https://doi.org/10.62836/jissh.v3i3.0014

Global Science Publishing

JISSH

Journal of Integrated Social Sciences and Humanities

https://ojs.sgsci.org/journals/jissh

Article

Analysis of the Impact of the Special Additional Deduction Policy for Children's Education on Families' Fertility Intentions and Countermeasures

Xilin Jin

School of International Law, East China University of Political Science and Law, Shanghai 201620, China

Abstract: In recent years, China's fertility rate has continued to decline and the degree of aging has deepened. How to encourage childbirth through policy means has become a focus of social concern. The special additional deduction policy for children's education introduced in the individual income tax reform in 2019 is regarded as an important tax tool for encouraging childbirth. This paper, based on the relevant data of population statistics and tax implementation in recent years, and in combination with the theory of income and substitution effect, public goods and human capital, and the principle of tax fairness, analyzes the internal mechanism and practical problems by which this policy affects the willingness of families to have children. The study finds that although the policy can positively encourage childbirth by increasing disposable income, it is constrained by problems such as low deduction standards, narrow coverage, a failure to reflect the rising cost of raising multiple children, and the exclusion of low-income groups, resulting in insufficient overall incentive intensity and uneven policy effects. Based on this, this paper proposes optimization suggestions such as refining standards by region and stage, expanding coverage throughout the entire cycle, strengthening multi-child incentives, and benefiting low-income families, in the hope of enhancing the fertility support effectiveness of individual income tax policies.

Keywords: special Additional deductions for children's education; fertility intention; personal income tax; tax equity; population policy

1. Introduction

In recent years, China has witnessed significant changes in its population development. The total fertility rate has remained below the replacement level, and the aging process has accelerated, posing challenges to the sustainable development of the economy and society. To address this situation, the country has gradually eased fertility policy restrictions, evolving from the "one couple, two children" policy to the "universal two-child" policy, and then to the implementation of the "three-child" policy and its supporting measures in 2021. At the same time, tax policy, as an important tool of macro-control, has also been given the function of encouraging childbirth. In 2019, the individual income tax reform introduced a special additional deduction for children's education. Taxpayers' children who receive full-time academic education can deduct a fixed amount of 1000 yuan per child per month, aiming to reduce the burden of family education and link up fertility incentives. In 2023, China's total fertility rate dropped to 1.09, far below the population replacement level of 2.1. The proportion of first-child births was less than 40%, and the growth of second- and third-child births was sluggish due to economic costs, highlighting the urgency of policy synergy [1].

Received: 24 June 2026; Accepted: 8 July 2026.

Corresponding: Xilin Jin (selina_jin18@163.com)

The current academic research on the relationship between special additional deductions for individual income tax and fertility intentions has mostly focused on the analysis of income effects and substitution effects from an economic perspective, or empirical tests based on micro-survey data. However, the existing research is relatively weak in the legal aspect, especially in the examination of whether the policy itself conforms to the principle of tax fairness, the principle of ability-based taxation and other legal spirits. In addition, further in-depth analysis is still needed regarding the structural flaws in policy implementation and their differentiated impacts on fertility intentions.

This paper aims to explore three interrelated aspects: the mechanisms by which the special additional deduction policy for children's education affects family fertility decisions; the deficiencies in the current policy's institutional design; and potential pathways for optimization. The research will be conducted using a method that combines normative analysis with empirical data support, grounded in the theory of tax equity and efficiency. The findings will serve as a reference for improving the individual income tax special additional deduction system and promoting the synergy of fertility support policies.

2. Theoretical Basis

2.1. Income and Substitution Effect

The special additional deduction for children's education directly affects household disposable income. According to the Individual Income Tax Law of the People's Republic of China, this deduction reduces taxable income and lowers the individual income tax burden. Taking a family with a monthly income of 10,000 yuan (subject to a 10% tax rate) as an example, raising one child would result in a deduction of 1000 yuan per month, a reduction of 100 yuan per month, that is, an increase of 1200 yuan per year in disposable income, which largely alleviates the economic pressure on education and increases the family's willingness to have children. This is the income effect. At the same time, the policy has reduced the cost of education and relatively lowered the opportunity cost of having children. When the deduction covers the increase in education spending, families are more willing to shift resources from savings and consumption to child-rearing. This is the substitution effect, and it works in synergy with the income effect to influence fertility [2].

