experienced.

In regards to negative variables, participants who have not previously interacted with foreigners will perceive great difficulty in communicating their needs to foreign care workers and could be caused from a lack of understanding. Furthermore, participants who have not interacted with foreigners in the past are statistically more unaware of the Economic Partnership Agreement and are statistically critical of the support offered by the local government. This indicates that the participants are naïve to the programs offered by the local government and cannot perceive reality on the topic.

### **Age**

Participant Age is an important independent to consider since adults will have different opinions on the topic of migration within different periods of their lifecycle. Previous academic studies support the idea that younger adults are the most positive towards immigration and this diminishes as you move down the age spectrum (Pew Research 2017; Tomiura et al 2016; Calahorrano 2013). Winkler (2015) also summarized this trend when using the European Social Survey 2002-2012 of 35 different European countries to identify the age divide in immigration views. Winkler concluded that seniors' natives disproportionately oppose immigration, regardless of income, education and employment status. One possible explanation could be that age under 40 are in a different life cycle and have more liberal views on foreign residents. Nakata (2017) has studied the effects of age and gender on the attitude towards immigrants and identified that age plays a more important role for male than for female in determining the level of support for immigration.

The results from the Lamb Survey are quite different from the previous literature. The Lamb Survey results reveal survey participants  $\geq 40$  years of age are statistically more likely to have a favorable opinion on foreign caregivers and see advantages to their level of care in comparison to domestic caregivers. One possible explanation could be those individuals  $\geq 40$  and older are closer to needing long-term care and have a more favorable view on those who wish to take care of them, regardless of ethnicity. These results are quite different from other surveys on migration in general.

Another interesting finding is that participants under 40 years of age are statistically more likely to perceive foreign caregiver quality as less than Japanese domestic care workers. Younger individuals are more positive on migration; but they perceive inequality with level of quality from domestic caregivers and foreign migrants. This explanation could be a reflection of different economic interests, such as the younger generations may see immigrants as potential competitors and consider the domestic workforce as higher quality.

Finally, participants under 40 years of age also are statistically more likely to disapprove of the national government's support structure and assistance programs for foreign migrants. This indicates that this group may be more willing to support immigration reform despite perceiving the quality of care as lower. These findings are counter intuitive to the current senior care topic and approval of migration policies by the government as noted in academic research.

## **Gender**

Participant gender is an important independent variable to consider since gender classes express different views and opinions on survey questions. Women are significantly more likely to be protectionists and at the same time against immigrants than men are and this female negative attitude toward globalization is confirmed even after controlling for one's occupation and education, in which gender gap is clearly persistent. (Tomiura, Mukunoki, and Wakasugi 2016). This substantial gender gap is consistent with that found in a similar survey covering European countries by Mayda (2008) and O'Rourke and Sinnott (2006). The Lamb Survey also identifies this bias between the genders with many of the survey questions. The statistical binary numbers of 1 and 0 will categorize the survey participants as either male or female.

Survey results reveal that participants who are male are statistically more positive on the impacts that foreign populations present in the participant's daily life. Furthermore, male participants are statistically likely to be the group that believe foreign populations bring value to the community. Male participants statistically approve of the national government's use of resources for foreigners as opposed to females. This impacts the next question, which identifies that male survey participants are statistically more likely to understand or know what the Economic Partnership Agreement more than females. While not statistically significant (within 94% confidence), the male participants are the gender that feel the most uncomfortable about discriminatory demonstrations or street propaganda activities against foreigners living in Japan. Also, while not statistically significant (within 90% confidence), male participants in locations that have a higher-than-average Per Capita GDP are likely to not expect any discrimination against foreign residents. Finally, and while not statistically significant (within 94% confidence), male participants consider senior care demands to be increasing in the community.

The female demographic results have been quite different. Females are statistically more likely to have a negative perspective on the level of economic growth directly caused from foreign workers. They will answer that the local economy will increase without foreign migration or that there is no growth expected with the infusion of more foreign workers. Female participants who are not employed in the medical/senior service industry have answered with statistical significance that that foreign populations will significantly impact and disrupt their culture and daily life. Female participants are statistically the group that believes foreign populations take advantage or are detrimental to the community. Female participants are statistically the least unaware of the Economic Partnership Agreement. Lastly, while not statistically significant (within 92% confidence), female participants in locations that have a lower-than-average Per Capita GDP are likely to expect discrimination against foreign residents.

### **Per Capita GDP**

The Per Capita Gross Domestic Product (GDP) of a city is important to consider to see if the local prosperity of the city influences immigration attitudes. The statistical binary numbers of 1 and 0 will categorize the survey participants into a city with Per Capita GDP higher than the nation or Per Capita GDP lower than the national Per Capita GDP (currently at \$38,000). Results

of the Lamb Survey do not show any statistically significant findings for Per Capita GDP. However, there are five findings that vary within 90% confidence level and are definitely indicators. Firstly, participants who reside in higher income locations will have a more positive aspect that the economy will improve from the increase of migration to the local region. Secondly, survey participants who reside in a higher Per Capita GDP location will express a higher confidence level in communicating their needs to foreign care workers without difficulty. Lastly, male participants in locations that have a higher-than-average Per Capita GDP are likely to not expect any discrimination against foreign residents. When the binary numbers are exchanged to express negative trends, participants from a below average Per Capita GDP locations will perceive great difficulty in communicating their needs to foreign care workers, which is a negative perception of fellowship. Lastly, female participants in locations that have a lower-than-average Per Capita GDP are likely to expect discrimination against foreign residents.

### **Education Level**

Participant education is an important variable to consider as the impacts of tertiary education on the level of support for immigration has been evidenced in the Lamb Survey. Individuals with college education tend to favor immigration and understand the importance of migration on a global scale. The finding on education is consistent with established results from previous literature, including Hainmueller et al. (2015), Mayda (2006), and a study from the United States comparing education to race, immigration and discrimination by the Pew Research Center (2017). Nakata (2017) compared the level of education with gender and noted that tertiary education has positive impacts on the level of support for immigration for female, but has no impacts for male.

This same education correlation was observed in the Lamb Survey as more educated individuals answered more favorably about immigration. The statistical binary numbers of 1 and 0 will categorize the survey participant as either college graduates or non-college graduates. Survey results reveal that participants who have college-level education are statistically more accepting to foreign migrant cultural differences and believe that foreigners should remain unique and not entirely assimilate to society. On the other side, yet not entirely statistically

significant (91% confidence), participants who have less than a college level education are statistically more to agree that migrants have chosen to reside in Japan and must assimilate fully to Japanese culture. Lastly, participants with education below college are statistically more likely to be unaware of the Economic Partnership Agreement.

### **Job Title**

The current job title of survey participant was used as an independent variable because the Lamb Survey has identified a difference in responses between managers and non-managers. As such, the statistical binary numbers of 1 and 0 categorize the survey participant as either a manager or a non-manager. Individuals who are within the managerial occupation tend to welcome the inflows of foreign workers and the positive association with managerial occupation also indicates that people in charge of hiring employees tend to welcome foreign workers amid substantially declining working-age population in Japan. This was evidenced by Tomiura et.al (2016) through their proprietary model on behavior bias and trade policy preferences.

There were no statistically significant findings in the Lamb Survey to fully evidence that management roles correlate to more lenient migrant perspectives. However, there were two findings that were within 93% confidence. The first is that survey participants in management positions will have high confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship. This could be from the daily oversight in their facility and the increased level of communication in their daily role. The second interesting finding is that managers are the only participant who stated that they did not hear of any discriminatory demonstrations or street propaganda activities against foreigners living in Japan. This is peculiar and may indicate either a lack of interest on these topics or a possible lie due to the higher expectations on management personnel to be ideal employees.

## **5. Summary**

Academic research on the determinants of people's attitudes towards immigration has largely focused on the importance of both socio-cultural factors and economic factors. These socio-cultural factors imply individuals are against immigration because foreigners represent



different values and traditions that possibly pose a threat to the underlying culture; the economic factors focus on how attitudes are shaped by individuals' concerns about competition for scarce resources and the consequent distributional effects of immigration. The Lamb Survey community member survey is meant to consider these two factors within the senior care industry, which is under a greater demand and supply pressure. A combination of increased consumer demand for senior care services in Japan from an aging population, as well as a stable domestic Japanese labor structure that is not growing commensurate to meet this demand has created a deficit that continues to intensify. Traditionally, migrants would fill these roles when the domestic workers labor supply was not sufficient to meet demand. Tolerance for foreign migrants would be shaped by these social-economic pressures. The Lamb Survey is an attempt to quantify these considerations and test several relevant hypotheses about the community stakeholder's perception. The chapter research question asks if the community supports the immigration of senior care providers. The Lamb survey has identified that the community survey participants do support immigration by positively answering many questions pertaining to both their tolerance of foreign caregivers and their understanding of the various challenges and barriers that migrants face. Consensus from community survey participant have found the following conclusions:

1. Community survey participants agree that migrants will face challenges with satisfactory receiving medical care, educational opportunities, financial services, and legal services/representation.
2. Community survey participants do not have a perceived difference on the quality of foreign caregivers in comparison to domestic Japanese caregivers, indicating improved sentiment.
3. Community survey participants understand that discrimination is still prevalent in the local community and presents challenges for the long-term retention of foreign care givers.
4. The community would like better support from the government on foreign workers.
5. The community perceives continued growth in the senior care industry and understands the pressures on the domestic care givers.

