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Contemporary China***

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**The Influence of Household Income, Education, Gender on Fertility Willingness in
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ABSTRACT

Why does the birthrate in China continuously decline? Why are Chinese people unwilling to have children now even after the One-Child Policy has been abandoned? I propose that the government policy was not the single crucial factor affecting the reduction of births in China. Household income, education, and gender also may have played a role. I use the 2015 Chinese General Social Survey to analyze the relationships between these three factors and the ideal number of children. The sample size of this subset is 2,373. Ordinary least square regression reveals that the ideal number of children increases as household income increases, while increasing education reduces the ideal number of children. Gender of potential parents does not have an effect on predicting the ideal number of children. The findings support the effects of household income and education on fertility willingness but reject that of gender. This study contributes to a sociological perspective on the demography of China. It suggests from an institutional perspective which factors would need to be changed to increase individuals' fertility willingness.

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Fertility is one of the most important concerns of demographic sociology. Over recent decades, sociological interest in fertility willingness in China and its influencing factors has burgeoned, mainly because China is the largest country in the process of modernization with the highest populations in the world. Most of the existing studies examine fertility concerns in China based on the One-Child Policy. However, sociological perspective have changed.

Due to the declining growth of total population, the deepened degree of aging, and the gradually disappearing demographic dividend, the Third Plenary Session of the Eighteenth CPC Central Committee decided to launch the “Selective Two-Child” policy in 2013, allowing couples in which either the husband or the wife from a single-child family is allowed to have a second child. Then, in October 2015, the Communist Party of China in the Fifth Plenary Session of the Eighteenth Central Committee announced the official abolishing of the One-Child Policy, which was one of the basic state policies in China issued in 1982 and which lasted for more than three decades. The government instead issued “the universal Two-Child Policy”, meaning every couple is allowed to have two children. The One-Child Policy was once a very well-known Chinese population's control policy that attracted extensive attention worldwide. The change thus closed “an important chapter of China’s social and demographic history” and is a strong indication that the Chinese government has finally realized that the fertility rate is too low, which could negatively impact future economic and social prospects. The Chinese government now wishes to improve this low fertility statistic (Zhao 2015). Therefore, the implementation of the Two-Child Policy represents a huge directional adjustment towards China’s future fertility plan.

However, since the start of the Two-Child Policy, the birth rate has not encountered a sharp rise; instead, it has slightly declined. According to the National Bureau of Statistics, the number of births in China in 2017 was 17.23 million, which was 630,000 fewer than the 17.86

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million announced in 2016, a decrease of 3.5 percent. This data can bring out many queries. The most common one would be: Why did the integration of the Second-Child Policy not correspond to a rise in birthrate? The data suggest that in China, the true reasons why couples hesitate to have a second child, or even more than two, have not been explained, and are not the result of government policy. Those true reasons are not difficult to guess. Age, education, individual income, gender, and economic capability are all possible factors that can affect fertility willingness. Therefore, my research might have a profound influence on the public, and especially on the government, because it shows that increasing fertility willingness is not as simple as just announcing a policy, but should include making social improvements in many other aspects. In order to effectively give advice on how to encourage people to have more children in China, the government would have to discern the causes that hold people back. Jiang (2016) points out that economic pressures and family caregiving are two major factors restricting people's fertility decisions. But are there any other major factors she ignored? In response, my research question is: what are the factors that influence an individual's ideal number of children?

Based on this general question concerning the factors influencing people's ideal number of children in China, many answers can jump out. For example, income, education, gender, the number of siblings one has, age, ethnicity, and household registration all will affect individuals when they consider having children. In this study, I will focus on household income, education, and gender. My concrete research question is therefore; do household income, education, and gender influence the ideal number of children a person wants to have in China? If so, how? I have three potential answers to this question. First, I hypothesize that the higher household income the respondent has, the more children he or she wants to have. Second, I expect that the

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higher the education level the respondent has, the fewer children he or she wants to have. Third, I hypothesize that women want to have fewer children than men do.

LITERATURE REVIEW

This study examines how household income, education, and gender separately influence one's fertility willingness. In this section, I refer to previous literature on the complex relationships between these three factors and their relation to fertility willingness. I have three themes to look at: household income, education and fertility; gender in the workplace; and unequal domestic division of labor.

Household Income, Education, and Fertility

Many scholars in the past literature suggest that household income highly affects family size: a higher household income leads to a stronger fertility willingness (Chen and Wu 2009; Wang and Jiang 2017; Shi and Yang 2014). The reason is very intuitive: economic capability determines whether a family can afford to have more children (Tian 2017; Wang and Jiang 2017; Huang 2015; Birdsall and Jamison 1983). Sociologists have different interpretations for this argument. Huang (2015) points out that "anxiety" plays a role. In China, many couples are unwilling to have more than one child because they worry about the cost of raising a child. Anxiety surrounding the high cost of childrearing is precisely one reason for continuously low birth rates. If each family were to have more than one child, parents could more equally allocate their resources to all their children, so the average parenting cost per child would not be so high, and according to Huang (2015), the couple would not be so discouraged to have multiple children. Tian (2017) demonstrates that there are two kinds of costs of childrearing: direct costs,

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meaning financial costs, and indirect costs, meaning the opportunity cost and time cost of having and raising children.

However, Fang and Chen (2016) do not think the relationship between household income and the family fertility rate is positive and linear. They argue that fertility rate is a shape of “U” or “J”, which means the lower social class has a high fertility rate, and then the higher social class has a high rate; the middle class has the lowest fertility rate. Therefore, the population size of the middle class of society will be squeezed to a social structure that shows a “M” shape.

Income is always highly correlated with education. High household income can bear a higher birth cost, but in terms of long-term development, better economic conditions will allow for people to have a deeper understanding of the importance to the quality, instead of quantity, of having children (Wang and Jiang 2017; Fang and Chen 2016). Therefore, to only evaluate household income’s influence on fertility willingness is one-sided. One must also take into account education level, in order to produce a more complete understanding of fertility willingness.

Most scholars insist that education level, unlike income, has an inverse relationship with fertility willingness, meaning more education leads to a smaller ideal number of children (Zhan 1995; Fang and Chen 2016; Shi and Yang 2014; Tian 2017; Piotrowski and Tong 2015), and “fertility decisions are conditional on the level of educational attainment of parents” (Conesa 2002:1). Additionally, there is a particularly negative correlation between women’s education and fertility willingness across regions and time (Kim 2016; Zhan 1995; Weinberger 1987), although educated women seem more physically capable of giving birth.

