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A SECOND CHILD? NO, THANK YOU!

**THE IMPACT OF CHINESE FAMILY PLANNING POLICIES ON FERTILITY
DECISIONS**

BY

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Abstract

In 1979, the Chinese government introduced the One-child Policy for the purpose of controlling population growth. Thirty years later, the fertility rate in China has declined to a very low level and one-child families have become the norm. At the same time, the consequences of low fertility rates have emerged. In 2015, the government announced a new policy that encouraged couples to have two children in order to raise the total fertility rate. In this paper, I analyze the economic and legal implications of the Chinese family planning policies. By examining to what extent fertility decisions are affected by government policies, I evaluate the potential effects of the Two-child Policy. The findings suggest that the Two-child Policy might not be effective in increasing the total fertility rate.

Keywords: Family planning policies; China; Two-child Policy; fertility; demand for children; family size; number of children

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Introduction

With a population of more than 1.35 billion today, China has long been one of the most populous countries in the world. After having experienced a rapid population growth in the 1950s, the government soon adopted population reduction policies to control population growth by encouraging late marriage and postponed childbearing. By the late 1970s, controlling population growth and increasing GDP per capita had become China's primary goals under the leadership of Deng Xiaoping. As a result, the One-child Policy was introduced in 1979 for the purpose of lowering the fertility rate and achieving economic prosperity. While regarded by many as "the boldest and largest experiment in population control in the history of the world" due to its extensive and strict implementation, the One-child Policy successfully reduced the family size in China and brought the fertility rate to a historical low in the 1990s¹.

Over the years, many have called for the relaxation of the Chinese family planning policies to allow couples to have more than one child. On October 29, 2015, the Communist Party of China (CPC) announced the new family planning policy that encouraged all couples in China to have two children. In the announcement, the CPC noted that the demographic structure of China had changed dramatically since entering the 21st century. The CPC pointed out that, with the fertility rate dropping significantly, the working age population had started to shrink and the elderly were becoming an increasing share of the population. This change of policy was aimed to improve the age structure of the population, to effectively increase the labor supply, and to ease the pressure of

¹ Caven S. McLoughlin, "The coming of age of China's single child policy," *Psychology in the Schools* 42, no. 3 (2005): 312.

an aging society. In December 2015, a draft amendment to China's National Law on Population and Family Planning was sent to the national legislative body, the National People's Congress, for review and approval. The amendment was passed on December 27, 2015 and came into effect on January 1, 2016, officially putting an end to the One-child Policy that had been in place since 1979.

Although the law has changed to allow two children in every family, it is unclear how much of an effect this change will have on the fertility level. In *An Economic Analysis of Fertility*, Becker pointed out that fertility decisions are determined by a variety of factors, such as income, cost of children, and tastes.² Thus, while the family planning policies have a large influence on the fertility level in China, it is not the only thing that affects fertility decisions. During the thirty years in which the One-child Policy was in place, other factors influencing fertility decisions might have changed to result in a different ideal family size among Chinese families. In this thesis, I aim to understand the nature and the size of the impact that the Two-child Policy might have on the fertility decisions by analyzing the fertility effects of past family planning policies and taking into account other important factors influencing family size decisions in China.

² Gary S. Becker, "An economic analysis of fertility," *Demographic and economic change in developed countries*, Columbia University Press, 1960: 211.

Literature Review

Before I go into analyzing the potential effects of the Two-child Policy, it is important to look at previous family planning policies and their impact on the fertility level. In this section, I will provide an overview of the Chinese family planning policies with a focus on the One-child Policy and its impact on the fertility rate in China. By studying the ways in which the One-child Policy was implemented, I hope to show how this policy changed people's fertility behaviors over the years and how it was raised to a legal status before any legislation was even adopted. In addition, I will analyze the significance of the adoption of Chinese Family Planning Law in 2000. Understanding the implications of previous policies will help us better determine how effective the Two-child Policy will be in raising the fertility level.

Early Family Planning Policies and Campaigns

In China, the government has launched many family planning programs and made policies regarding family sizes since the 1950s. In the three decades following the end of the Chinese Civil War and the establishment of People's Republic of China in 1949, the country experienced a population explosion due to ideological and political reasons. In the early 1950s, the CPC's leader Mao Ze Dong pointed to the need for more workers in agriculture and advocated for

larger families.³ The population policy at that time thus encouraged more births per family. Women who gave birth to more babies even received titles of honors. As a result, China reached a total fertility rate (TFR)⁴ as high as 6.3 in 1965, compared to a world average of 5 at that time. Within thirty years, China's population increased by more than 260 million.⁵ However, as the country experienced a widespread famine in the early 1960s, the government soon realized that the limited arable land would not be able to sustain such fast population growth and that population control was needed.

In the early 1970s, the government launched a new family planning campaign to control the population growth. The slogan *wan, xi, shao* embodied the three important aspects of this new family planning policy: late marriage, birth spacing and fewer children.⁶ The rules were most strictly applied in urban cities, where couples were ordered to delay marriage and childbearing until an older age (25 for women and 28 for men) and to space out the births of children by three to four years. The policy also encouraged a smaller family size by limiting the number of children in each family to two or three, depending on the region. As a result this campaign, the TFR dropped significantly during the 1970s, from 5.9 in 1970 to 2.9 in 1979. As shown in Figure 1, there was a consistent decrease in fertility rate throughout the 1970s.

³ Xiaorong Li, "License to coerce: Violence against women, state responsibility, and legal failures in China's family-planning program," *Yale JL & Feminism* 8 (1996): 145.

⁴ Total fertility rate is the average number of children a woman would have throughout her childbearing years.

⁵ Skalla, Nicole M, "China's One-Child Policy: Illegal Children and the Family Planning Law," *Brook. J. Int'l L.* 30 (2004): 329.

⁶ Isabelle Attané, "China's family planning policy: an overview of its past and future." *Studies in family planning* 33, no. 1 (2002): 103.

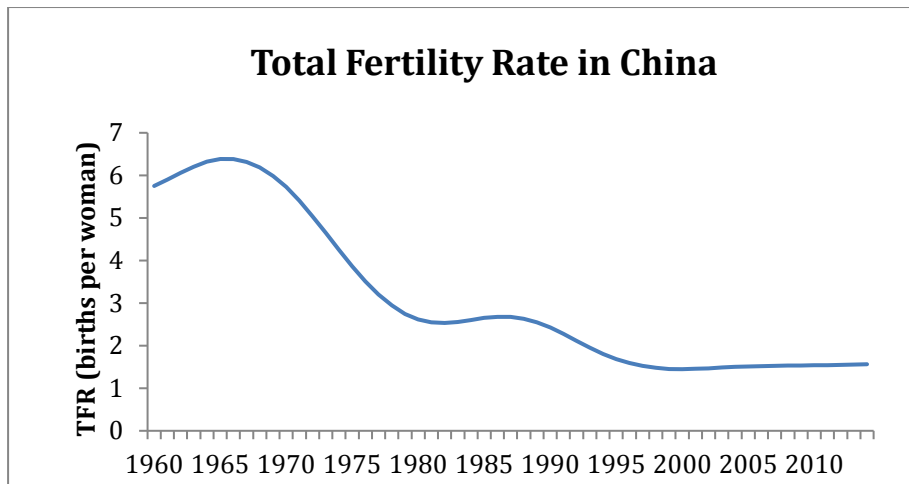


Figure 1. Totally Fertility Rate in China (1960-2015)
Source: The World Bank

The One-child Policy and its implementation

While the *wan, xi, shao* policy significantly lowered the fertility level, it was not enough to control population growth due to a large population base. By the late 1970s, some population specialists had already predicted that this policy would fail to meet the State's official target by 2000, which was to limit the population to 1.2 billion. More importantly, the nation's population was increasing at a rate that was considered as unsustainable compared to the rate of economic growth. At that time, China was home to nearly a quarter of the world's population, but it had only seven percent of world's arable land.⁷ While population increased steadily, the domestic economy was barely growing and had a staggering GDP growth rate. This led to a low GDP per capita that was way below the world's average level. As shown in Figure 2, in 1979, China's GDP per

