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From Birth Control to Pronatalism: Policy Formation, Fertility Transition, and Socioeconomic Consequences in China

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China's transition from high fertility to ultra-low fertility is one of the most consequential demographic transformations in modern history. This paper reviews the evolution of China's fertility policies from the "Later, Longer, Fewer" campaign of the 1970s, through the One-Child Policy era, to the recent shift toward pronatalist policies. We emphasize the political economy of policy formation, documenting how demographic pressures, bureaucratic incentives, and the interactions between Chinese demographers and policymakers shaped major policy changes. We then synthesize the economics literature on the consequences of these policy regimes for fertility behavior, household investment, gender inequality, marriage markets, savings, migration, and intergenerational mobility. The review highlights three broad lessons. First, China's fertility decline began before the One-Child Policy and was strongly shaped by earlier state-led birth-control efforts. Second, fertility policies produced far-reaching and often unintended socioeconomic consequences, extending well beyond population size. Third, the recent failure of policy relaxation to reverse declining births suggests that China's low fertility is now driven less by formal birth quotas than by low fertility desires, high child-rearing costs, gender-unequal norms, and persistent one-child family norms. Effective pronatalist policy therefore requires not only financial incentives, but also a deeper understanding of the social, economic, and institutional forces shaping fertility decisions.

Key words: Fertility Transition, Birth Control, One-Child Policy, Pro-natalist Shift

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June 5, 2026

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1 Introduction: Peaks and Declines in China's Fertility

Over the past seven decades, China has experienced a dramatic fertility transition, marked by four distinct peaks in its annual births (Figure 1). Behind these grand demographic shifts lies a feedback loop between population pressure and policy formation. While economists have extensively evaluated the socio-economic consequences of these population policies, they have paid less attention to the political economy behind the evolution of policy regimes.



Figure 1: Trends in the Number of Births

Notes: The data source is the website of the National Bureau of Statistics of China, accessed on 2026 May 10th. The number of births is derived from the birth rate (‰) and the average annual population: Births = Birth rate/1000 × Average annual population, where the average annual population is the mean of the year-end population of the current year and the previous year. The figures only include data from the mainland, excluding Hong Kong, Macao, and Taiwan.

This study serves two purposes. First, we document the origins of each policy shift, emphasizing the interactions between the governing authority and Chinese academics, who played important roles in shaping the policy discourse. Some of these interactions were documented in Chinese publications and thus largely inaccessible to international audiences. Second, we complement existing reviews on China's fertility policies, providing up-to-date coverage including the literature on recent policy shifts. We also provide a unique perspective on how economists

exploit the policy variations to test and advance economic theories of fertility, household behavior, and the marriage market.

As shown in [Figure 1](#), China’s first two birth peaks spanned 1950 to 1970, with the “Three Years of Economic Hardship” (1959–1961) in between. The first peak (1950–1957) saw 19 to 23 million births annually. After the three-year hardship, the second peak (1962–1970) witnessed annual births mostly exceeding 25 million, reaching nearly 30 million in 1963. Over these two decades, the total fertility rate (TFR) started at 5.8, peaking at 7.5 in 1963 before settling at 6.1 by 1970 ([Figure 2](#)). Accompanying this overall high fertility, under-five child mortality almost halved, falling from 206 to 111 deaths per 1,000 live births ([Figure A1](#)). This dramatic reduction in early-childhood mortality was largely achieved through state-led public health initiatives, such as the widespread deployment of “barefoot doctors,” mass vaccination campaigns, and the expansion of basic preventive care and hygiene to the vast rural population ([Babiarz et al., 2015](#)).

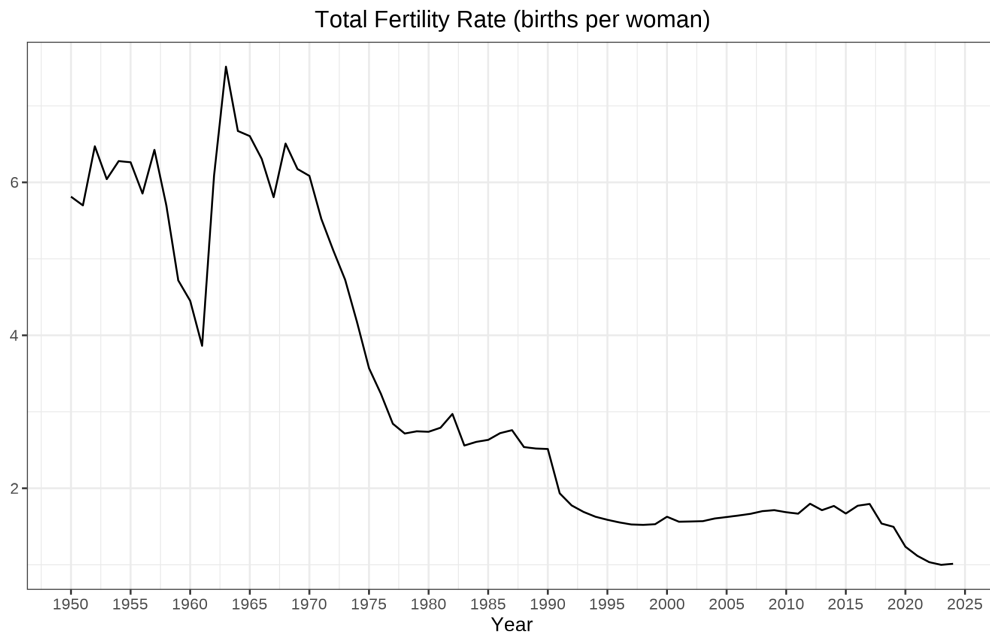


Figure 2: Trends in Total Fertility Rate

Notes: China’s TFR for 1950–2023 comes from UN World Population Prospects 2024. The 2024 value comes from World Bank WDI.

