### Research on the Relationship between Higher **Education and Women's Marriage**

Yifei Wang<sup>1,\*</sup>

<sup>1</sup>Chinese Language and Literature, East China Normal University, Shanghai, China, 200241 \*Corresponding author. Email: dlwangyifei@163.com

#### **ABSTRACT**

As a social phenomenon, the unequal relationship between men and women has existed for a long time. Feminism has struggled to achieve gender equality in education since its birth. In recent years, there has been a gender reversal in China's higher education population, both students and graduates. Women surpass men, and the scale of female enrollment is still further expanding. However, the acquisition of higher education does not improve women's advantages in the marriage market but increases the difficulty of their marriage matching. Based on the data of the third Chinese women's social status survey in 2010, taking married women as the research object, this paper decomposes the effects of higher education on women's educational marriage age, period, and cohort, to grasp the changing trend of three-time dimensions. The empirical results show that the age and period of higher education play a significant role, but the cohort effect is not obvious. The age of first marriage always has a positive impact on the educational marriage age difference of women with higher education. About 34 years old is the turning point of the educational marriage age difference from negative to positive; The influence of first marriage age on women with non-higher education shows a U-shaped distribution. The current research results show that women with higher education are more likely to choose a spouse with lower education than themselves; The age of first marriage has a positive impact on the educational marriage of women with higher education; The age and period effect of higher education on women's educational marriage shows that the level of education is always an important standard for mate selection. At the same time, the domestic society needs to give women with higher education a relatively loose environment. Marriage is not the goal of life, nor can it be used as a standard to measure women's quality of life.

**Keywords:** higher education; female; educational marriage; age - period - cohort analysis

#### 1. INTRODUCTION

In recent years, with the promotion of higher education and the advancement of the cause of gender equality in education, the number of women who have received higher education in China [1]. It has achieved unprecedented development. In 2010, the female population with a college education or above was about 53.94 million, an increase of about 37.06 million over 2000, accounting for 45.56% of the total population with a college education or above from 38.33%. In 2015, nearly 21.37 million women received higher education in schools, accounting for about 52.37% of all the population with higher education; In that year, 6.02 million women graduated, accounting for 52.29% of the total graduating population. In that year, about 6.77 million female students were recruited, accounting for 54.48% of the total school population [1]. Whether students or graduates, the population of higher education has had a gender reversal, women obviously surpass Men, and the scale of female enrollment is still further expanding. This trend will be more prominent in the future.

However, the acquisition of higher education does not improve women's advantage in the marriage market but increases the difficulty of their marriage matching. On the one hand, receiving education will squeeze the marriage time, delay women's first marriage age, and make them miss the best marriage age [2]; the higher the education level is, the longer the squeeze time it will take, and the later the first marriage age is. On the other hand, education level is one of the important criteria for mate selection. Under the influence of China's traditional gradient marriage mode of "men higher than women lower"[3], the inconsistent mate selection criteria between men and women may cause relatively few men



who can marry women with higher education. Considering the time squeeze and gender differences in mate selection criteria, the marriage of women with higher education has aroused widespread social concern.

#### 2. LITERATURE REVIEWED

There are many studies on the matching characteristics of husband and wife at home and abroad. Educational matching is one of the most concerning characteristics, but there are differences in the development trend of educational matching at home and abroad. First, it is inconsistent on the theoretical basis. Several theories support educational homogeneous marriage: the marriage exchange theory, which emphasizes the same kind of matching in marriage and believes that people are more inclined to choose homogeneous marriage, takes the maximization of interests as its core and believes that people are more inclined to choose homogeneous marriage. For example, some scholars pointed out that in the transitional society with drastic changes in social structure, the uncertainty of the market limits the openness of the society, husband and wife homogeneous marriage will be strengthened, and the importance of education in mate selection standards will be improved. Therefore, people are more inclined to choose individuals with similar or the same education [4][5]. another explanation is that the increasingly refined social division of labor makes the functions of learning and work clearer, which is conducive to gathering people with the same level of education, greatly increasing the opportunities for men and women to meet the same kind, thus enhancing the possibility of educational homogamy [6][7]. However, based on the modernization theory of marriage, some scholars pointed out that with the development of society, the important standard of marriage matching has changed from innate characteristics to autogenous characteristics, and the role of autogenous factors such as personal education and occupation in marriage has been strengthened, making the marriage model more diversified and heterogeneous marriage more common [8].