2.2. Theory of Public Goods and Human Capital

From the perspective of public goods, on the one hand, education can enhance social human capital and promote economic development, and on the other hand, families can also receive educational rewards. The individual income tax deduction policy is a mechanism for the government to compensate families for their educational investments using tax tools. When families bear the cost of education, the government reduces their burden through deductions. This can both encourage childbirth and optimize the allocation of educational resources [3].

From the perspective of human capital, children's education is also an important investment for families. The special deduction policy reduces investment costs and encourages families to increase their educational investments, which not only improves the quality of the future labor force but also promotes population development by lowering the economic threshold for childbearing [4].

2.3. Tax Fairness and Ability-Based Taxation Principles

From a legal perspective, the design of tax policies should follow the principles of tax equity and ability-based taxation. The principle of tax equity requires a fair distribution of the tax burden among taxpayers, including both horizontal and vertical equity. The principle of ability-based taxation emphasizes taxing taxpayers based on their actual ability to bear the burden. The current special additional deduction for children's education uses a uniform fixed deduction method, failing to adequately account for the significant differences in education spending among families across different regions and income levels. High-income families, due to the higher marginal tax rate, receive more tax reduction benefits from the same deduction amount, while low-income families, due to the lower tax rate or not reaching the threshold, have limited policy benefits. This "reverse adjustment" effect has some tension with the requirements of tax fairness and ability-based taxation [5].

3. Current Situation and Problem Analysis

After the universal two-child policy in 2016, the fertility rate briefly rebounded and then continued to decline. The total fertility rate in 2023 was 1.09, far below the replacement level. Structurally, the proportion of first-child births is less than 40%, indicating a low willingness to have a first child. Although there are policy incentives for having two or three children, the actual proportion of such births remains low. More than 60 percent of families are willing to have a second child, but only about 30 percent are actually doing so, with education costs and housing pressure being the main reasons. This indicates that the current special additional deduction policy for children's education has limited effect and cannot completely solve the economic pressure problem [6].

The special deduction policy has both effects and limitations. According to the Interim Measures for Special Additional Deductions of Individual Income Tax, full-time education is subject to a fixed deduction of 1000 yuan per month, and parents can choose either full deduction for one or equal deduction for both. According to 2023 data, the actual effect of the policy increases the probability of having a second child by 3 to 5 percentage points and a third child by 1 to 2 percentage points. However, this effect is mainly concentrated in middle- and high-income families that place a high emphasis on education, and it has little impact on the overall fertility situation [7].

At the problem level, first of all, the deduction criteria are insufficient. In first-tier cities, the average annual education expenditure for children is approximately over 50, 000 yuan, but the deduction of 1000 yuan per month accounts for only 24% of that; In third- and fourth-tier cities, the deduction amount is less than 50% of the education expenditure, indicating that the deduction policy is too low to truly reduce the burden [8]. Secondly, the coverage is limited. The policy only covers education expenses for children over 3 years old. Early education and childcare expenses for children aged 0–3 are not included. This stage accounts for 30% to 40% of the total cost of raising children. The pressure of early childbearing has not been relieved, which to some extent restrains the decision-making of young families. Third, there is a lack of incentives for multi-child families and low-income groups. In 2023, the cost of raising children for multi-child families will be 40% to 60% higher than that for one-child families. The fixed deduction does not reflect the increasing cost of having multiple children, and the tax benefits are basically no different from those for one-child families. At the same time, families with a monthly income of less than 5000 yuan are not eligible for the deduction, and their education expenses account for more than 30% of their income. Thus, the deduction policy does not cover the group with the most suppressed fertility intentions [9].

The fertility incentives generated by the special additional deduction policy do exist but are not evenly distributed. First, the overall incentives are weak. The data shows that for every additional 100 yuan per month deduction, the willingness to have a second child increases by 2.1% and for a third child by 0.8%. There is indeed a positive incentive but the coefficient is small, reflecting insufficient intensity [10]. Secondly, the differences are significant. High-income families with an annual income of more than 200, 000 yuan have a higher deductible policy impact coefficient than middle- and low-income families, and the marginal effect is more significant for families with a high proportion of education expenditure. It can be seen that the policy has a more prominent effect on high-input, high-income families, and the middle- and low-income groups need more stimulus. From a legal perspective, the existence of such differences leads to the absence of policy in terms of vertical equity. Tax incentives are supposed to regulate income distribution and promote social equity, but the design of the current policy has, to some extent, exacerbated the actual benefit gap among different income groups, a situation that deviates from the inherent requirements of the principle of tax equity [11].