⁷ Therese Hesketh, Li Lu, and Zhu Wei Xing, "The effect of China's one-child family policy after 25 years," *New England Journal of Medicine* 353, no. 11 (2005): 1171.

capita was only around \$180, while the world average was about \$2270.⁸

Coming out the Cultural Revolution, which lasted from 1966 to 1976 and caused serious economic stagnation, the new Party leader Deng Xiaoping was ready to initiate an economic reform for the purpose of quickly increasing GDP per capita and improving living standards. Thus, lowering birth rate and controlling population growth thus became a national priority.

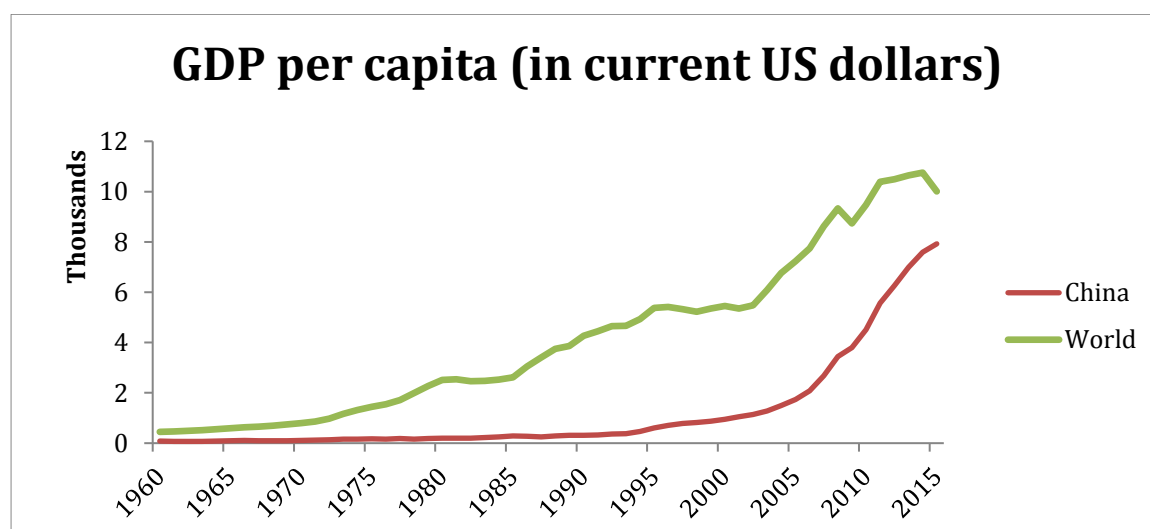


Figure 2. GDP per capita, China and World Average
Source: The World Bank

In order to reach the population goal and to facilitate the economic reform, Deng announced a new family planning policy that would promote the norm of the one-child family in 1979, known later as the One-child Policy.⁹ To urge couples to follow the policy, the government claimed that “population control [was] the most important step toward a higher standard of living”, and warned its people that “the only alternative to population control [was] poverty, high infant mortality, and malnutrition.”¹⁰ In 1980, the Central Party Committee

⁸ Data obtained from the World Bank database. The definition of the GDP per capita is gross domestic product divided by midyear population, measured in current U.S. dollars.

⁹ Li, *op. cit.*, p.148.

¹⁰ *Ibid.*, p.150.

issued the order stating that each couple may only have one child. The rule was then implemented throughout the country. This uniform standard soon faced resistance from the people, especially in less developed rural areas where there was a need for a large agricultural labor force and where the family size was generally bigger than that in urban cities.

In 1984, the government reconsidered the policy and made changes to accommodate the need of different populations. Considering the traditional preference for a son and that the number of male labor directly affected the family's livelihood in some places, the new policy allowed a second child in families in rural areas if the first child was a girl.¹¹ Moreover, parents who were both the only child in their families could have more than one child. In general, people of minority groups were also allowed more children, but specific regulations depended on the region.¹² This led to a diverse policy regime where the rules were mostly strictly implemented in urban areas upon those who held non-agricultural household registration, but were more flexible in less developed rural areas or regions with large minority populations (Figure 3). However, even for those who were eligible to have a second child, couples were required to apply for second-birth permit with a fee before they plan to conceive a child. After obtaining the birth permit, couples were also typically required to wait five years after the first birth.¹³

¹¹ Feng Wang, "Can China afford to continue its one-child policy?" *AsiaPacific Issues*, no.77 (2005): 2.

¹² Ibid.

¹³ Skalla, *op. cit.*, 336.



Figure 3. Number of children per couple allowed by China's multipolicy fertility regime
 Source: *The Asia Pacific Issues*

Facing strong domestic resistance, the State did not adopt any legislation that codified the One-child Policy at the time of its implementation. The economic and cultural diversity in China also made it a great challenge for the legislature to enact a uniform law to regulate the entire country. However, this did not prevent the policy from being implemented successfully. At that time, directives from the Communist Party were almost equivalent, if not superior, to legislation.¹⁴ The absolute leadership of the Communist Party, as one of the four cardinal principles, was written into the Constitution, and there was no check on the political power of the Party from either the legislative body or the judicial branch.¹⁵ As a result, policies made by the Party did not merely provide guidance for what it wanted the society to achieve as a whole, but were often perceived as enforceable laws without having to be approved by the legislature. Moreover, the policy did not rely on a functioning court system for its implementation, but was directly carried out by Party officials at different levels.

¹⁴ Li, *op. cit.*, p150.

¹⁵ *Ibid.*

While no legislation was made to embody the One-child Policy per se, the State amended other laws and adopted other legislation to justify the legality of the practice of family planning. The 1980 Marriage Law first set out that “husband and wife are in duty bound to practice family planning”, making it a legal obligation of married couples to follow the policy and practice family planning.¹⁶ In addition, it required the youngest age at which people could register to marry to be 22 years of age for men and 20 for women. Late childbearing was also encouraged. In 1982, the 5th National People’s Congress adopted the current Constitution of the People’s Republic of China. The amended Constitution states that “[t]he State promotes family planning so that population growth may fit the plans for economic and social development” and that “[b]oth husband and wife have the duty to practice family planning”, which gave the state constitutional power to regulate fertility decisions in families.¹⁷ Nevertheless, neither the amended Constitution nor the Marriage Law explicitly said that each couple may only have one child unless they fitted into some specific categories.

