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Challenging Myths About China's One-Child Policy

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Abstract

China's controversial one-child policy continues to generate controversy and misinformation. This essay challenges several common myths: that Mao Zedong consistently opposed efforts to limit China's population growth; that as a result China's population continued to grow rapidly until after his death, necessitating the switch to mandatory and coercive birth limits; that the launching of the one-child policy in 1980 led to a dramatic decline in China's fertility rate; and that due to the one-child policy, China and the world benefited from 400 million births that were thereby prevented. Evidence is presented contradicting each of these claims: that Mao Zedong at times forcefully advocated strict limits on births and presided over a major switch from voluntary to coercive birth planning after 1970 (not 1980); that as much as 3/4 of the decline in fertility in China since 1970 occurred prior to the launching of the one-child policy; that fertility levels fluctuated and even rose in some years after the one-child policy was launched; and that most of the further decline in Chinese fertility since 1980 can be attributed to economic development, not to coercive enforcement of birth limits.

In 2013, with the merger of the National Population and Birth Planning¹ Commission and the Ministry of Health to form a new National Health and Population Planning Commission in March and the announcement of a partial relaxation of the one-child policy in November, China embarked on a journey that may eventually end the most extreme and controversial policy of birth control in human history.² In the last three decades and more, numerous studies have been devoted to examining the policy's origin, enforcement and effects. Yet confusion and myths remain, not only among the public but also in scholarly publications.

¹The Chinese term *jihua shengyu* is usually translated as "family planning" in Chinese government publications, including when referring to the names of government agencies responsible for this task. However, since the term "family planning" is understood outside China to refer to a variety of practices that help families to meet their own childbearing goals, while the Chinese practices involved are decidedly different—state interventions to limit the numbers of births—we will throughout instead use the terms "birth planning" or "birth limits".

²The partial relaxation involves couples where one spouse is an only child and the other spouse has siblings. Such couples are now allowed to have two children. (Couples where both spouses are single children have been allowed to have two children since the policy was launched in 1980.) While the symbolic importance of this relaxation may be important, the actual demographic effect is likely to be quite minor. See Martin King Whyte, "Modifying China's One-Child Policy", published online in *E-International Relations* (2 February 2014), <http://www.e-ir.info/2014/02/02/modifying-chinas-one-child-policy/>, accessed 2 February 2015. At the time of writing, the one-child policy remains very much in effect, although we note long-standing exceptions to the one-child limit later in this article.

One example is an article published in this journal. Issue No. 72 of *The China Journal* contains a very interesting analysis by Yan Wei and Li Zhang of the record of Yicheng, Shanxi, in implementing a two-child rather than a one-child policy since 1980.³ Although the details on how Yicheng carried out a two-child policy are fascinating and we are in substantial agreement with their conclusions about the Yicheng experience, the authors set the context for their analysis with statements about the origins of mandatory birth limits that are incorrect. For example, in describing the situation in the 1970s, they state: “the state never extended its birth-limitation efforts to rural areas and set no numerical demographic targets at the national level until the late 1970s” (p. 102). Their contention that the switch from voluntary to coercively enforced birth planning only occurred after 1980 is contradicted by a large amount of prior research.⁴

Nor is this example from the article about Yicheng County an isolated instance of mistaken generalizations about the historical record. In his otherwise masterful account of Deng Xiaoping’s role in transforming China after the death of Mao Zedong, Ezra Vogel deals only very briefly with the origins of the one-child policy, but when he does he also gets the facts wrong: “When Mao was alive, despite some educational programs and the supplying of birth control devices, birth control made little headway”.⁵

Erroneous statements such as these are quite common. There is a need to set the record straight regarding a series of myths about the origins and record of China’s coercive birth planning regime. Even though an accurate picture is already available from prior research and publications, key features of that record have too often been ignored or forgotten. We use this opportunity to challenge a series of such myths, and not just the specific erroneous claims cited above.

Common myths about the origins and record of China’s policy include the following:

1. Mao Zedong was and remained an ardent pro-natalist until the end. Despite some periods in which he allowed voluntary birth planning efforts, it was only possible to switch to a much more concerted national effort to enforce fertility limits after his death.
2. Due to the obstruction that Mao’s stance on population issues created, China’s population continued to grow at a rapid and uncontrolled rate until after his death, necessitating the contemplation of a more drastic and coercive program, the mandatory policy enforced after 1980.
3. Once the transition from voluntary birth planning campaigns to the highly coercive one-child policy was launched in 1980, Chinese fertility rates began a

³Yan Wei and Li Zhang, “Re-examination of the Yicheng Two-Child Program”, *The China Journal*, No. 72 (July 2014), pp. 98–120.

⁴See in particular, Susan Greenhalgh, *Just One Child: Science and Policy in Deng’s China* (Berkeley: University of California Press, 2008); WANG Feng, Yong Cai and Baochang Gu, “Population, Policy, and Politics: How Will History Judge China’s One-Child Policy?”, *Population and Development Review*, Vol. 38 (2013 [supplement]), pp. 115–29. See also Tyrene White, *China’s Longest Campaign: Birth Planning in the People’s Republic, 1949–2005* (Ithaca: Cornell University Press, 2006); Thomas Scharping, *Birth Control in China 1949–2000: Population Policy and Demographic Development* (London: RoutledgeCurzon, 2003); Susan Greenhalgh and Edwin Winckler, *Governing China’s Population: From Leninist to Neoliberal Biopolitics* (Stanford: Stanford University Press, 2005).

⁵Ezra Vogel, *Deng Xiaoping and the Transformation of China* (Cambridge MA: Harvard University Press, 2011), pp. 434–35.

sharp descent, eventually reaching sub-replacement levels of fertility (below a total fertility rate of 2.1 births per woman⁶) by about 1990 and in the years that followed.

4. However coercive and objectionable the one-child policy may be, the campaign led to the prevention of at least 400 million births. China today and perhaps the world in general are better off in multiple ways as a result of that success in controlling population size.

Was Mao a Pro-Natalist?