The second part of the research question for this paper tests which factors affect their perception of receiving care from foreign caregivers by testing survey responses and categorizing responses into several categories. The results found five statistically significant factors that influence the participant's views on immigration within the senior care sector. Firstly, participants who are employed in the medical/senior care industry are statistically more supportive of foreign caregivers and have answered more favorably on the survey. This category of individuals is statistically more likely to perceive foreign caregivers as value added to the community and believe the local economy will improve overall directly from an increase in migration. Participants who are employed in the medical/senior care industry are more accepting to foreign migrant cultural differences and believe that foreigners should remain unique and not assimilate to Japanese society. Participants employed in the medical/senior care industry are statistically more likely to be open to receiving care from foreign caregivers and are statistically more likely to have confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship. Lastly, these participants within the industry are statistically more likely to perceive the quality of care from foreign workers as equivalent to the domestic care givers. This is an interesting finding and indicates a more complex level of understanding to foreign care givers coming directly from within the industry as opposed to the community at large. The industry supports foreign caregivers and this is an important support variable to consider with immigration reforms.

Foreign interaction variable is another statistically significant variable that impacts the survey responses. In brief, a respondent who previously had a foreign acquaintance or relationship tends to substantially support immigration. The magnitude of this effect is sizable and suggests the important role of personal attachment or human network in the formation of policy preferences. This strong effect of personal attachment is in line with the previous academic research by Yamamura (2012) and Tomiura et.al (2016). The Lamb Survey has identified that participants who have previous interactions with foreigners are statistically more likely to believe the local economy will improve overall directly from an increase in migration, as well as express a positive response that a foreign population will enrich the participant's personal

life and cause no negative impact. Participants who have previous interactions with foreigners are statistically more likely to have higher confidence in communicating their needs to foreign care workers without material difficulty, which is a positive perception of fellowship.

Participant Age is an important variable to consider since adults will have different opinions on the topic of migration within different periods of their lifecycle. Previous academic studies support the idea that younger adults are the most positive towards immigration and this diminishes as you move down the age spectrum (Pew Research 2017; Tomiura et al 2016; Calahorrano 2013). However, the Lamb Survey has identified the opposite. The Lamb Survey results reveal survey participants  $\geq 40$  years of age are statistically more likely to have a favorable opinion on foreign caregivers and see advantages to their level of care in comparison to domestic caregivers. One possible explanation could be that those individuals  $\geq 40$  and older are closer to needing long-term care and have a more favorable view on those who wish to take care of them, regardless of ethnicity. These results are quite different from other surveys on migration in general. On the contrary, participants under 40 years of age are statistically more likely to perceive foreign caregiver quality as less than Japanese domestic care workers and younger individuals perceive inequality with level of quality from domestic caregivers and foreign migrants. This explanation could be a reflection of different economic interests, such as the younger generations may see immigrants as potential competitors and consider the domestic workforce as higher quality.

Participant gender is an important variable for understanding how men and women perceive foreign caregivers differently. The Lamb Survey has found that men statistically more likely to support immigration and are more positive on the impacts that foreign populations present in the participant's daily life. Male participants statistically approve of the national government's use of resources for foreigners as opposed to females. While not statistically significant, but within 94% confidence, the male group is the gender that feel the most uncomfortable about discriminatory demonstrations or street propaganda activities against foreigners living in Japan. Women are significantly more likely to be protectionists and oppose immigration. This female negative attitude toward globalization is confirmed even after controlling for one's occupation and education, in which gender gap is clearly persistent.

(Tomiura, Mukunoki, and Wakasugi 2016). Females are statistically more likely to have a negative perspective on the level of economic growth directly caused from foreign workers. More females provided the response that the local economy will increase without foreign migration or that there is no growth expected with the infusion of more foreign workers. Female participants who are not employed in the medical/senior service industry have answered with statistical significance that that foreign populations will significantly impact and disrupt their culture and daily life. Female participants are statistically the group that believes foreign populations abuse public resources or are detrimental to the community. The results therefore suggest that information campaigns are needed to alter the attitudes towards immigration for female voters as mentioned by Nakata (2017).

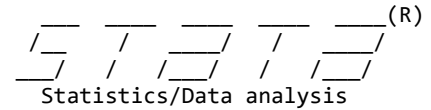
Community survey participant education is an important variable to consider as the impacts of tertiary education on the level of support for immigration has been evidenced. Individuals with college education tend to favor immigration and understand the importance of migration on a global scale as supported by prior academic research. This same effect with education was observed in the Lamb Survey as more educated individuals answered more favorably about immigration. Survey results reveal that participants who have college-level education are statistically more accepting to foreign migrant cultural differences and believe that foreigners should remain unique and not entirely assimilate to society.

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# Appendix



User: Question #2 Positive Results  
Project: Ph.D. Dissertation

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	563	89922.39	80457.61	8814	260897
pcgdp	563	.2486679	.4326252	0	1
age	563	.8152753	.3884192	0	1
gender	563	.4724689	.4996854	0	1
education	563	.5879218	.4926468	0	1
employment	563	.3889876	.487954	0	1
manager	563	.2291297	.4206466	0	1
finteraction	563	.3055062	.4610311	0	1
question2	563	.4795737	.5000269	0	1

2 . logistic question2 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	563
	LR chi2(7)	=	22.61
	Prob > chi2	=	0.0020
Log likelihood = -378.46624	Pseudo R2	=	0.0290

question2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.6944337	.1413088	-1.79	0.073	.4660383 1.034761
age	1.006462	.2272411	0.03	0.977	.6465638 1.566692
gender	1.128646	.2205861	0.62	0.536	.7694778 1.655462
education	1.209032	.2155136	1.06	0.287	.8525276 1.714616
employment	1.857821	.374559	3.07	0.002	1.251386 2.75814
manager	1.038972	.2217674	0.18	0.858	.683779 1.578672
finteraction	1.554517	.2967888	2.31	0.021	1.069261 2.259993
_cons	.5757964	.1597275	-1.99	0.047	.3343053 .9917327

Note: \_cons estimates baseline odds.

3 .

Question #2. Do you feel the local economy will improve with the infusion of more foreign caregivers?

- (a) The economy will grow from job creation, spending, and resident retention.
- (b) The economy will increase, but there will be outflow of resources (remittances).
- (c) The economy will grow anyways, without foreign labor.
- (d) No material growth is expected.
- (e) I don't know or not applicable.

Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	563	89922.39	80457.61	8814	260897
pcgdp	563	.7513321	.4326252	0	1
age	563	.2095915	.407379	0	1
gender	563	.5275311	.4996854	0	1
education	563	.4120782	.4926468	0	1
employment	563	.6110124	.487954	0	1
manager	563	.7708703	.4206466	0	1
finteraction	563	.687389	.4639695	0	1
question2	563	.2202487	.4147828	0	1

2 . logistic question2 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	563
	LR chi2(7)	=	12.84
	Prob > chi2	=	0.0762
Log likelihood = -290.40869	Pseudo R2	=	0.0216

question2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.9745872	.2354373	-0.11	0.915	.6070025 1.564772
age	.6701805	.1878546	-1.43	0.153	.3868978 1.16088
gender	.5761467	.1344574	-2.36	0.018	.3646576 .9102925
education	1.271619	.2694026	1.13	0.257	.8395052 1.926154
employment	1.122498	.2773525	0.47	0.640	.6916185 1.821817
manager	.9284473	.2324416	-0.30	0.767	.5684007 1.516561
finteraction	.8888893	.1998275	-0.52	0.600	.5721272 1.381029
_cons	.3904156	.1384078	-2.65	0.008	.1948787 .7821499

Note: \_cons estimates baseline odds.

3 .



