

Analysis on Education Acquisition of Rural Women in China — Based on CGSS2017

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ABSTRACT

Gender equality in education has always been an important issue around the world, and researches on education inequality of rural female in Chinese context contribute to the progress of gender equality in education worldwide. By analyzing the data from the 2017 Chinese General Social Survey (CGSS2017), this paper discusses family factors that influence rural female's education acquisition in China with a perspective of intersectionality theory. It is found that: With the increase of rural residents' income, family economic factor is still an important reason for influencing rural women's education years. The higher the girls ranked in the siblings at home, the higher the proportion of boys in the family, the shorter their average years of education. The educational level of mother and father both affect the educational years of rural women, but the influence of father's education is greater. Overall, the number of years of education for rural women who were born during 1920s-1990s is increasing. To promote the sustainable development of gender equality in education, the national policy allocation of education resources should be more inclined to rural areas, and increase the investment in education funds. A reasonable birth control policy should be made and continuously improving the status of women and the education level of residents.

Keywords: Education acquisition, Gender inequality, Rural female, Intersectionality theory, Sustainable development of gender equality.

1. INTRODUCTION

Gender equality in education has always been an important issue concerned by the international community. Since the World Conference for Education for All in 1990, the issue of gender equality in education has begun to receive unprecedented attention[1], and has been put in an important position in the Education 2030 Agenda which emphasize the equal empowerment of male and female in and through education. Many pieces of research have shown that improvements in girls' education will inextricably benefit the achievement of education. The empowerment of women is a big support to the achievement of the Sustainable Development Goals, especially SDG 4 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' and SDG 5 'Achieve gender equality and empower all women and girls'. According to UNESCO Institute for Statistics, 16 million girls will never have the chance to study in a classroom. Poverty,

geographical isolation, minority status and many other barriers still stand in the way of women and girls fully exercising their right to participate in, complete and benefit from education.[2] The solution of the problem needs the joint efforts of all countries in the world. Researches on education inequality of rural female in Chinese context contribute to the progress of gender equality in education worldwide.

China actively promotes educational equity, taking practical measures to improve women's education level. And special education plans for poor girls have been formulated to ensure that girls in remote and impoverished areas have equal access to education opportunities. According to the sixth national population census, in 2010, the average number of years of education for women over 6 years old reached 8.4 years, an increase of 1.3 years compared with 10 years ago, and the gap with men narrowed by 0.2 years compared with 10 years ago. The achievements are remarkable, but there are still

existing problems. It is found in Wu Yuxiao's research in 2015 that the current gender inequality in China's education mainly exists in rural areas, the degree of gender inequality in rural residents' access to education is very large compared to that of urban residents, and shows a very small reduction.[3] In the context of the urban-rural dual pattern, due to the great differences in social, economic and cultural concepts, there are still gaps between urban and rural areas, between regions. With less public education resources, less rural education materials and teachers, stronger pro-son bias and other economic and cultural factors, some girls living in rural areas are difficult to enjoy the same educational opportunities as other urban girls and boys of the same age.

Most of the existing studies reveal the reason for gender inequality in education from macro institutional or structural factors. The research of Han Yimei and Xie Yu (1994) found that the trend and degree of gender equality change are directly related to the political environment in different historical periods in China.[4] It is proved through empirical analysis that China's compulsory education system, the one-child policy and the college entrance examination system weaken the traditional concept of gender discrimination from family, school and society, so that the opportunities for education for both sexes tend to be equal[5]. Wu Yuxiao compares the gender differences in education between urban and rural residents with the data of CGSS 2008 statistics, and points out that the traditional concept of gender role is an important factor affecting gender inequality in education. Zhang Zhaoshu and Chen Qi(2013) found that the expansion of enrollment in colleges and universities in 1999 benefit the equal distribution of higher education opportunities between the sexes.[6]

Instead of paying attention to the trend and factors from the macro level, this article focuses on rural female this specific group in Chinese context, and concentrated more on the circumstances Chinese rural female faced in terms of educational attainment and tries to figure out the family internal factors stand in their way of further education from micro level using the data of Chinese General Social Survey 2017. The innovation of this study is that it focuses on Chinese rural female and uses the intersectionality theory to analyze the reason of educational inequality from their dual inferiority status.