Instead, the specifics of the One Child Policy were clarified in central government resolutions, directives, and provincial regulations.¹⁸ First of all, couples needed to obtain birth permits before trying to conceive a child. After having the permitted number of children, at least one spouse was required to use long-term contraception. In addition, for couples who gave out-of-plan births, one spouse was forced to be sterilized.¹⁹ Without a specific legislation to regulate

¹⁶ Attané, *op. cit.*, p.103.

¹⁷ *ibid.*, p.104.

¹⁸ Skalla, *op. cit.*, p.329.

¹⁹ Skalla, *op. cit.*, p. 336.

fertility behaviors, the policy was implemented not according to the rule of law but the rule set by party directives. The implementation of the OCP was thus a top-down process through which the central government placed serious restrictions on the intimate aspects of individual lives.²⁰ A Birth Planning Commission was set up at the national level to provide guidance for the implementation of the policy.²¹ Family Planning Commissions were also created at the provincial, county and even grass-roots level to oversee family planning activities. Through this mechanism, the government designated annual birth quotas for each region, and measures were carried out by local officials, party leaders, and even informants at workplaces to make sure that the number of births did not exceed the quota.²²

In general, local authorities and party officials had discretion in deciding what measure should be taken to keep births under quotas and to deter noncompliance. Economic incentives were provided to urge people to adhere to the one-child rule. Those who proceeded with unauthorized pregnancy were often forced to abort the child and were subject to severe, sometimes extreme, punishment. Stiff fines were charged in cases of non-compliance and couples were threatened with disqualification for social benefits in housing, education and subsidized child care.²³ They also faced the risk of being dismissed from employment and losing their income. Moreover, the tightly organized Chinese society created a social pressure for people to obey the policy. Psychological intimidation and public humiliation existed in many forms, such as public

²⁰ *Ibid.*

²¹ Gabe T. Wang, "China's population control policy." *China Report* 32, no. 2 (1996): 153.

²² Li, *op. cit.*, p.151.

²³ *Ibid.*, p.153.

postings and monitoring. In extreme cases, violence was used to force compliance, including physical abuse and property destruction.²⁴

Due to its draconian implementation, the One-child Policy was perceived to be a law in the Chinese society for a long time even though it did not hold formal legal status. While not everyone voluntarily supported the policy, the majority of people complied with it and put pressure on those who did not do so. However, without codification, this top-down process led to many legal failures. As some have pointed out, since government officials were appointed to carry out directly the penalties in cases of non-compliance, few opportunities were provided for legal representation, hearings, appeals, or judicial review.²⁵

The Impact of the One-child Policy on Family Size

Despite the criticism that it received from both domestic and international communities, the One-child Policy was effective to some extent in controlling population growth and was credited with contributing to two decades of rapid per capita economic growth. Although a lot of couples did not like the One-child Policy, many people expressed that they did not have a choice other than complying with it under the strict scrutiny of family planning committees.²⁶ However, many people, mainly urban dwellers, young people enrolled in major universities and intellectuals, were also aware of the economic

²⁴*Ibid.*, p.154.

²⁵*Ibid.*, p.151.

²⁶ Norah L. Lweis, "Implementing social change: China and the one child policy." *International Review of Modern Sociology* (1987): 245.

and social consequences that could result from the problem of overpopulation.²⁷ Thus, many of them believed that reducing the population was the responsibility of all Chinese people and have gradually embodied the policy into their behaviors and the new cultural norms.²⁸

Consequently, the TFR dropped from 2.9 in 1979 to about 1.5 in the late 90s, below the replacement rate of 2.0, and has remained pretty stable after²⁹. According to a survey in 1985, out of 162.3 million married women of reproductive age in China, 85.8 percent were practicing birth control.³⁰ In the 1990s, the age at first marriage among women rose from 22 to 24.³¹ The National Family Planning and Reproductive Health Survey conducted in 2001 also showed a great reduction in family size.³² The survey interviewed 39,585 women aged 15 to 49 years from 31 provinces, autonomous regions and municipalities. According to the survey, more than 57 percent of the women interviewed had no more than one child. Less than 30 percent had two children. In urban areas where the rules were applied more strictly, almost 85 percent of the participants had no more than one child. In comparison, families with two children were more common in rural areas (about 35 percent). Women aged between 20-29 generally had smaller family size (one child or less) not only because they were young, but also because the government tightened the regulations about the same time as they entered their reproductive years. For

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ Replacement rate is the rate at which a population exactly replaces itself from one generation to the next, without migration.

³⁰ Wang, *op. cit.*, p.155.

³¹ Wang, *op. cit.*, p.4.

³² Jian Qu Ding and Therese Hesketh. "Family size, fertility preferences, and sex ratio in China in the era of the one child family policy: results from national family planning and reproductive health survey." *BMJ* 333, no. 7564 (2006): 371.

the same reasons, it was more common for women of aged between 40-49 to have larger family size. About 30 percent of the participants that fell into this age group had more than three children.

Table 1. Family Size of 39,585 Chinese Women, According to Age, Areas of Residence, and Education Level (2001 national survey, values are in percentages)					
	Number of Children				
	0	1	2	3	≥4
Age(years)					
15-19	98.8	1.1	-	-	-
20-29	31.4	53.9	13.1	1.6	0.2
30-39	2.2	43	42.8	10.7	2.7
40-49	1.3	26.2	42.2	21.3	9.0
Area of residence					
Urban	24.7	59.5	12.8	2.3	0.7
Rural	19.0	29.0	35.4	12.4	4.2
Educational Level					
Illiterate or semi-literate	4.8	17.0	44.8	23.9	9.5
Primary School	11.2	31.2	40.9	12.5	4.2
Secondary School	29.4	44.4	20.7	4.5	10.2
College	37.9	58.9	2.9	0.3	-
Total	20.5	36.8	29.6	9.8	3.3

Source: Ding and Hesketh (2006)

Following the economic reform, the government also “voiced its commitment to strengthening the rule of law” and put more efforts into legislative drafting in many areas of law.³³ As people began to accept the one-child norm and were no longer resistant to the policy, the legislators drafted the first family planning law that codified the One-child Policy. As a result, the Chinese Family Planning Law was adopted in 2001. The adoption of this law confirmed the legal reality in China that the rights of individuals are subordinated to the State’s interest and that the State has legal power in regulating the “private sphere”, including people’s intimate lives and family

³³ Pitman B. Potter, "Legal reform in China: institutions, culture, and selective adaptation," *Law & Social Inquiry* 29, no. 2 (2004): 470.

fertility decisions. It also indicated that the practice of family planning was already widely accepted by Chinese families and had become an inseparable part of the culture.³⁴

In summary, the One-child Policy not only greatly influenced people's fertility behaviors, but also changed their intrinsic valuation of children. While the new legislation now allows two children in every family, it is unclear whether people will choose to have one more child since they are now used to having small families. Thus, whether there will be an increase in the number of children per family depends on to what extent the decline in fertility rate was caused by the family planning policies. In the following section, I will introduce an economic model that explains the factors influencing family size decisions in Chinese families in an effort to predict how effective the new policy will be in terms of raising fertility rates.

³⁴ Skalla, *op.cit.*, p.361.