The usual mechanism underlying fertility willingness and education level is the rationality of life choices. People who are modernized or well-educated tend to be very rational

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about decision making and believe that things are valued for their quality, rather than their numbers (Werwath 2011; Tian 2009). Educated people want to have fewer children because more resource and investment can be given to each child.

However, as household income and education are highly correlated, people who have higher educational achievement usually have higher incomes concurrently, which should lead to a higher fertility willingness, according to the positive relationship between household income and the ideal number of kids. Therefore, the interaction between the ideal number of children and household income in conjunction with the correlation between the ideal number of children and education level is actually quite complex because neither of the interactions is exactly linear. Hence, as Kim (2016:1) suggests, “each of the mechanisms depends on the individual, institutional, and circumstances experienced,” so one needs to be careful when analyzing.

Gender Inequality in the Workplace Results in Low Fertility Willingness

The gender equality issue causes many problems, and the low fertility willingness among women in contemporary China is among these problems. Gender inequality in the workplace is a huge concern to professional women; they face a dilemma: family or career? In today's unregulated employment market in China, giving more births further jeopardize the employment situation of women, and may even make them face the risk of giving up a few years of their careers, which undoubtedly poses a challenge for them. Hence, women usually want to have fewer children (Jiang 2016; Chen and Deng 2007; Kim 2016; Hong and Zhu 2017; Qing and Ding 2015; Zhu and Zhu 2015).

Giving birth creates a barrier for women finding a job as well as to getting a promotion. The full operation of the Two-Child Policy means women may have two maternity leaves. This

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further worsens the situation of and increases employment pressure for high-educated young women in the job market because employers will undoubtedly be more concerned when hiring female employees (Hong and Zhu 2017).

Moreover, employers usually have a bias against women of childbearing age; as a result, employers' attitudes and career planning greatly affect women's fertility willingness (Chen and Deng 2007; Hong and Zhu 2017). Clearly, women take extensive time off or leave the workforce as soon as they have children, and even if women do return to work, they are believed to be less dedicated employees because of their maternal duties. Therefore, the more the employers understand, "the more the fertility willingness a woman will have" (Jiang 2016:54).

These employment concerns force professional women to make a decision between having children and having careers, which altogether leads to the worry and antipathy of women to have children (Hong and Zhu 2017; Zhu and Zhu 2015).

Unequal Domestic Division of Labor Results in Low Fertility Willingness

Domestic labor includes housework participation, supporting one's parents, childrearing, etc. Unfortunately, most of the domestic labors are considered the women's responsibilities. This may be related to the traditionally patriarchal Chinese family concept, the "male-breadwinner model."

Many sociologists state that unequal domestic division of labor makes women have lower fertility willingness (McDonald 2000, Wang and Jiang 2017, Kan and Hertog 2017; Yang 2017; Torr and Short 2004). Women are supposed to devote more care than men to children. Besides responsibility for childrearing, in Asian countries, how couples share housework responsibilities also has a significant impact on their fertility choices (Kan and Hertog 2017; Raymo et al.2015).

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There is no link between husbands' household participation and their fertility preferences, but their greater involvement in housework is associated with their wives' desire for more children (Kan and Hertog 2017). Thus, an equal share of domestic labor highly affects women's fertility willingness in Asian cultures.

Unequal domestic division of labor not only causes women to contribute more, but also creates an unequal status between husband and wives, which makes women feel that they are not treated fairly and equitably (Qian and Jin 2018; Qian and Sayer 2016; Sullivan, Billari, and Altintas 2014; Ji, Sun, and McDonald 2015). Qian and Sayer (2016) support this idea based on a marital satisfaction perspective. They argue that inequalities in the gender division of labor reduce marital satisfaction in East Asian countries, and unsatisfactory marriage naturally leads to lower fertility willingness of women. Ji, Sun, and McDonald (2015) support this idea from an economic independence perspective. They conclude that the fertility decisions of women with less economic independence is controlled by the patriarchal forces within the family. Women have to suffer the fertility pressure from parents, husbands and in-laws. Hence, if women are under a family pressure and have an unequal or lesser voice in family decisions, they, reasonably, do not want to have more children because they perhaps feel they are not treated equally, or are unsafe, or disrespected.

However, other literature underplays marital satisfaction and family inequalities. Qian and Sayer (2016:383) state that "Chinese spouses were more satisfied with their marriage and had more egalitarian divisions of housework, but simultaneously they held less egalitarian gender ideologies." In this case, according to Qian and Sayer, maybe there is a smaller difference in fertility willingness between Chinese spouses compared with other East Asian countries.

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Overall, according to the previous literature, a higher household income family has a larger ideal number of children, and people who have a higher level of education have a smaller ideal number of children, and women want to have fewer children than men do because of the family-work balance dilemma and unequal domestic division of labor. Despite all knowledge from the previous literature, researchers have hardly analyzed the fertility willingness of unmarried men and women, which I am going to analyze in this research.

THEORETICAL FRAMEWORK

In this section, I am going to introduce three theories: modernization theory of fertility, social capillarity theory, and equity theory. I am going to use these theories to frame my research

Modernization Theory of Fertility

The modernization theory of fertility can clearly explain why the new birth rate in China is declining, and why people in China have a decreased fertility willingness as a whole. Modernization is social progress or social evolution that transforms society from “traditional” or “pre-modern” into a “modern” society. The modernization theory of fertility infers a relationship between the degree of society modernized or urbanized and the fertility rate. The relationship between “modernization and fertility decline is known to be inverse in developed countries,” but the relationship between modernization and fertility decline is positive in developing countries (Guo and Wu 2012:417). Guo and Wu (2012:417) indicate that modernization will become “the primary factor behind future declines in national fertility,” thus it is no surprise that the relaxing of the One-Child Policy has not triggered Chinese population growth.

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Fertility decline is a common phenomenon for developing countries because, during the development process, the wealth gap between rich and poor increases, and the rapid social transition brings more daily stress to people. Therefore, it is not difficult to understand the decline of fertility rate in China, as it is rapidly going through a process of modernization.

In summary, “there is an inverse relationship between TFR (total fertility rate) and socioeconomic development in the most developed countries, with fertility declining as development progresses” (Guo and Wu 2012:418). Modernization increases people’s household and education level theoretically, and thus decreases the fertility willingness.