Each of these generalizations is at least highly misleading, and in many particulars completely wrong. We start with Mao's pro-natalist record. It is certainly true that Mao is on record on several occasions stating that population growth was not a problem in a socialist country like China, but such statements were more philosophical and ideological than practical. Mao made his best-known statement on this subject shortly before the founding of the People's Republic, in September 1949. In a rebuttal of statements by Dean Acheson, US Secretary of State under President Truman, who considered overpopulation a main source of China's revolution, Mao proclaimed:

It is a very good thing that China has a big population. Even if China's population multiplies many times, she is fully capable of finding a solution; the solution is production. The absurd argument of Western bourgeois economists like Malthus that increases in food cannot keep pace with increases in population was not only thoroughly refuted in theory by Marxists long ago, but has also been completely exploded by the realities in the Soviet Union and the Liberated Areas of China after their revolutions.⁷

However, such rhetoric does not mean that Mao favored promoting population growth or that he consistently opposed efforts to reduce China's birth rate.

Mao's approach to population issues after 1949 was more practical than ideological. By the mid-1950s, confronted with the challenges of managing the country and feeding its population, Mao and other leaders began to sing a different tune. At the Eighth Congress of the Chinese Communist Party in 1956, Premier Zhou Enlai gave a speech in which he twice mentioned the need to advocate birth control. Early the following year, in the original version of his famous speech of 27 February 1957, "On the Correct Handling of Contradictions among the People", Mao Zedong conveyed the same idea in much more detailed terms:

Our country has so many people, which no country in the world can compare with. It would be better to have fewer births. (Re)production needs to be planned. In my view, humankind is completely incapable of managing itself. It has plans for

⁶The total fertility rate (TFR) is not a statistic, but a projection or estimate of how many babies the average woman would give birth to in her lifetime if current fertility rates (of women of all ages, marital statuses and parity levels) were to continue indefinitely at the same levels.

⁷"The Bankruptcy of the Idealist Conception of History" (16 September 1949), in *Selected Works of Mao Tse-tung*, Vol. IV (Peking: Foreign Language Press, 1961), p. 453.

production in factories, for producing cloth, tables and chairs, and steel, but there is no plan for producing humans. This is anarchism—no governing, no organization and no rules. This government perhaps needs to have a special ministry—what about a ministry of birth control? Or perhaps establishing a commission, as part of the government?⁸

By late 1957, the urgency which Mao attached to birth control had increased. In his speech concluding the Enlarged Third Plenary Session of the Eighth Central Committee of the Chinese Communist Party, delivered on 9 October 1957, Mao remarked:

Of course birth control is still necessary, and I am not for encouraging more births. There should be a ten-year program for promoting birth control: three years for pilot programs and publicity, three years for promotion and expansion, and four years for universal implementation. It would be too late to wait until our population size reaches 800 million. While we don't promote birth control in ethnic minority areas, nor in sparsely populated mountainous areas, we still need to have the idea debated and heard. I think birth control should be part of the middle school curriculum. It's not OK to have human reproduction in a state of total anarchy—we need birth planning.⁹

It is true that by the following year, believing that socialism and the Great Leap Forward would solve China's food security problems, Mao became less worried about population growth, but he still believed in the ultimate desirability of birth control, albeit not in the short term. For example, on 28 May 1958, he said, "We are not afraid of a population of 800 million or one billion. American reporters say that after 100 years, the Chinese population will constitute 50 percent of the world population. By that time, our cultural level will be high. When all the people are college educated, they will naturally practice birth control."¹⁰ On 17 August 1958, in a Politburo meeting, he made another comment on population: "We need to change our thinking about population. I have said to control it within 800 million, but I now see that it would not be a problem to go over 1 billion. There is no need to advocate for more births. Fertility control goes together with improvement in education."¹¹

However, even before the end of the massive famine caused by the Great Leap Forward, Mao had reverted to expressing more concern about the need to limit births. In his conversation with General Montgomery on 27 May 1960, Mao said that the population in China would grow by 100 million, not 150 million as suggested by Montgomery: "We are working to control our population growth". Several years later, in a conversation with the Minister of Health on 20 August 1965, Mao made two comments related to birth control. "Tianjin provided birth control for free. While it looked like an economic loss to the state on the surface, the real effect is just the opposite ... You need to include birth control when you launch rural health programs."¹² In talking with the American journalist Edgar Snow in

⁸ *Mao Zedong zhuzuo zhuanji zhaibian (Excerpts from Works of Mao Zedong by Topic)* (Beijing: Central Document Publishing House, 2003), p. 970 (translation our own). This passage, along with several others unrelated to population issues, was deleted from subsequent published versions of Mao's 1957 speech.

⁹ *Mao Zedong wenji (Works of Mao Zedong)*, Vol. 7 (Beijing: People's Press, 1999), p. 308.

¹⁰ Quoted in a Cultural Revolution Red Guard document collection, *Mao Zedong sixiang wansui (Long Live Mao Zedong Thought)*, Vol. 3 (Wuhan: n.p., 1968), p. 86.

¹¹ *Mao Zedong sixiang wansui*, p. 101.

1965 and again in 1971, Mao Zedong complained that too few in rural China were using contraceptives.¹³

Finally, while not much is available in official documents on Mao's thinking on population matters during the 1960s and 1970s, from the record it is clear that Mao returned to the assessment of China's need for birth control that he had made in 1957. China's Birth Planning Commission within the State Council was established in 1964 to lead birth-control efforts, shortly after China's population growth recovered from the devastating Great Leap Forward famine, and exactly as proposed by Mao in his speech in 1957. China also developed its own version of the contraceptive pill by the mid-1960s and expanded the national distribution and propaganda network devoted to promoting birth control.¹⁴

We do not have much evidence on what Mao was thinking about population issues toward the end of his life but, given his supreme position at the time, we can be sure that he must have signed off on the very decisive shift that China made from voluntary to mandatory and highly coercive birth planning enforcement after 1970 (not after 1980). In 1971, China's State Council approved a report on birth control, setting the goals of reducing the annual rate of population growth from 2.5 per cent in 1970 to 1 per cent in cities and 1.5 per cent in rural areas by 1975 as part of the fourth Five-Year Plan. In 1975 and for the subsequent Five-Year Plan, birth-control goals were further ramped up, aiming to reduce the annual rate of population growth from 1.57 per cent in 1975 to 1 per cent in rural areas and 0.6 per cent in cities by 1980.¹⁵ These were the policy decisions that launched China on a dramatically tougher birth planning effort in the closing years of Mao's life.

Was China's Birth Control Program Voluntary in the 1970s?