Following a sharp fertility decline in the 1970s driven by the “Later, Longer, Fewer” (LLF) campaign, the 1980s exemplify the interaction between demographic momentum and policy

adjustment (Table 1). The inception of the One-Child Policy (OCP) in 1980 was a direct response to the massive 1960s baby-boom cohort entering reproductive age, a demographic wave that threatened to reverse the fertility reductions achieved during the LLF era. However, the coercive OCP, with its rigid one-child limit, was met with public resistance, especially in rural areas where larger families were culturally valued and economically necessary for agricultural labor. The central government compromised in 1984, issuing Document No. 7, which allowed a second child in rural areas if the first was a girl, a strategy famously termed “opening a small hole to patch a large gap” (*kai xiao kou, du da dong*).¹

Table 1: Landmarks of China’s Fertility Policies

Year	Policy	Type
1971	“Later, Longer, Fewer” (Wan, Xi, Shao) (“晚、稀、少” 政策)	Restriction
1978	Family planning enshrined in Constitution (计划生育载入宪法)	Restriction
1980	One-Child Policy (独生子女政策)	Restriction
1984	“Opening a small loophole, closing the big one” (“开小口子、堵大口子”)	Relaxation
1991	Family planning as official performance criterion (计划生育作为政府政绩考核指标)	Restriction
2002	Population and Family Planning Law (《人口与计划生育法》)	Restriction
2013	Selective Two-Child Policy (“单独二孩” 政策)	Relaxation
2015	Universal Two-Child Policy (“全面二孩” 政策)	Relaxation
2021	Three-Child Policy (三孩政策)	Pronatalist
2025	Childcare Subsidy System (育儿补贴制度)	Pronatalist
2025	Free Preschool Education, final year (免费学前教育)	Pronatalist

This 1984 policy relaxation, combined with the demographic momentum of the 1960s baby-boom cohort, fueled the third birth peak (1985–1991) that surpassed 22 million annual births. Alarmed by the rebounding population growth, the state pivoted again, tightening enforcement

¹Table A1 and Table A2 contain key policy documents that shaped China’s fertility policies before and after 2010, respectively.

in 1991 by linking local officials’ career advancement directly to population targets through the “one-vote veto” (*yipiao foujue*) system. The 1991 policy shift powerfully suppressed fertility, plunging the TFR below the replacement level ever since.

The fourth peak (2011–2017, 16 to 20 million annual births) coincided with a phased policy relaxation, moving from the Selective Two-Child Policy in 2013 to the Universal Two-Child Policy in 2015. However, this rebound in TFR, from 1.67 in 2011 to 1.80 in 2017, was predominantly a tempo effect driven by older cohorts realizing pent-up demand. Once this backlog was exhausted, births plummeted below 10 million by 2022. This rapid reversal confirms that China’s low fertility is no longer bound by birth quotas, but is instead constrained by low fertility desires and high costs of child-rearing (Fang and Liu, 2026; Guo et al., 2026b). Recognizing this fundamental shift, the government’s 2021 Three-Child Policy was followed by large-scale pronatalist subsidies—such as childcare provisions and free preschool education—though their mitigating effects remain to be seen in the data.

The following sections examine the origins of these policy shifts and their economic implications, particularly concerning household behavior, human capital, and the labor market. Section 2 examines the era before the OCP. Section 3 explores the OCP and its aftermath. Section 4 explores the shift toward pro-natalist policies. Section 5 concludes.

2 China’s Family Planning before the One-Child Policy

2.1 Birth Peaks in 1950–1970 Lead to Birth Control in the 1970s

In the 1950s, the newly established People’s Republic experienced a rapid decline in mortality without a corresponding decline in fertility, producing rapid population growth. In this context, the economist and demographer Yinchu Ma, then President of Peking University, published the “New Population Theory” in the *People’s Daily* on July 5, 1957, advocating birth control, late marriage, and contraception. A central argument of Ma’s theory was that widespread contraception, especially male contraception, should be used to avoid abortions of unwanted pregnancies. Chairman Zedong Mao, however, opposed Ma’s assessment. Ma’s theory was subjected to a nationwide political campaign and he was forced to resign from the presidency of Peking University in 1960. After the political backlash against Ma, the 1960s witnessed the

second baby boom. Throughout the 1960s, the total fertility rate remained high, rebounding to above 6 and peaking at 7.5 in 1963 (Figure 2). The State Council established the “National Family Planning Commission” in 1964, but the family planning policies were not effectively implemented during the political turmoil in the 1960s.

By the early 1970s, the staggering demographic momentum of this baby boom forced a pragmatic political reversal. As Whyte et al. (2015) document, Chairman Zedong Mao abandoned his earlier pro-natalist stance and advocated for strict birth control, initiating a major top-down policy reversal toward active family planning. In July 1971, the State Council circulated a pivotal report demanding that “humankind must control itself and achieve planned growth.” This culminated in December 1973 with the formal introduction of the LLF policy. The policy dictated that men and women should delay marriage until their mid-twenties (“Later”), maintain a birth interval of at least three years (“Longer”), and limit family size to no more than two children (“Fewer”). Rather than relying purely on propaganda, the state built a formidable bureaucratic apparatus to enforce these targets. Although the 1970s campaign was technically voluntary, it was accompanied by severe coercive elements, such as the deployment of grass-roots birth planning workers in villages and urban work units (Whyte et al., 2015). More systematically, between 1969 and 1975, provinces and municipalities established powerful “Family Planning Leading Groups” to enforce the LLF campaign (Chen and Huang, 2020).

2.2 Fertility Decline following the “Later, Longer, Fewer” Campaign

Contrary to the popular myth that China’s fertility transition was primarily driven by the OCP, the most dramatic collapse in fertility actually occurred during the 1970s under the LLF campaign. Between 1970 and 1978, China’s total fertility rate plummeted from around six to less than three children per woman (Figure 2). Over this short period, annual births fell from over 27 million to approximately 17 million (Figure 1).