#### 3. RESEARCH DESIGN

#### 3.1 Research object

Although educational marriage includes both husband and wife, this study pays special attention to women, only selects wives as the research object, and compares the differences within female groups from the perspective of higher education. This article aims at exploring whether higher education will affect women's educational marriage results and the dynamic changes in the three-time dimensions of age, period, and cohort. It is worth noting that because of the complexity of remarriage, so this research only focuses on the first

marriage. Therefore, the research object of this paper is all first married women.

#### 3.2 Research ideas and research hypotheses

Marriage exchange theory holds that to maximize benefits, people usually tend to choose individuals with similar or the same education. Combined with China's actual situation and cultural tradition, comprehensively considering the marriage exchange theory and the traditional gradient marriage mode of "men are higher than women", this paper believes that women with higher education tend to choose spouses whose education level is like or stronger than themselves. However, limited by the number of men with higher education, their marriageable range will be slightly smaller than that of women without higher education, and the marriage delay effect is obvious. Compared with women with non-higher education, most women with higher education can be economically self-sufficient and have relatively good resource conditions in all aspects. Even if they are single, they can live well. Therefore, they are more likely to insist on waiting until they find an object that meets their own standards. Specific assumptions are as follows:

Research Hypothesis 1: with the increase of the age of first marriage, women with higher education are more likely to choose their spouse with the same or even higher education level. For a long time, the reform policy of colleges and universities has effectively expanded the coverage of higher education, and the status of higher education in mate selection standards has also been improved. In this period, the scale of women who have received higher education in the marriage market is also expanding. Under the principle of maximizing the benefits of marriage, the opportunities of marriage between women with higher education and men with higher education are increasing rapidly, and the tendency of homogeneous marriage in educational marriage will become increasingly prominent; In contrast, women with non-higher education will also develop to homogeneous marriage, but affected by the gradient marriage mode of "men higher than women lower", their marriage matching range is still wider than the former, so the trend of homogeneous marriage is not as obvious as the former. It is worth mentioning that some sudden historical events or social policies will affect the role of the period. The period change of educational marriage is likely to develop to homogeneous marriage in fluctuation.

Research hypothesis 2: from the perspective of period evolution, the trend of educational homogeneous marriage of women with higher education is more obvious. With the advancement of the birth cohort, the education level gap of the same cohort is gradually narrowing, and the education level affects the individual's spiritual life to a great extent, and the education level is becoming more and more important in marriage. Compared with women without higher education, women



with higher education are more likely to value spiritual fit and prefer to choose a spouse with similar education. Therefore, the following assumptions are obtained.

## 4. DATA SOURCE AND VARIABLE SETTING

This paper uses the personal main questionnaire data of the third China Women's social status survey conducted by all China Women's Federation and the National Bureau of statistics in 2010. After data processing, 18385 pairs of first married couples with complete information, covering the age of wives from 18 to 90 years old. The dependent variable is the gap between the years of education of husband and wife, that is, the years of education of husband minus the years of education of wife. The standard of years of education in this paper is: no schooling = 0 years, primary school = 6 years, junior middle school = 9 years, senior high school = 12 years, college = 15 years, undergraduate = 16 years, and graduate = 19 years.

The time dimension variables concerned in this study are the wife's first marriage age  $(9 \sim 55 \text{ years})$ , first marriage period (first marriage year,  $1938 \sim 2010$ ) and birth cohort ( $1920 \sim 1992$ ). Due to the needs of analysis methods, the first marriage period and birth cohort are grouped, in which the method of 5 years is the most informative and the model effect is the best. Because of the small number of samples, those who got married before 1965 and from 2005 to 2010 were classified as a separate period group respectively, and the other five

adjacent years were classified as a period group respectively. A total of 10 first marriage groups were obtained; Similarly, except those wives born before 1945 and from 1985 to 1992 were grouped separately, the other five adjacent birth years were classified into one birth cohort, and a total of 10 birth cohort groups were obtained.