With these ambitious goals a national campaign of mandatory birth planning was put into full motion. The slogan that summarized the three demographic components of the campaign was "later, longer, and fewer" (*wan, xi, shao* 晚、稀、少). "Later" referred to the effort to enforce late marriage—at least after age 25 for brides and 27 or 28 for grooms in the city, and after 23 for brides and 25 for grooms in the countryside. "Longer" referred to requiring greater intervals between permitted births—at least four years. "Fewer" meant limits on the number of births allowed—no more than two children for urban families and three for rural families, with penalties for those who did not comply.

¹²Yang Kuifu, Liang Jimin and Zhang Fan (eds), *Zhongguo renkou yu jihua shengyu dashi yaolan (A Chronicle of Major Events in China's Population and Birth Planning)* (Beijing: China Population Press, 2001), p. 38.

¹³Yang Kuifu, Liang Jimin and Zhang Fan (eds), *Zhongguo renkou yu jihua shengyu dashi yaolan*, p. 37.

¹⁴For a contemporary overview of efforts to promote birth planning during the 1950s and 1960s, see Michael Freeberne, "Birth Control in China", *Population Studies*, Vol. 18 (1964), pp. 5–16. Freeberne discusses the controversy surrounding the role of Peking University president Ma Yinchu in advocating birth planning in 1957. Later accounts have suggested that Mao was critical of Ma's advocacy of birth control, and that in the anti-rightist campaign Ma was criticized and then fired from his presidency, thus silencing a voice that could have helped to slow China's population growth much earlier. See, for example, "Cuopi yiren, duosheng sanyi" (One Individual Wrongly Criticized, Three Hundred Million More Births), *Guangming ribao (Guangming Daily)* (5 August 1979), p.3. However, Ma's statements on the need for birth planning very much echoed Mao's own statements from 1957 quoted above, he was never condemned as a rightist, and when he left the presidency in 1960 he was already 78 years old. Furthermore, voluntary birth planning efforts resumed and were expanded in the early 1960s, as Freeberne documents. The claim that Ma's treatment led to the demise of Chinese birth planning efforts until 1980 thus also belongs in the category of myths.

¹⁵Liang Zhongtang, *Zhongguo jihua shengyu shilun (History of China's Birth Planning Policy)* (Beijing: China Development Press, 2014).

The post-1970 campaign in no way relied simply upon persuasion or voluntary compliance. Many of the coercive enforcement techniques that became notorious after the one-child policy was launched in 1980 actually date from this “later, longer, fewer” campaign of the 1970s.¹⁶ The State Birth Planning Commission through its bureaucratic hierarchy oversaw grass-roots birth planning workers in each village, urban work unit and neighborhood. These birth planning enforcers kept detailed records on each woman of child-bearing age under their responsibility, including past births, contraceptive usage and even menstrual cycles, in many reported instances becoming “menstrual monitors” who tried to detect out-of-quota pregnancies at an early stage.¹⁷ In some factories, there were quotas for reproduction as well as for production, and a woman employee who did not receive a birth allotment was not supposed to get pregnant (even if she had not yet reached her two-child maximum). Women who became pregnant without permission were subjected to regular harassment to get an abortion, with pressure also on their husbands and other family members. In rural areas, women who gave birth to a third child were similarly pressured to get sterilized or have IUDs inserted, while urban women were more trusted to continue using effective contraception until they were no longer fertile (although not trusted enough to dispense with regular menstrual cycle checks). Families were threatened that if they persisted in having an over-quota birth, the baby would be denied household registration (and thus denied opportunities for ration coupons, schooling and other essential benefits that depended upon registration).

Published statistics from Chinese official sources confirm the coercive, campaign-driven nature of China’s birth planning program in the 1970s. As shown in Figure 1, although not as extreme as China’s 1983 sterilization and abortion high tide following the launch of the one-child policy, birth-control operations (abortions, IUD insertions and sterilizations) shot up several times during the 1970s in association with the campaign to enforce birth limits. In the early days of the “later, longer, fewer” program, IUD insertion, female sterilization and induced abortions all increased sharply. IUD insertions more than doubled in two years, from 6.17 million in 1971 to 13.95 million in 1973; female sterilization operations increased by nearly 70 per cent, from 1.74 million to 2.95 million; and induced abortions increased by 30 per cent, from 3.91 to 5.11 million. By 1975, the number of IUD insertions, female sterilizations and induced abortions all reached historic highs at levels that were, respectively, 270 per cent, 217 per cent and 130 per cent of the levels in 1971. In 1979, immediately prior to the formal announcement of the one-child policy, there was another push for birth-control medical operations. Nationwide, the number of birth-control

¹⁶In the interviews which Martin Whyte and William Parish conducted in Hong Kong in 1972–74 with former residents of Guangdong villages, the early stages of this stricter birth planning enforcement were described. William Parish and Martin King Whyte, *Village and Family in Contemporary China* (Chicago: University of Chicago Press, 1978), pp. 138–54. Similarly, former residents of a variety of cities whom Whyte and Parish interviewed in Hong Kong in 1977–78 provided details on the enforcement of the “later, longer, fewer” program in urban China during that period. See Martin King Whyte and William Parish, *Urban Life in Contemporary China* (Chicago: University of Chicago Press, 1984), particularly pp. 160–61.

¹⁷See the translation of one such form used in the early 1970s, in William Parish and Martin King Whyte, *Village and Family in Contemporary China*, p. 143. Almost two decades earlier, when China’s first voluntary birth planning campaign was being launched during the mid-1950s, a resident French journalist presciently observed, “I seriously think that this regime is probably the first in history which could officially adopt birth control as a compulsory measure, and make sure that its orders will be universally obeyed ... And who will control the birth control? Quite simple: the street committee. It will fix the quotas, give advice, and keep an eye on married couples.” Robert Guillain, *600 Million Chinese* (New York: Criterion Books, 1957), p. 295. While obedience was far from universal after 1970, the CCP’s grass-roots control structures made it possible to contemplate enforcing mandatory birth planning.

operations rose nearly 50 per cent in one year, from 21.72 million in 1978 to 30.58 million in 1979. Female sterilizations more than doubled in the same one-year period, from 2.51 to 5.29 million, and induced abortions rose from 5.39 to 7.86 million. These drastic increases in birth-control operations can hardly be construed as indicative of voluntary birth planning.

Prior to 1980, abuses resulting from efforts to enforce fertility limits also became common. Just prior to the launch of the one-child policy, Steven Mosher reported that dozens of “over-quota” pregnant women in his rural Guangdong field site during 1979–80 were ordered confined in the brigade headquarters, not able to go home for days if not weeks while being subjected to harangues to get them to consent to abortions. He also documented local instances of third trimester “Caesarean abortions”¹⁸ more than three decades prior to Feng Jianmei’s forced late-term abortion, which became an Internet sensation in 2012.¹⁹

Did the Post-Mao One-Child Policy Help Reduce China’s Fertility?