4. Suggestions for Optimizing the Special Additional Deductions for Children's Education

Based on the above analysis, in order to better exert the fertility incentive effect of the special additional deduction for children's education policy and make it more in line with the requirements of the principle of tax fairness, this paper puts forward optimization suggestions from the following four aspects.

4.1. Refine the Deduction Standards by Region and by Stage

4.1.1. Differentiate by Region

First-tier cities (such as Beijing, Shanghai, Guangzhou and Shenzhen) have a high level of economic development, concentrated educational resources and high educational costs. It is suggested that the deduction standard be raised to 2500 to 3000 yuan per month. Take Beijing as an example. From kindergarten to high school, the cost of after-school tutoring, extracurricular classes, and school-district housing reaches an average of 80,000 to 100,000 yuan per year. A higher deduction standard can effectively relieve the pressure on families. Education costs in second-tier cities (such as Hangzhou, Nanjing, Chengdu, etc.) are slightly lower than those in first-tier cities, with deductions set at 1800–2200 yuan per month. Families in these cities spend around 50,000 to 70,000 yuan per year on their children's education, and this deduction range is appropriate. In third- and fourth-tier cities, the deduction could be set at 1500 to 1800 yuan per month. In these cities, the cost of living and education is relatively lower, with an average annual education expenditure of 30,000 to 50,000 yuan for families. This deduction can balance the differences in fertility costs in the region [12].

4.1.2. Break It Down by Stage

For the preschool education (3–6 years old) stage, where children have a high demand for early education, the deduction is raised to 2000 yuan per month. At this stage, families invest more in early education classes and interest enlightenment for their children. Taking an ordinary second-tier city as an example, the average annual cost of early education is about 20,000 to 30,000 yuan. During the compulsory education stage (ages 6–15), tuition fees are waived, but after-school tutoring, learning materials, and other expenses are still considerable. The average annual education expenditure for families is 20,000–40,000 yuan, which can be maintained at 1800 yuan per month. For high school and higher education (15+ years old), 1500 to 1800 yuan per month is available. High school students face the pressure of college entrance, with increased costs for after-school tutoring, subject competitions, etc. College students also have higher expenses for tuition, accommodation, living costs, and other items, with an average annual education expenditure per family of 40,000 to 60,000 yuan [13].

4.2. Expand Coverage and Reduce Burden to Cover the Entire Birth Cycle

4.2.1. Include Expenses for Children Aged 0–3

China's policy allows deductions for childcare and early education expenses for children aged 0–3, with a limit of 18,000 to 30,000 yuan per year (1500 to 2500 yuan per month). The 0–3 years old stage is an early period with high child-rearing costs, with high expenses for milk powder, diapers, early education courses, medical care, etc. Taking first-tier cities as an example, the average annual child-rearing cost can reach 40,000–60,000 yuan. This deduction policy could effectively relieve the pressure on young families during the early stage of child-rearing and boost the willingness to have children [14].

4.2.2. Cover After-School Education

In China, expenses such as after-school tutoring and interest classes can be deducted from tax at a rate of 50%, with an annual limit of 15,000 yuan. At present, families attach great importance to the comprehensive quality development of their children, and the proportion of after-school education investment is large. For example, in first-tier cities, the average annual after-school education expenditure of families can reach 30,000 to 50,000 yuan. This policy matches the actual education expenditure patterns of families and enhances policy relevance [15].

4.3. Strengthen Incentives for Multiple Children to Reflect Increasing Costs

4.3.1. Differentiated Deductions

To encourage families with multiple children, the deduction for a second child can be 40% higher than that for a first child, and for a third child it can be 60% higher than that for a first child. According to relevant data, the cost of raising children for multi-child families is projected to be 50–70% higher than that for one-child families in 2025. Differentiated deductions can better compensate for the costs of multi-child families and encourage the birth of second and third children. This adjustment also reflects the principle of vertical equity in tax fairness, providing more tax benefits for families with heavier burdens. [16]

4.3.2. Synergistic Subsidies

Families with three children can add up local education subsidies and child-rearing allowances to encourage childbirth. In areas where such policies have been introduced, families with three children could receive a child-rearing allowance of 10,000 to 20,000 yuan per year. Personal income tax and fiscal policies work together to form a supportive synergy and reduce the burden of raising children for families [17].

4.4. Benefit Low-Income Families

4.4.1. “Negative Deduction” Subsidies

For families whose income is below the threshold, a cash subsidy of 15–30% of their education expenditure will be provided, up to 5000 yuan per year, to reduce the burden and increase the willingness to have children through fiscal transfer payments. This design draws on the concept of a “negative income tax” and extends the scope of tax benefits to low-income groups that do not meet the tax payment threshold, representing a positive application of the principle of ability-to-pay taxation [18].