1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	493	88204.31	79268.19	8814	260897
pcgdp	493	.2474645	.4319772	0	1
age	493	.8174442	.3866943	0	1
gender	493	.474645	.4998639	0	1
education	493	.6024341	.4898919	0	1
employment	493	.4219067	.4943654	0	1
manager	493	.2352941	.4246134	0	1
finteraction	493	.3286004	.4701815	0	1
question3	493	.653144	.4764529	0	1

2 . logistic question3 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	493
	LR chi2(7)	=	34.96
	Prob > chi2	=	0.0000
Log likelihood = -300.74291	Pseudo R2	=	0.0549

question3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.581313	.3826862	1.89	0.058	.9840622 2.54105
age	1.065801	.2830865	0.24	0.810	.6332709 1.793755
gender	.8684847	.1901897	-0.64	0.520	.5654021 1.334034
education	1.063184	.2164817	0.30	0.763	.7133287 1.584627
employment	2.244478	.5206761	3.49	0.000	1.424469 3.536534
manager	.9070451	.2216083	-0.40	0.690	.5619067 1.464177
finteraction	1.899764	.4238985	2.88	0.004	1.226787 2.941915
_cons	1.02651	.3330091	0.08	0.936	.5435331 1.938656

Note: \_cons estimates baseline odds.

3 .

Question #3. Will you have difficulty communicating your senior needs to a foreign individual?

- (a) I do not believe I will have difficulty in communicating my needs.
- (b) I may have a little difficulty, but believe I can still communicate my needs.
- (c) I will have great difficulty in communicating my needs to migrants.
- (d) I will not be able to communicate my needs.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	493	88204.31	79268.19	8814	260897
pcgdp	493	.7525355	.4319772	0	1
age	493	.1825558	.3866943	0	1
gender	493	.525355	.4998639	0	1
education	493	.3975659	.4898919	0	1
employment	493	.5780933	.4943654	0	1
manager	493	.7647059	.4246134	0	1
finteraction	493	.663286	.4730662	0	1
question3	493	.346856	.4764529	0	1

2 . logistic question3 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	493
	LR chi2(7)	=	32.75
	Prob > chi2	=	0.0000
Log likelihood = -301.84528	Pseudo R2	=	0.0515

question3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.57057	.379297	1.87	0.062	.9783397 2.521302
age	1.053683	.2789494	0.20	0.843	.6271411 1.770333
gender	.875923	.1914975	-0.61	0.545	.5706544 1.344493
education	1.077328	.2187122	0.37	0.714	.7236728 1.603811
employment	2.253464	.5224136	3.50	0.000	1.430603 3.549622
manager	.9101639	.2219053	-0.39	0.699	.5644036 1.467741
finteraction	1.727078	.3787439	2.49	0.013	1.123687 2.654473
_cons	.1727883	.0609442	-4.98	0.000	.086554 .3449386

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	455	89167.5	80831.3	8814	260897
pcgdp	455	.2395604	.427285	0	1
age	455	.8241758	.3810895	0	1
gender	455	.4857143	.500346	0	1
education	455	.6065934	.4890434	0	1
employment	455	.432967	.4960316	0	1
manager	455	.2461538	.4312434	0	1
finteraction	455	.3362637	.4729504	0	1
question4	455	.8747253	.3313945	0	1

2 . logistic question4 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	455
	LR chi2(7)	=	20.12
	Prob > chi2	=	0.0053
Log likelihood = -161.61464	Pseudo R2	=	0.0586

question4	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.221631	.4504472	0.54	0.587	.5930345 2.516519
age	1.695312	.6277083	1.43	0.154	.820508 3.50281
gender	.8914557	.2866883	-0.36	0.721	.474632 1.674335
education	1.658225	.4940046	1.70	0.090	.9248273 2.973215
employment	3.131573	1.186222	3.01	0.003	1.490501 6.579497
manager	1.422018	.570377	0.88	0.380	.6478654 3.121227
finteraction	.9611377	.3053703	-0.12	0.901	.5156368 1.791543
_cons	2.250534	1.012473	1.80	0.071	.9318503 5.43532

Note: \_cons estimates baseline odds.

3 .

Question #4. Do you expect foreigners to assimilate to your local society?

- (a) Foreigners should not assimilate; they should express their own cultural differences.
- (b) Migrants must assimilate basic Japanese cultural needs, but remain unique.
- (c) Migrants must assimilate to the community and share their cultural differences.
- (d) Migrants must assimilate because they reside in Japan and interact with Japanese.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 1, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	455	89167.5	80831.3	8814	260897
pcgdp	455	.7604396	.427285	0	1
age	455	.1758242	.3810895	0	1
gender	455	.5142857	.500346	0	1
education	455	.3934066	.4890434	0	1
employment	455	.567033	.4960316	0	1
manager	455	.7538462	.4312434	0	1
finteraction	455	.6571429	.4751867	0	1
question4	455	.1252747	.3313945	0	1

2 . logistic question4 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	455
	LR chi2(7)	=	20.10
	Prob > chi2	=	0.0054
Log likelihood = -161.62178	Pseudo R2	=	0.0586

question4	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.221919	.4505639	0.54	0.587	.5931641 2.517155
age	1.698625	.6287004	1.43	0.152	.8223341 3.508706
gender	.8886889	.2856715	-0.37	0.714	.4732915 1.668672
education	1.654157	.4923967	1.69	0.091	.9229909 2.964529
employment	3.121442	1.182115	3.01	0.003	1.485931 6.557102
manager	1.418543	.5692483	0.87	0.384	.6460454 3.11474
finteraction	.9888543	.3135969	-0.04	0.972	.5311161 1.84109
_cons	.0334699	.0191301	-5.94	0.000	.0109179 .1026049

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	408	86519.92	77877.97	8814	260897
pcgdp	408	.2401961	.4277269	0	1
age	408	.8137255	.389806	0	1
gender	408	.5098039	.5005176	0	1
education	408	.6102941	.4882823	0	1
employment	408	.3946078	.4893664	0	1
manager	408	.2352941	.4247033	0	1
finteraction	408	.3504902	.4777093	0	1
question5	408	.2303922	.4216008	0	1

2 . logistic question5 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	408
	LR chi2(7)	=	23.52
	Prob > chi2	=	0.0014
Log likelihood = -208.45855	Pseudo R2	=	0.0534

question5	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.195051	.3330756	0.64	0.523	.6920635 2.063607
age	1.610356	.5359955	1.43	0.152	.8386977 3.091991
gender	.4920216	.1355498	-2.57	0.010	.2867358 .8442799
education	.7281523	.1813108	-1.27	0.203	.4469635 1.18624
employment	1.500993	.4166257	1.46	0.143	.8711908 2.586091
manager	.8595047	.2593939	-0.50	0.616	.4757296 1.552874
finteraction	1.799087	.4582476	2.31	0.021	1.092048 2.963894
_cons	.2230383	.0927675	-3.61	0.000	.0987057 .5039837

Note: \_cons estimates baseline odds.

3 .

Question #5. Could a foreign population change your culture and local way-of-life?

- (a) Foreign residents will not change my culture; they will only enrich it.
- (b) Foreign residents will not disrupt my culture entirely.
- (c) Foreign residents will disrupt my culture.
- (d) Foreign residents will disrupt my culture significantly.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 0, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	408	86519.92	77877.97	8814	260897
pcgdp	408	.7598039	.4277269	0	1
age	408	.1862745	.389806	0	1
gender	408	.4901961	.5005176	0	1
education	408	.3897059	.4882823	0	1
employment	408	.6053922	.4893664	0	1
manager	408	.7647059	.4247033	0	1
finteraction	408	.6421569	.4799542	0	1
question5	408	.129902	.3366083	0	1

2 . logistic question5 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	408
	LR chi2(7)	=	29.05
	Prob > chi2	=	0.0001
Log likelihood = -143.04611	Pseudo R2	=	0.0922

question5	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.287577	.5191281	0.63	0.531	.5842303 2.837674
age	1.820942	.716868	1.52	0.128	.8417733 3.939099
gender	.4376222	.1598676	-2.26	0.024	.2138687 .8954708
education	1.005544	.3230847	0.02	0.986	.5356823 1.887535
employment	3.933965	1.80987	2.98	0.003	1.596705 9.692512
manager	.7940593	.2950571	-0.62	0.535	.3833212 1.644913
finteraction	1.342172	.4534317	0.87	0.384	.6922188 2.602395
_cons	.0528157	.0320822	-4.84	0.000	.0160587 .173706

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	490	87836.07	79400.04	8814	260897
pcgdp	490	.2408163	.428016	0	1
age	490	.8142857	.3892734	0	1
gender	490	.477551	.5000063	0	1
education	490	.6122449	.4877362	0	1
employment	490	.4	.4903986	0	1
manager	490	.2244898	.4176723	0	1
finteraction	490	.3265306	.4694231	0	1
question6	490	.3734694	.4842195	0	1

2 . logistic question6 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	490
	LR chi2(7)	=	11.78
	Prob > chi2	=	0.1082
Log likelihood = -317.89255	Pseudo R2	=	0.0182

question6	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.8808498	.1986859	-0.56	0.574	.5661134 1.370567
age	1.15246	.2875655	0.57	0.570	.7066942 1.879405
gender	.7654729	.1627472	-1.26	0.209	.50461 1.161191
education	.751712	.1462901	-1.47	0.143	.5133338 1.100787
employment	.9637143	.2137764	-0.17	0.868	.6239217 1.488561
manager	.6335127	.1571859	-1.84	0.066	.3895443 1.030276
finteraction	.804748	.1673369	-1.04	0.296	.5353818 1.20964
_cons	.8812493	.268693	-0.41	0.678	.4848052 1.601881

Note: \_cons estimates baseline odds.