Based on the available literature and data availability, three variables were selected: income level, registered residence nature (virtual variable, urban household registration as 1) and occupation nature. Income level refers to the total income of individuals last year, which is the sum of labor income, rental income such as houses, other property income, various insurance subsidies, other people's subsidies, and other income. According to the quartile of total income, it is divided into four classification variables: 3000 yuan and below is "low income", 3001 ~ 8400 yuan are "lower income" 8 401 ~ 16800 yuan are "higher income", 16801 yuan and above are "high income", and low income is the reference group. The questionnaire asked about the current or final occupation, excluding individual samples that are inconvenient to deal with, and other processing variables are three categories: retain "agricultural personnel" as "agricultural workers" as the reference group, merge "commercial "clerks", service personnel" "production and transportation operators" into "ordinary workers", Merge "various principals" and "professional technicians" into "management / technicians". The descriptive statistical results of all relevant variables are shown in Table 1.

Table 1: Descriptive statistics of variables [9]

Variable	Variable coding	Average / proportion	standard deviation	Minimum	Maximu m
dependent variable					
Gap between husband	Husband's years of				
and wife's years of	Education - wife's years of	1.21	3.38	-16	16
Education	Education				
First level argument					
Wife's first marriage age	Visitor's first marriage age	22.87	2.95	9	55
Higher education	0= College degree or below	87.67			
	1= College degree or above	12.33			
control variable					
income	1=low-income	46.42			
	2=lower income	19.56			
	3=higher income	16.57			
	4=high income	17.45			
registered residence	0=rural	55.18			



	1=town	44.82		
Occupational nature	1=farmer	42.98		
	2=ordinary workers	43.55		
	3=management/artisan	13.47		
Second level argument				
First marriage period	5-year group period		 1938	2010
Birth cohort	5-year cohort		 1920	1992

#### 5. DATA RESULTS

## 5.1 Women with higher education are more likely to choose a spouse with lower education than themselves

Overall, whether women with higher education or non-higher education, education homogeneous marriage is the mainstream, accounting for 45.79% and 44.46% respectively. However, the proportion of women with higher education in marriage is much higher than that of women with non-higher education. 37.1% of women with higher education have longer education than their husbands, while only 12.46% of women with non-higher education. The average marital education difference of all women with higher education is -1.02 years, while that of women without higher education is 1.52 years. For the two types of women, the average couple's educational years difference is calculated by age, period, and cohort. The results are relatively consistent: the educational marriage difference of women with higher education is almost negative, while that of women without higher education is almost positive.

# 5.2 The influence of the period on the educational marriage of women with non-higher education shows a negative strengthening trend

The period effect of women with non-higher education is almost consistent with that of women, and the negative development effect is enhanced, which can be divided into two stages: before 1980 and after 1980. For women with non-higher education, the dividing point is the 1980s. Before 1985, the period effect was positive. Although the influence was weakening, the effect coefficient from 1980 to 1984 was 0.08, which was very close to 0, indicating that the education matching mode of "men are larger than women and women are smaller" at this stage is the mainstream mode of women with nonhigher education, and finding a spouse with higher education level is still a popular requirement in the period. However, after the mid-1980s, the period effect quickly became negative and the force gradually increased, which means that the education level of women with non-higher education is closer to that of their husbands, and the gap has a narrowing trend, and this phenomenon is more obvious with the advance of time. Before the end of the "Cultural Revolution", the educational marriage quality of women with non-higher education was relatively high. Although the period effect coefficient fluctuated, they were relatively high. The end of the "Cultural Revolution" and the reform and opening have a great impact on women with non-higher education, and the decline degree of the effect is the most intense in all periods, while women with higher education are just the opposite during this period. Under the normal social order, similar marriage is the general trend.