Theory of Social Capillarity

The theory of social capillarity is based on the recognition that every society is constituted by a hierarchical social order, in which people in the upper level of the hierarchy have greater advantages and privileges than those belonging to a lower level in the hierarchy. A large family is, in this case, an obstacle in the process of upward social mobility. Thus, Dumont (1980) concludes those desiring to move up in the social hierarchy will limit their fertility because fertility inhibits social mobility (Zuanna 2007). Individuals who want to rise in social status thus want a smaller family size. According to the social capillarity theory, couples who have a relatively lower household income or a lower education level want fewer children because a smaller family makes it easier for them to break into a higher social class.

Equity Theory

Equity theory derives from the concept of gender system, which refers to “the socially constructed expectations for male and female behavior that are found (in various form) in every

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known human society. ... A gender system's expectations prescribe a division of labor and responsibilities between women and men and grant different rights and obligations to them" (MacDonald 2000:1).

Equity theory analyzes whether the contributions and benefits are fairly equal for each of the spouses. For instance, the theory looks at whether or not the spouses contribute relatively equal amounts of time, energy, effort, and care to housework participation, childrearing, and parental support. Ji et al. (2015:1) argue that "a gender equity perspective is crucial for understanding the dynamics behind family planning policies and fertility behaviors," and McDonald (2000:1) states that "higher levels of gender equity in family-orientated social institutions are necessary to avoid very low fertility." Essentially, the more equal the family status of each of the the spouses is, and the more commensurate the contribution each of them gives to domestic affairs, the more children they will want to have.

However, in contemporary Chinese society, the domestic division of labor is largely unequal between husbands and wives, essentially affected by the pattern of the patriarchal society. Women, no matter professional or unprofessional, undertake more housework as well as the role of caregiver to their children and parents. Therefore, it is justifiable that women would feel unhappy, and overworked, and have a sense of not being valued and respected because of the unfair distribution of "contribution and benefits" in the household. Under such household circumstances, women consequently have a declining fertility willingness and want to have fewer children.

As one may notice, the modernization theory of fertility and the theory of social capillarity both confirm one of my hypotheses but also reject one. Therefore, because it partly supports my hypotheses, I am going to argue that modernization theory overcomes the theory of

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capillarity in education, but the theory of capillarity overcomes the modernization theory of fertility in household income.

METHODS

Dataset

I rely on only one national dataset to examine the relationship between household income and fertility willingness, and the relationship between gender and fertility willingness: the 2015 Chinese General Social Survey (CGSS 2015), which is a biannual survey of China's urban and rural households, designed to gather longitudinal data on demographic data. It consists of questionnaire responses that are organized by the Renmin University of China and Hong Kong University of Science and Technology. The CGSS 2015 executed from 2015 covered 478 villages from 28 provinces, cities, autonomous regions across China. The CGSS was conducted through a personal interview with a structured questionnaire survey, and the data was collected in three ways by using scholarly networks, collaborating with a selected government organization, and using a survey firm (Bian and Li 2012). The CGSS 2015 has a valid response sample size of 10,968, and the unit of analysis is individuals. The population consists of people 18 years of age or older. The CGSS 2015 uses a stratified sampling method. The dataset's main theme includes respondents' employment, family, households, life satisfaction, quality of life etc. Further information about the CGSS 2015 is available at <http://cnsda.ruc.edu.cn/index.php?r=site/article&id=164/>.

I created a subset of data that includes respondents of the CGSS 2015 who were born in and after 1978, which was the year that the One-Child Policy first implemented. Translated to age, they were thirty-seven years old and younger. The sample size of the subset is 2,726. The

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reason I created this subset according to age is to make the data more meaningful. People who were born in and after the year of 1978 are almost all the only child in their families. Even the oldest of them (people who were born in 1978), were only in their late 30s in 2015, so they are still capable of reproduction, and can be regarded as the main force to improve the fertility rate in China. Therefore, it is more valuable to analyze this group of people's fertility willingness and its influencing factors, and use them to examine the declining fertility rate in China. After excluding missing data and sysmissing data of all my independent, dependent, and control variables, this subset yielded a sample size of 2,373.

Variables

The main sociological concept of this study is economic capability, cultural capital, gender, and fertility willingness. I already operationalized "economic capability" and "cultural capital" as household income and education level, which are two of the independent variables, in the wording of my research question. The reason why I chose to examine household income rather than individual income is to take into account the stay-at-home spouses, who are most likely to be women, as they have zero income. The exact wording of the household income question in the CGSS 2015 is "what is your family's total household income last year?" It is an interval-ratio measure with a very large range.

The second independent variable is education level. The exact wording of the question is "What is your current highest degree of education (including ongoing degree)?" It is an ordinal measure as "1" means "have not received any education", to "13" meaning a master's degree or higher. I recoded them into seven ordinal categories: 1-"no education received", 2-"primary school or less", 3-"middle school", 4-"high school", 5-"associate degree", 6-"bachelor's degree"

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and 7-"master's degree or higher" to make the categories more coherent, while not losing the variations.

The third independent variable of this study is gender, and the exact wording of question is "what is your gender?" It is nominal measure, and I recoded it into dummy variable as "1" to equal women and "0" to equal men.

The dependent variable, fertility willingness, is operationalized as the "ideal number of children." The exact wording of the question is "if no policy restriction, how many children do you want to have?" It is an interval-ratio measure. Besides the missing data, I excluded the outlier data that shows the respondent's ideal number of children as more than two-digits. However, I did not exclude the answer "does not matter" (N=37) because these respondents may want to have as many children as they can so that they do not have an answer of clear number. In this case, I recoded this answer by taking the mean to represent the ideal number of children of the group of people who chose "does not matter".

Control variables in this study are age, marital status, and household registration (urban/rural division), because these three concepts also affect a person's ideal number of children, besides my three independent variables. Age is asked as "what is your year of birth," which is interval ratio measure. I used "compute" to transform "year of birth" to "age" for easy interpreting in later sections. "Marriage status" is dummied into "1" as "married", including first marriage, second marriage, and separated but not divorced, and "0" as "not-married", including unmarried, divorced, widowed, cohabitating. "Separated but not divorced" is a controversial one to attribute; however, as it only has three respondents, I attribute it to "married" as respondents who chose this choice were still legally documented as married. For household registration, I regarded "temporary residence", "military status", "none of them", and "others" as missing data.

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Remaining values are dummied as "1" to equal urban, including non-agricultural and registered city resident (non-agricultural in the past), and "0" to equal rural, including agricultural; registered city resident (agricultural in the past).

FINDINGS

The univariate descriptive table of mean, median, and standard deviation for all the variables are presented in Table 1.