3 .

Question #6. Have you seen or heard about discriminatory demonstrations or street propaganda activities against foreigners living in Japan?

- (a) I have never heard of any.
- (b) I have heard on national or local news.
- (c) I have personally witnessed these demonstrations or street propaganda.
- (d) I have participated in, or have a strong following with them.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 0, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	490	87836.07	79400.04	8814	260897
pcgdp	490	.7591837	.428016	0	1
age	490	.1857143	.3892734	0	1
gender	490	.522449	.5000063	0	1
education	490	.3877551	.4877362	0	1
employment	490	.6	.4903986	0	1
manager	490	.7755102	.4176723	0	1
finteraction	490	.6653061	.4723656	0	1
question6	490	.0102041	.1006013	0	1

2 . logistic question6 pcgdp age gender education employment manager finteraction  
 note: employment != 1 predicts failure perfectly  
 employment dropped and 196 obs not used

note: manager != 1 predicts failure perfectly  
 manager dropped and 48 obs not used

Logistic regression	Number of obs	=	246
	LR chi2(5)	=	12.02
	Prob > chi2	=	0.0345
Log likelihood = -18.418372	Pseudo R2	=	0.2460

question6	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.3439104	.3505656	-1.05	0.295	.0466414 2.535824
age	25.07138	28.89151	2.80	0.005	2.619863 239.9262
gender	.6205193	.6225668	-0.48	0.634	.0868451 4.433691
education	1.289285	1.300951	0.25	0.801	.1784206 9.316494
employment	1	(omitted)			
manager	1	(omitted)			
finteraction	1.420405	1.687815	0.30	0.768	.138344 14.58357
_cons	.0082151	.0129532	-3.05	0.002	.0003737 .1806145

Note: \_cons estimates baseline odds.

3 .



1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	242	99854.74	83281.67	8814	260897
pcgdp	242	.2520661	.4350989	0	1
age	242	.838843	.3684377	0	1
gender	242	.6900826	.4634177	0	1
education	242	.6322314	.4831973	0	1
employment	242	.2561983	.4374374	0	1
manager	242	.2438017	.4302643	0	1
finteraction	242	.3305785	.4713964	0	1
question7	242	.9834711	.1277622	0	1

2 . logistic question7 pcgdp age gender education employment manager finteraction

note: pcgdp != 0 predicts success perfectly  
 pcgdp dropped and 61 obs not used

note: education != 1 predicts success perfectly  
 education dropped and 61 obs not used

note: finteraction != 1 predicts success perfectly  
 finteraction dropped and 76 obs not used

Logistic regression	Number of obs	=	44
	LR chi2(4)	=	5.83
	Prob > chi2	=	0.2124
Log likelihood = -10.490345	Pseudo R2	=	0.2174

question7	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
pcgdp	1 (omitted)					
age	12.51828	20.98805	1.51	0.132	.4681953	334.7051
gender	15.62961	22.39613	1.92	0.055	.9424031	259.2148
education	1 (omitted)					
employment	.1271325	.2244282	-1.17	0.243	.003996	4.044744
manager	2.294341	3.7356	0.51	0.610	.0943515	55.79137
finteraction	1 (omitted)					
_cons	.2238286	.4180546	-0.80	0.423	.0057556	8.704474

Note: \_cons estimates baseline odds.

3 .

Question #7. How did it make you feel when you saw or heard about the propaganda?

- (a) Uncomfortable.
- (b) Negative.
- (c) Negative, but curious.
- (d) Positive.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 1, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	242	99854.74	83281.67	8814	260897
pcgdp	242	.7479339	.4350989	0	1
age	242	.161157	.3684377	0	1
gender	242	.3099174	.4634177	0	1
education	242	.3677686	.4831973	0	1
employment	242	.7438017	.4374374	0	1
manager	242	.7561983	.4302643	0	1
finteraction	242	.661157	.4742974	0	1
question7	242	.0165289	.1277622	0	1

2 . logistic question7 pcgdp age gender education employment manager finteraction

note: pcgdp != 1 predicts failure perfectly  
 pcgdp dropped and 61 obs not used

note: education != 0 predicts failure perfectly  
 education dropped and 61 obs not used

note: finteraction != 0 predicts failure perfectly  
 finteraction dropped and 75 obs not used

Logistic regression	Number of obs	=	45
	LR chi2(4)	=	5.88
	Prob > chi2	=	0.2086
Log likelihood = -10.560017	Pseudo R2	=	0.2177

question7	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
pcgdp	1 (omitted)					
age	13.10013	22.12037	1.52	0.128	.478597	358.5761
gender	16.68591	23.94358	1.96	0.050	1.002101	277.8359
education	1 (omitted)					
employment	.1325194	.2385216	-1.12	0.261	.0038923	4.511872
manager	2.490362	4.103008	0.55	0.580	.0985965	62.90186
finteraction	1 (omitted)					
_cons	.066779	.1006737	-1.80	0.073	.0034785	1.281983

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	449	90219.4	80055.7	8814	260897
pcgdp	449	.2561247	.4369784	0	1
age	449	.8285078	.377359	0	1
gender	449	.5033408	.5005466	0	1
education	449	.6169265	.4866782	0	1
employment	449	.4075724	.491931	0	1
manager	449	.2383073	.4265233	0	1
finteraction	449	.3273942	.4697859	0	1
question8	449	.0445434	.2065292	0	1

2 . logistic question8 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	449
	LR chi2(7)	=	7.88
	Prob > chi2	=	0.3436
Log likelihood = -77.835388	Pseudo R2	=	0.0482

question8	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.2772976	.2110628	-1.69	0.092	.0623823 1.232625
age	1.116237	.7293449	0.17	0.866	.3101589 4.017245
gender	.3975419	.2174616	-1.69	0.092	.13607 1.161458
education	.7841952	.3672267	-0.52	0.604	.3131983 1.963491
employment	1.119255	.5824117	0.22	0.829	.4036464 3.10354
manager	1.075457	.6076835	0.13	0.898	.3553236 3.255081
finteraction	1.163673	.5749476	0.31	0.759	.4418446 3.064733
_cons	.0787295	.0615884	-3.25	0.001	.0169926 .3647662

Note: \_cons estimates baseline odds.

3 .

Question #8. Do you think the foreign care givers will be discriminated against?

- (a) I think the foreign migrants could be discriminated against (directly and indirectly).
- (b) I think the foreign migrants will be discriminated against (indirectly only).
- (c) Slight discrimination is an unfortunate part of migration.
- (d) I do not expect any cases of discrimination.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 0, (b) = 0, (c) = 0, (d) = 1

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	449	90219.4	80055.7	8814	260897
pcgdp	449	.7438753	.4369784	0	1
age	449	.1714922	.377359	0	1
gender	449	.4966592	.5005466	0	1
education	449	.3830735	.4866782	0	1
employment	449	.5924276	.491931	0	1
manager	449	.7616927	.4265233	0	1
finteraction	449	.6659243	.4721925	0	1
question8	449	.9554566	.2065292	0	1

2 . logistic question8 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	449
	LR chi2(7)	=	7.85
	Prob > chi2	=	0.3462
Log likelihood = -77.849722	Pseudo R2	=	0.0480

question8	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.2770518	.2108869	-1.69	0.092	.0623221 1.23163
age	1.113158	.7271065	0.16	0.870	.309427 4.004565
gender	.3974053	.2175103	-1.69	0.092	.1359405 1.161766
education	.7856149	.3677495	-0.52	0.606	.3138765 1.966349
employment	1.120059	.5829909	0.22	0.828	.4038224 3.106644
manager	1.07832	.6103902	0.13	0.894	.3555654 3.270212
finteraction	1.134465	.5616899	0.25	0.799	.4298818 2.993872
_cons	95.44795	95.04972	4.58	0.000	13.55553 672.0735

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	462	88445.76	78782.75	8814	260897
pcgdp	462	.2489177	.4328548	0	1
age	462	.8095238	.3931024	0	1
gender	462	.4978355	.5005373	0	1
education	462	.6017316	.490072	0	1
employment	462	.4155844	.4933567	0	1
manager	462	.2294372	.4209267	0	1
finteraction	462	.3354978	.472676	0	1
question9	462	.8376623	.36916	0	1

2 . logistic question9 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	462
	LR chi2(7)	=	59.38
	Prob > chi2	=	0.0000
Log likelihood = -175.21972	Pseudo R2	=	0.1449

question9	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.331151	.4511759	0.84	0.399	.6850522 2.586609
age	.6657182	.2779348	-0.97	0.330	.2937089 1.508911
gender	.3723593	.12177	-3.02	0.003	.1961552 .7068458
education	1.302231	.3659833	0.94	0.347	.750695 2.258981
employment	6.072139	2.662883	4.11	0.000	2.57072 14.34262
manager	.7479384	.2499662	-0.87	0.385	.3884976 1.439936
finteraction	1.129859	.3324678	0.41	0.678	.6346775 2.011386
_cons	7.144603	3.47991	4.04	0.000	2.75033 18.55972

Note: \_cons estimates baseline odds.