It is thus clear that highly coercive birth planning enforcement was already the order of the day during the 1970s, in both rural and urban areas, and preceding the launching of the one-child policy. The record is equally clear that China during that decade experienced among the most dramatic declines in fertility in human history. Far from being “out of control”, China’s fertility declined very substantially after 1970, attaining levels that are unusually low for a poor agrarian society, although not quite dropping to replacement level. As Figure 2 shows, China’s total fertility rate fell from close to six around 1970 to only 2.7–2.8 at the end of the decade. Thus, at least 70 per cent of the decline in fertility from 1970 up to the present was achieved prior to the launching of the one-child policy, not afterward. (Note that, in their article, Wei and Zhang show that a similarly dramatic drop in fertility occurred in Yicheng, as well as in Shanxi Province generally, prior to the launching of the one-child policy, rather than following that launch—see their Figure 3, p. 113.) Although economic modernization and the increased availability of contraceptives contributed somewhat to the sharp fertility decline prior to 1980, particularly in urban areas, there can be no doubt that coercive enforcement of state-mandated limits on births played the dominant role.²⁰

If China’s rate of population growth was already sharply reduced by stricter birth planning enforcement in the 1970s, why was the even more coercive one-child policy launched, starting in 1980?²¹ The answer to this puzzle is already available in prior research, including Susan Greenhalgh’s 2008 book, *Just One Child: Science and Policy in Deng’s China*, and

¹⁸Steven Mosher, *Broken Earth: The Rural Chinese* (New York: The Free Press, 1983), Chapter 9. Mosher reports that “high tides” of birth planning enforcement occurred regularly after 1978 in his village.

¹⁹Evan Osnos, “Abortion and Politics in China”, *The New Yorker* (15 June 2012), available at <http://www.newyorker.com/news/evan-osnos/abortion-and-politics-in-china>, last accessed 2 February 2015. In Feng’s case, injections rather than surgery were used to abort her seven-month fetus, and pictures which a relative took of the mother in the hospital lying beside her stillborn daughter were widely circulated.

²⁰See the discussion in Arthur Wolf, “The Preeminent Role of Government Intervention in China’s Family Revolution”, *Population and Development Review*, Vol. 12 (1986), pp. 101–16.

²¹Initially in 1980 there were efforts to promote a limit of one birth for all Han Chinese, although not for ethnic minorities. However, the difficulties of enforcing a one-child limit, particularly in the countryside, led to a compromise rule being applied in most rural areas from 1984 to the present (following the 1983 peak of coercive enforcement, as shown in Figure 1). The most common formula is a “1.5-children rule”: if the first-born child is a son, the couple is supposed to stop, but if it is a daughter they are allowed to have one more child, after which they should stop (even if the second child is also a daughter). However, in two populous provinces, Jiangsu and Sichuan, almost all residents, even in rural areas, are expected to obey the one-child limit. So, while it would be an oversimplification, or even another myth, to claim that China has adopted a one-child rule for everyone since 1980, nonetheless close

more recently Liang Zhongtang's 2014 book, *History of China's Birth Planning Policy*.²² Briefly, the urgent search by Deng and other post-Mao leaders to find any conceivable way to increase the *per capita* economic growth rate led to a strong desire among the Party leadership for a birth-control program that was even more restrictive than in the 1970s. Already in 1978, the Chinese leadership began contemplating the need for a one-child policy.²³ Even more ambitious official fertility control targets found a ready and purportedly scientific rationale after 1979 in demographic projections produced by a small group of scientists headed by Song Jian, who were influenced by the Club of Rome's *Limits to Growth* and other Western doomsday writings in the 1970s.²⁴ At a time when the country's population was already approaching 1 billion (the 1982 census counted 1.008 billion Chinese), they asserted that it was necessary for China to reach zero population growth as rapidly as possible. They also claimed that China's optimal population *ca.* 2080 was 700 million or less, and that only a total fertility rate of closer to one rather than two or higher would enable China to reach this long-run optimal population. Their pseudo-scientific claims and projections, based upon ideas that have since been widely criticized and largely discredited in the West, offered a scientific-sounding justification for China's even more draconian one-child policy.²⁵

The trend data in Figure 2 also make it clear that the launching of the one-child policy was not followed by a sustained further decline in fertility. Rather, after an initial drop in 1980, China's overall fertility rebounded upward and then fluctuated for most of the rest of the decade. So, despite the massive increase in coercive enforcement that the new policy precipitated (1983 was a particularly dreadful year—China performed 14.4 million abortions, 20.7 million sterilizations and 17.8 million IUD insertions that year; see Figure 1), China did not initially have much success in producing a further decline in fertility.²⁶

to two-thirds of the population would end up having only one child if local regulations on birth limits as of the late 1990s were strictly obeyed by all. On the nature of local variations in birth limits across China and the proportion of the population falling under a one-child limit, see GU Baochang, WANG Feng, GUO Zhigang and ZHANG Erli, "China's Local and National Fertility Policies at the End of the Twentieth Century", *Population and Development Review*, Vol. 33 (2007), pp. 129–47.

²²Susan Greenhalgh, *Just One Child*; Liang Zhongtang, *Zhongguo jinhua shengyu shilun*. See also Liang Zhongtang, *Zhongguo shengyu zhengce yanjiu (Research on China's Birth Control Policy)* (Taiyuan: Shanxi Renmin Chubanshe, 2014).

²³The historical record is still unclear about the decision-making process lying behind the one-child policy. Chen Muhua, who was newly charged with developing an even more restrictive fertility regime, played a critical role in pushing for a one-child policy. It is reasonable to assume that she had strong support from leaders such as Hua Guofeng and Deng Xiaoping.

²⁴Donella H. Meadows, Dennis L. Meadows, Jørgen Randers and William W. Behrens III, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (New York: Universe Books, 1972). Song Jian was a former rocket scientist who rose to become a State Councilor, member of the Central Committee of the Chinese Communist Party and President of the Chinese Academy of Engineering. In the late 1970s, he became centrally involved in making demographic projections, using his access to computers and his political connections to increasingly dominate debates among professional demographers about China's population policy, as described by Greenhalgh and Liang.