Data, Model and Results

In *An Economic Analysis of Fertility*, Becker laid out an economic framework for analyzing the factors that influence the number of children parents decide to have in the family.³⁵ In his model, he characterized children as a consumer durable because, as opposed to being a one-time payment, the expenditure on children is constantly changing as the child grows up.³⁶ He pointed out that, similar to other goods, children provide utilities and mainly “psychic income” to parents.³⁷ Using a supply and demand model, Becker explained that the demand for children depends on both economic factors such as income and child costs and non-economic factors such as knowledge of contraception, the culture and tastes. According to him, the cost of children is simply the present value of input (expected outlays and the imputed value of the parents’ services) minus the present value of return (expected money return and the imputed value of the child’s services). Moreover, he differentiated between the expenditure on children and the cost of children by pointing out that an increase in expenditure per children does not necessarily lead to an increase in cost because the quality of children also changes when the expenditure per child goes up.³⁸

Becker’s model was based on the assumption that couples have perfect control over both the number of children and spacing of their births. However, as I have shown in the previous section, both of these decisions were strictly regulated by the State in China. Since the 1980s, the One-child Policy had limited

³⁵ Becker, *op. cit.*, p.210.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*, p.213.

the number of children, regulated the spacing of children, and established penalties for those who did not comply with the policy. In this way, family planning policies became one of the most important factors that Chinese families would take into consideration when making family size decisions. In this section, I will modify and add to Becker's model to take into account the unique circumstances in China in an effort to explain how Chinese couples come to decide on the number of children they want in the family. An important thing to note here is that, unlike other goods that can be purchased on the market, children can only be produced at home in most cases, which makes parents both the suppliers and consumers of children. Thus, for my analysis, I will mainly focus on the demand side of the equation.

Framework for Analyzing Demand for Children in Chinese Families

Many things can affect the number of children in families in general, including both economic and non-economic factors. In my model, I will examine a number of factors that are the most important in fertility decisions specific to Chinese families. In equation form, the demand for children in Chinese families can be represented as:

$$C_d = f(\text{family planning polices, income, rearing cost, tastes, demand for labor on the farm, ...}),$$

where C_d represents the number of children. By analyzing how and to what extent these factors above influence the number of children born to each couple, I hope to find out how the Two-child Policy will affect the fertility level. An important thing to point out here is that I am focusing on analyzing changes in

the quantity of children in Chinese families as opposed to the quality of children in my model. As Becker describes, the quality of a child could be characterized as the level of living provided to him or her. Thus, it is necessary to distinguish between the total consumption of children (which takes into account both the quantity and quality of children) and the number of children demanded. As I am looking at policy effects on the fertility rate, which only captures changes in the number of children, I am simply referring to demand for children as the number children desired by families in this paper. That being said, I will still consider changes in the quality of children as an important component to my analysis since it often influences the number of children born to every family.

Family Planning Policies

As I have explained in the previous section, the success of the One-child Policy was built upon a reward-penalty mechanism. Those who refused to comply with the policy received fines, and in some cases, lost their jobs and social benefits for themselves as well as for their children. As a result, many people chose to adhere to the policy because they could not afford the fines or losing employment. However, the monetary cost was not all that burdened the couples who wanted more than one child. Couples who proceeded with unauthorized pregnancies and had out-of-plan children were often threatened with violence and were publicly humiliated. Under such intense social pressure, many people who could have afforded the monetary cost of having an additional child chose not to do so because of the associated political cost.

By imposing serious penalties on those who violated the one-child rule, the government was essentially raising the marginal cost of having an additional child. Assuming that the marginal benefit provided by children remains constant, the extraordinarily high marginal cost of having a second child forcibly reduced the demand for children in Chinese families at each given level of income and quality of children. This can be illustrated in the graph below, where the horizontal axis represents the number of children and the vertical axis represents the net cost of children. Suppose point A represents the level of demand for children before the One-child Policy, the increasing net cost of children due to the implementation of the policy essentially resulted in a movement up along the demand curve from point A to point B, causing the demand for children to drop.

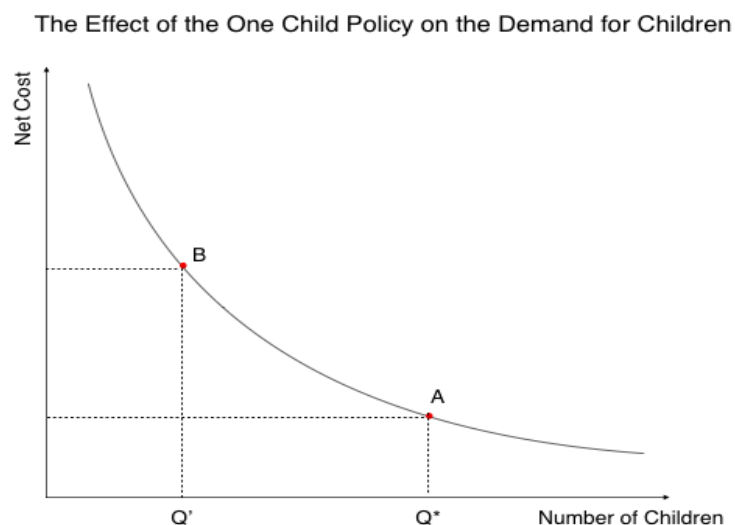


Figure 4. The Effect of the One-child Policy on the Demand for Children

Theoretically, holding other factors constant, when the Two-child Policy lowers the marginal cost of having a second child, it should reverse to some extent the effect of the One-child Policy. While it is unlikely that the demand would return the level when no restriction on the number of children existed, the lifting of the one-child rule should still increase the demand by a decent amount.

To illustrate this on the graph, we would expect to see a movement down along the demand curve to somewhere between point A and B. However, in real life, there are many other factors that are influencing the demand for children at the same time. During the years in which the One-child Policy was implemented, other factors might have changed so much that the demand for children is no longer the same as what it was thirty years ago. Therefore, the size of the increase in the number of children as a result of the new policy will depend on to what extent is the demand for children affected by other factors.

Income

In most cases, people consume a bigger bundle of goods when there is a rise in income. According to Becker, the amount of children consumed in every family is also influenced by family income. Holding other things constant, an increase in household income will presumably lead to a higher consumption of children due to the parents' increasing ability to afford them.

Before the economic reform in the 1980s, there was a long period of economic stagnation in China, which resulted in a low level of national income and GDP per capita. As shown in Figure 2 in the previous section, China's GDP per capita in 1980 was only \$193, while the world average at that time was more than ten times of that value (\$2,500). However, China has experienced remarkable economic growth in the past three decades. By 2015, China's GDP per capita reached \$7,924. While this was still below the world average (\$10,004 in 2015), the gap between the two has narrowed significantly. With such huge increase in income, one would expect the consumption of children to rise over

the years. However, a higher consumption of children does not always necessarily lead to an increase in the number of children per family. As Becker pointed out in his analysis, for consumer durables like cars and houses, people tend to purchase more units as well as better quality units at higher income levels.³⁹ Similarly, an increase in the amount of children consumed as a result of an increase in income can come from a change in the quantity or the quality of children, or both. Thus, it could only be said that, at a given quality, the number of children will increase as income rises.

Becker further argued that while an increase in income can lead to both an increase in the quantity and the quality of children, the quantity elasticity is smaller than the quality elasticity. This is especially true in China's case, since the family planning policy placed a cap on the number of children that families could have. As each couple were only allowed to have one or two children, it is reasonable to assume that people might want their children to be of higher quality and thus were more willing to provide them with better a living and learning environment. Therefore, the huge increase in income among Chinese families might have translated into an improvement in the quality of children rather than an increase in the number of children consumed. In fact, an increase in expenditures on children that is often associated with a rise in the quality of children can even lead to a lower demand for children by raising the expected rearing cost.