Economists and demographers actively debate the extent to which this remarkable decline was driven by policy impact versus underlying socio-economic development. Exploiting the staggered rollout of the Family Planning Leading Groups across provinces, Chen and Huang (2020) estimate that the government’s rigorous policy enforcement accounted for approximately half of the fertility decline during the 1970s. In contrast, recent evidence by Babiarz et al. (2026)

suggests more modest policy effects, estimating that the LLF campaign causally reduced China’s TFR by about 0.95 births per woman, explaining around 30 percent of the fertility decline. Nevertheless, the literature reaches a consensus that the LLF campaign was a main catalyst for China’s fertility transition.

Beyond its direct impact on targeted households, the LLF campaign also accelerated the national fertility decline through powerful social multipliers. Although the birth quotas primarily applied to the Han majority, [Rossi and Xiao \(2024\)](#) document that ethnic minorities exempt from the policy also substantially reduced their fertility. They emphasize that these spillover effects operated through two primary mechanisms: a social channel driven by cultural proximity to the Han Chinese, and an economic channel fueled by the diffusion of higher educational investments. By capturing these indirect responses, their findings suggest that the aggregate demographic impact of the LLF campaign was magnified well beyond the populations strictly subjected to government enforcement.

2.3 Socioeconomic Impacts of the “Later, Longer, Fewer” Campaign

Despite its effectiveness in reducing aggregate fertility, the literature remains divided on whether the strict population controls of the LLF campaign skewed the sex ratio at birth. On one hand, [Chen and Huang \(2020\)](#) find no evidence that the LLF campaign significantly altered the sex ratio at birth, suggesting that the initial enforcement mechanisms may not have immediately triggered widespread sex selection. On the other hand, [Babiarz et al. \(2019\)](#) document that China’s population sex imbalance began rising precisely during the 1970s. [Babiarz et al. \(2026\)](#) estimate that the campaign doubled the use of male-biased fertility stopping rules and promoted postnatal sex selection, ultimately leading to hundreds of thousands of “missing girls” long before the OCP.

The LLF campaign’s strict regulations on marriage and childbearing reshaped female labor supply and gender equality in the workplace. Exploiting a regression jump and kink design, [Chen and Zhao \(2022\)](#) find that the “later” mandate of the policy directly delayed marriage formation, which significantly increased women’s labor force participation. Furthermore, the policy-induced reduction in fertility substantially narrowed the gender gap in long-term career advancement ([Chen, 2025](#)). Women exposed to strict fertility restrictions accumulated more

human capital and increased their labor input, enabling them to achieve managerial positions.

Beyond the labor market, the policy-induced fertility decline altered intra-household resource allocation, particularly by intensifying the quantity-quality trade-off in child-rearing. A recent working paper by [Guo et al. \(2026a\)](#) explores how the policy-induced shift in child investment affects the incidences of domestic violence. In rural areas, the increased marginal return to child human capital incentivized fathers to reduce abusive behaviors in order to maintain a stable environment for their children. Conversely, in urban areas where the reduced child-rearing burden accelerated women’s entry into the labor force, this sudden shift in female economic independence inadvertently triggered a male backlash that exacerbated domestic abuse.

Geographically, the massive variations in birth cohort sizes, which resulted from both the LLF campaign and the subsequent OCP, have long-term impact on China’s internal migration decades later. By exploiting these demographic shifts, [Guo et al. \(2024\)](#) document the asymmetric impacts of demographic “push” and “pull” forces. They find that while growing rural birth cohorts pushed young adults out of their origins, shrinking urban cohorts exerted a pull effect to draw migrants into cities. Furthermore, this demographic shift uniquely impacted marriage migration through a thick-market effect. Denser cohorts in urban destinations improved matching probabilities, thereby actively attracting more migrants seeking spouses.

Finally, the demographic changes induced by the LLF campaign have generated profound consequences for elderly well-being and late-life mortality. [Huang et al. \(2026a\)](#) document that cohorts exposed to the LLF campaign suffer from higher late-life mortality. The surviving elderly are more likely to experience poorer cognitive function and depression, are less likely to conduct outdoor activities, and receive fewer visits from adult children. Although the subsequent introduction of long-term care insurance mitigated some of these negative impacts through in-kind benefits, formal institutions provided limited substitution for traditional family support.

3 The One-Child Policy Era

3.1 Initiation of the One-Child Policy

The period between 1978 and 1980 marked a critical and rapid transition in China’s family planning apparatus, shifting the policy directive from “at most two” to a mandatory limit of “just one” child. Although the 1978 Constitution enshrined that “the state advocates and encourages family planning,” this constitutional mandate did not inherently dictate a one-child limit at the time. Instead, the abrupt tightening of population controls was primarily a defensive response to an impending demographic wave. Policymakers grew increasingly alarmed that the massive cohorts of 1960s baby boomers were entering reproductive age, threatening to reverse the hard-won fertility reductions of the 1970s (Feng et al., 2013; Whyte et al., 2015).

A pivotal catalyst for adopting the strict one-child rule was the intervention of China’s elite missile scientists, who applied optimal control theory to population dynamics (Greenhalgh, 2005). At the 1979 National Symposium on Population Theory in Chengdu, prominent cybernetics expert Jian Song and Guangyuan Li introduced mathematical modeling and computer simulations to project six future demographic scenarios (Song and Li, 1982). Benefiting from the unparalleled prestige accorded to defense scientists at that time, their quantitative models decisively crushed the cautious, qualitative theories presented by social scientists (Greenhalgh, 2005). These ostensibly objective, technocratic results alarmed the central leadership, persuading them that a drastic “one-child per couple” policy was a strategic necessity.