It is closely related to the period events in China. Women with higher education have a more complex period effect change process than women with lower education; women with higher education enter the negative effect earlier than women with lower education and have recovered to the positive effect state. Women with non-higher education enter the negative effect later, but always stay in the negative effect stage. Unfortunately, it is impossible to draw the change map of the difference of educational marriage years between the two groups excluding age and cohort effect, so it is impossible to judge whether women with non-higher education have the trend of downward marriage and women with higher education have the trend of upward marriage. However, given that China's long-term sex ratio at birth has resulted in a more serious squeeze on men's marriage, women with non-higher education can marry in a wide range and are less likely to marry down, whereas women with higher education outnumber men, and the upward marriage space is relatively small. Whether to marry upward cannot be easily determined. Therefore, the more cautious conclusion is with the changes of the times, the two groups are developing towards homogeneous marriage, but the change direction is different.

#### 6. DISCUSSION

Consistent with the existing research conclusions, this study also found that China's educational homogeneous marriage is constantly strengthening, which is a challenge to the traditional marriage mode of "men are higher than women". However, due to the influence of time factors, women with higher education and women without higher education have experienced different change processes.



From the change trend of period effect, the educational marriage of women with higher education has mainly experienced four stages, while non women with higher education have a monotonous downward trend, which can be divided into two stages. In addition, male resources with higher education are not occupied by women with non-higher education, and they also tend to choose women with higher education as their spouses. In the past, women without higher education still had a high probability of marrying men with higher education. Now, this possibility has become smaller, which is unfavorable to their marriage quality. At the same time, it also verifies the above conclusion that the educational marriage quality of women with higher education remains at a high level and tends to rise. However, it is also true that their educational marriage space is smaller than that of women with non-higher education. If the current upward trend continues, women with higher education tend to choose men with higher education levels than themselves, and if the number of men with higher education is insufficient, it will put a structural squeeze on women with higher education, resulting in a large number of women with higher education being unmarried.

The age and period effect of higher education on women's educational marriage shows that the level of education is always an important standard for mate selection. Education level is not only closely related to economic strength, but also has a profound impact on one's world outlook, outlook on life and values, which are very important in modern marriage and love. For women with higher education who are relatively independent economically, spiritual fit may be more important, and they are more likely to wait until they find a qualified spouse to get married, which has been verified by the age effect. Of course, the results of age and period effects prove that the marriage results of women with higher education are still relatively optimistic, but how to solve the problem of unbalanced educational gender structure, ensure the mate selection space of women with higher education and promote their smooth marriage needs the attention of academia and government departments.

#### 7. CONCLUSION

Based on the data of the third China Women's social status survey in 2010, this paper takes married women as the research object, and decomposes the age, period, and cohort effects of higher education on the difference of husband and wife's education years, making the trend of the three-time dimensions more accurate.

The empirical results show that higher education has a significant effect on the age and period of women's educational marriage, but the cohort effect is not obvious. Although women with higher education are more likely to choose to marry men with lower education than themselves, the difference in years of education between husband and wife increases with the increase of the age of first marriage, and the increase is greater than that of women without higher education. On the one hand, it can be verified that from the perspective of education matching alone, women with higher education who delay marriage may not marry well. Domestic society lacks tolerance for excellent women. It is mentioned that women with higher education, especially older unmarried women, often have difficulties in marriage and love and can only get married in the end. The results of this paper just show that women with higher education can marry well, at least in terms of education matching. However, another possibility cannot be ignored. For many women with higher education, education is an important mate selection standard. They are likely to be unwilling to reduce their requirements and insist on being single and postpone the age of first marriage to find suitable men, resulting in a long-term situation of being unmarried at an older age. In this survey, 13.27% of women with higher education are unmarried, 10.81 percentage points higher than those without higher education. If the current situation that the number of men with higher education is reversed by women continues to develop, the situation of being unmarried for a long time may be more prominent. In addition, women with non-higher education also seem to imply the pattern of "insisting on being single and getting married better". Their age trend after the age of 30 is consistent with that of women with higher education; However, before the age of 30, youth is a very favorable mate selection capital, and the growth of age will weaken their favorable position in the marriage market.