³⁹ Becker, *op. cit.*, p. 212.

Rearing Cost

The huge increase in income level has led to higher living standards and a greater consumption of goods among Chinese families. As the quantity of children was limited by the State under the One-child Policy, parents were spending more and more on their children with the hope to increase the quality of their children. Some researchers have pointed out that parents with the financial ability often wanted their children to have the resources and privileges that they did not enjoy during their childhood.⁴⁰ As family size declined over the years, parents provided their children with better nutrition, created a better environment for the development of their mind and body, and invested more in their education and intellectual development.⁴¹ This is especially true for families with only one child in urban areas.

In 1999, the China Social Survey Institute carried out a survey regarding family's expenditure on children in three major cities – Beijing, Tianjin and Shanghai. As expected, the results indicated that expenditure on children was proportional to the level of income. However, in many families, children's consumption took up a significant portion of the income. Among 85% of families who participated in the survey, children's consumption consisted one third or more of the family's income.⁴² In fact, 35.6% of the families spent about 40% of their monthly income on children, and almost 20% of the families spent 50% or

⁴⁰ Deborah Davis, "The consumer revolution in urban China," Vol. 22. University of California Press, 2000: 179.

⁴¹ Guan Ying, "Consumption patterns of Chinese children," *Journal of Family and Economic Issues* 24, no. 4 (2003): 374.

⁴² *Ibid.*

more of the income on children.⁴³ According to the survey, children's consumption level was greater than the adults' consumption level in many families. These numbers indicate that the rearing cost of children has risen to a very high level among Chinese families. While the rearing cost of existing children increases, the expected rearing cost for an additional child is also increasing at the same time, as parents now want "better" children than before. Thus, at every income level, parents today might feel that they can only afford one or two children since they have a very different standard for how much should be spent on each child than they had thirty years ago. As a result, the demand for children might have decreased over the years in families at all income levels. In addition, as the expectation for expenditures on children continues to rise, it is very likely that, when there is a increase in income, parents are more inclined to spend that extra money on existing children rather than deciding to have more children of lower quality.

Besides the higher expectation for the quality of children, other things could have also raised the rearing cost. For example, in 1986, the National People's Congress passed the *Law for Compulsory Education* with the goal to establish universal nine-year compulsory education and to reduce illiteracy rate, especially in rural areas.⁴⁴ While the government assumed the primary responsibility for funding the compulsory education, the cost was shared by farmers through a household-based contract responsibility system that was established in the late 1970s.⁴⁵ Although this legislation only made compulsory what was already done by most of the parents voluntarily, it did increase the

⁴³ *Ibid.*

⁴⁴ Zhang and Zhao, *op. cit.*, p.263.

⁴⁵ *Ibid.*, p.264.

rearing cost of children for low-income families in rural areas where some parents would not have sent their children to school if not required. Thus, the demand for children in these families with limited financial ability could have also increased due to such new legislation or policies.

As children were becoming more and more costly, people might want to resort to other goods for acquiring utilities. Thus, it is necessary to look at how people's preferences for goods have changed over the years and how these changes can influence the number of children demanded.

Tastes

As Becker explained in his analysis, parents receive utilities from children as well as from other goods. Tastes can thus be understood as people's preferences for children relative to other goods. He pointed out that, while no goods can be perfect substitutes for children due to the "psychic income" that they provide to their parents, certain goods can still be considered as very poor substitutes for children.⁴⁶ In China's case, consumer preference for children has changed significantly since the late 1970s due to changes in domestic consumption and cultural values.

Before the economic reform, China had a planned economy for decades. State-owned enterprises distributed social welfare as well as consumer items that were unavailable elsewhere, such as movie tickets, fresh fruits and even

⁴⁶ Becker, *op. cit.*, p.215.

apartments.⁴⁷ Such redistributive practices resulted in relatively homogenous living standards within the society, as not many consumer goods were available to households due to the lack of a well-functioning, competitive market.

Research has shown that between 1957 and 1982, families in urban areas spent around 58 percent of their income on food and drinks while the work units rationed basic necessities.⁴⁸ The same consumption patterns also existed in rural areas where the income level was even lower. Additionally, the socialist ideology dictated consumer fashions and discouraged people from buying personal items that were deemed as bourgeois and therefore improper for the collective-centered value system.⁴⁹ Consequently, the utilities that people could receive from other goods were very limited. When Deng Xiaoping initiated the economic reform in the early 1980s, he advocated for an open-market economy that completely transformed people's consumer behaviors. With its market-based principles, the new economic model allowed private actors and entities to contract out some industries that were owned by the State and encouraged entrepreneurship for small businesses.⁵⁰ As a result, rationing disappeared, and market activities took place.

By the late 1990s, the country had experienced what was called "a consumer revolution", especially in urban areas.⁵¹ The rapid increase in income and the expansion of marketplace allowed people to live according to their own preferences. This consumer revolution started from a more balanced and

⁴⁷ Linda, Chao and Ramon H. Myers, "China's consumer revolution: the 1990s and beyond." *Journal of Contemporary China* 7, no. 18 (1998): 357.

⁴⁸ *Ibid.*, p.355.

⁴⁹ *Ibid.*, p.352.

⁵⁰ *Ibid.*, p.357.

⁵¹ *Ibid.*, 364.

nutritious diet. People started to include more meat, coarse grains, and even seafood in their meals. Moreover, while families used to spend a large portion of their income on food and drink, they could then afford to buy more household items, such as bicycles, washing machines, computers, and air conditions, and more goods for recreational and educational purposes.⁵² High-income families looked for better quality goods and shopped at department stores where expensive imported goods were sold. In addition, households were also more willing to spend more for personal pleasure. Families frequently ate out at nice restaurants, went to karaoke clubs, and went to movies at theaters. Gradually, a middle class that enjoyed higher quality of life emerged and set consumer habits and fashions for the lower-income class.⁵³ This consumer revolution soon resulted in much higher living standards in China, especially in urban areas and coastal cities.

Such improvement in the standard of living significantly changed people's preference for children relative to other goods. As Becker pointed out, parents will choose to have an additional child "whenever the expected utility per dollar of expected cost from an additional child [are] greater than that from expenditure elsewhere."⁵⁴ Before the economic reform, which happened about the same time when the One-child Policy was implemented, parents consumed more children presumably because they received more utilities from them compared to other goods of the same cost. This might be due to a lack of other consumer goods, a low income level and also a low net cost of children. In the early 1980s, the family planning policy increased the marginal cost of a second

⁵² *Ibid.*, 363.

⁵³ *Ibid.*, 365.

⁵⁴ Becker, *op. cit.*, p. 216.

child while the economic reform created competitive markets where a variety of goods were available to consumers at relatively cheaper price. As the consumer revolution unfolded, people gradually substituted children with other goods from which they could receive the same or even more utilities, especially since the rearing cost of children rose significantly over the years. Such change in tastes could have caused the demand curve for children to shift in, leading to a smaller number of children desired in Chinese families.