The shift to “one-child per couple” was first signaled to the public in a February 11, 1980 editorial in the *People’s Daily*, which explicitly declared that vigorously advocating one child per couple was the “only and best way” to alleviate the impending birth peak. On September 25, 1980, the *People’s Daily* published the “Open Letter from the Central Committee of the Communist Party of China to All Members of the Party and the Communist Youth League on the Question of Controlling China’s Population Growth”. This landmark “Open Letter” marked the formal commencement of the One-Child Policy at the national level (Greenhalgh, 2005).

As the central leadership consolidated its stance, local governments scrambled to align with the new demographic targets. From 1978 onwards, regional authorities initially experimented

with transitional frameworks, most notably the “award one, punish three” policies, before fully escalating to the mandate of one child per couple (Zhu, 2025; Guo et al., 2026b). Zhu (2025) systematically documents the varied timing of this policy transition.

3.2 Implementation and Tightening

The initial implementation of the One-Child Policy triggered significant conflicts between the local enforcement agencies and the people. In 1984, the central government issued Document No. 7, approving the *Report on the Status of Family Planning* by the National Family Planning Commission. This allowed some rural residents to have a second child upon approval, but strictly prohibited out-of-plan second and high-parity births, a policy relaxation known as “Opening a small loophole, closing the big one”. Subsequently, provinces and municipalities amended their population and family planning regulations. Some provinces permitted rural couples whose first child was a girl to have a second child, while others allowed couples where both parents were single children to have a second child (Wu and Yan, 2025; Huang et al., 2026b).

During the 1990s, China’s family planning policies tightened further, and the TFR rapidly dropped below the replacement level. In March 1991, the Fourth Session of the Seventh National People’s Congress approved the State Council’s *Report on the Ten-Year Outline for National Economic and Social Development and the Eighth Five-Year Plan*, which explicitly stipulated that “family planning work must be treated as a crucial indicator for evaluating the performance of governments at all levels.” This shift altered bureaucratic incentives for local officials. Specifically, provinces implemented a “One Vote Veto” (*yipiao foujue*) policy that prohibited career promotion for local cadres who failed to meet fertility targets. Concurrently, the monetary penalties on unauthorized births (“social maintenance fees”) surged around 1990 (Ebenstein, 2010; Huang, 2017). Li et al. (2025) demonstrate that this “One Vote Veto” enforcement mechanism was crucial for the policy’s effectiveness, explaining close to half of the fertility decline during the 1990s.

Strict birth control persisted into the early 21st century, with the central government maintaining a hardline stance on fertility restrictions. In March 2000, the CPC Central Committee and the State Council issued the Decision on Strengthening Population and Family Planning

Work to Stabilize the Low Fertility Level, setting the tone for fertility policies in the early 21st century. In September 2002, the Population and Family Planning Law of the People’s Republic of China was promulgated, formally establishing the One-Child Policy in statutory law.

The upper panel of [Table 1](#) documents these policy milestones during the OCP era. As shown in [Figure 1](#), after the initial rebound in the mid-1980s, China’s annual births experienced a steady decline throughout the 1990s and 2000s. Annual births fell from nearly 24 million in 1990 to under 18 million by 2000. In the early 21st century, China’s birth population declined further, with fewer than 16 million births in 2010.

3.3 Socio-economic Impacts of the One-Child Policy

The economics literature on the OCP is vast and multifaceted. Because [Wang et al. \(2017\)](#), [Zhang \(2017\)](#), and [Huang \(2026\)](#) have already provided comprehensive reviews of the policy’s socio-economic consequences, we briefly touch on the primary findings. Different from their reviews, the next section would highlight how economists exploit the OCP as a natural experiment to test and advance economic theories of fertility, household behavior, and marriage market.

Despite some controversy over the exact magnitude of influence, the OCP has reduced China’s fertility. A long strand of economic research has attempted to gauge the OCP’s direct impacts in reducing fertility ([Ahn, 1994](#); [Mcelroy and Yang, 2000](#); [Yin, 2023, 2024](#); [García, 2024](#); [Li and Shi, 2025](#); [Li et al., 2025](#)). Because the fertility restriction clashed with entrenched son preference, the OCP triggered gender selection against girls, leading to a severe sex ratio imbalance at birth ([Ebenstein, 2010](#); [Li et al., 2011](#)). After the affected cohorts grew up, the biased sex ratio intensified competition in the marriage market, which increased parental savings, housing investment, and even pushed some to pursue crime as a means to accumulate wealth for marriage ([Wei and Zhang, 2011](#); [Edlund et al., 2013](#); [Bhaskar et al., 2023](#)).

The OCP has profound impacts on the next generation. The policy reshaped human capital formation by inducing a quantity-quality trade-off of children ([Becker and Lewis, 1973](#); [Guo et al., 2022](#)). By reducing family size, the OCP led to concentrated parental investments that improved child education ([Qian, 2009](#); [Qin et al., 2017](#); [Huang, 2022](#)) and health ([Liu, 2014](#)). The educational gains extended beyond the household, as exposure to only-child peers in the

classroom generated positive spillovers that improved the academic outcomes of fellow students (Huang et al., 2025a). Lower childbearing burdens also enabled women to pursue education and enter white-collar occupations (Huang et al., 2021).

However, this unprecedented fertility decline also produced unintended consequences. To bypass the birth quotas, some parents resorted to strategic reporting that led to a noticeable rise in man-made twins (Huang et al., 2016). For parents who complied with the policy, their only children more often experience psychological distress, show less pro-social behaviors, and exhibit altered decision-making traits, such as being more risk-averse and less cooperative (Cameron et al., 2013; Li and Qiu, 2021; Park and Wu, 2025). Furthermore, because the OCP was more stringently enforced against the highly educated urban population, the policy has paradoxically lowered the average human capital of the population as a whole (Wang and Zhang, 2018). Moreover, the policy worsened intergenerational income mobility because its less stringent fertility restrictions on the poor (Yu et al., 2026). Finally, growing up with fewer siblings has persistently altered the next generation’s fertility preferences, cementing low fertility desires that endure even after the policy’s abolition (Fang and Liu, 2026; Guo et al., 2026b).