3 .

Question #9. Do you consider foreign residents to contribute value to your community?

- (a) Foreign residents bring value to the community (business, government, society).
- (b) Diversity is good. However, there are challenges for foreigners.
- (c) Foreign residents are good. However, they tend to take advantage of many opportunities in the local community. I wish they would be more respectful.
- (d) It is possible that foreign residents will weaken the local community.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	462	88445.76	78782.75	8814	260897
pcgdp	462	.7510823	.4328548	0	1
age	462	.1904762	.3931024	0	1
gender	462	.5021645	.5005373	0	1
education	462	.3982684	.490072	0	1
employment	462	.5844156	.4933567	0	1
manager	462	.7705628	.4209267	0	1
finteraction	462	.6580087	.4748909	0	1
question9	462	.1623377	.36916	0	1

2 . logistic question9 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	462
	LR chi2(7)	=	59.46
	Prob > chi2	=	0.0000
Log likelihood = -175.17682	Pseudo R2	=	0.1451

question9	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.330602	.4510834	0.84	0.399	.6846752 2.585898
age	.6656833	.2779057	-0.97	0.330	.293706 1.508768
gender	.3716337	.1215842	-3.03	0.002	.1957199 .7056596
education	1.30026	.3651951	0.93	0.350	.7498234 2.254765
employment	6.040579	2.651513	4.10	0.000	2.555309 14.27952
manager	.7452079	.2492287	-0.88	0.379	.3869012 1.43534
finteraction	1.160648	.3411757	0.51	0.612	.6523604 2.064969
_cons	.0629158	.0348692	-4.99	0.000	.0212328 .1864285

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	476	85720.97	77201.59	8814	260897
pcgdp	476	.2478992	.4322472	0	1
age	476	.8151261	.3886037	0	1
gender	476	.4894958	.5004156	0	1
education	476	.6134454	.4874724	0	1
employment	476	.4201681	.494105	0	1
manager	476	.2436975	.4297639	0	1
finteraction	476	.3256303	.4691029	0	1
question10	476	.789916	.4077966	0	1

2 . logistic question10 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	476
	LR chi2(7)	=	18.89
	Prob > chi2	=	0.0085
Log likelihood = -235.24938	Pseudo R2	=	0.0386

question10	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.34338	.3872682	1.02	0.306	.7635109 2.363645
age	.9124139	.2858679	-0.29	0.770	.4937447 1.686092
gender	1.240887	.319877	0.84	0.402	.7487015 2.056628
education	.8342541	.2027713	-0.75	0.456	.5180932 1.343349
employment	2.474021	.7000543	3.20	0.001	1.420841 4.307857
manager	1.142382	.3348976	0.45	0.650	.6430952 2.029305
finteraction	1.438285	.3793235	1.38	0.168	.857738 2.411765
_cons	2.403353	.8967429	2.35	0.019	1.156687 4.993663

Note: \_cons estimates baseline odds.

3 .

Question #10. Would you be open to receiving care from a foreign caregiver?

- (a) I am open to receiving care from a foreign caregiver.
- (b) I have a few reservations, but am open to receiving care.
- (c) I would be respectful, but would have bias or uncomfortableness.
- (d) I would not be open to receiving care from a foreign caregiver.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	476	85720.97	77201.59	8814	260897
pcgdp	476	.7521008	.4322472	0	1
age	476	.1848739	.3886037	0	1
gender	476	.5105042	.5004156	0	1
education	476	.3865546	.4874724	0	1
employment	476	.5798319	.494105	0	1
manager	476	.7563025	.4297639	0	1
finteraction	476	.6680672	.4714024	0	1
question10	476	.210084	.4077966	0	1

2 . logistic question10 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	476
	LR chi2(7)	=	18.51
	Prob > chi2	=	0.0099
Log likelihood = -235.44256	Pseudo R2	=	0.0378

question10	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.342523	.3869057	1.02	0.307	.7631524 2.36174
age	.908425	.2843674	-0.31	0.759	.4918521 1.677813
gender	1.244025	.3207484	0.85	0.397	.7505208 2.062032
education	.8393323	.2037697	-0.72	0.471	.521534 1.350782
employment	2.47811	.7017342	3.20	0.001	1.422601 4.316761
manager	1.143454	.3351615	0.46	0.647	.6437549 2.031034
finteraction	1.381407	.3606102	1.24	0.216	.8281694 2.30422
_cons	.0828639	.035738	-5.77	0.000	.0355839 .1929642

Note: \_cons estimates baseline odds.

3 .



1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	356	90383.62	79892.35	8814	260897
pcgdp	356	.238764	.4269283	0	1
age	356	.8202247	.3845406	0	1
gender	356	.5533708	.4978431	0	1
education	356	.6011236	.4903564	0	1
employment	356	.3483146	.4771069	0	1
manager	356	.241573	.4286392	0	1
finteraction	356	.3314607	.4714008	0	1
question11	356	.6235955	.4851653	0	1

2 . logistic question11 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	356
	LR chi2(7)	=	5.97
	Prob > chi2	=	0.5431
Log likelihood = -232.78468	Pseudo R2	=	0.0127

question11	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.518243	.4100562	1.55	0.122	.8942181 2.577739
age	1.535703	.4474063	1.47	0.141	.8676035 2.718274
gender	.8827787	.2160995	-0.51	0.611	.5463642 1.426335
education	.9585492	.2207586	-0.18	0.854	.6103494 1.505395
employment	1.180569	.3075281	0.64	0.524	.7085341 1.96708
manager	.9790754	.2654623	-0.08	0.938	.5754731 1.66574
finteraction	1.230217	.295226	0.86	0.388	.7686199 1.969029
_cons	1.036047	.3812574	0.10	0.923	.5036672 2.131155

Note: \_cons estimates baseline odds.

3 .

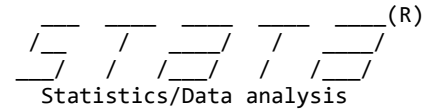
Question #11. Do you consider foreign care quality the same as from a domestic Japanese worker?

- (a) It is my opinion that foreign care quality is better than domestic care.
- (b) I believe domestic and foreign care are both identical.
- (c) I believe foreign care is slightly behind domestic care.
- (d) I believe foreign care is inferior to domestic care.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.



