Marriage Possibility and People's Productivity in Farm Households

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Abstract

This paper examines marriage premiums of Korean farmers with a native Korean spouse and farmers with a foreign spouse. Decline of marriage rate and increase in average age of first marriage are major causes of demographic changes in Korea. The issue of increasing unmarried population has been more problematic in rural areas resulting rural exodus of young generation. To remedy this problem, Korean government started a program called 'finding a spouse for bachelor farmers' in the early 1990s. Introduction of foreign brides increased the number of marriage in rural areas and local municipalities have been encouraging bachelor farmers to find a spouse outside of countries since then. This paper aims to explain how the changes in marital possibility affect Korean farmers' per unit productivity to explain the impact of marital status and nationality of a spouse on the individual farmer's productivity using Korean Agriculture, Forestry and Fishery Survey data.

Introduction

Korea is aging faster than any other OECD country and its fertility rate[1] is one of the lowest with 1.05 in 2017. Demographic changes already became one of the biggest threats to the country. Decline of marriage rate and increase in average age of first marriage are major reasons. More Koreans get married late or even not at all and have no or one kid. According to 2015 South Korea Population and Housing Census (SKPHS), 91.3 percent of people in their twenties, 36.3 percent of people in their thirties and 13.6 percent of people in their forties are unmarried. Figure 1 and Table 1 show the ratio of unmarried population from 1985 to 2015 using SKPHS data. The ratio of unmarried people especially in their twenties to forties increased drastically. The ratio increased by 31.7 percentage points for the people in their twenties, 31.6 percentage points for the people in their thirties, and 12.9 percentage points for the people in their forties.

The issue of increasing unmarried population has been more problematic in rural areas. An imbalance in gender ratio due to a long-standing cultural preference for son, an increase in female labor market participation and drastic urbanization left a group of Korean men who were unable to find a native Korean spouse behind in the marriage market. Figure 2 and Table 2 show the ratio of unmarried farm household population from 2010 to 2017 using Korean Agriculture, Forestry and Fishery Survey (KAFFS) data. Compare to national average ratio of unmarried population, 92.5 percent of people from farm households in their twenties, 54.3 percent of people from farm households in their thirties, and 13.8 percent

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[1] The average number of children a woman bears in her lifetime.

of people from farm households in their forties are not married in 2015. The ratio of unmarried farm household population increased even more in 2017.

Young farmers' rural exodus has become a severe social problem and having difficulty in finding a spouse is clearly one of main reasons. To remedy this rural exodus, Korean government started a program called 'finding a spouse for bachelor farmers' in the early 1990s. Korean government encouraged bachelor farmers to find Korean-Chinese wives and stay in their towns. From late 1990s, the number of international marriage of Korean men and Korean-Chinese women started to decrease as the government complicated marriage procedures between Korean-Chinese couple in 1996 due to 'fake-marriage' problems[2]. Figure 3 shows the ratio of international marriage in Korea from 2000 to 2017. From 2003, the number of international marriage increased rapidly as the procedure of marriage between Korean and Chinese became simplified and bachelor farmers started to find wives from Southeast Asian countries including Vietnam and Philippines. From the mid-2000s, some rural municipalities started to encourage the international marriage and providing financial supports[3] to Korean farmers who are marrying to foreign spouses.

In this paper, I will present on how the changes in marital possibility affect Korean farmers' per unit productivity. Introduction of foreign brides increased the number of marriage in rural areas and local municipalities are encouraging bachelor farmers to find a spouse outside of countries. Some argue that the cultural atmosphere in rural areas where people believe that everyone must get marriage is the essence of people's effort to find a spouse. My hypothesis is that there is something beyond the culture. People are eagerly looking for a life partner because an increase in the marriage possibility improves farmers' productivity. I will compare per unit productivities of unmarried farmers, farmers with a native Korean spouse and farmers with a foreign spouse to explain the impact of marital status and nationality of a spouse on individual farmers' productivity. If marriages positively affect farmers' productivity, rural municipalities need to support bachelor farmers' marriage even further. If a spouse's nationality affects productivity that farmers with native Korean wives have higher productivity level, rural municipalities need to invest on foreign spouses' education programs and provide a favorable environment for Korean women to settle down.

Data

I will be using Korean Agriculture, Forestry and Fishery Survey (KAFFS) data. From 2011, Statistics Korea started to collect the information on a type of marriage to track international marriages. KAFFS data is an annually collected data and I will be using the information from 2011 to 2016. Target population is households cultivating agricultural area of 10a (1,000 ㎡) or larger themselves, whose annual sales of agricultural and livestock products that they produce themselves are 1.2 million KRW or higher and that keep on farming and whose appraised value of livestock that they raise is over 1.2 million KRW as of the survey period. Survey sample size is 2600 households.