3.4 Advancing Economic Theory via the One-Child Policy

Beyond documenting its socio-economic impacts, recent studies have increasingly exploited the One-Child Policy’s real-world ramifications to test and advance economic theories. First and foremost, the policy’s strict birth quotas provide exogenous shocks to fertility that allow researchers to study household behaviors such as savings and human capital investment. Choukhmane et al. (2023) exploit the policy’s exogenous reduction in fertility to test the old-age security motive for childbearing and extend the life-cycle theory of savings. They demonstrate that as lower fertility reduces expected old-age transfers from children, parents compensate by increasing their own financial savings. Although child human capital increases due to the quantity-quality trade-off, the resulting increase in transfers per child is insufficient to counteract the mechanical decline in the number of children. Choukhmane et al. (2023) highlight this “transfer channel” that operates beyond standard life-cycle considerations.

The staggered rollout of the OCP creates variations to study the endogenous evolution

of fertility norms. [Zhu \(2025\)](#) and [Guo et al. \(2026b\)](#) show that the policy-induced decline in maternal fertility established a new low-fertility norm for subsequent generations. Consequently, fertility desires of subsequent generations remain persistently low even after the OCP was abolished in recent years. Furthermore, the fertility ceiling provides a setting to formalize a generalized theory of rationed fertility that separates desired and undesired fertility changes. [Guo et al. \(2025b\)](#) find a rationing income effect that can explain heterogeneous treatment effects in the child quantity-quality trade-off. They show that under the fertility quota of the policy, a twin birth can help parents break the quota and move their fertility closer to the desired level. This desired fertility increase generates a positive rationing income effect, which explains why such shocks do not necessarily reduce child human capital investments.

Second, the differential enforcement of the policy between Han Chinese and ethnic minorities provides another critical variation to study marriage distortions and identity choices. As shown by [Huang et al. \(2025b\)](#), the fertility restrictions reduced marital surplus, increased the number of people staying unmarried, thereby generating substantial welfare losses in the marriage market. However, because ethnic minorities received exemptions from these fertility restrictions, the policy inadvertently increased Han-minority marriages as individuals sought to bypass the quotas.

This minority exemption advantage also provides a rare opportunity to test the theory of social identity choice. [Jia and Persson \(2021\)](#) show that the material advantages of minority status motivated Han-minority couples to choose a minority identity for their children. This choice occurred despite the potential social stigma of assigning the mother's ethnicity rather than the father's, demonstrating that material benefits shape identity choices.

Third, the OCP-induced sex ratio imbalance generated a substantial marriage squeeze, providing a unique context to advance theories of marriage matching. [Bhaskar et al. \(2023\)](#) analyze multidimensional parental investments under imperfect marital commitment. They show that because of the biased sex ratio, men face lower ex ante bargaining power in the marriage market, but possess higher ex post bargaining power derived from their higher earnings. Consequently, the skewed sex ratio pushed parents of sons to overinvest in housing assets as a premarital commitment device, while underinvesting in their sons' human capital relative to daughters.

Furthermore, the rapid demographic shifts caused by the fertility restrictions and the sex

ratio imbalance introduced non-stationarity into marriage markets. To address this, [Chen and Choo \(2023\)](#) develop a parametric dynamic matching model that uses a sequence of transitional equilibria to bridge different steady states. [Rossi and Xiao \(2026\)](#) instead exploit the classic framework of [Choo and Siow \(2006\)](#) to quantify the relative importance of population structure shifts versus changing matching surpluses in explaining China’s declining marriage rates.

4 Toward a Pro-natalist Policy

4.1 Why Had the One-Child Policy Persisted?

Mysterious fertility rates for the 1990s. Following the implementation of the “One Vote Veto” system in the 1990s, China’s total fertility rate rapidly fell below the replacement level. In 1991 and 1992, the “380-thousand” survey organized by the National Family Planning Commission revealed that the TFR had dropped to 1.65 and 1.52, respectively. At the time, scholars generally believed these figures were far too low and resulted from the underreporting of unauthorized births ([Zeng, 1995](#)). In 1998, the National Family Planning Commission organized experts to reassess the population policy. The resulting expert report in early 2000 concluded that the TFR throughout the 1990s was around 1.8. Warning of a high risk of a fertility rebound, the report merely recommended a minor policy adjustment to allow couples who were both single children themselves to have a second child ([National Family Planning Commission Research Group on China’s Future Population Development and Fertility Policy, 2000](#)).

In March 2000, the CPC Central Committee and the State Council issued the Decision on Strengthening Population and Family Planning Work to Stabilize the Low Fertility Level, setting the tone for fertility policies in the early 21st century. In September 2002, the Population and Family Planning Law of the People’s Republic of China was promulgated, formally establishing the One-Child Policy in statutory law.

In 2004, the central government organized a National Population Development Strategy Research Group, led by several prominent academicians. In 2007, this group released the *National Population Development Strategy Research Report*, concluding that “the national TFR should be maintained at around 1.8 for the next 30 years, as levels either too high or too low

would be detrimental to the coordinated development of population, economy, and society.” Furthermore, it argued that “the current low fertility level has a strong potential for a rebound,” thereby recommending the continuation of strict family planning policies ([National Population Development Strategy Research Group, 2007](#)).

Between 1990 and 2010, Chinese demographers did not reach a consensus on how low China’s fertility truly was, while the government maintained an official TFR estimate of around 1.8. Although extremely low fertility rates appeared in census and survey data, experts generally attributed these figures to underreporting of unauthorized births, though they disagreed on the magnitude of such omissions. By analyzing the 2000 Fifth Population Census data, Zhigang Guo was the first to propose that the TFR in the late 1990s had dropped below 1.5 ([Guo, 2004a](#)). Although most Chinese demographers disagreed with his assessment at the time ([Qiao, 2005](#)), Zhigang Guo persistently maintained this view, as supported by his subsequent research ([Guo, 2004b, 2008, 2009](#)). [Guo \(2010a,b\)](#) warned that mismeasuring fertility rates would lead to severe delays in policy relaxation, which would in turn exacerbate the demographic challenges of an aging population.

