How Income and Education Affect the Family Stability of Young Migrants ——Based on Logit Empirical Analysis

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Abstract. Since the reform and opening up, production factors and the population have accelerated their mobility. The floating population has greatly promoted economic development. The stability of marriage in this group is not only related to social stability, but also has important significance for economic development. This paper uses the National Population Health Monitoring Survey data of the National Health and Family Planning Commission for 2015. The Logit model is used to analyze the impact of income and education on the divorce rate of young migrants. The results show that the mobility of young migrants with college education or above is much lower than that of those who do not have the qualifications; the impact of income on the divorce rate of young migrant women is not significant, but the income has a strong negative impact on the divorce probability of young migrant males. effect. At the same time, the probability of divorce among young migrants with children is about 50% lower than that of children without children.

Introduction

As the basic unit of society, the stability of the family is directly related to the harmony and development of society. Since the reform and opening up, the rapid economic development and the gradual reduction of the flow barrier have greatly promoted the population movement in China. The lower education population of the floating population, such as most migrant workers, higher education population (college education and above) have made irreplaceable contributions to economic development, but their family stability is much lower than that of non-current population. The family stability of the floating population is not only related to the happiness of this group, but also closely related to society and economy. Therefore, the stability of marriage of the floating population is an important social and economic issue that deserves attention.

With regard to marriage, there are many popular and interesting remarks, such as "the man is bad when he has money", "everyone is a dog, and the heart is no more than a scholar". Many people think that it is a high-educated woman to form a family. Very risky behavior, etc. The marital problems of the floating population are more complicated because they are often influenced by customs and culture in different regions. The difference in the divorce rate formed by whether or not to go out before marriage can be supported by this. According to the results of 2014 dynamic monitoring data analysis, for non-agricultural households, the crude divorce rate of migrant workers before marriage is 2%, and the crude divorce rate after marriage is 6.42%. For the floating population of agricultural household registration, the rough divorce of migrant workers before marriage The rate is only 1.35%, and the crude divorce rate of migrant workers after marriage is 2.5% [1]. Generally speaking, people who go out before marriage have enough knowledge of the outside world, have mature thinking about marriage and love, and go out after marriage, they are affected by the new environment and social understanding on the original concept of marriage. Floating populations from rural areas are often more susceptible to hometowns, such as social assessments, economic conditions, parental pensions, etc., and their families tend to be more stable. In addition, the presence or absence of children is a very important factor in the stability of marriage. With the progress of society, gender discrimination against babies is gradually weakened, and whether children have more or more influence on marriage than whether or not they have children.

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With questions and reflections on these views, this paper uses the Logit model to use the National Population Health Monitoring Survey data of the National Health and Family Planning Commission in 2015 to examine how income and education affect the divorce rate of young migrants. As a discrete binary selection, when the divorce is used as the explanatory variable, although the linear probability model is easy to calculate and easy to obtain the marginal effect, the predicted value may have a non-realistic situation with $\widehat{y} > 0$ or $\widehat{y} < 0$.Logit solves this problem very well, but there are new changes to the interpretation of the regression coefficient. In traditional linear probability models, regression coefficients usually represent marginal effects. However, when using the Logit model, the explanatory variable $\widehat{y}$ becomes $ln\left(\frac{P}{1-p}\right)$, which is called the log odds ratio. $\frac{P}{1-p}$ is called the "probability ratio" or "relative risk", and the regression coefficient corresponds to the change ratio of the odds ratio.

The commonly used divorce rate is defined as the ratio of the number of divorces to the total population in a certain period (usually the year), also known as the crude divorce rate, usually expressed in parts per thousand. There is also a popular divorce rate refers to the number of divorce/marriage in the same area in a certain period of time, that is, the ratio of the ratio, expressed as a percentage. The divorce rate studied in this paper refers to the probability of divorce or the willingness to divorce. Similar to the latter, $\frac{P}{1-p}$, P corresponds to the divorce situation.

The empirical results show that the divorce rate of male and female migrants with college education or above is much lower than that of those who do not have the academic qualification. Among them, college education or above has a greater reduction in the probability of divorce than males. The divorce probability of the population has different effects. In the female group, the effect of income is not significant, and the income has a significant negative effect on the divorce probability of the male young migrant population, that is, the higher the income of the young male, the divorced The chance is lower.