²⁵See the details provided in Susan Greenhalgh, *Just One Child*, particularly p. 158. For one biting critique of the Club of Rome projections, see Julian Simon, *The Ultimate Resource* (Princeton: Princeton University Press, 1981). Past research also shows that China could have approached or reached replacement level fertility with a further implementation of a "two children with spacing" requirement, rather than the more drastic one-child limit that became official policy. John Bongaarts and Susan Greenhalgh, "An Alternative to the One-Child Policy in China", *Population and Development Review*, Vol. 11 (1985), pp. 585–617.

²⁶The rebound in fertility in 1981 and 1982 was partly a result of a sharp reduction in the average age of first marriage in China after 1980. After the launching of the one-child policy, with its overwhelming emphasis on fertility reduction, the "later" part of the 1970s birth planning campaign was neglected. Simultaneously in 1980 a revision of the Marriage Law of the People's Republic of China was promulgated. While on the surface it appeared that the 1980 revision required higher minimum ages of marriage than the original 1950 Marriage Law (20 for females and 22 for males, compared with 18 and 20 in the 1950 version), the actual effect was to make it easier for couples and their parents to demand to have marriages registered at ages younger than the "late marriage" ages of the 1970s campaign. Nationally, the mean age of first marriage for both males and females dropped by about 2 full years after 1980 and only gradually started increasing after that, with marriage ages in 1990 still younger than in 1980 (Deborah Davis and Sara Friedman [eds], *Wives, Husbands, and Lovers: Marriage and Sexuality in Hong Kong, Taiwan, and Urban China* [Stanford: Stanford University Press,

A further sustained decline in China's fertility to sub-replacement levels began only toward the end of the 1980s, as shown in Figure 2. Some of this further decline can be attributed to a change in the system of enforcement. Instead of the primary burden for enforcement falling on grass-roots birth planning workers, most of them middle-aged women, major responsibility shifted to more powerful actors—local Party secretaries and other officials (overwhelmingly men). Achieving success in keeping the number of births down became one of the key criteria used in the annual performance ratings of local officials. Under the “one-veto rule”, an official who failed to meet birth-control targets in his locality could be denied promotion or even lose his post, even if the local performance was acceptable regarding economic growth and other evaluation criteria. (The new rule's initial effect can be seen in the spikes in birth-control operations in 1991 shown in Figure 1.) Still, it would be highly misleading to attribute the attainment and maintenance of sub-replacement fertility or even the overall trend toward lower fertility since 1970 solely to the post-1980 policy or to China's coercive birth planning enforcement. This brings us to the final myth that needs to be challenged—the claim that the one-child policy is responsible for preventing 400 million excess births, producing manifold benefits for China and for the rest of the world.

Did the One-Child Policy Prevent 400 Million Births?

Of all the myths that have circulated regarding the one-child policy, the one that has gained the most currency recently is that it has prevented 400 million births. Supporters of the policy argue that such a huge number of prevented births not only fueled China's dramatic post-1978 economic boom, as claimed by the Chinese government, but also contributed to global well-being.²⁷ For example, a 20 September 2014 special report in *The Economist* on global efforts to curb greenhouse gas emissions ranks China's one-child policy as the fourth most important policy or action contributing toward this goal in recent decades, after the Montreal Protocol, worldwide use of hydroelectric power and the spread of nuclear power. The one-child policy is credited with producing a cumulative reduction of 1.3 billion tons of carbon emissions in China as of 2005.²⁸

It is already clear from our discussion above that most of China's fertility decline cannot be attributed to the one-child policy, since the decline largely occurred prior to the policy's launch. How was the number of 400 million generated, and how credible is it? Our research reveals that the original calculation of the number of births prevented came from an internal study sponsored by China's National Population and Birth Planning Commission in the late 1990s, a study which was based on overly simplistic and unrealistic assumptions.²⁹ This

2014], Table 1.1, p. 7.) Marriage age reduction was responsible for at least 16 per cent of the rise in fertility in 1981 (Griffith Feeney, WANG Feng, Mingkun Zhou and Baoyu Xiao, “Recent Fertility Dynamics in China: Results from the 1987 One Percent Population Survey”, *Population and Development Review*, Vol. 15 [1989], pp. 297–322).

²⁷Critics of the policy also cite the estimate of 400 million births prevented. See, for example, <http://www.cnsnews.com/news/article/penny-starr/400-million-lives-prevented-through-one-child-policy-chinese-official-says>, last accessed 5 February 2015.

²⁸<http://www.economist.com/news/briefing/21618680-our-guide-actions-have-done-most-slow-global-warming-deepest-cuts>, last accessed 5 February 2015. *The Economist* cites a statement by a Chinese Foreign Ministry spokesman in 2007 as the basis for the specific carbon emissions reduction estimate (which was based on a more modest figure at that time of 300 million births prevented).

²⁹Wang Feng and Cai Yong, “Siyi zhongguoren shi zenmo shaoshengde?” (Did China's One-Child Policy Prevent 400 Million Births in the Last 30 Years?), *Zhongguo gaige (China Reform)*, Vol. 7 (2010), pp. 85–88; WANG Feng, Yong Cai and Baochang Gu, “Population, Policy, and Politics”.

“number of births prevented” claim has subsequently been utilized by Chinese government officials to showcase the success of China’s birth-control program.

The estimate of the number of prevented births was based on a study whose results are displayed in Figure 3. Basically, the report used a straight line to portray the overall fertility trend between 1950 and 1970 based on adjusted crude birth rates, and then simply extrapolated this line forward into later years, based upon the (mistaken) assumption that this extrapolation provided an accurate projection of what China’s fertility would have been in the absence of birth planning campaigns.³⁰ The report’s projected crude birth rate for China in 1990 was 29.71 per thousand, and for 1998 28.43 per thousand, as shown in the top line in Figure 3. By comparing the births that would have occurred under this scenario and the observed actual birth rates (shown as the bottom line in Figure 3), the report’s authors arrived at their estimate of the cumulative number of births “prevented”. For the period between 1970 and 1998, they concluded that this number was 338 million. In the decade after this study, not only was the starting date conveniently shifted forward from 1970 to 1980 (thus redirecting attention to the one-child policy), but also the number of births prevented was inflated to 400 million.