In September 2010, then-Vice Premier Keqiang Li attended a symposium marking the 30th anniversary of the China Family Planning Association and proposed “stabilizing an ‘appropriate’ low fertility level,” signaling a potential policy shift. In 2011, upon the release of the 2010 Sixth Population Census data, China’s extremely low fertility was verified once again. After that, many Chinese social scientists joined Zhigang Guo to call for a swift policy relaxation ([Guo, 2012](#); [Shen et al., 2012](#); [Zeng, 2012](#)). However, it was not until November 2013 that the government eventually introduced the Selective Two-Child Policy, a pilot policy relaxation that only allowed couples where one party is a single child to have two children.²

Debates behind the staggered policy adjustments. The conservative Selective Two-Child Policy severely delayed China’s policy adjustment. Before launching the Selective Two-Child Policy, The National Population and Family Planning Commission did consulted expert

²On November 12, 2013, the Third Plenary Session of the 18th CPC Central Committee passed the Decision of the CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform, which stated: “Initiate the implementation of the policy allowing couples where one party is a single child to have two children, and gradually adjust and perfect the fertility policy to promote long-term balanced population development.” On December 30, 2013, the CPC Central Committee and the State Council issued the Opinions on Adjusting and Perfecting the Birth Policy to implement the Selective Two-Child Policy.

opinions, but ultimately chose a cautious approach that only allowed a small fraction of couples to have two children. In 2011, a research team led by demographer Zhenwu Zhai evaluated the potential impact of introducing a universal two-child policy in 2012. This study, eventually published at the leading Chinese demography journal *Population Research*, provided a staggering estimate: if a universal two-child policy were implemented in 2012, “China’s annual births would drastically increase, with the peak number of births reaching 49.95 million and the period fertility rate peaking at around 4.5” (Zhai et al., 2014, p. 3). These estimates were significantly higher than those of other scholars conducted at the same time period (Wang and Zhang, 2012; Qiao, 2014). Influenced by Zhai et al. (2014), the government cautiously opted for the pilot Selective Two-Child Policy in November 2013 (Qiao, 2015b). The target population for this pilot policy was only about 12 percent of the size of a universal policy (Qiao, 2014).

The Selective Two-Child Policy failed to generate the anticipated surge in births (Qiao, 2015a). Consequently, Chinese demographers strongly advocated for immediate and complete liberalization of fertility policies (Guo, 2015; Qiao, 2015a; Gu, 2015; Zeng, 2015). On October 29, 2015, the central government announced the Universal Two-Child Policy, allowing all couples to have two children.³ This Universal Two-Child Policy was implemented in 2016, marking a full relaxation of China’s birth-control policies.

On May 11, 2021, at the press conference for the main results of the 2020 Seventh Population Census, the Director of the National Bureau of Statistics publicly admitted that the TFR for 2020 was only 1.3. With the Universal Two-Child Policy already in place, issues like the underreporting of births could no longer interfere with the calculations of fertility rates. Confronted with the irrefutable evidence of ultra-low fertility, China shifted to a new era of pronatalist policy. On June 26, 2021, just one month after the release of the 2020 Seventh Population Census results, China introduced the Three-Child Policy.⁴

On July 28, 2025, the General Offices of the CPC Central Committee and the State Council issued the Implementation Plan for the Childcare Subsidy System, providing an annual childcare

³On October 29, 2015, the Fifth Plenary Session of the 18th CPC Central Committee passed the Proposal of the CPC Central Committee on Formulating the Thirteenth Five-Year Plan for National Economic and Social Development, which stated: “Universally allow each couple to have two children.”

⁴The Decision of the CPC Central Committee and the State Council on Optimizing the Birth Policy to Promote Long-Term Balanced Population Development stated: “Implement the policy that a couple can have three children, abolish social maintenance fees and other restrictive measures, clean up and repeal relevant penalty provisions, and support the implementation of active fertility support measures.”

subsidy of 3,600 RMB per child for infants under three years old. Shortly after, on July 31, 2025, the General Office of the State Council issued the Opinions on Gradually Implementing Free Preschool Education, specifying that starting from the autumn semester of 2025, public kindergartens will take the lead in exempting care and education fees for children in their final year of preschool. Together, these two measures constitute the most extensive pro-natalist initiatives introduced in recent years.

Based on data from the 2020 Seventh Population Census, [Qiao \(2022, 2023\)](#) re-estimated the number of births and the TFR between 1986 and 2020. These studies revealed that both the number of births and the TFR in the 1990s were substantially overestimated in official statistics. [Qiao \(2023\)](#) corroborated the earlier findings of [Guo \(2004a\)](#) that the TFR had dropped below 1.5 by the late 1990s, highlighting the rarity and value of Zhigang Guo’s estimates at that time, which were unfortunately ignored by the family planning authority. In retrospect, the adjustment of China’s fertility policy was delayed by more than ten years. Had policymakers in 2000 accurately recognized the rapid decline in births during the 1990s and the TFR approaching 1.5, a two-child policy should have been implemented then ([Qiao, 2022, 2023](#)).