2. MATERIALS AND METHODS

2.1 Data

The data used in this paper is from Chinese General Social Survey in 2017(CGSS2017), which systematically collected multilevel data including society, community, family and personal level using multistage stratified cluster sampling method. The CGSS2017 obtained 12582 valid national representative samples. In this study, the rural females were selected by the type of hukou at their age of 14, therefore those who had the experience of changing their household registration by marriage or during further education will not be considered when analyzing the contribution factors of education attainment. Because this article considers the final years of education of rural women, the samples currently in school are excluded. The final sample size was 4515. Due to too many missing values in the column of brothers and sisters, 1325 samples were finally included in the linear regression equation.

2.2 Theoretical Basic and Hypothesis

Education equality usually includes three aspects: 1) equal opportunities for education 2) equality of educational process; 3) equality of educational results. This paper mainly discusses the equality of educational results, and uses the years of education of the research object as the measurement standard.

One of the most important factors that affect the equality of educational outcomes is family economic background. Li Chunling found that women from poor family environment, including parents' education level, father's professional status, household registration status and family economic conditions, have fewer education opportunities than others.[7] The economic conditions of a family affect the affordability of children's education. Compared with urban residents, rural residents' family income is less and it is difficult for them to afford all their children's education costs. Therefore, their inferior economic status is transformed into their inferior status in terms of children's education. On the contrary, another mainstream theory is that the expansion of education and the improvement of modernization will lead to the decline of educational inequality caused by family background factors.[8] With the acceleration of modernization, compulsory education has been gradually popularized and

higher education has expanded on a large scale. The reform of China's higher education system ensures the gender equality of citizens' access to higher education and is conducive to gender equity in education.[5] The cost of education gradually becomes lower, so the influence of family economic factors is reduced, and the role of personal factors is enhanced. However, the author believes that, although the influence of family economic factors has weakened with the advancement of China's educational modernization and expansion, it still plays an important role in rural women's years of schooling.

In addition to family economic factors, the education level of parents is also an important factor affecting the length of education of rural women. Previous studies have shown that, parents' education level has an important impact on children's educational attainment.[9] For the children with good family background, the return rate of their children's education is generally high. The educational level of parents affects the accumulation of family cultural capital and intergenerational transmission. Families with higher educational level of parents tend to improve their children's educational level.

Most existing studies have shown that the number of siblings has a negative impact on the individual's educational attainment, the more siblings there are, the lower the individual's educational attainment.[10] According to the "resource dilution theory", The educational resources that parents can provide are limited, including economic resources and time investment, the more children there are, the more resources will be allocated to each child. As a result, children's educational achievement is lower.[11] So in this study, the number of siblings will be also be considered in the model.

In addition, due to gender differences in family education investment and male preference in the patriarchal culture, women are subordinate in the family; rural families tend to invest education capital in boys, and let girls work early. The author believes that girls with larger family rank are more likely to be regarded as the objects of sacrifice than the children with smaller ranks. And the larger the number of boys in the family, the shorter the number of years girls are educated, the earlier they enter the labor market or marriage market.

The education level of the mother in the family has a more significant positive impact on the decision-making of children's education investment

(Qi Liangshu, 2012).[12] The higher the educational level of the mother, the more attention she pays to the education of her children. At the same time, as a female, she has a stronger role model and influence on her daughter, has a more gender equality consciousness, and pays more attention to the education of her daughter when making family education decisions. Therefore, this paper assumes that the educational level of mothers has a positive impact on the educational level of rural women.

Therefore, the hypotheses of this article are as follows:

- Hypothesis 1: Family financial status still has a great influence on the gender inequality of education in the family.
- Hypothesis 2: The higher the ranking of female among their siblings, the less education they obtain.
- Hypothesis 3: The larger the proportion of boys in the family, the shorter the education year for girls.
- Hypothesis 4: Mother's education level has a positive influence than that of father on daughter's year of education.
- Hypothesis 5: The education attainment of rural female is getting better through time changes.