The claim that China’s one-child policy prevented 400 million births contains at least three fatal flaws. First, the number is based on a “what if” scenario that is completely unrealistic. The projected trajectory of crude birth rates, as shown by the top line in Figure 3, severely underestimates the decline in fertility that would have occurred in the absence of China’s birth-control programs. This problem can be seen by comparing China with the real experiences of countries that had birth rates similar to China’s in the 1970s but did not have mandatory birth-control programs. The middle line of Figure 3 shows this comparison. There were 16 countries in 1970 with a population of a million or more that had crude birth rates of between 30 and 38 per thousand, with an average crude birth rate of 35.55 per thousand, slightly above China’s level at the time, which was 33.43 per thousand.³¹ In the years after 1970, the average birth rate of these 16 countries declined to 26.6 per thousand by 1990, and to 21.96 by 1998, significantly below the predicted values of the “China births prevented” estimate. By predicting a birth rate that is unrealistically high—17 per cent higher than the average of the comparison group as of 1990, 29 per cent higher in 1998, and as much as 45 per cent higher in 2005—the estimate of total births prevented is clearly a wild exaggeration.

The second fatal flaw with the simplistic “births prevented” estimate is its neglect of a particular feature of China’s process of fertility decline, namely, that the major part of the fertility decline occurred in the 1970s, prior to the one-child policy. The drastic pre-1980 decline in China’s actual birth rates, as shown in the bottom line of Figure 3, had far-reaching consequences. The contraception, abortion and sterilization campaigns that resulted in the rapid decline in the birth rate during the 1970s had long-lasting effects well beyond that decade. The smaller birth cohorts of the 1970s that resulted from this decline laid the

³⁰According to official statistics, China’s crude birth rate in 1950 was 37.0 per thousand, and in 1970 it was 33.4 per thousand.

³¹The 16 countries are Albania, Brazil, Colombia, Costa Rica, Jamaica, North Korea, South Korea, Lebanon, Malaysia, Panama, Paraguay, South Africa, Thailand, Turkmenistan, Uzbekistan and Venezuela. (Sri Lanka also qualified, with a crude birth rate of 30.9 and a population of 12 million in 1970, but it was excluded from the study because data were missing for 1998.)

foundation for smaller numbers of births 20 years later and beyond, when those smaller birth cohorts entered reproductive ages.

The third fatal problem with the “400 million births prevented” claim is that it totally ignores the most significant source of fertility decline worldwide: economic development. As the popular slogan has it, “economic development is the best contraceptive”. China’s dramatic post-1978 economic boom and the profound social changes unleashed by rising incomes and levels of education and rapid urbanization would have driven down birth rates even in the absence of state birth planning campaigns. Given the much more rapid pace of economic and social change in China than in any of the 16 comparison countries used in Figure 3, it is highly likely that the trajectory of birth rate decline in China after 1980 due to this source alone would have been steeper than the average for the 16 comparison countries, and therefore even closer to the observed birth rate changes, as shown in the bottom line in Figure 3. In sum, the claim that China’s one-child policy prevented 400 million births is entirely bogus. While the earlier “later, longer, fewer” mandatory birth planning campaign launched under Mao Zedong did drive China’s fertility levels down to levels below what would be expected for a country at China’s economic development level at that time, in the period since 1980 it is debatable how much of China’s further fertility decline can be attributed to the one-child policy.³²

We conclude by offering our own summary of the historical record to replace the myths with which we began:

1. Despite Mao Zedong’s earlier declarations that a large and rapidly growing population was not a problem for China, he was still in charge when a dramatic shift from voluntary to mandatory birth planning occurred after 1970. Birth planning was already being coercively enforced during the 1970s under the “later, longer, fewer” campaign, prior to the launching of the one-child policy in 1980.
2. Rather than continuing to experience out-of-control population growth, China during the 1970s recorded a dramatic decline in fertility rates, with the bulk of the decline in fertility from 1970 to the present achieved in that decade. Birth-control programs in the 1970s cannot be portrayed as voluntary, as they relied on mass campaigns and heavy coercion in order to try to meet government birth-limitation targets.
3. The even more coercive one-child campaign was based on politics and pseudo-science, rather than on necessity, much less on good demography. China could have achieved further progress in lowering fertility with some version of a two-child policy, a choice that would have sharply reduced the human suffering caused after 1980. Despite the widespread coercion and abuses connected to the new policy, it was not in fact very successful initially in reducing fertility levels

³²Yong Cai, “China’s Below-Replacement Fertility: Government Policy or Socioeconomic Development?”, *Population and Development Review*, Vol. 36 (2010), pp. 419–40

further. Fertility rates fluctuated through most of the 1980s and only resumed their decline toward today's sub-replacement levels at the end of the decade.

4. While a substantial portion of China's dramatic decline in fertility rates since 1970 can be attributed to the implementation of mandatory birth control, it is highly misleading to claim that the one-child policy successfully prevented 400 million extra births.³³ Despite the coercive ferocity of the campaign, China's rapid economic development since 1980 deserves the lion's share of the credit for the (much more modest) numbers of reduced births that have occurred as the country's total fertility rate further declined, from about 2.7–2.8 at the end of the 1970s to perhaps 1.4–1.5 today. It is a damning indictment of the Chinese record that all of her Confucian neighbors in East Asia achieved rapid declines to their present sub-replacement fertility rates via robust economic growth supplemented by voluntary birth planning campaigns, thus avoiding the massive abuses that China's misguided launching of the one-child program produced.

³³Even if one uses a lower and more realistic estimate of the reduction in the number of births that can be attributed to coercive birth planning since 1970, the claim that China has benefited greatly as a result is yet another myth. Such a claim ignores the very serious problems that China is now facing as a result of its peculiar demographic history, including a rapidly aging population, rising labor costs, and a highly distorted sex ratio. See the discussion in WANG Feng, Yong Cai and Baochang Gu, "Population, Policy, and Politics".