Based on the data of the third China Women's social status survey in 2010, this paper takes married women as the research object, and decomposes the age, period, and cohort effects of higher education on the difference of husband and wife's education years, making the trend of the three-time dimensions more accurate.

The empirical results show that higher education has a significant effect on the age and period of women's educational marriage, but the cohort effect is not obvious. Although women with higher education are more likely to choose to marry men with lower education than themselves, the difference in years of education between husband and wife increases with the increase of the age of first marriage, and the increase is greater than that of women without higher education. On the one hand, it can be verified that from the perspective of education matching alone, women with higher education who delay marriage may not marry well. Domestic society lacks tolerance for excellent women. It is mentioned that women with higher education, especially older unmarried women, often have difficulties in marriage and love and can only get married in the end. The results of this paper just show that women with higher education can marry well, at least in terms of education matching. However, another possibility cannot be ignored. For many women with higher education, education is an important mate selection standard. They are likely to be unwilling to



reduce their requirements and insist on being single and postpone the age of first marriage to find suitable men, resulting in a long-term situation of being unmarried at an older age. In this survey, 13.27% of women with higher education are unmarried, 10.81 percentage points higher than those without higher education. If the current situation that the number of men with higher education is reversed by women continues to develop, the situation of being unmarried for a long time may be more prominent. In addition, women with non-higher education also seem to imply the pattern of "insisting on being single and getting married better". Their age trend after the age of 30 is consistent with that of women with higher education. However, before the age of 30, youth is a very favorable mate selection capital, and the growth of age will weaken their favorable position in the marriage market.

#### ACKNOWLEDGMENT

I would like to thank my mentor Professor Liam Gearon and Professor Li for the successful completion of this thesis. From the determination of the topic of the paper, the arrangement of the text structure, to the scientific and academic nature of the specific materials, and even the format of notes. At the same time, I would also like to thank the teaching assistants for their careful guidance. In the process of writing, I often have the problem of inaccurate grasp of the main line because of my unclear purpose. At this time, the teaching assistant will give me macro guidance. This is a great help to me, so that I can correctly grasp the research direction of the thesis and successfully complete the thesis.

#### REFERENCES

- [1] The higher education here includes ordinary undergraduates, adult undergraduates, network undergraduates and postgraduates. The data in 2000 and 2010 are calculated based on the "Fifth Census" and "Sixth Census" respectively, and the data in 2014 are calculated based on the data of the 2015 China Statistical Yearbook.
- [2] Zhang Yiran, Zhang Biao, Hu Fengying "Women are hard to marry" or "men are hard to marry" -- the difference between men and women in marriage matching and the cost of "leaving men and women" [J] Population and economy, 2015, (5): 13-24
- [3] Wang Peng, Wu Yu Xiao Analysis on Influencing Factors of first marriage age -- a study based on cgss2006 [J] Society, 2013, (3): 89-110
- [4] Peter Glick, Christopher Handy, David E Shahn. Schooling, Marriage, and Age at First Birth in Madagascar[J]. Population Studies, 2015, (2):219-236.

- [5] Liu Lige, Jin Xiaoyi, (USA) Feldman Chinese rural men under the squeeze of marriage [M] Beijing: Social Science Literature Press, 2014:10-11
- [6] Gerber Theodore P, Michael Hout. Tightening Up: Inter-and Intragenerational Mobility in Russia, 1988-2002[J].

American Sociological Review, 2004, (6):677-703.

- [7] Li Yu, Lu Xinchao Homogeneity and change of mate selection and pairing -- matching between autogenetic and predisposition [J] Youth research, 2008, (6): 27-33
- [8] Oppenheimer Valerie K. A Theory of Marriage Timing[J]. American Journal of Sociology, 1988, (3):563-591.
- [9] Fan Wenting, Song Jian, Li Ting Higher education, and female marriage: from the perspective of age, period, and cohort [J] China population Yearbook, 2019 (1): 1
- [10] Kalmijn, Matthijs. Shifting Boundaries: Trends in Religious and Educational Homogamy[J]. American Sociological Review, 1991, (6):786-800.