2.3 Variable

The dependent variable of this article is the years of education. In the CGSS2017 questionnaire, the index to measure the education level is the highest education level, which needs to be converted in the process of analysis. According to the Convention, the conversion method is: Never received any education = 0 years, private school = 2 years, primary school = 6 years, junior high school = 9 years, senior high school = 12 years, vocational high school, technical secondary school = 13 years, College (Adult Higher Education) = 14 years, College (formal higher education) = 15 years, undergraduate (Adult Higher Education) = 15 years, undergraduate (formal higher education) = 16 years, postgraduate = 19 years.[3]

The independent variables include: 1) Family financial status, which is determined by the family status level at the age of 14, is coded as 1-10 from the bottom to the top. Although the two are not completely equal, family economic status is an important indicator of family status, and in some cases the two can be approximately the same. 2)

Ranking of the female child among the siblings (rank ratio= ranking of individuals in the family/number of all children), the smaller the number, the higher the ranking of the individual among all the children. 3) The proportion of boys in the family 4) Mother's year of education.

Control variables include: 1) Parent's educational level: converted into the year of schooling in the same way as the years of education of the subjects. 2) Numbers of siblings 3) In order to observe the changes of rural women's education with the process of modernization, the research objects were divided into the same period groups according to the year of birth. 4) Ethnicity: Since most of the ethnic minorities in China live in relatively remote rural areas, where economic development is relatively backward, and cultural concepts are quite different from that of Han people, making the average years of education of ethnic minorities lower.[13] Therefore, ethnicity as a control variable (Han nationality=0, ethnic minority=1) is also added to the model of this article.

3. ANALYSIS RESULTS

3.1 Basic Descriptive Statistical Analysis

As shown in "Table 1", in the existing samples, the average years of education of rural women is 6.9 years, only at the level of junior high school. The family status of the sample is as follows: each rural female has three brothers and sisters on average; boys make up about one-third of the family. The average ranking of respondents in the family was 0.6. The average educational years of father and mother are 3.6 and 2.1 respectively. The average educational years of the father are longer than that of the mother, the maximum educational years of parents on average is 3.7 years, close to that of the father and the score of family economic status in the 10 point system is 2.9, which is generally low. The proportion of ethnic minority samples was 0.36, accounting for a minority of the whole population.

Table 1. Descriptive statistics

Descriptive statistics	mean value	standard deviation
Years of Education	6.9807	4.79498
Number of siblings	3.1174	2.07803
ethnic	0.0853	0.27932
Boys ratio	0.3645	0.21760
Family financial status	2.9221	1.76322
Father's education years	3.6342	4.17518
Mother's education years	2.1027	3.41814
Maximum education years for parents	3.7179	4.23505
Rank ratio	0.6438	0.27944

3.2 The Change of Rural Women's Educational Years

According to "Table 2", with the change of birth year, the average length of schooling of rural women increased gradually, from 1.48 in 1920s to 12.49 in 1990s. It is shown in "Figure 1" that the overall trend is upward. The relatively rapid growth occurred during the 1930s and after the 1980s. This is closely related to the establishment of New China and the changes in education policies. At the same time, the maximum number of years of education in each age group is increasing, indicating that rural women are more likely to be exposed to higher education resources.

Table 2. Years of education of rural women

Years of Education						
	N	mean value	standard deviation	Standard error	Minimum value.	Maximum value
1920-1929	27	1.4815	2.32661	.44776	.00	6.00
1930-1939	201	2.4478	3.61504	.25499	.00	15.00
1940-1949	546	4.0165	4.04263	.17301	.00	16.00
1950-1959	898	4.5924	4.20792	.14042	.00	16.00
1960-1969	990	6.7727	3.90792	.12420	.00	16.00
1970-1979	833	7.9076	4.01737	.13919	.00	19.00
1980-1989	653	10.4502	3.74445	.14653	.00	19.00
1990-1999	361	12.4958	3.31840	.17465	.00	19.00
Total	4509	6.9807	4.79498	.07141	.00	19.00

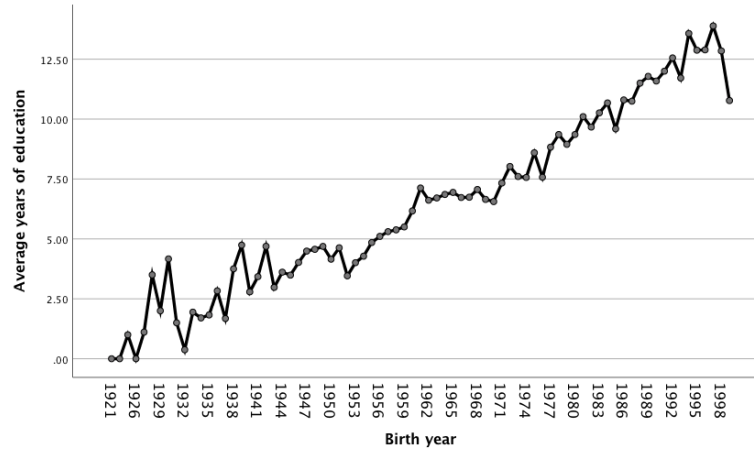


Figure 1 The average length of schooling of rural women.