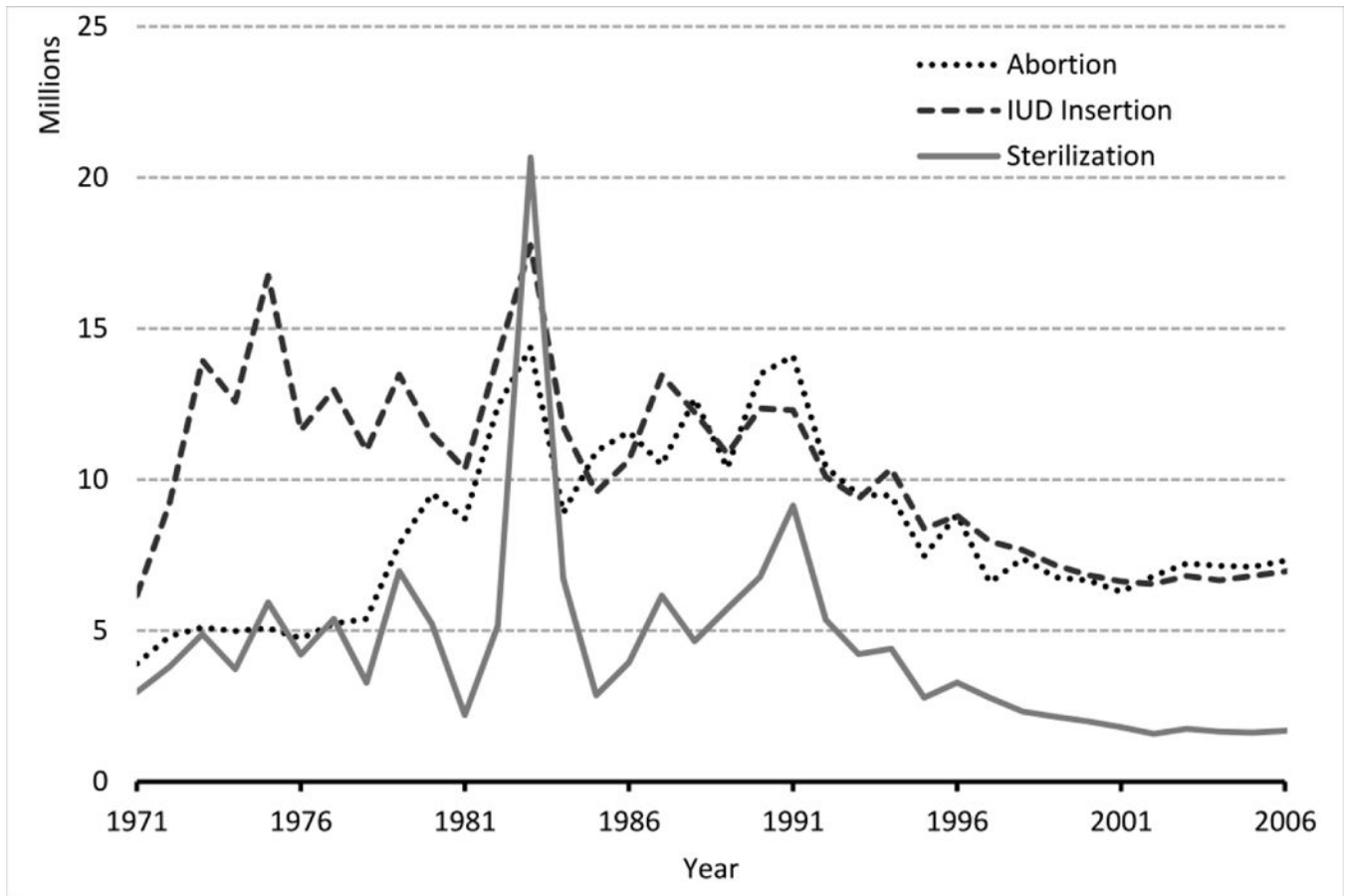


Figure 1: Number of birth-control operations in China, 1971–2006

Source: Ministry of Health of China, *Zhongguo weisheng tongji nianjian 2010 (China Health Statistics Yearbook 2010)* (Beijing: Peking Union Medical College Press, 2010).

Sterilization numbers include both male and female sterilizations.