Given the new consumption patterns and different tastes for goods among households nowadays, having an additional child means that the parents might have to forgo some of the utilities that they receive from other goods and maybe sacrifice the current living standard to provide for another child. Assuming that the utilities that children provide to their parents remain the same, it is unlikely that the parents will be willing to do so.

Demand for Labor in Agriculture

The total fertility rate in China reached as high as more than 6 children per woman in the 1950s and 1960s. Such high fertility level was caused by many economic, political and cultural reasons. An important factor that contributed to such high fertility level was the high demand for labor in agriculture. According to data from the World Bank, agriculture comprised over 40 percent of the GDP in the late 1960s and remained to be the biggest sector in the Chinese economy for a long time. As shown by the graph, employment in agriculture still made up more than half of total employment just two decades ago. This is associated with the fact that the majority of the population lived in rural areas where there was a

lot of arable land and where traditional agricultural activities were the major source of income. As shown in Figure 6, more than 80 percent of the population lived in rural areas until the 1980s. In these areas, the labor-intensive agriculture industry employed a majority of the labor force. Therefore, families in those areas wanted more children, especially male children, to meet the high demand for labor on the farm. It was also due to this reason that the One-child Policy was later revised to allow families in rural areas to have a second child if the first child was a girl. As a result, the family size in rural areas was generally larger than the family size in urban areas.

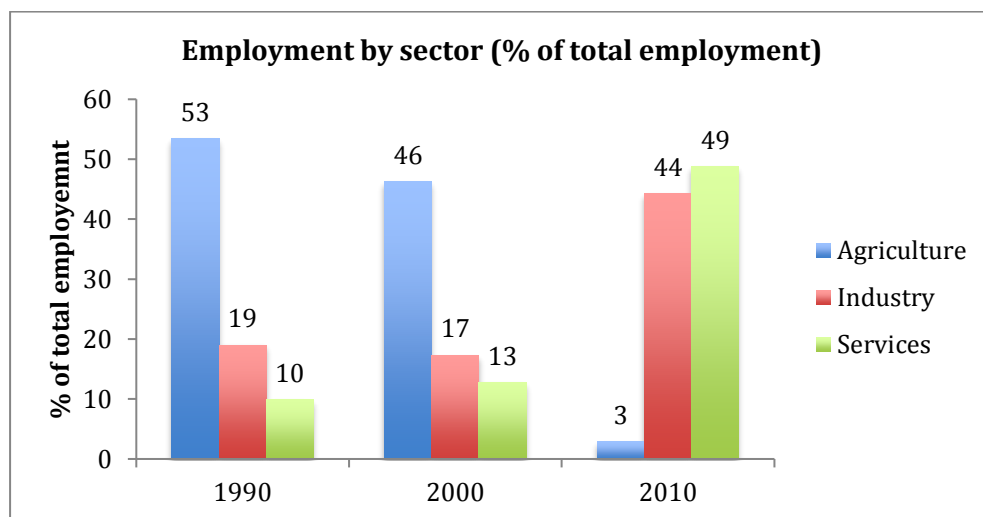


Figure 5. Employment by sector in China
Source: World Bank Data

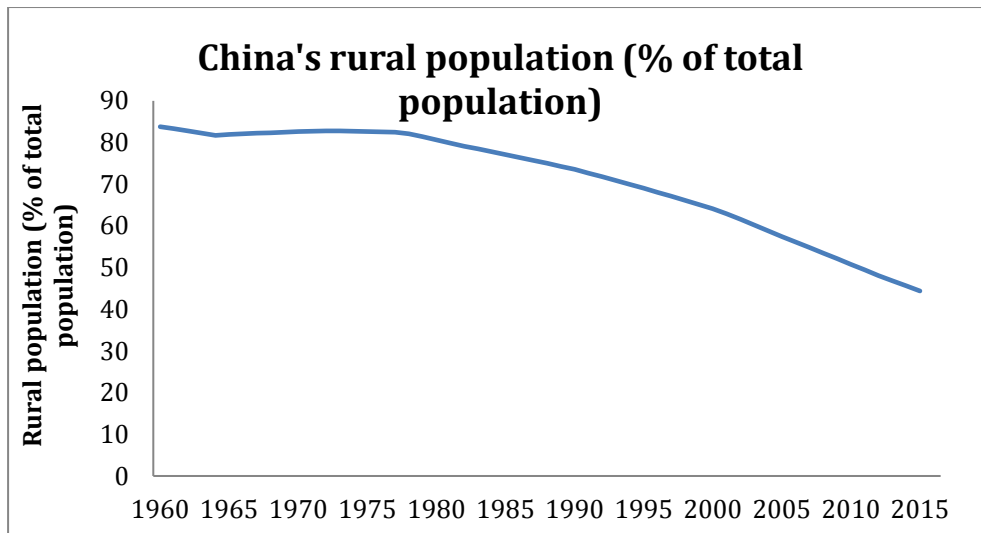


Figure 6. China's rural population
Source: World Bank Data

However, as China transitioned out of an agricultural-based society and gradually shifted its focus to the industry and services sector, demand for labor in agriculture has declined significantly. Today, half of the population lives in urban areas, and the agriculture sector only comprises less than 3% of total employment. Moreover, the extensive use of agricultural machinery has substituted human labor and increased agricultural productivity on the farm. As a result, families in rural areas who used to produce more children no longer need that much labor, and therefore the demand for children in these places has gradually decreased over the years.

What else is influencing fertility decisions?

Besides the factors that I have analyzed above, other things could have also played an important role in family size decisions. For example, as the One-child Policy forcibly reduced the number of children born to a couple, women had more time to participate in social and economic activities. Traditionally,

women contributed to most of the housework and childcare due to the gender ideology that viewed men as the primary provider and women as the primary homemaker.⁵⁵ However, according to the 1990 census, the labor participation rate among women aged 25 or younger increased significantly since 1980.⁵⁶ Presumably, a higher participation rate will lead women to desire fewer children, considering that childbearing is a time-consuming activity. Moreover, as women choose to put more time and energy into work, the opportunity cost of have more children also became higher than what it was thirty years ago. As a result, women who are in the workforce today might be less willingly to have more children.

Furthermore, changes in cultural values might have also contributed to a lower demand for children. Traditionally, people preferred a large family size for various reasons. One was that people wanted more children to provide for their old age. Moreover, the traditional preference for a son over a daughter also resulted in a large family size since couples sometimes kept producing children until they get a son. As the State advocated for a small family culture and implemented the family planning policies, these cultural values have changed considerably. In 1987, the National Statistical Bureau conducted a survey in nine provinces in China regarding the purpose for raising children.⁵⁷ The data revealed that the traditional views about raising children to insure life in old age

⁵⁵ Zaizai Lu, David J. Maume, and Marcia L. Bellas. "Chinese Husbands' Participation in Household Labor." *Journal of Comparative Family Studies* 31, no. 2 (2000): 194.

⁵⁶ Shaohong Liao and Zhenzhen Zheng. "The impact of demographic changes on labor supply in China." *The China Population and Labor Yearbook, Volume 1: The Approaching Lewis Turning Point and Its Policy Implications 1* (2009): 40.

⁵⁷ Wang, *op. cit.*, p. 146.

and to keep a family name have changed significantly.⁵⁸ Such changes in cultural values might have to some extent facilitated the transition from a large family culture to a small family one.