4.2 Challenges after the Policy Shift

Following the implementation of the Universal Two-Child Policy in 2016, China’s annual births and total fertility rate experienced a brief rebound before plummeting rapidly. As shown in [Figure 1](#) and [Figure 2](#), annual births temporarily surged from 16.5 million in 2015 to around 18 million in 2016 and 2017, while the TFR experienced a short-lived jump of around 0.1 in 2016 and 2017. Using data from the China Family Panel Studies, [Ge and Shi \(2023\)](#) estimate that the Universal Two-Child Policy successfully increased the number of births by 14.8 percent during this brief window. However, the temporary rebound was followed by a cliff-like drop, with the TFR dropping to 1.0 by 2023, and annual births falling to below 8 million in 2025. This subsequent rapid decline was unanticipated by both scholars and policymakers, such as [Zeng and Hesketh \(2016\)](#).

Demographic analysis reveals that the drop in first-birth fertility is the primary driver of this sustained low birth population ([Guo, 2017](#)). While the policy relaxation released pent-up

demand for a second child among older couples, it failed to encourage family formation among younger cohorts. Interestingly, the fertility rebounds exhibited spillover effects, as spatial social interactions increased conformity in childbearing decisions across different socioeconomic strata (Sun et al., 2024). To address the declining fertility, local governments began experimenting with pro-natalist incentives. For instance, based on a 2016 fertility subsidy pilot in Hubei province, Shi et al. (2024) find that while financial subsidies can raise fertility intentions, they only become effective when the subsidy amount exceeds a certain threshold.

The persistent decline in fertility rates despite policy relaxations can be explained by a profound shift in underlying fertility desires. Before the policy relaxations, the desired fertility of young generations had already dropped below 1.8 (Hou et al., 2014; Wang and Wang, 2016). Fang and Liu (2026) document a significant gap between realized fertility and desired fertility, showing that even when fertility restrictions were lifted, high living costs and career penalties prevented couples from fulfilling their fertility intentions. Furthermore, decades of stringent birth control policies have fundamentally altered social norms on family size. Guo et al. (2026b) provide evidence that the One-Child Policy deeply ingrained one-child norms, which persist intergenerationally. Young cohorts raised in one-child households exhibit low fertility desires, creating a powerful cultural inertia that resists recent pro-natalist push.

Beyond the fertility response, the policy shift has generated other socio-economic consequences, particularly in the labor market. With the lifting of birth quotas, women eligible to have a second child encountered escalated labor market discrimination (He et al., 2023). Empirical evidence indicates that the Universal Two-Child Policy significantly reduced female labor force participation, working hours, and labor income (Wu, 2022; Chen and Wang, 2024). To balance the heightened demands of childcare and work, women increasingly transitioned to short-term or flexible employment (Huang and Fan, 2025). The burden of childcare also spilled over to older generations. Chen et al. (2026a) show that the birth of a second child increased the provision of grandparental childcare and altered living arrangements, which in turn induced higher rates of depression among grandparents.

5 Concluding Remarks

Over forty years of birth control have shaped a new reproductive norm of low fertility. The consequences of sustained low fertility have begun to manifest. The proportion of the population aged 65 and above has increased from 5.6 percent in 1990 to 15.9 percent in 2025 (Figure A2). To counteract the ultra-low fertility and smooth the rapidly changing age structure, China has implemented extensive fertility subsidies and free-education policies in 2025, but the scale of these interventions remains far from sufficient. A “big push” comprising a substantial policy mix is necessary to stabilize the fertility rate and reverse its decline.

Family policies are not the sole determinants of fertility. Even during the period when the One-Child Policy was strictly enforced, the fertility behaviors of Chinese households were heavily influenced by socioeconomic factors such as trade openness, reform of state-owned enterprise, public pensions, and Confucian culture (Luo and Zou, 2024; Chen et al., 2025; Guo et al., 2025a; Xie et al., 2026; Zhang, 2019; Guo and Zhang, 2020; Zou et al., 2024; Chen et al., 2026b; Guo and Wang, 2026). Gender-unequal norms in East Asia also contribute to the decline in fertility and the rise in childlessness (Myong et al., 2021; Goldin, 2025). Zhang et al. (2025) propose a new policy paradigm that combines traditional supply-side pronatalist stimuli with demand-side measures that address the underlying cultural attributes shaping fertility desires. Understanding the micro-mechanisms behind fertility decisions is crucial for designing effective policy instruments to reverse the declining fertility trend.

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Appendix A Supplementary Tables and Figures

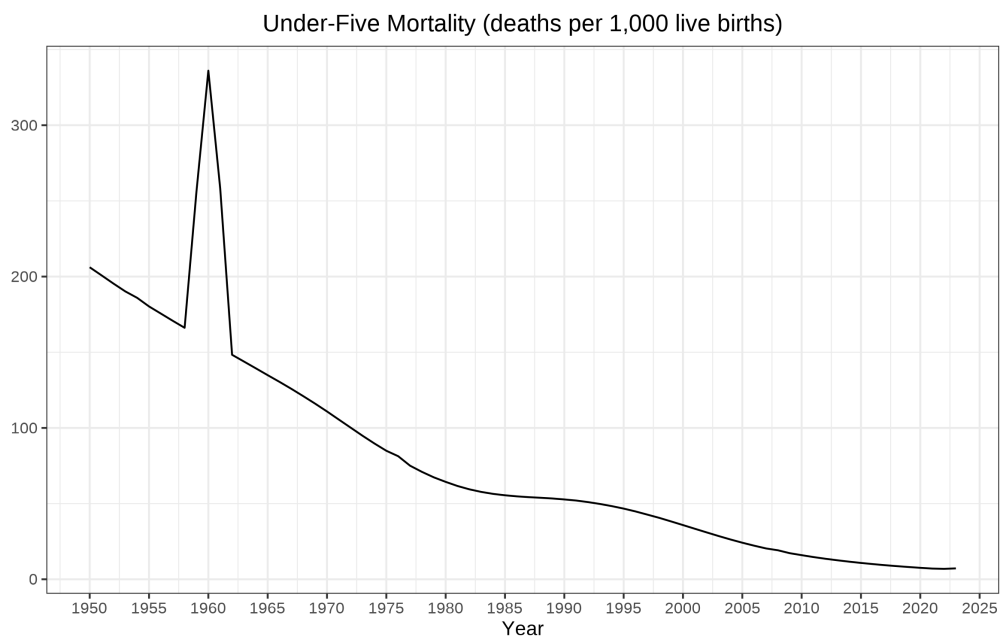


Figure A1: Under-Five Mortality in China

Notes: Data come from UN World Population Prospects 2024. Under-five mortality is defined as deaths under age 5 per 1,000 live births.