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[2] During that time, Korean-Chinese wives were able to get Korean citizenship after six months of marriage which led to 'fake-marriage' problems.

[3] Rural municipalities' financial supports range from 3000 dollars to 10000 dollars.

Empirical strategy

My basic model estimates the effect of marital status and nationality of spouse on per unit productivity.

$$Y_i = \beta_0 + \beta_1 x_i + \beta_2 CONTROLS_i + \epsilon_i$$

Y_i is per unit productivity of farmer i. x_i will be an indicator variable for marital status, an indicator variable for having a foreign spouse or a factor variable for spouse information. My parameter of interest is β_i and I will control for farmer specific fixed effects.

Tables and Figures

[Figure 1] Ratio of Unmarried Population: People in Their 20s to 40s
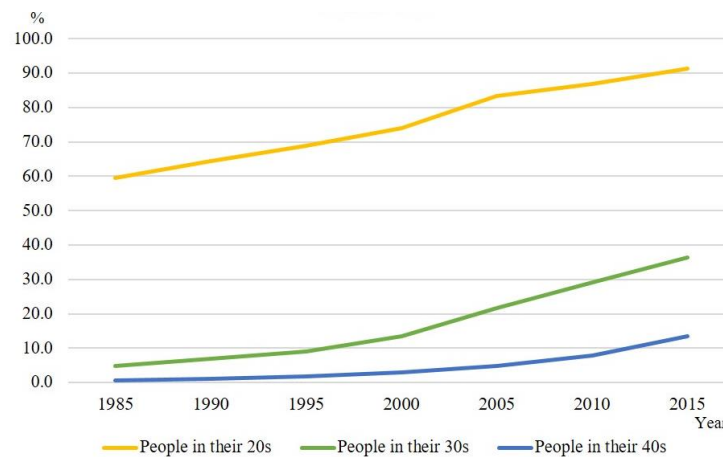
[Table 1] Ratio of Unmarried Population: from 1985 to 2015: Using SKPHS data

Age\Year	1985	1990	1995	2000	2005	2010	2015
15-19	99.5%	99.7%	99.5%	99.5%	99.7%	99.7%	99.8%
20-29	59.6%	64.4%	69.0%	74.0%	83.3%	86.8%	91.3%
30-39	4.7%	6.8%	9.1%	13.4%	21.6%	29.2%	36.3%
40-49	0.7%	1.0%	1.8%	3.0%	4.8%	7.9%	13.6%
50-59	0.3%	0.4%	0.5%	1.0%	1.7%	2.7%	4.9%
60-69	0.2%	0.2%	0.2%	0.4%	0.7%	1.0%	2.0%
Over 70	0.1%	0.1%	0.2%	0.3%	0.5%	0.6%	1.0%

[Figure 2] Ratio of Unmarried Farm Household Population: People in Their 20s to 40s
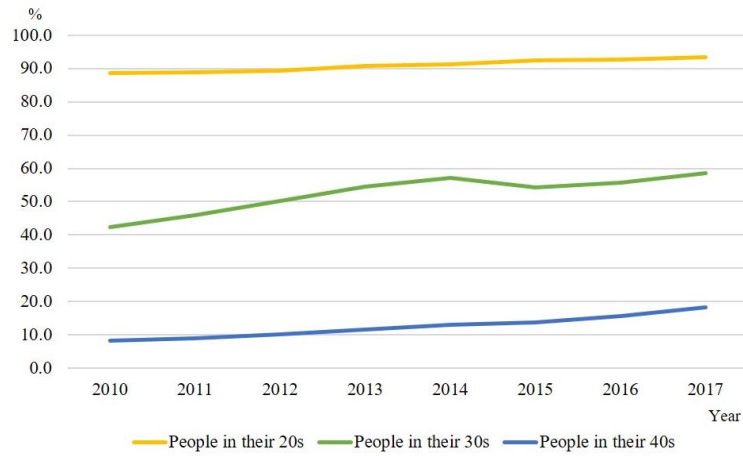
[Table 2] Ratio of Unmarried Farm Household Population: Using KAFFS data

Age\Year	2010	2011	2012	2013	2014	2015	2016	2017
15-19	99.5%	99.7%	99.8%	99.8%	99.7%	99.7%	99.8%	99.9%
20-29	88.5%	89.0%	89.5%	90.7%	91.3%	92.5%	92.6%	93.4%
30-39	42.3%	46.0%	50.3%	54.6%	57.2%	54.3%	55.7%	58.6%
40-49	8.3%	8.9%	10.3%	11.6%	13.1%	13.8%	15.6%	18.2%
50-59	1.3%	1.0%	1.2%	1.5%	1.7%	2.2%	2.0%	2.4%
60-69	0.2%	0.1%	0.2%	0.2%	0.2%	0.4%	0.3%	0.4%
Over 70	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%

[Figure 3] Ratio of International Marriage in Korea