Another thing that could be taken into account is the growing need for eldercare in Chinese families. In China, the proportion of population aged 60 or over has reached 16.1% in 2015.⁵⁹ As family members are now the dominant caregivers of elderly people, a smaller family size means that each child is taking on more responsibility to take care of their parents, especially since China is still in the process of building a comprehensive pension system. This means that parents will have less time for childcare and a lower ability to provide for an additional child.⁶⁰ As the single child generation enters their reproductive years, they often need to balance between taking care of their parents and providing for their children, which could potentially further push down the demand for children.

Will the Two-child Policy raise the fertility level?

So far my analysis has shown how different factors could influence family decisions in Chinese families. Some of these factors have changed drastically since the implementation of the One-child Policy. While there was a huge increase in household income, the rearing cost and the expectation for how much one should spend on a child have also risen to a higher level. On one hand,

⁵⁸ Ibid.

⁵⁹ National Bureau of Statistics of China, Statistical Communiqué of the People's Republic of China on the 2015 National Economic and Social Development, 2016.

⁶⁰ Liao and Zheng, *op. cit.*, p. 43.

parents in urban areas are striving to provide a higher standard of living for themselves as well as for their children. As a result, they might value the quality of their life and of their children more than the quantity of children they have in the family. Moreover, higher labor participation rate among women today indicates that they have less time for childcare and a higher opportunity cost for leaving the job to have a baby, both of which could contribute to a smaller ideal family size. On the other hand, as rural population decreased and the machinery gradually substituted human labor on the farm, the demand for labor in agriculture has declined, leading to lower demand for children among families in rural areas. All these changes indicate that the children have become less desirable among Chinese families.

How will this influence the effect of the Two-child Policy? As I pointed out earlier, the One-child Policy lowered the demand for children in Chinese families by placing a high price on having a second child. Similarly, the Two-child Policy could increase the demand by removing the penalties for having a second child. As shown in Figure 7, the effect of the Two Child Policy could thus be illustrated as a movement down along the demand curve from point B to point C. However, my analysis has shown that the demand for children has naturally declined to a low level due to a number of reasons, including changes in rearing cost, people's preferences for goods and cultural values. The effects of these changes altogether can be illustrated as an inward shift of the demand curve (D_c to D_c'). As a result, we might end up getting a level of demand for children that is not much higher from when the One-child Policy was in place (illustrated by point D). In other words, the Two-child Policy might not have any great impact in terms of increasing fertility rate in China.

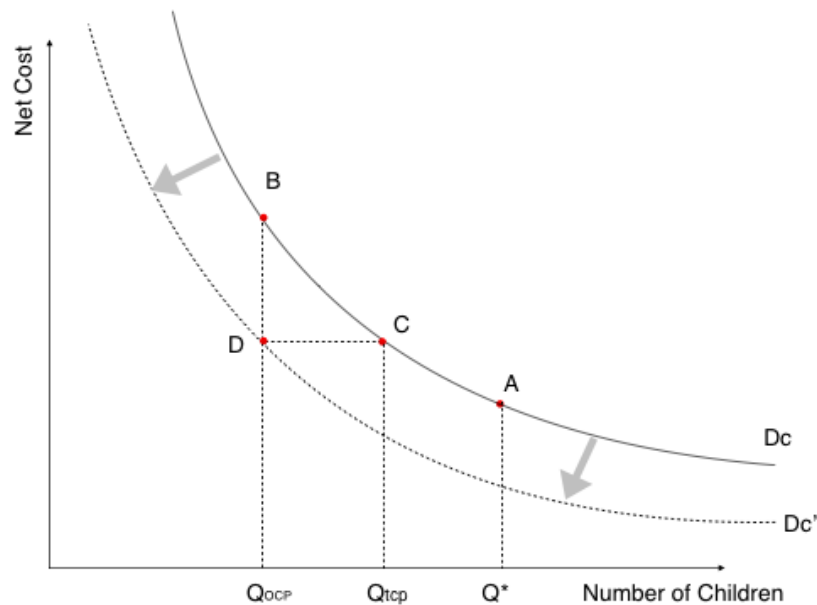


Figure 7. The Impact of the Two-child Policy on the Demand for Children

Evidence has suggested that such inward shift of the demand curve is very possible. In the 2001 National Family Planning and Reproductive Health Survey, the participants were asked about their preferences for the number of children. The results showed that 35 percent of the participants preferred one child and 57 percent preferred two children. However, there was a noticeable difference between urban and rural areas. The average number of children desired in families in urban areas was only 1.44, compared to an average number of 1.77. In addition, more than half of the participants from urban areas indicated that they wanted only one child. This difference has important implications because the Two-child Policy mainly targets families who live in urban areas, as people were already allowed to have more than one child in most rural areas. Thus, if families in urban areas do not actually more than one child, then the Two-child Policy might not be able to make a difference. The results also indicated that as women's educational level rises, the preferred number of children becomes smaller. Nevertheless, regardless of the areas of residence and the education level, very few women (less than 2 percent) wanted more than two children.

Assuming that people answered the questions truthfully, the survey suggested an overall decrease in the demand for children among Chinese families and a reduction in the desired family size.

Table 2. Preference among 39,344 Chinese women for Number of Children, According to Age, Areas of Residence, and Education Level (2001, values are in percentages)

	Number of Children				Mean
	0	1	2	≥3	
Age(years)					
15-19	2.1	49	45	1.9	1.45
20-29	1.3	47	48	2.1	1.65
30-39	0.8	32	60	6.1	1.76
40-49	1.0	27	62	1.1	1.83
Area of residence					
Urban	3.1	52	43	1.5	1.42
Rural	0.4	30	61	7.5	1.77
Educational Level					
Illiterate or semi-literate	0.4	17	67	14	1.98
Primary School	0.3	25	65	8.5	1.84
Secondary School	2.1	46	47	2.5	1.50
College	4.0	49	44	2.2	1.43
Total	1.1	35	57	5.8	1.71

Source: Ding and Hesketh (2006)

In fact, a two-child policy has existed in some places in China since the mid-1980s. While a strict one-child rule was applied to most areas unless certain conditions were satisfied, the government chose four places as experiment locations to implement a comprehensive two-child policy.⁶¹ Yicheng, a county in Shanxi Province in China where a two-child policy has existed since 1985, has been used as an example in many studies to show that China's current low fertility rate is not simply due to the family planning policies.⁶² Although every family was allowed to have up to two children, the fertility rate in Yicheng did

⁶¹ Fei Wang, Liqiu Zhao, and Zhong Zhao, "China's Family Planning Policies and Their Labor Market Consequences," *Journal of Population Economics*, Volume 30, Issue 1(2016): 56.