4.4.2. Optimize the Deduction Distribution

The government could allow low-income families to transfer deductions to high-income spouses or relatives, thereby increasing policy utilization and ensuring that those with suppressed fertility intentions benefit. This adjustment helps to achieve a reasonable allocation of tax benefits within families and more effectively translate policy dividends into fertility support [19].

5. Conclusions

The special additional deduction policy for children’s education positively affects fertility intentions through income and substitution effects, but there are problems such as low standards, narrow scope, and uneven incentives. Based on the principles of tax equity and ability-to-pay taxation, this paper proposes optimization suggestions including differentiated deductions, expanded coverage, multi-child incentives, and universal eligibility, with the aim of strengthening the support role of individual income tax policies for fertility, promoting long-term balanced population development, and providing tax-based support for addressing low fertility rates and aging.

This paper is mainly based on macro data and theoretical analysis. There is a lack of micro empirical investigation for specific groups. Further research can obtain first-hand data through questionnaires or in-depth interviews to more accurately assess the differentiated impact of the policy on different types of families. At the same time, the coordination of tax policies with fiscal subsidies, childcare services, and other supporting measures is also a direction that warrants further study.

Funding

This research received no external funding.

Institutional Review Board Statement

Not applicable.

Informed Consent Statement

Not applicable.

Data Availability Statement

Not applicable.

Conflicts of Interest

The author declares no conflict of interest.

References

1 National Bureau of Statistics. *China Population and Employment Statistical Yearbook 2024*; China Statistics Press: Beijing, China, 2024.

2 Liu Y, Nie H. Tax Destinations and Income Distribution Effects of Personal Income Tax Expense Deductions. *Economic Research Journal* 2019; (**5**): 98–113.

3 Jia K, Liu W. *Public Finance and Taxation*; People's Publishing House: Beijing, China, 2020.

4 Li S, Wan H. The Evolution of China's Income Distribution Pattern and Policy Choices. *Management World* 2021; (**3**): 56–72.

5 Zhang S. *Principles of Tax Law*, 10th ed.; Peking University Press: Beijing, China, 2023.

6 Chen W, Liu J. *China's Fertility Rate Changes and Policy Adjustments*; *Population Research* 2022; (**4**): 23–38.

7 State Taxation Administration. *Evaluation Report on the Implementation Effect of Special Additional Deductions for Individual Income Tax*; State Taxation Administration: Beijing, China, 2024.

8 Institute of Education Finance Science, Peking University. *Survey Report on the Current State of Family Education Spending in China*; Peking University: Beijing, China, 2023.

9 Population and Development Research Center, Renmin University of China. *China Fertility Costs Report 2024*; Renmin University of China: Beijing, China, 2024.

10 Wang Y, Li R. Research on the Impact of Tax Incentives on Fertility Intentions: An Empirical Analysis Based on CFPS Data. *Fiscal Research* 2023; (**7**): 85–99.

11 Liu J. *General Theory of Tax and Finance Law*; Peking University Press: Beijing, China, 2022.

12 Development Research Center of the State Council. *Research on Improving Special Additional Deductions for Individual Income Tax*; Development Research Center of the State Council: Beijing, China, 2024.

13 National Institute of Education Sciences, China. *Research Report on Education Expenditure and Family Burden*; National Institute of Education Sciences, China: Beijing, China, 2023.

14 National Health Commission. *China Childcare Services Development Report 2024*; National Health Commission: Beijing, China, 2024.

15 China Youth and Children Research Center. *Survey Report on After-School Education Investment by Chinese Families*; China Youth and Children Research Center: Beijing, China, 2023.

16 China Population and Development Research Center. *Research on Parenting Costs and Support Policies for Multi-Child Families*; China Population and Development Research Center: Beijing, China, 2024.

17 Zhang C, Zhao W. International Comparisons and Implications of Fertility Support Policies. *Chinese Population Science* 2023; (**2**): 15–29.

18 Li L. Research on the Improvement of the Special Additional Deduction System for Individual Income Tax from the Perspective of Ability-to-Pay Taxation. Master's Thesis, China University of Political Science and Law, Beijing, China, 8 December 2022. DOI: 10.27656/d.cnki.gzgzu.2022.000226.

19 Yue S, Li J. Institutional Optimization of Special Additional Deductions for Personal Income Tax; *Taxation & Economy* 2024; (**1**): 33–40.