[INSERT TABLE 1 ABOUT HERE]

From Table 1, we can tell that the mean for household income is 101,252 RMB, but the median is only 60,000. This variable has a very large standard deviation, which is 337,063. Together, these statistics indicate that the distribution of household income is not normal; there are respondents who have extremely high household incomes that skew the mean household income. Revealed in Figure 1, the total household income almost concentrates on the left half of the graph, with an additional sharp increase on "100,000-109,999". However, respondents who have a total household income of "180,000 and higher" consist of more than 10% of the entire sample, which is a big group that pulls up the mean.

[INSERT FIGURE 1 ABOUT HERE]

From Table 1, education level has a mean of 4 and a median of 4. According to the coding schema, "4" refers to "high school". Therefore, the average education level received by all the respondents is at high school level. A standard deviation of 1 indicates that the distribution is quite concentrated. The Figure 2 shows that "high school" is the second highest percentage among all seven ordinal categories. "Middle school" has the highest percentage. "No education received" has the smallest percentage number.

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[INSERT FIGURE 2 ABOUT HERE]

Table 1 show that the median of gender is 1. As I dummied this variable into 1 representing women and 0 representing men, the median means the number of women is more than half of the whole sample. This is also confirmed by graph displayed in Figure 3, 48% of the respondents are men while 52% are women.

[INSERT FIGURE 3 ABOUT HERE]

The ideal number of children is the only dependent variable. On Table 1, the mean of the ideal number of children is 2 and the median is 2 as well. The standard deviation is 1, which means the distribution of the answers is not dispersive. It mainly locates from 1 to 3 children. In Figure 4, it shows that "2 children" is the most frequent answer, and 70% of respondents chose it. "1 child", which occupies more than 20%, is the second most frequent answer.

[INSERT FIGURE 4 ABOUT HERE]

For the control variable "age", the average age (in years) is 29 years old, presented in Table 1, and the standard deviation is 6 years. As this subset has a range of ages from 18 to 37, it is reasonable to have such a large standard deviation. In Figure 5, it is overall, an increasing trend. Therefore, most female respondents in this data subset are likely fertile.

[INSERT FIGURE 5 ABOUT HERE]

In Table 1, the median of marital status is 1, which means that married respondents are more than half of the whole. The graph in Figure 6 shows that married respondents are nearly 65%. For simplicity, I assume that married couples are considering how many children to have. Therefore, nearly 65% of people in this subset were realistically considering the ideal number of children question.

[INSERT FIGURE 6 ABOUT HERE]

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In Table 1, it shows that the median value of household registration is 0. Thus, respondents whose household registration is “rural”, are over half of the population in the subset. Shown in Figure 7, rural respondents are over 60% and urban respondents are less than 40%.

[INSERT FIGURE 7 ABOUT HERE]

Correlation coefficients are used to examine the bivariate relationships between the independent, dependent, and control variables. Table 2 shows the correlation coefficients of all variables. They are all significant at the .01 level.

[INSERT TABLE 2 ABOUT HERE]

First, the results presented in Table 2 reveal that of the three independent variables, household income and gender (being women) both have no significant relationships with the only dependent variable, the ideal number of children. Only education level has a statistically significant relationship with the ideal number of children. The coefficient is “-.121”, which means the strength and direction of relationship between them is weak and negative. Thus, the higher level of education the respondent has, the fewer children he or she wants.

Surprisingly, all of the three control variables have a statistically significant relationship with the ideal number of children. There is a very weak and positive statistically significant relationship between age and the ideal number of children, and a weak and positive statistically significant relationship between being married and the ideal number of children. That is, the older the respondent is, the more children he or she wants to have, and respondents who were married want to have more children. Urban household registration has a weak and negative statistically significant relationship with the ideal number of children, which demonstrates that respondents whose household registrations were registered in urban cities want to have fewer children than those who registered in rural areas.

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Table 2 also presents correlations between the dependent variables and other variables. First, although household income has no significant relationship with the ideal number of children, it has a weak and positive statistically significant relationship with both education level and urban household registration. The relationships indicate that the higher the level of education the respondent has, the higher household income he or she has, and respondents who were urban registered typically earn more money.

Moreover, all three of the control variables have a statistically significant relationship with education level. Age has a weak and negative statistically significant relationship with education level, being married has a weak to moderate and negative statistically significant relationship with education level, and urban has a moderate and positive statistically significant relationship with education level. That demonstrates that the older the respondent is, the less years of education he or she received, and the higher education level the respondent has, he or she is less likely to get married, and respondents whose household registered in urban cities generally have a higher level of education completed.

Furthermore, marital status has correlations with gender, age, and household registration. There is a weak and positive statistically significant relationship between being a woman and being married, a strong and positive statistically significant relationship between age and being married, and a weak and negative statistically significant relationship between urban and being married. These relationships demonstrate that gender, age, and an urban residency are all related to marital status.

[INSERT TABLE 3 ABOUT HERE]

The regression results are presented in Table 3 above. The R^2 is .027, and suggests that 2.7 percent of the variance of the ideal number of children can be explained by household

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income, educational level, gender, age, marital status, and household registration for group of people who were born in and after 1978. The regression equation for the ideal number of children ($F(6,2366) = 10.893$) is statistically significant at .01 level, and has a statistically significant constant coefficient that is 1.945. The constant coefficient means if an individual is a married man who living in rural area, has no income and no education ever received, he wants to have an average of two children. The regression coefficients show that when holding constant the other variables, gender, age, and living in urban have no effects on predicting ideal number of children. However, household income, education, and marital status all have statistically significant regression coefficients, which indicates statistically significant effects of these three variables on the ideal number of children.

The unstandardized regression coefficients (b) of household income, education, and being married are $1.056e^{-7}$, $-.036$, and $.111$, respectively. The results tell us that for every 1 RMB you increase in household income; the ideal number of children will increase by $1.056e^{-7}$. For every additional level of education you complete, the ideal number of children will decrease by $.036$. Married people are willing to have $.111$ more children than those who were not married on the average.

Comparing the standardized regression coefficients (β) between all variables, the most powerful predictor to determine how many children one wants to have is not household income or education but marriage ($\beta = .083$). Education is the second strongest predictor ($\beta = -.077$), while household income has the smallest effect that is significant in predicting how many children one wants to have ($\beta = .055$).

Overall, looking back to my three hypotheses, the results of my regression analysis verify two of my hypotheses, but refute one. I successfully predicted the influence by household

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income and education on the ideal number of children but failed to predict how gender influences the ideal number of children.

DISCUSSION

According to the results, my hypotheses support how household income and education affect the ideal number of children, but not support how gender does.