3.3 The Multiple Linear Regression Model

It can be seen from "Table 3" that family economic status, the number of siblings, the maximum education years of parents and ethnic groups have a significant linear correlation with the education years of rural women. The higher the family economic status, the longer the average

number of years of education for rural women. The more siblings there are, the shorter the years of education rural women have. The longer the parents have been educated, the longer the rural women have been educated. The educational years of rural women in minority areas are shorter than those in non-minority areas, which is consistent with the previous hypothesis.

Table 3. Multiple linear regression model

	Model1	Model2	Model3	Model4
Family financial status	.105***	.103***	.103***	.095***
Number of siblings	-.154***	-.132***	-.145***	-.107***
Maximum education years for parents	.482***	.488***	.493***	.077
ethnic	-.048**	-.047**	-.048**	-.039*
Rank ratio		.074***		.072***
Boys ratio			-.063***	-.060***
Father's education years				.284***
Mother's education years				.200***

Note: **, *** are significant at the levels of 10%, 5%, and 1% respectively.

The higher the ranking ratio is, the smaller the ranking is, and the longer the average length of education is. The smaller the ranking, the less likely rural female is to be regarded as the victim of boys' education, the easier they are to receive more education and enter the labor market later. The elder sister is usually in a weak position in family education investment, and the family tends to let

her enter the labor market earlier to support her brother to go to school. In a rural family, the eldest sister is like the mother, who plays the role of assisting in raising and supporting younger siblings (especially younger brothers), and the same is true in the distribution of family education costs.

There is a significant negative linear correlation between the number of boys in the family and the number of years of education of rural female. The more boys in the family, the more likely girls' educational opportunities will be sacrificed. Due to male preference, the dilution of educational resources in rural families is biased and tends to be allocated to boys, while the more boys there are, the more girls' educational resources will be squeezed.

Both the father's education years and the mother's education years have a significant positive linear correlation with the education years of rural women. The father's education level has a coefficient of 0.284 > the mother's education level coefficient of 0.2, so the father's education level has a greater effect. The author believes that this is because education decision-making in rural families is mainly determined by the father. The higher the education level, the stronger the awareness of gender equality, and the more equitable distribution of family education resources is pursued. The education level of mothers also has a significant role in promoting the education years of rural women. The higher the education level of mothers, the longer the education years of daughters. In general, the education level of both parents will promote the educational years of rural women.

4. DISCUSSION

4.1 The Double Disadvantaged Identities Under the Intersectionality Theory

The origin of the concept of "intersectionality" is in the American black feminism movement in the 1980s. With the development of practice, it has been applied to different disciplines and research fields. Intersectionality refers to the nature of the different and multiple identities of the subject that intersects and acts on each other. It emphasizes the interaction between different social categories and oppressive systems.[14] When we pay attention to the rural women's groups, the intersectionality theory is very important. Rural women's education situation is affected by the dual disadvantages caused by their geographical conditions and gender identity.

4.2 The Inferior Position of Rural Areas in the Urban-Rural Dual Structure

Firstly, compared with cities, with lower economic development level, the stock of education resources in rural area is smaller, hardware

facilities and welfare treatment are weaker, the attraction of high-quality education resources is lower. The objective conditions of rural education resources limit the year of education of rural women.

Secondly, urban residents have higher incomes and can afford the cost of education, and the economic advantages of urban families can also be transformed into the advantages of their children in the process of receiving education.[3] However, the family income of rural families is low and it is hard to pay for their children's education. Although there are national policies such as compulsory education policy to guarantee the right to basic education, the implementation of compulsory education is divided into steps and regions, and rural areas belong to the later steps of the implementation of compulsory education policy.[15] At the same time, although the tuition exemption is guaranteed, there are still many hidden costs, such as stationery costs, transportation costs, the loss of family labor costs and so on. In addition to basic education, if parents want their children to have good performance in the entrance examination, additional high-quality education resources still need the support of family financial ability. Therefore, although the income level and living standard of rural residents are improving, family income is still an important factor affecting the education level of rural women.

