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The Impact of Fiscal Education Expenditure on Household Education Expenditure in China

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Abstract: Education is always a hot topic in China attracting attention from many scholars, and the particularity of education frequently contributes to contradiction between education's personal return and the social one. Therefore, to achieve common and equal development in educational development, macro control on education resources is of great importance. Learning the impact of fiscal education expenditure on household education expenditure can help in building a better understanding of the mechanism behind the effect of increasing or decreasing fiscal education expenditure, so that the government can set educational policies of higher efficiency. What's more, merely understanding the general impact of fiscal education expenditure is far from enough. More factors, i.e., household income, educational stages, should be taken into consideration because different groups of people may have various reactions to the government's macro control.

Based on the secondary data collected from CFPS, an authoritative database in China, together with the primary data collected through the distribution of questionnaire, the researchers built three OLS regression models, and carried out certain data analyses, finally drawing the conclusions that the fiscal education expenditure plays the crowding out effect on the household one, and both income and educational stages have significant impact on this crowding out effect.

Keywords: Education Expenditure; Family Income; Educational Stage; OLS Regression

1. Introduction

Recently, the Education Ministry of China promulgated a new education policy, which aims to release students' unnecessary burden, and improve the teaching quality at the same time. It sparked much discussion nationwide. In fact, this is only the tip of the iceberg among all the education policies promulgated in China in recent decades. Education is always a hot topic in China. From the personal perspective, taking the data in 2017 as an example, only 3.09 million students were admitted by universities in China, which was about 16.19% of the relevant age group, while a diploma from these universities is indispensable when applying for almost all the decent jobs in China. It makes education an unavoidable topic for every Chinese household. From the social perspective, education plays such an important role in economic growth that, to realize the sustainable economic development in China, great emphasis should be attached on education's social return (Cai, 1999).^[1]

However, because of the particularity of education, contradiction frequently occurs, caused by education's personal and social return. Therefore, macro control on education resources is of great importance in China, a country emphasizing education equality and common development. That is also the reason why this research topic is raised. Through understanding the relationship between fiscal education expenditure and the household one, the researchers hope to provide new insights on effective allocation of education resources, not only in China, but also in all developing countries.

2. Literature review

2.1 How family policies influence household decisions?

Family policy has a wide range of social effects. The government not only needs to convey welfare to social members through family policy, but also needs to adjust family policy in time to adapt to new social changes. The education policy studied in this paper also belongs to family policy, which has a far-reaching impact on the human capital investment of Chinese families.

The academic circles generally divided the family policy into two perspectives: the broad one and the narrow one. Aldous and Dumon (1980) summarized the family policy from a broad perspective and believed that the family perspective was an aspect of all categories of policies, but this view was very poor in practice. ^[2]Hantrais and Letablier (2014) defined family policy in a narrow sense. They believed that family policy is a policy that exerts influence on family members and resources, at household level. Based on the analysis of the evolution of compulsory education policy for migrant children, Xu and Zhang (2016) observed that although the implement of this policy achieved some success, however, it was still far from perfect, and put forward to bring the family perspective into public policy, verifying the importance of family policy. ^[3]Yang and Wu (2015) studied the influence of public education expenditure on family intergenerational investment decisions and found that family policy can not only effectively mitigate the aggravate unfairness in education through intergenerational mobility, but also help to ease the social security problem in today's China. ^[4]All the previous studies confirmed the importance of family policy on household decisions.

2.2 How household education expenditure is affected

Household education expenditure, together with the fiscal one, consists of almost all the sources of education funds. In fact, besides policy, there are still plenty of factors that have influence on household education expenditure. Tilak (2002) systematically summarized the factors influencing household education expenditure into two categories, the objective one and the subjective one. Among these, the primary factor, which has been studied repeatedly by scholars is income. ^[5]Schultz (1993) found that the education expenditure in low-income families tends to be low, compared with high-income families. ^[6]This was also the unquestionably dominant conclusion until Wan (2017) repudiated it with the regression discontinuity design, and concluded that that difference, in fact, comes from the accumulated results of marginal increase or decrease. ^[7]

2.3 How fiscal education expenditure affects household education expenditure

Although plenty of research has been done on family policy and the household one respectively, few studies studied the relationship or reaction between them. Shen and Yan (2012) studied on this relationship but found no statistically significant linear relationship between them. ^[8] Yang and Wu (2015) introduced family income into their model to do similar research and found the significant crowding out effect on household education expenditure brought by the fiscal one, and the differences between this effect on the rural and urban ones as well. However, the research finished by Zhang (2018) contradicted this crowding out effect and suggested that as the government increases its fiscal education expenditure, the household will also increase their personal expenditure. ^[9]

So far, scholars have not reached an agreement on whether the crowding out effect or the crowding in effect is applicable in the case of education expenditure. More studies are urgently needed to confirm this effect. Also, the data used in previous research are old. China's gross domestic production keeps booming these years, possibly thereby changing people's opinions on education simultaneously, so that people may behave differently nowadays. Moreover, researchers like Shen and Yan (2012) merely took the households in cities into consideration. The homogeneity of the samples might be high, so that underestimated the impact of income differences on crowding out effect. Besides, scholars like Wu (2020) divided households into eight different income levels to study the income's effect on the crowding out effect. It might overestimate the influence of income since there is no significant difference between the educational expenditure of high-income families and the one of low-income families (Wan, 2017). What's more, although some articles have considered that income would

have an unignorable influence on the crowding out effect, most of the extant studies still remained on a general level, let alone considering other factors apart from income.

3. Results

The estimated relationship between fiscal education expenditure and the household one is intuitively shown in Figure 1. It suggests that as the government continues increasing its fiscal education expenditure, the household education expenditure will always decrease, while the marginal crowding out effect will get larger and larger.

4. Conclusions & Recommendations

4.1 Conclusions

For the general impact of the change of fiscal education expenditure on the household one, it is concluded that the increase of fiscal education expenditure will impose crowding out effect, mainly caused by the improvement of teaching quality, on the household education expenditure.

For the impact of the increase of family income on the crowding out effect, it is concluded that with the increase of income, the crowding effect of fiscal education expenditure on family education expenditure gradually increases but is less statistically significant.

For the impact of the educational stage on the crowding out effect, it is concluded that the higher the educational stage the child is at, the more sensitive the household will be to the crowding out effect of fiscal education expenditure.

4.2 Recommendations

Given the conclusions driven, the researchers gave the following recommendations:

First, to reach the same goal in different regions, the fiscal education expenditure could be spent more in those relatively educationally underdeveloped regions. Also, the government could consider spending more on compulsory curricula instead of moral ones.

Secondly, governments could consider strengthening publicity to help household build rational education expenditure, or developing the educational structure so that households' anxiety about educational issues can be relieved.

Thirdly, if the government's goal is to change household educational behaviour through increasing or decreasing the fiscal education expenditure, changing the expenditure for the higher educational stage may be more effective. If the goal is to improve the general educational return on all stages, more consideration should be paid on higher educational stage students because their according decreases of household education expenditure may counteract the improvement of return brought by the increase of government expenditure.

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