⁶² Yan Wei and Li Zhang, "Re-examination of the Yicheng Two-Child Program," *China Journal* 72 (2014): 99.

not appear to be much higher than that in other places. In 2000, the fertility rate in Yicheng was only about 0.3 points above the national average of 1.5.⁶³

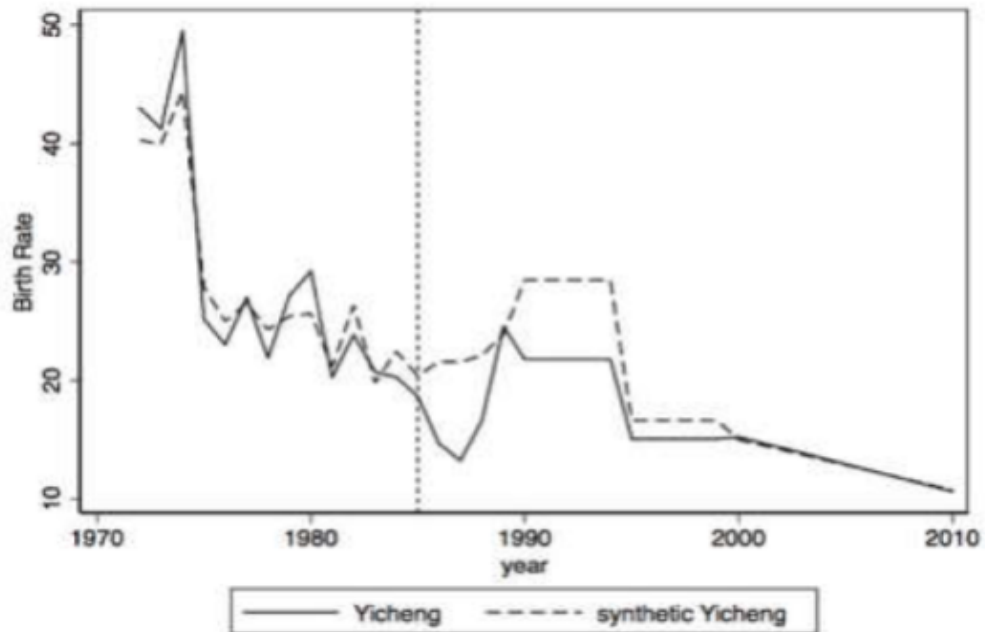


Figure 8. Fertility Effects of the Two-child Policy in Yicheng
Source: Qin and Wang (2015)

In a study regarding the effect of the two-child policy in Yicheng, two researchers estimated the birth rate that Yicheng would have had under the one-child rule using data from other counties of similar socioeconomic conditions in the same province, and compared it with the actual birth rate data in Yicheng from random samples.⁶⁴ Figure 8 shows the difference between the actual birth rate in Yicheng under the two-child policy, which is represented by the solid line, and the projected birth rate that Yicheng would have had under the One-child Policy, which is represented by the dotted line. The graph shows that the actual birth rate in Yicheng is not very different, if not lower, from the simulated birth

⁶³ “Now, the two-child policy”, *The Economist*, November 7, 2015, <http://www.economist.com/news/china/21678006>.

⁶⁴ Wei and Zhang, *op. cit.*

rate, indicating that the two-child policy did not result in a higher fertility level. Again, this study confirms that people now naturally desire fewer children regardless of the family planning policies.

Conclusion

In this thesis, I provided an overview of the family planning policies in China and their effects on fertility rates. In particular, I explained how the draconian implementation of the One-child Policy changed people's fertility behaviors and reduced the family size. I also examined a series of legislation that led to the codification of the One-child Policy and the significance of the adoption of the Family Planning Law in 2001. In summary, although it was strictly implemented throughout the country since the 1980s, the One-child Policy existed without formal legal status for a long time. The State did not enact any laws at that time partly because it wanted to avoid international criticism, but also because the policy did not rely on any legislative power for its implementation. As the CPC dictated law making at that time, the policy was directly carried out by Party leaders, government officials, and family planning committees at different levels.⁶⁵ As a result, the policy was already perceived as a law before it actually became one, and the adoption of the legislation embodying this policy simply confirmed the reality that the public had accepted the policy and had become used to a small family culture.

I then took a close look at the changes in demand for children among Chinese families since the implementation of the One-child Policy. My analysis showed that the demand for children among Chinese families has declined considerably over the years. However, this decrease in demand was not solely due to the family planning policies. Changes in income, rearing cost, tastes and the expectation for the quality of children have made children less desirable in

⁶⁵Skalla, *op. cit.*, p. 329.

Chinese families, which lowered the fertility rate to the current level. Moreover, there has been a decrease in demand for children among families in rural areas where the demand for labor has declined. Thus, as people were forced to have only one child for years, they have incorporated such expectation and embodied this behavior into their new preferences and values. Consequently, rather than choosing to have more children, parents are now more inclined to have fewer children, but a higher standard of living for themselves as well as for their children.

While theoretically the removal of the one-child restriction should increase the demand for children by reducing the marginal cost of a second child, data has shown that the demand for children has naturally decreased to a low level among Chinese families. Therefore, it is unlikely that the fertility level will rise as a result of the new policy as the changing valuation of children among people has led to a decrease in the desired family size. In fact, when the policy was relaxed in 2014 to allow some couples who met a certain criteria to have more than one child, only 16.8% out of approximately 1.85 million couples who were eligible applied for birth certificates for a second birth, reflecting the low desirability of children in China today.⁶⁶

A big limitation to my analysis is that the data on fertility is not accurate since it fails to include unauthorized births in China. During the years when the One-child Policy was in place, there were a growing number of unauthorized or “out-of-plan” children. This was especially common in rural areas where family size was bigger and where regulations were weaker than those in urban areas. Parents would hide them from local officials to avoid fines and/or other

⁶⁶ Wang, Zhao, and Zhao, *op. cit.*

penalties that they might not be able to afford. Studies have shown that unannounced spot checks by the National Statistics Bureau had revealed undercounts of up to 40 percent in some rural villages.⁶⁷ Due to this large number of unregistered children, the census figures produced through the government's household registration system might not be the most accurate and thus might not reflect the real demand for children among Chinese families. As a result, the decrease in demand for children could have been smaller than expected, in which case the Two-child policy might have a bigger effect in raising the fertility rate.

This thesis aims to provide information for policymakers, legislators, and those who are interested in studying the legal and socioeconomic effects of the Chinese family planning policies. After analyzing many important factors influencing fertility decisions in China, I found that the Two-child Policy by itself might not be enough to raise the fertility rate. The high childrearing cost and the cap on the number of children that each family is allowed to have will limit the effects of the new policy and keep the fertility rate at a low level. In order to effectively increase fertility and the desirability of children, policymakers and legislators might need to consider a more pro-active approach towards the problem. Having had a low fertility rate for decades, Japan provides some great examples that China can borrow from in terms of policy efforts to raise fertility level. Putting an emphasis on lowering the childrearing cost, Japan initiated childcare programs and provided child allowance to financially support working families with children in order to promote more flexible work environments and

⁶⁷ Skalla, *op. cit.*, p.357.

a more gender-equal society.⁶⁸ In this way, the government is essentially sharing with the parents some of the responsibilities of childrearing to achieve both higher productivity and higher fertility. Although not all these policies were very successful, they do provide some ideas on different ways of approaching the problem of low-fertility and an aging population.

Of course, this is not to say that China should or will be able to implement the same policies as Japan did, considering that these are two countries with very different demographic and economic conditions. However, by learning from countries that are experiencing similar issues, policymakers in China might be able to create a more practical and effective policy package to incentivize people to have more children.

⁶⁸ Sano Yoshie and Saori Yasumoto. "Policy Responses to Population-Declining Society: Development and Challenges of Family Policies in Japan," In *Handbook of Family Policies across the Globe*: 323.

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