User: Question #11 Negative Results  
Project: Ph.D. Dissertation

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	356	90383.62	79892.35	8814	260897
pcgdp	356	.761236	.4269283	0	1
age	356	.1797753	.3845406	0	1
gender	356	.4466292	.4978431	0	1
education	356	.3988764	.4903564	0	1
employment	356	.6516854	.4771069	0	1
manager	356	.758427	.4286392	0	1
finteraction	356	.6573034	.475279	0	1
question11	356	.3764045	.4851653	0	1

2 . logistic question11 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	356
	LR chi2(7)	=	5.43
	Prob > chi2	=	0.6077
Log likelihood = -233.05566	Pseudo R2	=	0.0115

question11	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.513709	.4086367	1.54	0.125	.8917729 2.569392
age	1.520997	.4422342	1.44	0.149	.8602788 2.689166
gender	.8833331	.2160573	-0.51	0.612	.5469232 1.426667
education	.969122	.2227045	-0.14	0.891	.6176921 1.520494
employment	1.187282	.3092221	0.66	0.510	.7126269 1.978087
manager	.9865263	.2675642	-0.05	0.960	.5797584 1.678689
finteraction	1.114128	.263797	0.46	0.648	.7004748 1.772058
_cons	.3646536	.1423863	-2.58	0.010	.1696336 .7838793

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	297	85578.49	78555.32	8814	260897
pcgdp	297	.2525253	.4351941	0	1
age	297	.8013468	.3996597	0	1
gender	297	.4545455	.49877	0	1
education	297	.6195286	.4863222	0	1
employment	297	.4949495	.5008183	0	1
manager	297	.2626263	.4408037	0	1
finteraction	297	.3838384	.4871401	0	1
question12	297	.1818182	.3863456	0	1

2 . logistic question12 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	297
	LR chi2(7)	=	45.00
	Prob > chi2	=	0.0000
Log likelihood = -118.31936	Pseudo R2	=	0.1598

question12	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.369235	.5397558	0.80	0.425	.6323131 2.964993
age	.7230575	.2941	-0.80	0.425	.3257999 1.604703
gender	.8416118	.3065779	-0.47	0.636	.4121361 1.718632
education	1.51927	.5433421	1.17	0.242	.7537318 3.06234
employment	.0985627	.0461855	-4.94	0.000	.0393413 .2469318
manager	.9606947	.4232374	-0.09	0.927	.4051218 2.278165
finteraction	.5182103	.1889058	-1.80	0.071	.2536375 1.058763
_cons	.5914765	.29768	-1.04	0.297	.2205679 1.586108

Note: \_cons estimates baseline odds.

3 .

Question #12. Does your primary caregiver appear stressed, or have you heard or seen anything negative about your primary caregiver workload?

- (a) I have heard my caregiver express concerns about the lack of support.
- (b) I have seen stress from my caregiver.
- (c) I have not witnessed any issues with my caregiver's workload.
- (d) My caregiver appears relaxed with normal (minimal) stress.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 0, (b) = 0, (c) = 1, (d) = 1

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	297	85578.49	78555.32	8814	260897
pcgdp	297	.7474747	.4351941	0	1
age	297	.1986532	.3996597	0	1
gender	297	.5454545	.49877	0	1
education	297	.3804714	.4863222	0	1
employment	297	.5050505	.5008183	0	1
manager	297	.7373737	.4408037	0	1
finteraction	297	.6060606	.4894464	0	1
question12	297	.8181818	.3863456	0	1

2 . logistic question12 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	297
	LR chi2(7)	=	44.22
	Prob > chi2	=	0.0000
Log likelihood = -118.7097	Pseudo R2	=	0.1570

question12	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.380795	.5435188	0.82	0.412	.638371 2.986658
age	.7314458	.2965716	-0.77	0.441	.330411 1.619235
gender	.8334701	.3031032	-0.50	0.616	.4086378 1.699971
education	1.503709	.5365214	1.14	0.253	.7472336 3.026017
employment	.0982823	.0460871	-4.95	0.000	.0392035 .2463916
manager	.9458271	.4157696	-0.13	0.899	.3996115 2.238647
finteraction	.5653716	.2024331	-1.59	0.111	.2802584 1.140537
_cons	25.85349	15.89927	5.29	0.000	7.745524 86.29539

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	563	89922.39	80457.61	8814	260897
pcgdp	563	.2486679	.4326252	0	1
age	563	.8152753	.3884192	0	1
gender	563	.4724689	.4996854	0	1
education	563	.5879218	.4926468	0	1
employment	563	.3889876	.487954	0	1
manager	563	.2291297	.4206466	0	1
finteraction	563	.3055062	.4610311	0	1
question13	563	.3410302	.4744771	0	1

2 . logistic question13 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	563
	LR chi2(7)	=	87.26
	Prob > chi2	=	0.0000
Log likelihood = -317.65717	Pseudo R2	=	0.1208

question13	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.186589	.2659704	0.76	0.445	.7647262 1.841173
age	1.290963	.3355573	0.98	0.326	.7756448 2.148646
gender	3.327013	.7423258	5.39	0.000	2.148492 5.151993
education	1.65203	.3345813	2.48	0.013	1.110775 2.457024
employment	1.323524	.3091425	1.20	0.230	.8373604 2.091951
manager	1.317333	.2995082	1.21	0.225	.8436592 2.056953
finteraction	2.923165	.5974196	5.25	0.000	1.958347 4.363319
_cons	.0922614	.0317034	-6.94	0.000	.0470463 .1809316

Note: \_cons estimates baseline odds.

3.

Question #13. Are you knowledgeable with the current Economic Partnership Agreement (EPA)?

- (a) I fully understand what the Economic Partnership Agreement is.
- (b) I have heard what the Economic Partnership Agreement is.
- (c) I am unaware of this international agreement.
- (d) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	563	89922.39	80457.61	8814	260897
pcgdp	563	.7513321	.4326252	0	1
age	563	.1847247	.3884192	0	1
gender	563	.5275311	.4996854	0	1
education	563	.4120782	.4926468	0	1
employment	563	.6110124	.487954	0	1
manager	563	.7708703	.4206466	0	1
finteraction	563	.687389	.4639695	0	1
question13	563	.6589698	.4744771	0	1

2 . logistic question13 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	563
	LR chi2(7)	=	88.15
	Prob > chi2	=	0.0000
Log likelihood = -317.21382	Pseudo R2	=	0.1220

question13	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.178762	.2639855	0.73	0.463	.7599728 1.828327
age	1.279873	.3327272	0.95	0.343	.7689193 2.130359
gender	3.313262	.7389623	5.37	0.000	2.139986 5.129803
education	1.672137	.3387577	2.54	0.011	1.124158 2.487233
employment	1.310852	.3064065	1.16	0.247	.8290651 2.072615
manager	1.299016	.2962086	1.15	0.251	.830843 2.031001
finteraction	2.959856	.602668	5.33	0.000	1.985885 4.411509
_cons	.2577187	.0850866	-4.11	0.000	.1349333 .4922352

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	288	84796.35	75295.43	8814	260897
pcgdp	288	.25	.4337664	0	1
age	288	.8402778	.3669859	0	1
gender	288	.5347222	.4996611	0	1
education	288	.6527778	.4769158	0	1
employment	288	.4305556	.4960159	0	1
manager	288	.2673611	.4433527	0	1
finteraction	288	.3680556	.483116	0	1
question14	288	.40625	.4919872	0	1

2 . logistic question14 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	288
	LR chi2(7)	=	11.64
	Prob > chi2	=	0.1129
Log likelihood = -188.71153	Pseudo R2	=	0.0299

question14	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.008997	.28963	0.03	0.975	.5748501 1.771027
age	.8645593	.2944743	-0.43	0.669	.4434761 1.685464
gender	.897374	.2559443	-0.38	0.704	.5130956 1.569454
education	.708098	.1842859	-1.33	0.185	.4251714 1.179296
employment	1.5017	.4388629	1.39	0.164	.8468853 2.66282
manager	1.105666	.3182142	0.35	0.727	.6289927 1.94358
finteraction	1.711037	.4394671	2.09	0.037	1.034272 2.830637
_cons	.6768331	.3147722	-0.84	0.401	.2720298 1.684018

Note: \_cons estimates baseline odds.

3 .

Question #14. Do you feel the local government has provided enough support for foreign caregivers?

- (a) Foreign residents have ample resources and a positive support structure.
- (b) Reasonable, but government could do more to help.
- (c) Not enough support is provided from the local government.
- (d) There is no support from the local government.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	288	84796.35	75295.43	8814	260897
pcgdp	288	.75	.4337664	0	1
age	288	.1597222	.3669859	0	1
gender	288	.4652778	.4996611	0	1
education	288	.3472222	.4769158	0	1
employment	288	.5694444	.4960159	0	1
manager	288	.7326389	.4433527	0	1
finteraction	288	.625	.4849656	0	1
question14	288	.59375	.4919872	0	1

2 . logistic question14 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	288
	LR chi2(7)	=	11.67
	Prob > chi2	=	0.1118
Log likelihood = -188.6968	Pseudo R2	=	0.0300

question14	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.013815	.2911621	0.05	0.962	.5774282 1.779996
age	.8606421	.2929679	-0.44	0.659	.4416399 1.677169
gender	.8851474	.2526843	-0.43	0.669	.5058501 1.54885
education	.7102093	.1847477	-1.32	0.188	.4265423 1.182526
employment	1.479766	.4331168	1.34	0.181	.8337822 2.626235
manager	1.093583	.3156028	0.31	0.757	.6211538 1.925327
finteraction	1.716108	.4417482	2.10	0.036	1.036178 2.842201
_cons	.9580468	.4027036	-0.10	0.919	.4203337 2.183631

Note: \_cons estimates baseline odds.