The regression analysis shows that gender does not affect one's ideal number of children. In fact, this finding contradicts most of the previous literature's claim that women want fewer children because of the unequal domestic division of labor. For example, Fang (2018) explains that because women take more responsibility for child caring at home, they tend to avoid having more children. However, according to the equity theory, if the contributions and benefits are fairly equal for each of the spouses, they will likely reach an agreement on the number of children to have. Based on the regression result, Chinese couples share housework more equally, and this greater gender equality thus contributes to a better marital quality. This consequently explains the shared fertility willingness between husbands and wives (Qian and Sayer 2016). The regression result not only can be explained by domestic division of labor, but also by the sex of existing children.

A wife's domestic work is inversely and significantly associated with the willingness to have another child only when the child's sex is not considered (Yang 2017). In other words, the sex of existing children is the most important predictor of fertility willingness, more so than is domestic work distribution. Females who have only daughters or only sons are significantly more likely to want another child than those with both sons and daughters (Yang 2017). Hence,

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as to the ideal number of children, women want as many as men want to have because they are still affected by the One-Child Policy.

Another possible reason for gender differences in fertility willingness is the respondents' age of my subset. The subset only includes respondents who were 18 to 37 years old. This fact might also lead to a statistically non-significant relationship between gender and the ideal number of children because the female respondents were all at their "golden times" to give birth, so they ideally wanted to have children.

Although I was incorrect in predicting how gender affects fertility willingness, I was correct in predicting my other two independent variables: household income and education.

Household income has a significant effect on fertility willingness. The higher the household income, the more children one wants to have because child-rearing becomes more affordable. According to the theory of social capillarity, households with higher incomes do not have the pressure about upward mobility, so they are freer to decide their family size (Zuanna 2007). Therefore, they may have a relatively bigger family size.

Moreover, the unstandardized regression coefficient is $1.056e-7$, which means that one has to have a large amount of income change to affect his or her ideal number of children. Hence, even if a couple has a fairly high economic status, they may not consider having more children. Fertility willingness, in fact, is not solely related to personal wealth, but more closely linked to people's daily economic conditions (Tian 2009), especially once they have a premonition that with more children, their future living standards will be lower (Chen and Wu 2009).

Education also has a statistically significant effect on the ideal number of children. Unlike household income, the higher the education level, the fewer children one wants to have.

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Technically, the higher the education degree, the longer one has to stay in school; thus, the older one is when one has a first child, and the fewer one can have.

Theoretically, the progress of modernization causes people to gain more education and become more rational, which gives people greater skills for making better decisions and the ability to evaluate pros and cons. Thus, couples who are well-educated generally are more likely to have a reasonable family size because they can invest more than the average amount of money on their children's education, hobbies, and interests, and give more care to their children.

Particularly, women's education is more important to affect fertility (Kim 2016; Weinberger 1987). With higher education, wives have more awareness of contraception, so they tend to adopt modern birth control methods. Also, educated women are more willing to devote their time to their workplace, so they may refuse to have multiple children. Finally, educated women provide better care at home, which increases the value of their children's human capital and reduces their willingness to have more children (Kim 2016).

Household income actually does not have a statistically significant relationship on the ideal number of children in correlation analysis but does in regression analysis. After running an iterative regression model, I found that education causes household income to lose its statistical significance in the bivariate level. Education positively and significantly relates to household income, but they in fact have opposite effects on fertility.

Hence, fertility willingness in relation to household income and education becomes quite complicated: more years of education lead to greater delay in childbearing, so one wants to have fewer children, but higher education, on the other hand, leads to higher household income, which increases fertility. Generally, holding education level constant, those who have a higher household income have a stronger fertility willingness. Also, education has a maximum level, for

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example, PhD. Beyond that, household income kicks in and becomes an unaffected predictor. On the other hand, if holding household income constant, those who receive more education want fewer children because they understand that children are not “assets” but “costs”.

After analyzing the independent variables, I found that one of my control variables is also a predictor of fertility willingness. Marital status is actually a better test for the ideal number of children. It is even the most powerful predictor since it has the biggest standardized regression coefficient. People who are married have a stronger fertility willingness than those who are unmarried. It is very simple to explain this. First, by law, only married couples can legally give birth in China. Children born to unmarried partners are not able to be registered. Second, marriage enhances individual family responsibility. Thus, married people often have more serious fertility plans than unmarried people. In particular, married couples who experienced the joy of having their first child usually are more willing to have more children (Fang and Chen 2018). The next two control variables, age and household registration, though they are not predictors of fertility willingness, are still important to consider.

Age has a significant and positive relationship with the ideal number of children in correlation analysis but does not in regression. In regression analysis, age has a coefficient of 0, which means it has no effect at all on the ideal number of children. This finding rejects past literature that mentions biological age as a strong predictor of wanting another child (Yang 2017). By looking back to correlation, age has a statistically significant and negative relationship with education and a significant and positive relationship with marital status; hence, I think marital status makes age have a spurious relationship with the ideal number of children: the older one is, the more likely one is to be married (Zhan 1995).

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Household registration, similar to age, has a spurious relationship with the ideal number of children. Living in an urban area has a significant and negative relationship with the ideal number of children in correlation analysis but does not in regression analysis. In correlation analysis, living in an urban area is statistically and positively significant related to household income and education, and negatively significant related to being married. Therefore, education is the factor that reveals this spurious relationship between household registration and the ideal number of children. The reason is that urban-rural gaps, rather than regional disparities, are the prime contributor to educational inequality in China (Qian and Smyth 2007). People in cities are more likely to receive a higher level of education. Higher education leads to lower fertility willingness, and living in an urban city has a negative relationship with the ideal number of children.

As a result, my research is consistent with previous literature and theories on how household income and education can predict individuals' fertility willingness. On the other hand, my study brings some new findings to the past sociological literature: gender, age, and rural-urban division are not factors that really influence individuals' desire to have children in China.

CONCLUSION

Summary

This paper has assessed the respondents who were born in and after 1978 when the One-Child Policy was first implemented in China. The study's results revealed the effects of household income, education, and gender on fertility willingness. Using the data from the 2015 CGSS, I found that household income has a significant and positive effect while education has a significant and negative effect, and gender has no effect on predicting the ideal number of

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children. The regression analysis confirms the hypotheses about household income and education but rejects the hypothesis about gender. Overall, this study supports both modernization theory's claim that rational decision-making causes lower fertility and social capillarity theory's claim that households with lower social mobility restrict their family size. Equity theory seems not quite applicable to Chinese society.