Literature Review

Regarding the marital problem of the floating population, there are many studies based on demographic characteristics. Shi Zhilei (2017) combined with the dynamic monitoring data of the national floating population in 2014 for statistical analysis, found that the higher the level of education, the lower the crude divorce rate and the lower marginal divorce rate before marriage [1]. However, Zou Yuxi (2018) used a fixed-effects model to analyze the city-level panel data from 2003 to 2013 in Anhui Province, arguing that the higher the level of education, the higher the crude divorce rate [2]. Xu Haijiao and Yang Zhe (2017) used the Logit model to analyze the marriage stability of young farmers and migrant workers, and obtained the following conclusions: the gender of children has a significant impact on the stability of young migrant workers' marriage; the increase of income level can promote the work of young migrant workers. Family stability [3]. Yuan Yao, Jiang Yan (2017) used Probit and Logit methods to study the marriage and family problems of the second generation of rural migrant workers [4] and so on. Most of the existing research is aimed at the rough divorce rate, not the probability of divorce, so this article may be a supplement to related issues.

Combining the literature review with the purpose of this paper, the following assumptions are made:

Hypothesis 1: Increased income levels, the probability of divorce for young migrants should be reduced. The floating population usually faces relatively large economic and family pressures, and the increase in income is conducive to promoting family stability of the mobile population.

Hypothesis 2: Higher education, which corresponds to a lower divorce rate for young migrants. There are at least three aspects to the impact of higher education on the stability of migrants. First of all, highly educated people are often older at first marriage and have a maturer understanding of marriage and love, which will reduce the chance of divorce. Second, migrants with high education are

more likely to get higher-paying and more comfortable jobs. According to Hypothesis 1, this can alleviate family stress and reduce the chance of divorce. Finally, overall, migrants with higher academic qualifications usually have better literacy and are more tolerant and understanding in their marital life. This may be one of the reasons why higher education can reduce the chance of divorce.

Hypothesis 3: Young migrants who have gone out before marriage have a lower probability of divorce. Going out before marriage can give the mobile people a good understanding of the outside world, which helps them to determine their own concept of marriage and love, and can promote the stability of marriage afterwards. After marriage, the out-of-marriage will suddenly face separation, child support, new environmental culture and customs, etc., and its traditional concept of marriage and love is easy to change.

Hypothesis 4: Young migrants in agricultural hukou have a lower probability of divorce. The mobile population of agricultural hukou is usually relatively conservative. It is difficult to get rid of the influence of "acquaintance society", pay more attention to social evaluation and customs in hometown, and the divorce rate is also low.

Hypothesis 5: Young migrants with children have a lower probability of divorce. The importance of children for family stability is self-evident. However, as the concept of ideas progresses, it can be found that discrimination against the gender of the baby is gradually reduced.

Date and Model

Data Sources. The data used in this paper is from the National Population Dynamics Monitoring Survey of the National Health and Family Planning Commission in 2015. It mainly uses the 2015 National Population Health Questionnaire Dynamic Survey Data Personal Questionnaire (A), which mainly covers the basic situation of the floating population. Employment and expenditure, basic public health and medical services, marriage and childbirth and family planning services. Data survey targets: male and female migrants who lived in the local area for one month or more and not in the district (county, city) (aged 15 to 59 years old in May 2015). Since the divorce phenomenon of young migrants born after 1980 is more prominent, this article selects the floating population born in 1980 and beyond, and obtains detailed information including 71,830 interviewees by eliminating marital status as unmarried and widowed individuals, 1224 They are divorced. Table 1 gives a brief description of the main variables involved in the paper.

Table 1 Statistical description and description of the main variables

Variable	Obs	Mean	Std. Dev.	Min	Max	Variable definitions
marriage	71830	0.0202144	0.140734	0	1	1:Divorce 0:First marriage
income	71830	3.591946	3.920492	0	250	Unit: thousand yuan / month
graduate	71830	0.1650146	0.3711963	0	1	1:College degree or above 0:College degree or below
have_child	71830	0.8704023	0.3358626	0	1	1: Have children 0: No children
have_been_out	71830	0.6054991	0.4887466	0	1	1: Go out before marriage 0: Go out after marriage
household	71830	0.8495058	0.3575577	0	1	1: Agricultural household 0: Non-agricultural household
gender	71830	1.543979	0.4980656	1	2	1: Male 0: Female

Model Description. In the marital stability of the young population of the dependent variable, this paper uses $y = 1$ for divorce and $y = 0$ for marriage. As a binary variable, use the Logit regression model to estimate:

$$logit(y_i) = log\left(\frac{y_i}{1-y_i}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_i x_i + e \tag{1}$$

The Logit model regression estimation adopts the maximum likelihood method and has good statistical properties such as consistency and progressive validity. Where y_i is the marital status of the i-th youth migrant population, x_i is the independent variable, and β_i is the regression coefficient.