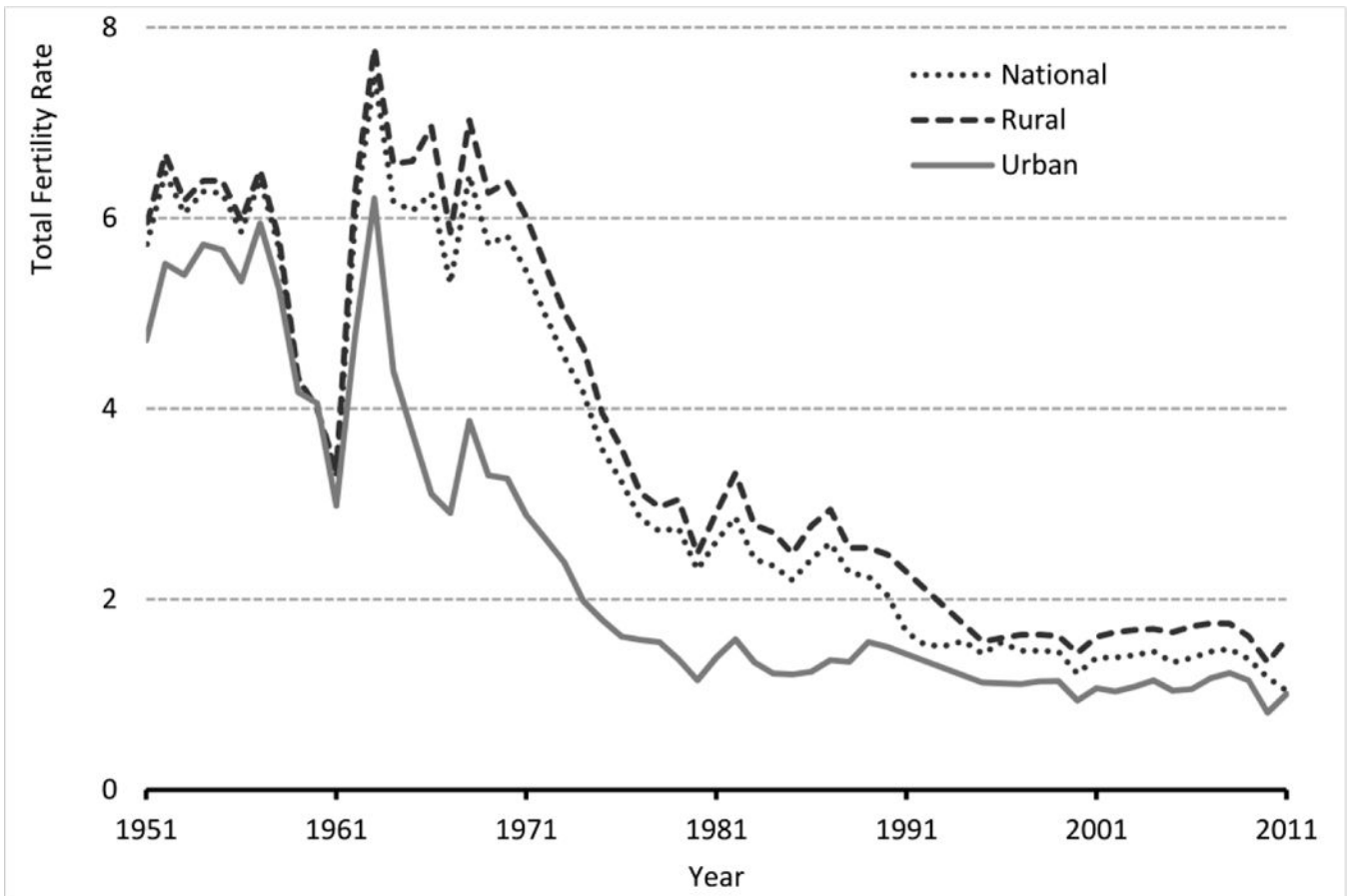


Figure 2: Total fertility rate trends in China, 1951–2011

Note: TFRs for 1951–90 are from Yao Xinwu (comp.), *Zhongguo shengyu shujuji (Fertility Data of China)* (Beijing: China Population Press, 1995). TFRs for 1991–2011 are calculated based on age-specific fertility data published in National Bureau of Statistics of China, *Zhongguo renkou (yu jiuye) tongji nianjian (China Population (and Employment) Statistics Yearbook (1991–2012))* (Beijing: China Statistics Press). (Data broken down by rural versus urban are not available for 1991–94 and 1996.) These age-specific fertility data are not adjusted for underreporting problems that are not uncommon for this period, but the raw data reflect well the fertility trends in China, as shown in Yong Cai, “China’s New Demographic Reality: Learning from the 2010 Census”, *Population and Development Review*, Vol. 39 (2013), pp. 371–96.

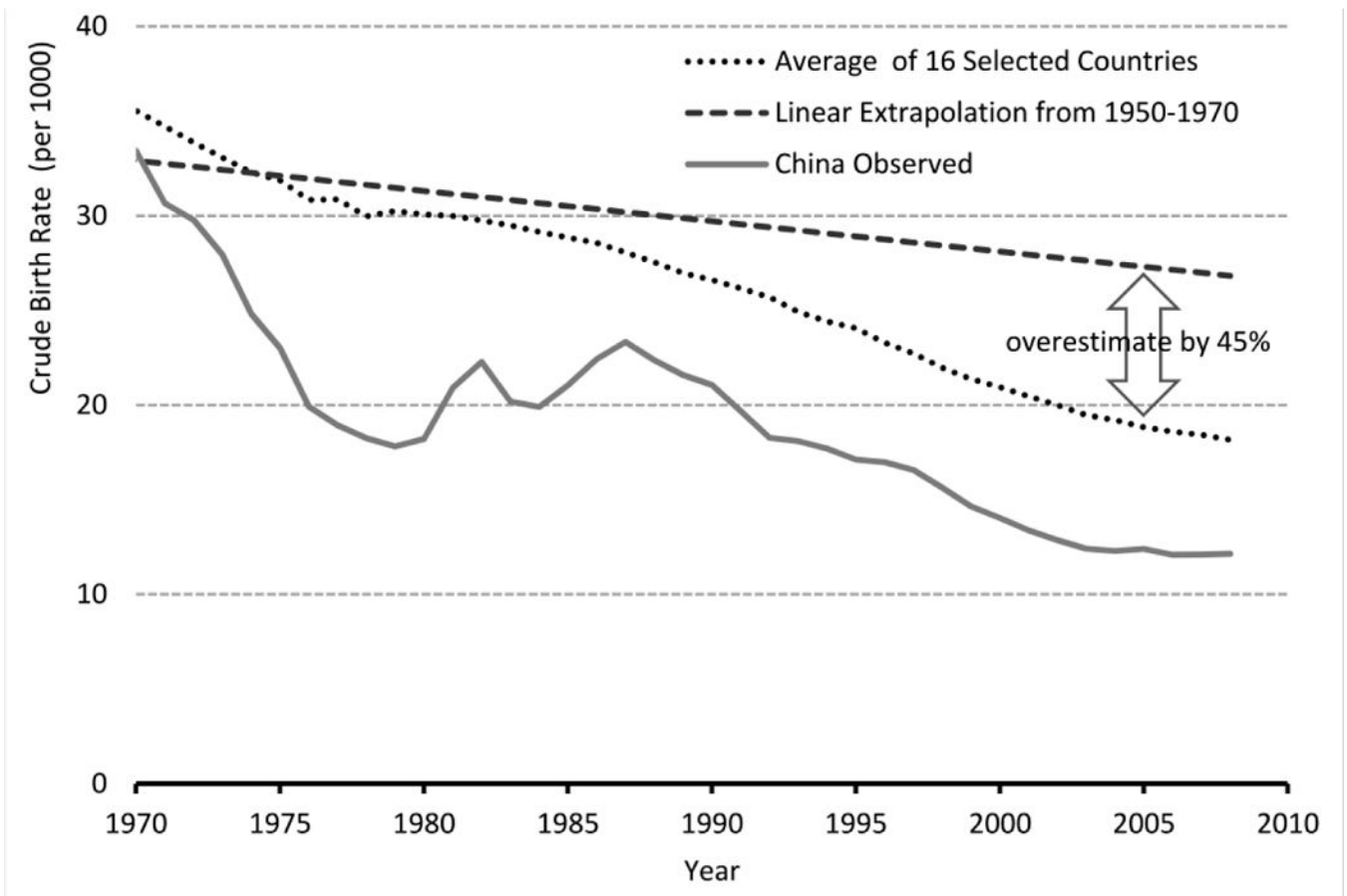


Figure 3: Calculations behind “400 Million Births Prevented”

Note: Observed crude birth rates for China are taken from China National Bureau of Statistics, *Zhongguo tongji nianjian 2012 (China Statistics Yearbook 2012)* (Beijing: China Statistical Press, 2013). Linear extrapolation from 1950 to 1970 is from Yang Kuifu, Chen Shengli and Wei Jinsheng (eds), *Zhongguo jihua shengyu xiaoyi yu touru (The Costs and Benefits of China’s Birth Planning)* (Beijing: People’s Press, 2000). The average for selected “comparable” countries is calculated using data from the World Bank’s World Development Indicator database.