3 .



1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	298	88694.55	77006.11	8814	260897
pcgdp	298	.238255	.4267325	0	1
age	298	.8221477	.3830316	0	1
gender	298	.5738255	.4953516	0	1
education	298	.6375839	.4815067	0	1
employment	298	.3758389	.4851535	0	1
manager	298	.2483221	.4327664	0	1
finteraction	298	.385906	.4876274	0	1
question15	298	.4362416	.4967524	0	1

2 . logistic question15 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	298
	LR chi2(7)	=	17.00
	Prob > chi2	=	0.0174
Log likelihood = -195.62622	Pseudo R2	=	0.0417

question15	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.7065794	.2062636	-1.19	0.234	.3987305 1.25211
age	.5250769	.1681015	-2.01	0.044	.2803585 .9834042
gender	.6457833	.180346	-1.57	0.117	.373572 1.116347
education	1.083837	.2765217	0.32	0.752	.657348 1.787034
employment	1.570062	.4480891	1.58	0.114	.8974027 2.746921
manager	1.495615	.4324175	1.39	0.164	.8486281 2.635859
finteraction	.8543711	.2156965	-0.62	0.533	.520895 1.401338
_cons	1.397846	.5834692	0.80	0.422	.6168264 3.167787

Note: \_cons estimates baseline odds.

3 .

Question #15. Do you feel like the national government has provided enough support for foreign workers?

- (a) National government provides ample programs.
- (b) Reasonable, but national government could do more to help.
- (c) Not enough support is provided from the national government.
- (d) There is no support from the national government.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	298	88694.55	77006.11	8814	260897
pcgdp	298	.761745	.4267325	0	1
age	298	.1778523	.3830316	0	1
gender	298	.4261745	.4953516	0	1
education	298	.3624161	.4815067	0	1
employment	298	.6241611	.4851535	0	1
manager	298	.7516779	.4327664	0	1
finteraction	298	.6073826	.4891543	0	1
question15	298	.5637584	.4967524	0	1

2 . logistic question15 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	298
	LR chi2(7)	=	17.02
	Prob > chi2	=	0.0173
Log likelihood = -195.62044	Pseudo R2	=	0.0417

question15	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.7054556	.2059798	-1.19	0.232	.3980475 1.250272
age	.5254449	.1681701	-2.01	0.044	.2806065 .9839129
gender	.6480695	.1810892	-1.55	0.121	.3747757 1.120654
education	1.082431	.2758951	0.31	0.756	.6568132 1.78385
employment	1.577537	.4514068	1.59	0.111	.9003491 2.764063
manager	1.501202	.4348212	1.40	0.161	.8509221 2.64843
finteraction	.8522808	.2153604	-0.63	0.527	.5193917 1.398525
_cons	1.365881	.5623263	0.76	0.449	.6095056 3.060894

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	352	87729.36	79429.26	8814	260897
pcgdp	352	.2471591	.4319741	0	1
age	352	.8153409	.3885731	0	1
gender	352	.5227273	.5001942	0	1
education	352	.6477273	.4783584	0	1
employment	352	.4204545	.4943346	0	1
manager	352	.2471591	.4319741	0	1
finteraction	352	.375	.4848121	0	1
question16	352	.46875	.4997328	0	1

2 . logistic question16 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	352
	LR chi2(7)	=	10.92
	Prob > chi2	=	0.1423
Log likelihood = -237.84108	Pseudo R2	=	0.0224

question16	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.204296	.3103067	0.72	0.471	.7267869 1.995535
age	.8189631	.2340783	-0.70	0.485	.4677045 1.434026
gender	.6990216	.1726145	-1.45	0.147	.4308214 1.134185
education	.9665623	.2225331	-0.15	0.883	.6155402 1.517761
employment	1.320275	.3406133	1.08	0.282	.79628 2.189087
manager	1.479372	.3921241	1.48	0.140	.8799474 2.487126
finteraction	.9247048	.2116513	-0.34	0.732	.5904398 1.448207
_cons	1.013745	.383682	0.04	0.971	.482799 2.128587

Note: \_cons estimates baseline odds.

3 .

Question #16. Is community infrastructure supportive enough for foreign residents (schools, public transportation, medical, shopping, Internet, banking, etc.)?

- (a) Community has sufficient infrastructure in place for foreign residents.
- (b) Community has appropriate infrastructure in place, but could improve in areas.
- (c) Improvement is needed in many sectors (schools, public transport, shopping, Internet)
- (d) We do not have appropriate infrastructure in place.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	352	87729.36	79429.26	8814	260897
pcgdp	352	.7528409	.4319741	0	1
age	352	.1846591	.3885731	0	1
gender	352	.4772727	.5001942	0	1
education	352	.3522727	.4783584	0	1
employment	352	.5795455	.4943346	0	1
manager	352	.7528409	.4319741	0	1
finteraction	352	.6193182	.4862457	0	1
question16	352	.53125	.4997328	0	1

2 . logistic question16 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	352
	LR chi2(7)	=	11.14
	Prob > chi2	=	0.1328
Log likelihood = -237.73186	Pseudo R2	=	0.0229

question16	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.205811	.3106926	0.73	0.468	.7277061 1.998031
age	.817361	.2336305	-0.71	0.480	.4667782 1.431256
gender	.7020888	.1735415	-1.43	0.152	.4325069 1.139701
education	.9715135	.22363	-0.13	0.900	.6187471 1.525403
employment	1.330554	.3440207	1.10	0.269	.8015864 2.208586
manager	1.492201	.3963952	1.51	0.132	.8865638 2.511565
finteraction	.8757507	.2007938	-0.58	0.563	.5587472 1.372605
_cons	.8343777	.2952391	-0.51	0.609	.4170332 1.669378

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	454	88115.3	80387.5	8814	260897
pcgdp	454	.2511013	.4341251	0	1
age	454	.8215859	.3832833	0	1
gender	454	.4669604	.4994576	0	1
education	454	.623348	.485081	0	1
employment	454	.4427313	.4972574	0	1
manager	454	.2378855	.4262584	0	1
finteraction	454	.3325991	.471664	0	1
question17	454	.6894273	.4632386	0	1

2 . logistic question17 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	454
	LR chi2(7)	=	10.03
	Prob > chi2	=	0.1870
Log likelihood = -276.26522	Pseudo R2	=	0.0178

question17	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.8222245	.1960509	-0.82	0.412	.5152645 1.31205
age	1.662342	.4407355	1.92	0.055	.9886482 2.795109
gender	.7876424	.1810784	-1.04	0.299	.5019246 1.236003
education	1.239301	.2661156	1.00	0.318	.8135752 1.887798
employment	1.446402	.347817	1.53	0.125	.9028183 2.317277
manager	.8133982	.2048759	-0.82	0.412	.4964843 1.332603
finteraction	1.152563	.2596387	0.63	0.528	.741163 1.792319
_cons	1.302329	.4416967	0.78	0.436	.6699275 2.531707

Note: \_cons estimates baseline odds.

3 .

Question #17. Do you think community senior care demands are increase in your community?

- (a) Demand for senior care is increasing greatly.
- (b) Demand for senior care is increasing very slightly.
- (c) Demand for senior care has stabilized; no growth at this time.
- (d) Demand for senior care is decreasing in my community.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 0, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	454	88115.3	80387.5	8814	260897
pcgdp	454	.7488987	.4341251	0	1
age	454	.1784141	.3832833	0	1
gender	454	.5330396	.4994576	0	1
education	454	.376652	.485081	0	1
employment	454	.5572687	.4972574	0	1
manager	454	.7621145	.4262584	0	1
finteraction	454	.6629956	.4732078	0	1
question17	454	.3105727	.4632386	0	1

2 . logistic question17 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	454
	LR chi2(7)	=	9.73
	Prob > chi2	=	0.2042
Log likelihood = -276.41291	Pseudo R2	=	0.0173

question17	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.823664	.1963781	-0.81	0.416	.5161864 1.314297
age	1.654766	.4384485	1.90	0.057	.9844672 2.781453
gender	.7920813	.181993	-1.01	0.310	.5048855 1.242643
education	1.249657	.2681821	1.04	0.299	.8205768 1.903104
employment	1.45676	.3502692	1.56	0.118	.9093309 2.33375
manager	.8190185	.2062875	-0.79	0.428	.4999196 1.341798
finteraction	1.074773	.2401523	0.32	0.747	.6936184 1.66538
_cons	.4380667	.1497549	-2.41	0.016	.2241576 .8561048

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	459	89320.39	80030.1	8814	260897
pcgdp	459	.2418301	.4286591	0	1
age	459	.8213508	.3834763	0	1
gender	459	.4684096	.4995455	0	1
education	459	.5991285	.4906098	0	1
employment	459	.4139434	.493076	0	1
manager	459	.2222222	.4161933	0	1
finteraction	459	.3224401	.4679204	0	1
question18	459	.2135076	.4102301	0	1

2 . logistic question18 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	459
	LR chi2(7)	=	54.23
	Prob > chi2	=	0.0000
Log likelihood = -210.90965	Pseudo R2	=	0.1139

question18	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.174767	.3455426	0.55	0.584	.6600576 2.090845
age	4.511817	2.202872	3.09	0.002	1.732832 11.74753
gender	.9354006	.2483444	-0.25	0.801	.5559141 1.573938
education	.7784108	.1966235	-0.99	0.321	.4744589 1.277083
employment	.1861098	.0621816	-5.03	0.000	.0966879 .3582337
manager	.9342326	.2964769	-0.21	0.830	.5015657 1.740132
finteraction	1.455844	.3835731	1.43	0.154	.8686553 2.439956
_cons	.1230492	.0641555	-4.02	0.000	.0442872 .3418843

Note: \_cons estimates baseline odds.