Among the variables selected in this paper, income is a continuous variable, whether it has a college degree or above, whether there are children, whether it is going out before marriage, or whether it is an agricultural household account as a discrete variable. In the Logit model, β_i is not a normal marginal effect, when x_i is a continuous variable:

$$\beta_i = \frac{d\left(log\left(\frac{y_i}{1-y_i}\right)\right)}{dx_i} = \frac{d\left(\frac{y_i}{1-y_i}\right) / \left(\frac{y_i}{1-y_i}\right)}{dx_i} \tag{2}$$

Among them, $\frac{P}{1-p}$ is the probability of divorce, so β_i stands for the fact that x_i increases by a small amount to cause a percentage change in odds ratio.

When x_i is a discrete variable, you can get:

$$\frac{\frac{p^*}{1-p^*}}{\frac{p}{1-p}} = \frac{exp[\beta_1+\beta_2 x_2+...+\beta_i(x_i+1)+...]}{exp[\beta_1+\beta_2 x_2+...+\beta_i x_i+...]} = exp(\beta_i) \tag{3}$$

At this time, $exp(\beta_i)$ can represent the explanatory variable x_i, and the increase of 1 unit causes the probability ratio, that is, the change ratio of the divorce probability.

Previous studies have shown that there is a significant positive correlation between income and education. Therefore, directly putting the income and the two variables of college degree or above into the equation will cause serious estimation bias. For marriage stability issues, income and education have different effects. The impact of income on marriage is relatively direct and single, and the education corresponds not only to the income level, but also to the individual's human qualities, character cultivation, etc. These are factors that cannot be ignored in marriage. In addition, the education has a sticky effect on marriage matching, which is particularly prominent in female mate selection. Women who usually have a college degree or above tend to focus on the young men who are equal to their own academic qualifications or higher than themselves. Because the influence of education on marriage stability may be more complicated, in order to distinguish between income and whether there are two variables of college education or above, the different effects of the two variables on the dependent variable are put into the regression equation and observe the results.

Empirical Analysis

This paper mainly considers the impact of income and education on the divorce of young migrants. The empirical results are divided into two groups: the first group is the impact of income on the probability of divorce, and the second group is the influence of education on the probability of

divorce. As can be seen from Figures 1 and 2, having children and going out before marriage can reduce the divorce probability of young migrants. The increase in income can significantly reduce the divorce probability of male migrant youth. The monthly income increase of 1,000 yuan can reduce the probability of divorce by about 5.1%, and this effect is not significant in the female sample. According to the coefficient, the children's divorce rate was reduced to 49.8% and 67.8%, and the female divorce probability decreased to 49.8% and 52% of the control group. That is to say, whether or not children have a similar effect on the divorce rate of males and females is basically the same, and the risk of divorce may be reduced more by the time of marriage. Agricultural hukou had no significant effect on the divorce probability of mobile youth, and the first group eliminated this variable.

Logistic regression				Number of obs	=	31,572
				Wald chi2(3)	=	66.35
				Prob > chi2	=	0.0000
Log pseudolikelihood = -3046.307				Pseudo R2	=	0.0128

marriage	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
income	-.0508588	.0199148	-2.55	0.011	-.0898911	-.0118265
have_child	-.6977052	.0991719	-7.04	0.000	-.8920784	-.5033319
have_been_out	-.3892959	.0840555	-4.63	0.000	-.5540416	-.2245502
_cons	-2.844955	.1359779	-20.92	0.000	-3.111467	-2.578443

Fig. 1 The impact of income on the stability of male migrant youth marriage

Logistic regression				Number of obs	=	27,128
				Wald chi2(3)	=	84.01
				Prob > chi2	=	0.0000
Log pseudolikelihood = -2962.6091				Pseudo R2	=	0.0163

marriage	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
income	-.012771	.0149314	-0.86	0.392	-.042036	.016494
have_child	-.6977347	.1002455	-6.96	0.000	-.8942122	-.5012572
have_been_out	-.6542298	.0843641	-7.75	0.000	-.8195804	-.4888793
_cons	-2.784129	.11671	-23.86	0.000	-3.012876	-2.555382

Fig. 2 The Influence of Income on the Stability of Female Floating Youth Marriage