This study should have an important meaning to the Chinese government and other researchers who are interested in Chinese demography. The results imply that government policy may restrict fertility willingness but cannot increase it. If fundamental issues that cause Chinese people's worries on fertility willingness persist, the birthrate will never increase. Based on this research, I recommend that governments enhance income tax, medical, and education reforms in order to reduce child-rearing costs and relieve breeding pressures. Also, the government could benefit from paying more attention to older maternal women.

Limitations

Since this study used the data of 2015 CGSS and 2015 was the year that the Two-Child Policy started to operate in China, the answers from respondents still might be influenced by the One-Child Policy, although the survey included the phrase "if there is no policy restriction". It is true that most of the answers on the ideal number of children concentrate on "1" or "2" children. Huang (2015) reveals that in cities, the long-term One-Child Policy has made Chinese people take it as the default. Therefore, if the answer to question about the ideal number of children could be collected again after a few years, I think the answer would be more diverse and might even lead to different regression results.

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As mentioned in the prior section, the subset I created only included respondents who were born in and after 1978. Females in this age range are quite capable of being fertile, which may be the reason I found no significant relationship between gender and the ideal number of children.

Finally, I only tested "the ideal number of children", which is a concept very different from actual reproductive behavior. The ideal number of children underlines an individual's fertility willingness under the assumption of no external factors. In reality, people will have fewer children than they ideally want because they will take external and practical factors into account.

Future Research

For future study, researchers can use a more up-to-date dataset and a larger sample size in order to resolve all the limitations of this study. Also, researchers may further explore factors such as ethnicity, family cohabitation, and respondents' sibling number to examine these factors' influence on fertility willingness. Particularly, I would recommend researchers explore the numerical gap between a household's ideal number of children and the household's real number of children, and investigate causes of this gap.

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Table 1. Means, Medians, and Standard Deviations for All Variables ($N = 2373$)

Variables	Mean	Median	SD
Ideal Number of Children	1.83	2	0.647
Household Income (RMB)	101,252.13	60,000	337,062.993
Education Level	4.17	4	1.400
Women	0.52	1	0.5
Age	28.51	29	5.509
Married	0.64	1	0.409
Urban	0.38	0	0.485

Table 2. Correlations (r) between Ideal Number of Children and Six Variables (Listwise deletion, two-tailed test, $N = 2,373$)

	Household Income	Education	Women	Age	Married	Urban
Ideal Number of Children	.042	-.121*	-.010	.064*	.110*	-.102*
Household Income		.116*	-.013	.045	-.002	.077*
Education			-.043	-.172*	-.296*	.464*
Women				.020	.177*	-.018
Age					.584*	.016
Married						-.161*

* $p < .01$

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Table 3. Regression of the Ideal Number of Children on All variables ($N = 2373$)

Variables	b	β
Household Income	1.056e ⁻⁷ *	.055
Education	-.036*	-.077
Women	-.037	-.029
Age	.000	.001
Married	.111*	.083
Urban	.076	-.057
Constant	1.945	

$R^2 = .027$; $F(6,2366) = 10.893$; $p < .01$

* $p < .01$

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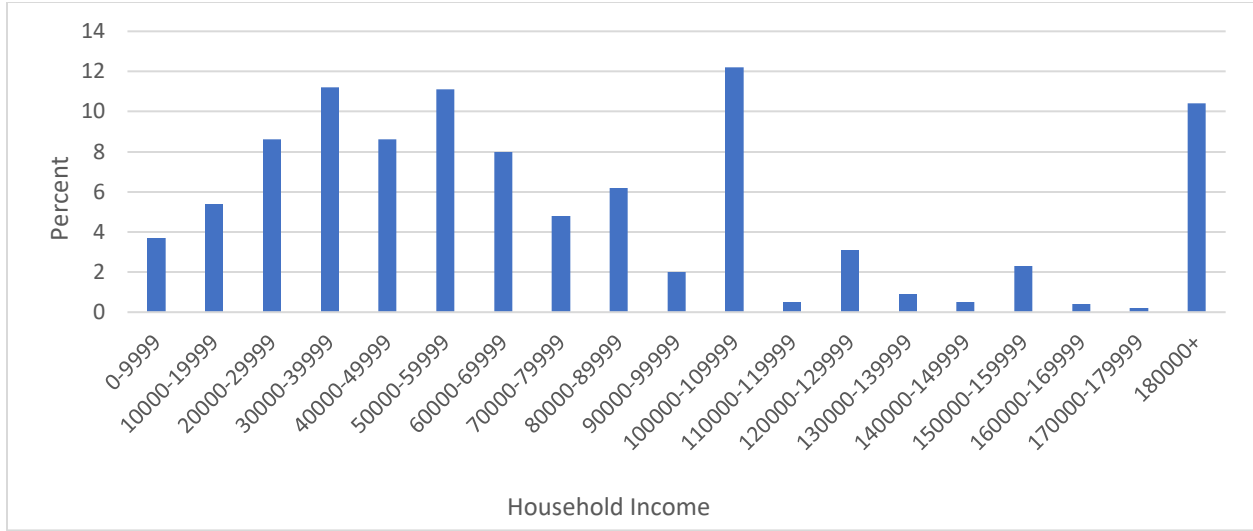