Thirdly, the cultural capital accumulation of rural families is less, which is difficult to pass on to their children. The family cultural capital of this study is mainly reflected in the education year of parents. Previous studies have shown that parents' education affects children's academic performance and enrollment rate. The educational level of parents influences their educational concept of their children and their decision-making in family education. The amount of education each parent has may also raise the "bargaining power" of that parent in making household decisions, such as schooling decisions.[16] In addition, parents' maximum years of education to some extent represent the accumulation of cultural capital of the family, which will affect children's education level through parenting mode, emphasis on children's education and family education decision-making. In the data analysis, the education year of both parents affects the years of schooling of rural women, but the influence of the father is higher than that of the mother. This may be because that in rural families, the father plays a dominant role in family education investment and decision-making due to the

traditional dominant position of male and the dominant role of supporting the family.

Fourthly, with the strong fertility intention and weaker implementation of the one-child policy, rural families usually have more children, and the scarce educational resources are even more diluted, which affects the education acquisition of each child. Therefore, a large number of siblings in the family are also an important reason affecting rural women's education.

Finally, in rural areas where many ethnic minorities live together, due to different cultural concepts and customs, the average age of women in some areas is very small, which will affect the subsequent education process of women.

4.3 The Disadvantage of Female Identity

Firstly, female's lower return on education than male is also one of the factors affecting rural women's education. Appleton (1995) found girls from poorer households to be less likely than boys from similar backgrounds to pass the primary leaving exam that rationed access to secondary school.[17] This is caused by many reasons such as thinking differences and examination system.

Secondly, due to the patrilocal residence of the marriage system and labor needs, the income of male's education to the family is greater than that of female in rural areas. In the traditional agricultural society, the family income mainly depends on agricultural labor, male marriage will bring extra labor to the family, while female marriage will lose labor. From the economic point of view, if girls work early, or get married early, for the household, their schooling may be regarded as having a higher opportunity cost.

4.4 Disadvantages of Intersectional Identity

In the rural society dominated by male preference, women's weak position has been magnified by the lack of family education resources. Sen (1990) included pro-son bias is so strong in China that there is the phenomenon of "missing women".[18] Wage employment in rural China is more commonly engaged in by men than by women. Rural parents pay more attention to the benefits and cultivation of boys, it is very important to inherit the lineage from generation to generation. The boys cultivated will become the backbone of

the family in the future. In contrast, girls' education is more like a consumer product than an investment product. When the cost of investment in education is equal for a boy and a girl, parents in rural families are inclined to invest in the boy's education. Due to the lack of educational resources in rural families, girls will be at a stronger disadvantage when boys account for a large proportion of the siblings. The more boys there are in the family, the more girls' educational resources are diluted. The higher the ranking of girls in the family, the more likely it is for them to take on the responsibility of supporting their younger brothers and sisters together with their parents and give up their own education opportunity. That's why the proportion of boys and the ranking of the girl in the family affect the educational year of rural women.

5. CONCLUSION

Based on the data analysis of CGSS2017, this paper draws several conclusions: with the increase of rural residents' income, family economic factor is still an important reason for influencing rural women's education years. The higher the girls ranked in the siblings at home, the shorter their average years of education. The higher the proportion of boys in the family, the shorter the educational years of girls. The educational level of mother and father both affect the educational years of rural women, but the influence of the father is greater. Overall, the number of years of education for rural women who were born during 1920s-1990s is increasing.

In order to promote rural female's access to education and promote gender equity in education, it needs lots of efforts of the society. The national policy allocation of education resources should be more inclined to rural areas, and increase the investment in education funds. At the same time, a reasonable birth control policy should be carried out, combine with the promotion of the concept of gender equality, to promote gender equality within the family. And non-governmental sectors should pay more attention to the education of rural women, and provide financial and material help or vocational skills training for girls who are out of school. Only by continuously improving the status of women and the education level of residents, thereby enhancing the awareness of gender equality in the education investment of new-born families, can we achieve sustainable improvement of gender equality in education.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Chu Lin.

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