The second group mainly considers whether or not the degree of college education or above has an impact on the divorce probability of young migrants. As can be seen from Figure 3 and Figure 4, having a college degree or above has a lowering effect on the divorce probability of mobile youth, based on the regression coefficient. It can be seen that a college graduate or above has a male divorce rate of 31.5% for those who do not have the education, and 55.2% for women. This negative effect comes from three factors: First, those with higher academic qualifications are more likely to get jobs with higher incomes and easier jobs. From the first set of conclusions, income increases can reduce the probability of divorce. Secondly, young people with higher education tend to have a higher age at first marriage, and they are more mature in marriage and often have a more stable marriage. Finally, the higher overall quality of young people with higher education is relatively better, which can also reduce the chance of divorce. Of course, the improvement of education corresponds to the increase of women's personal consciousness, and their dependence on the family has decreased. Therefore, it is logical to have a college degree or above to reduce the probability of divorce for female migrant

youth than for men. In the second group, agricultural hukou is also one of the factors to reduce the probability of divorce. The divorce probability of male and female mobile populations with agricultural hukou is reduced to 71.9% and 68.5% of non-agricultural hukou, indicating the flow of youth from rural areas. The crowd is greatly influenced by the traditional customs and public opinion of the hometown, among which women are more affected. In addition, in the second group, children have a 42.8% and 48.5% chance of divorce for male and female migrant youths, and 71.9% and 53% for pre-marital exiles. A set of conclusions is similar.

Logistic regression — Number of obs = 32,756; Wald chi2(4) = 120.22; Prob > chi2 = 0.0000; Log pseudolikelihood = -3175.3771; Pseudo R2 = 0.0217

marriage	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
graduate	-1.156735	.1559863	-7.42	0.000	-1.462462	-.8510072
have_child	-.8494823	.0982771	-8.64	0.000	-1.042102	-.6568629
have_been_out	-.3304926	.0811617	-4.07	0.000	-.4895667	-.1714186
hukou	-.3297608	.1191688	-2.77	0.006	-.5633273	-.0961943
_cons	-2.551674	.1463135	-17.44	0.000	-2.838443	-2.264904

Fig. 3 Whether there is a college degree or above and the impact of male divorce

Logistic regression — Number of obs = 39,074; Wald chi2(4) = 130.45; Prob > chi2 = 0.0000; Log pseudolikelihood = -3784.2111; Pseudo R2 = 0.0186

marriage	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
graduate	-.5930963	.1298416	-4.57	0.000	-.8475811	-.3386115
have_child	-.7236787	.0964474	-7.50	0.000	-.912712	-.5346454
have_been_out	-.634877	.0762272	-8.33	0.000	-.7842795	-.4854744
hukou	-.3787096	.1038437	-3.65	0.000	-.5822395	-.1751798
_cons	-2.563797	.1330188	-19.27	0.000	-2.824509	-2.303085

Fig. 4 Whether there is a college degree or above and the impact of female divorce

Conclusion

Based on the above empirical analysis, it is not difficult to find that having a college degree or above has a significant positive effect on the marriage stability of the young migrant population. Young people with college education or above have a more stable marriage. Among them, college graduates or above have a lower effect on men’s divorce than women. The increase in income only reduces the divorce probability of male migrants, and the impact on women is not significant, that is, the marital stability of female migrants has little to do with income. In addition, people who go out before marriage often have a smaller chance of divorce, and young migrants from rural areas have a lower probability of divorce, which is related to the traditional customs, concepts and personal perceptions of marriage in their hometown. Having children can greatly reduce the risk of divorce in the family, and this effect is particularly prominent among female migrant youth.

Combined with the above conclusions, in order to reduce the divorce risk of the floating population, the following suggestions are given:

(1) The mobile population needs to strengthen the awareness of marriage and family responsibility, eliminate the divorce phenomenon because of small contradictions, and solemnly treat marriage and family. In addition, it is necessary for unmarried people to deepen their cognition of marriage and treat marriage with a more mature attitude and thinking.

(2) Since the ideological concept has an important influence on the stability of marriage, the whole society needs to create good social customs and promote the family's happiness and harmony. The civil affairs department can implement appropriate pre-nuptial education and set a certain buffer time on divorce handling, so that both sides have the opportunity to calm down and even adjust the marriage issue appropriately.

(3) Social welfare, etc. affecting the marriage of migrants, and improving the living, medical care, and education levels of the floating population also have a positive effect on reducing the probability of divorce.

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