3 .

Question #18. Do you feel you have enough money for your care now, or in the future?

- (a) I am prepared for all senior care expenses that I may pay.
- (b) I am prepared for minor senior care deductibles, or minor expenses.
- (c) I am saving right now, or I have a small amount saved.
- (d) I don't have enough, or I am planning to start saving.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 0, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	459	89320.39	80030.1	8814	260897
pcgdp	459	.7581699	.4286591	0	1
age	459	.1786492	.3834763	0	1
gender	459	.5315904	.4995455	0	1
education	459	.4008715	.4906098	0	1
employment	459	.5860566	.493076	0	1
manager	459	.7777778	.4161933	0	1
finteraction	459	.671024	.4703539	0	1
question18	459	.2156863	.4117464	0	1

2 . logistic question18 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	459
	LR chi2(7)	=	53.22
	Prob > chi2	=	0.0000
Log likelihood = -212.70984	Pseudo R2	=	0.1112

question18	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	.8039374	.2338163	-0.75	0.453	.4546317 1.421624
age	.216724	.1056998	-3.14	0.002	.0833225 .5637049
gender	1.102509	.2917353	0.37	0.712	.6563651 1.851906
education	1.250481	.3141495	0.89	0.374	.7642509 2.046061
employment	5.184557	1.703134	5.01	0.000	2.72327 9.870351
manager	1.005615	.3146078	0.02	0.986	.5446688 1.856655
finteraction	.6496718	.16889	-1.66	0.097	.3903138 1.08137
_cons	.1426653	.0644288	-4.31	0.000	.058872 .3457226

Note: \_cons estimates baseline odds.

3 .



1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	391	87146.63	78567.99	8814	260897
pcgdp	391	.2608696	.4396715	0	1
age	391	.797954	.4020408	0	1
gender	391	.5063939	.5005997	0	1
education	391	.6112532	.4880902	0	1
employment	391	.4143223	.4932358	0	1
manager	391	.2531969	.4353999	0	1
finteraction	391	.3554987	.4792774	0	1
question19	391	.7953964	.4039285	0	1

2 . logistic question19 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	391
	LR chi2(7)	=	23.00
	Prob > chi2	=	0.0017
Log likelihood = -186.62629	Pseudo R2	=	0.0580

question19	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.033372	.3129473	0.11	0.914	.5707923 1.870835
age	2.18662	.6722154	2.54	0.011	1.197003 3.9944
gender	1.204077	.3453899	0.65	0.517	.6862569 2.112621
education	1.163387	.3120777	0.56	0.573	.6876854 1.96815
employment	2.879333	.9140436	3.33	0.001	1.545533 5.364209
manager	1.445436	.5021707	1.06	0.289	.731604 2.85576
finteraction	1.327985	.3781434	1.00	0.319	.7600005 2.320452
_cons	1.019565	.385645	0.05	0.959	.485794 2.13982

Note: \_cons estimates baseline odds.

3 .

Question #19. Do you see any advantages to receiving care from foreign caregivers?

- (a) I believe there are many advantages.
- (b) I believe there are several advantages.
- (c) I see foreign care as similar to Japanese care.
- (d) I do not see any advantages and see a few disadvantages.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 1, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	391	87146.63	78567.99	8814	260897
pcgdp	391	.7391304	.4396715	0	1
age	391	.202046	.4020408	0	1
gender	391	.4936061	.5005997	0	1
education	391	.3887468	.4880902	0	1
employment	391	.5856777	.4932358	0	1
manager	391	.7468031	.4353999	0	1
finteraction	391	.6342711	.482251	0	1
question19	391	.2046036	.4039285	0	1

2 . logistic question19 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	391
	LR chi2(7)	=	23.42
	Prob > chi2	=	0.0014
Log likelihood = -186.41489	Pseudo R2	=	0.0591

question19	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.024833	.310572	0.08	0.935	.5658477 1.856123
age	2.184418	.6717396	2.54	0.011	1.195582 3.991098
gender	1.203948	.3455055	0.65	0.518	.6860126 2.11292
education	1.164773	.3122532	0.57	0.569	.6887329 1.969845
employment	2.875818	.9136535	3.32	0.001	1.542882 5.36031
manager	1.43377	.4983413	1.04	0.300	.7254778 2.833578
finteraction	1.399112	.396864	1.18	0.236	.8024267 2.439492
_cons	.054959	.0265964	-5.99	0.000	.021287 .1418936

Note: \_cons estimates baseline odds.

3 .

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	468	88117.49	78623.85	8814	260897
pcgdp	468	.2606838	.4394775	0	1
age	468	.8119658	.3911576	0	1
gender	468	.482906	.5002424	0	1
education	468	.6068376	.4889751	0	1
employment	468	.4188034	.493891	0	1
manager	468	.241453	.4284223	0	1
finteraction	468	.3354701	.4726598	0	1
question20	468	.8888889	.314606	0	1

2 . logistic question20 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	468
	LR chi2(7)	=	4.77
	Prob > chi2	=	0.6875
Log likelihood = -160.86634	Pseudo R2	=	0.0146

question20	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.300733	.4727542	0.72	0.469	.6379951 2.651912
age	1.448826	.528817	1.02	0.310	.7084848 2.962799
gender	1.019031	.3360604	0.06	0.954	.5339179 1.944914
education	.7414365	.2358632	-0.94	0.347	.3974593 1.383105
employment	1.563086	.5573847	1.25	0.210	.7770533 3.144234
manager	1.137232	.4292801	0.34	0.733	.5426741 2.383191
finteraction	1.022597	.3284635	0.07	0.945	.5448714 1.919176
_cons	5.462563	2.599221	3.57	0.000	2.14968 13.88094

Note: \_cons estimates baseline odds.

3 .

Question #20. How do you feel about your family members receiving care from foreigner caregivers, or how do think your family members will feel about you receiving care from foreign caregivers?

- (a) I think it is positive.
- (b) I do not think it will be bad
- (c) I do not have an opinion on it.
- (d) I feel negatively about it.
- (e) I don't know or not applicable.

### Binary Calculation

(a) = 1, (b) = 1, (c) = 1, (d) = 0

\* Selections of (d) "I don't know or not applicable" have been omitted from the statistical analysis.

1 . summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
Population	468	88117.49	78623.85	8814	260897
pcgdp	468	.7393162	.4394775	0	1
age	468	.1880342	.3911576	0	1
gender	468	.517094	.5002424	0	1
education	468	.3931624	.4889751	0	1
employment	468	.5811966	.493891	0	1
manager	468	.758547	.4284223	0	1
finteraction	468	.6559829	.475555	0	1
question20	468	.1111111	.314606	0	1

2 . logistic question20 pcgdp age gender education employment manager finteraction

Logistic regression	Number of obs	=	468
	LR chi2(7)	=	4.80
	Prob > chi2	=	0.6844
Log likelihood = -160.8537	Pseudo R2	=	0.0147

question20	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
pcgdp	1.297402	.4717687	0.72	0.474	.6361448 2.646021
age	1.450811	.5293887	1.02	0.308	.7096012 2.966246
gender	1.016734	.3354156	0.05	0.960	.5325988 1.940951
education	.7400109	.235197	-0.95	0.343	.3969186 1.379669
employment	1.557551	.5556241	1.24	0.214	.7740942 3.133941
manager	1.132474	.4278166	0.33	0.742	.5400932 2.374587
finteraction	1.057176	.3393805	0.17	0.862	.5634949 1.983375
_cons	.0698169	.0367818	-5.05	0.000	.0248611 .1960657

Note: \_cons estimates baseline odds.

3 .