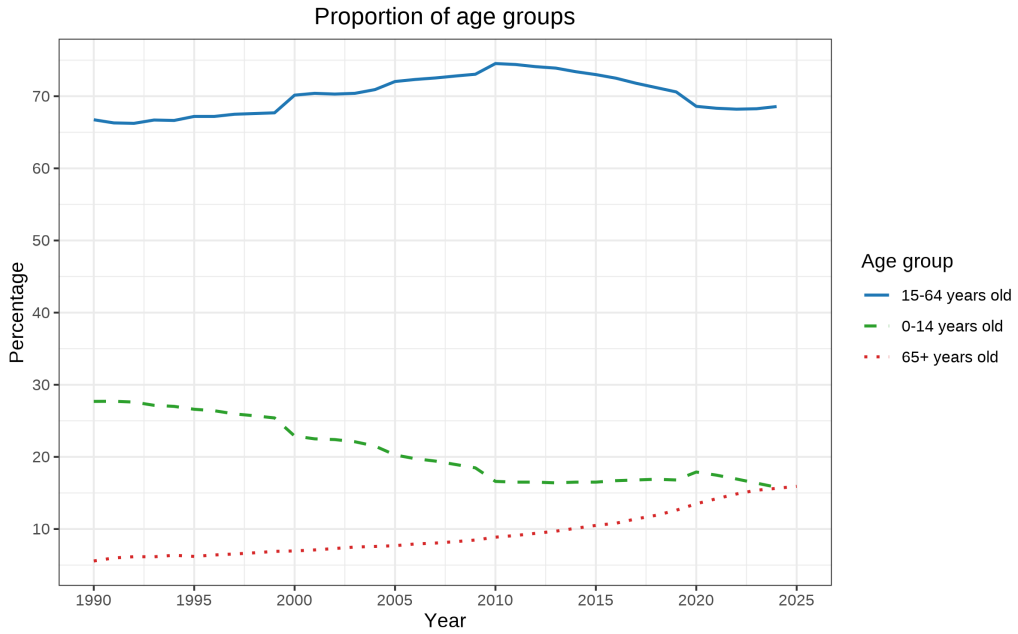


Figure A2: Proportion of Age Groups in China

Notes: Data are from the National Bureau of Statistics of China, accessed on 2026 May 10th. The proportions of each age group are computed against the year-end total population. The figures only include data from the mainland, excluding Hong Kong, Macao, and Taiwan.

Table A1: Key Documents before 2010

Year	Title	Issuing Authority
1971	Report on Doing a Good Job in Family Planning (《关于做好计划生育工作的报告》)	State Council (国务院) ^a
1978	Constitution of the PRC, Art. 53 (《中华人民共和国宪法》第五十三条)	National People's Congress (全国人民代表大会)
1980	Open Letter to All Members of the CPC and CYL on Controlling Our Country's Population Growth (《关于控制我国人口增长问题致全体共产党员共青团员的公开信》)	CPC Central Committee (中共中央)
1984	Report on the Status of Family Planning Work (《关于计划生育工作情况的汇报》)	Leading Party Members' Group, National Family Planning Commission (国家计生委党组)
1991	Report on the Ten-Year Outline for National Economic and Social Development and the Eighth Five-Year Plan (《关于国民经济和社会发展十年规划和第八个五年计划纲要的报告》)	State Council (国务院)
2000	Decision on Strengthening Population and Family Planning Work and Stabilizing the Low Fertility Level (《关于加强人口与计划生育工作稳定低生育水平的决定》)	CPC Central Committee & State Council (中共中央、国务院)
2002	Population and Family Planning Law of the PRC (《中华人民共和国人口与计划生育法》)	National People's Congress (全国人民代表大会)
2007	National Population Development Strategy Research Report (《国家人口发展战略研究报告》)	National Population Development Strategy Research Group (国家人口发展战略研究课题组)

^a The State Council forwarded the report by the Military Control Commission of the Ministry of Health, the Ministry of Commerce, and the Ministry of Fuel and Chemical Industries (国务院转发卫生部军管会、商业部、燃料化学工业部《关于做好计划生育工作的报告》).

Table A2: Key Documents after 2010

Year	Title	Issuing Authority
2013	Decision on Major Issues Concerning Comprehensively Deepening the Reform (《中共中央关于全面深化改革若干重大问题的决定》)	Third Plenary Session, 18th CPC Central Committee (十八届三中全会)
2013	Opinions on Adjusting and Perfecting Fertility Policies (《关于调整完善生育政策的意见》)	CPC Central Committee & State Council (中共中央、国务院)
2015	Proposal on Formulating the Thirteenth Five-Year Plan for National Economic and Social Development (《中共中央关于制定国民经济和社会发展第十三个五年规划的建议》)	Fifth Plenary Session, 18th CPC Central Committee (十八届五中全会)
2021	Decision on Optimizing Fertility Policy and Promoting the Long-Term Balanced Development of the Population (《关于优化生育政策促进人口长期均衡发展的决定》)	CPC Central Committee & State Council (中共中央、国务院)
2025	Implementation Plan for the Childcare Subsidy System (《育儿补贴制度实施方案》)	General Offices of CPC Central Committee & State Council (中共中央办公厅、国务院办公厅)
2025	Opinions on Gradually Implementing Free Preschool Education (《关于逐步推行免费学前教育的意见》)	General Office of the State Council (国务院办公厅)