Figure 1. Total Household Income

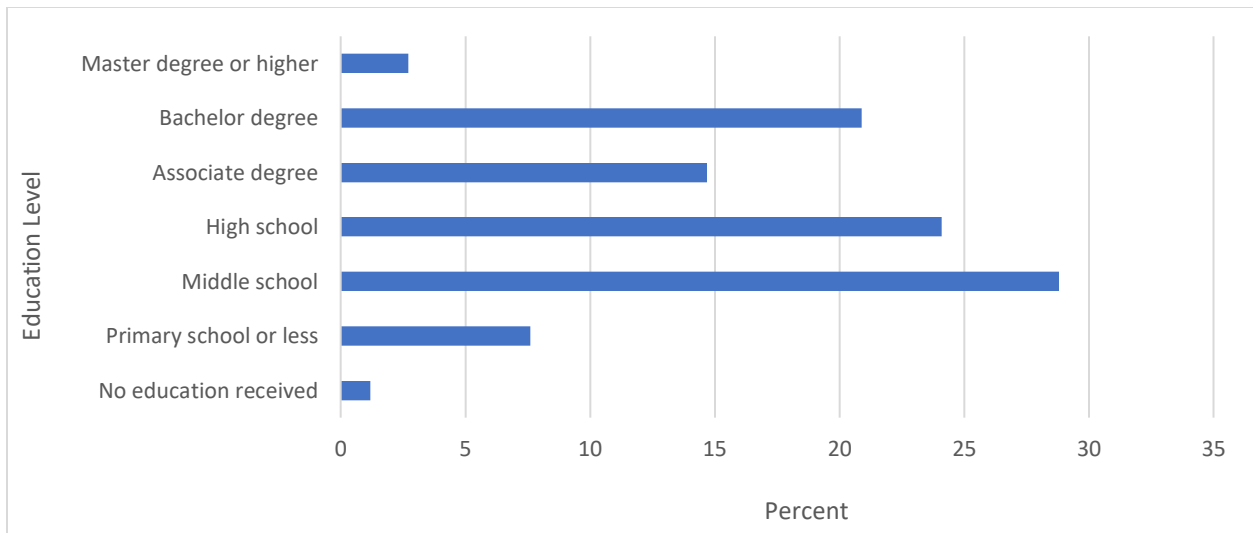


Figure 2. Education Level

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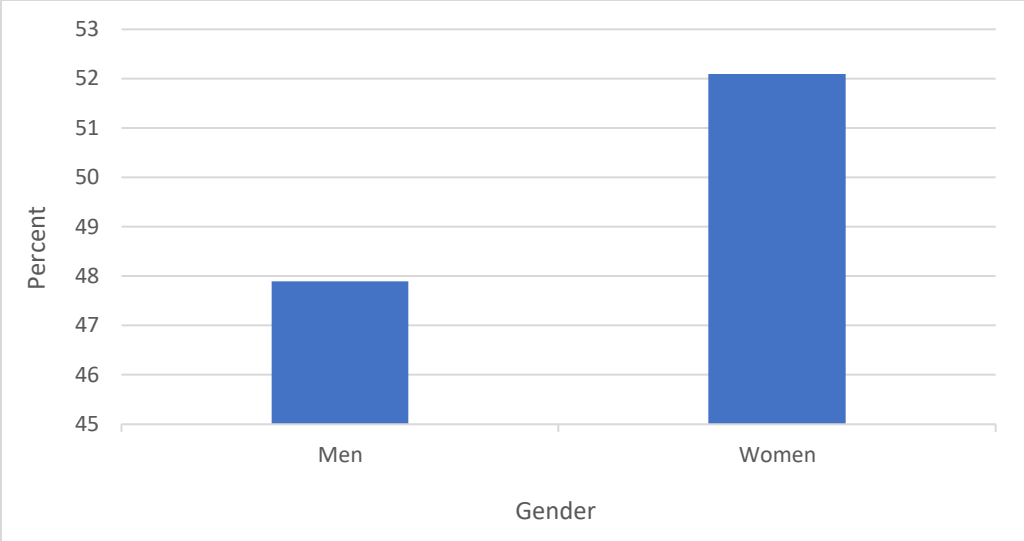


Figure 3. Gender

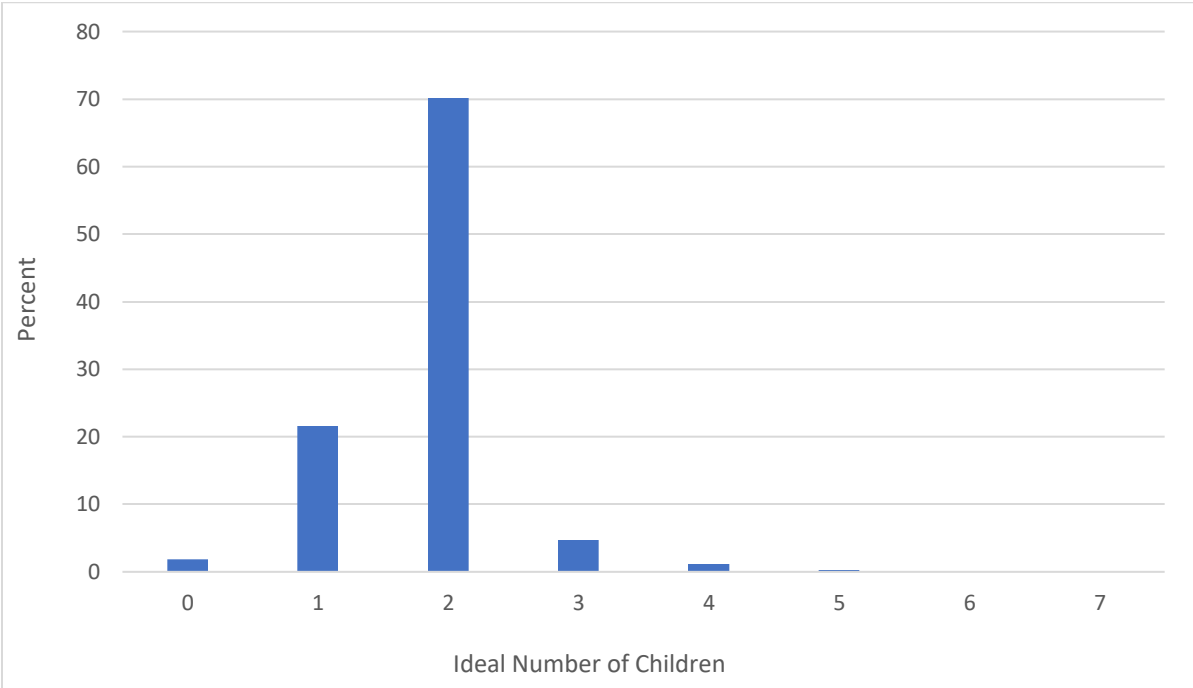


Figure 4. Ideal Number of Children

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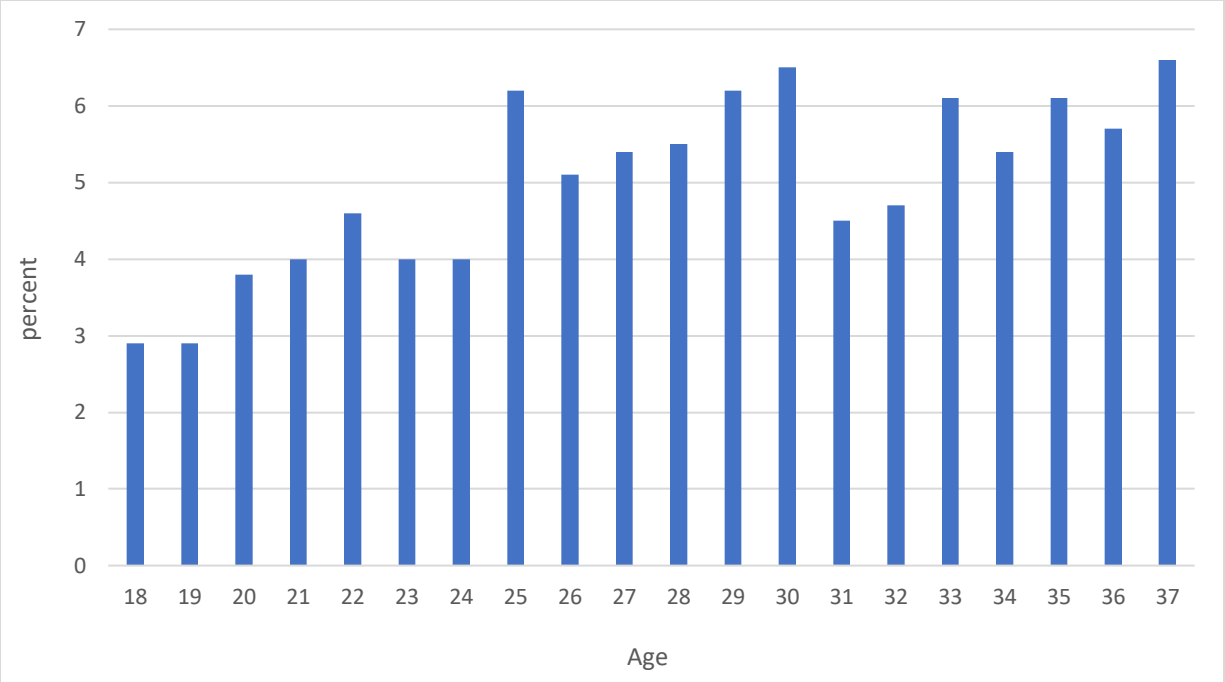


Figure 5. Age

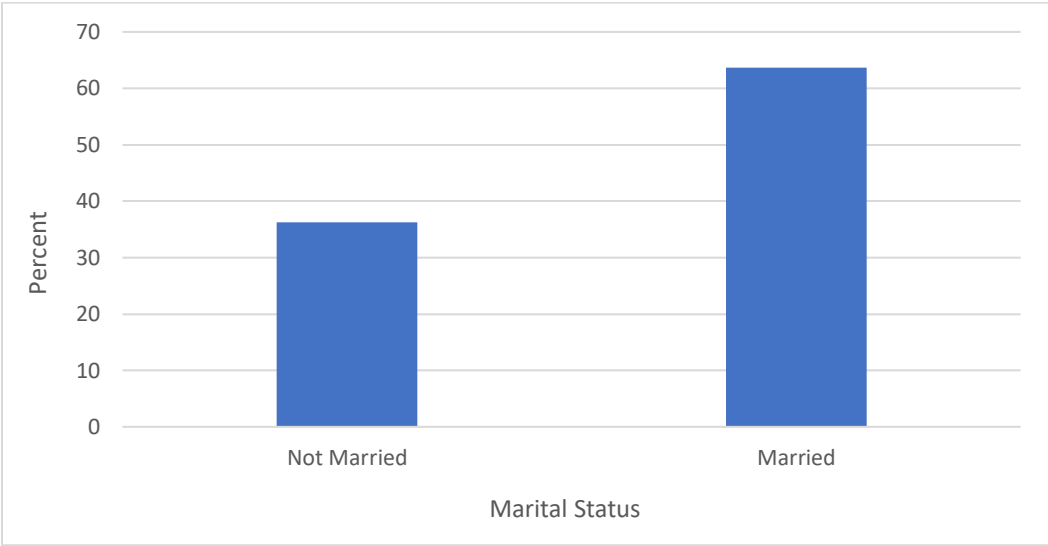


Figure 6. Marital Status

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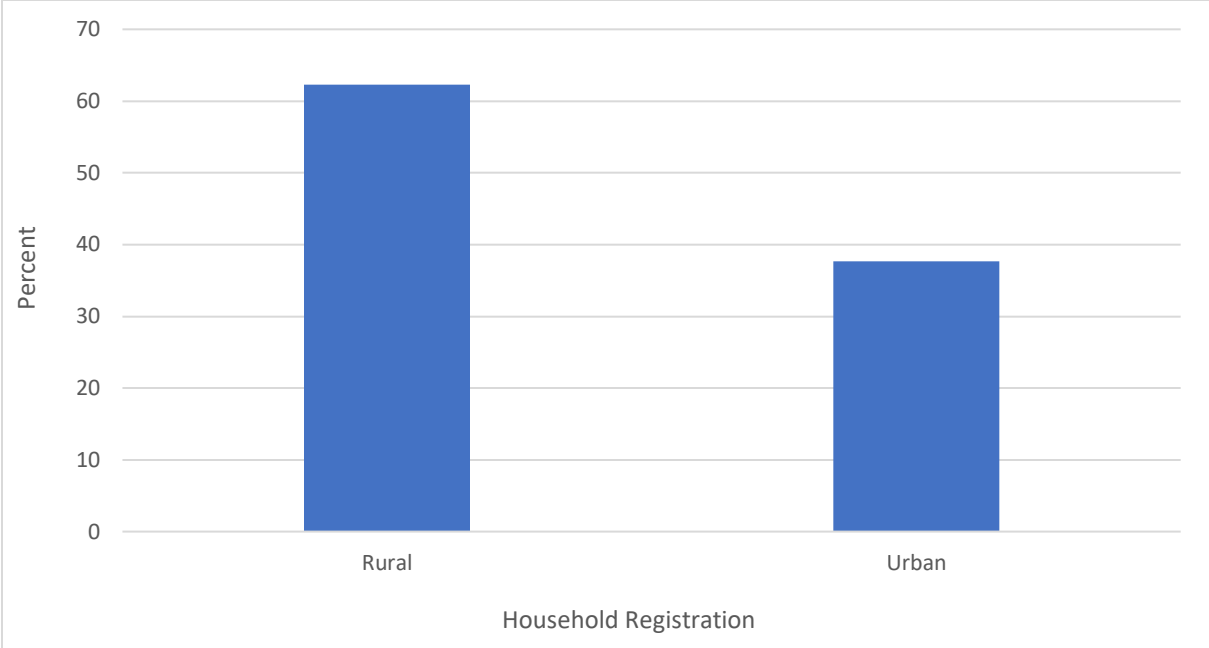


Figure 7. Household Registration