

RESEARCH ARTICLE

Why Parents' Fertility Plans Changed in China: A Longitudinal Study

Cong Zhang¹ , Aaron Z. Yang², Sungwon Kim³ and Vanessa L. Fong⁴

¹School of Social Development and Public Policy, Fudan University, Shanghai, China, ²Anuban Muang Chiang Rai School in Muang District, Chiang Rai, Thailand, ³Department of Education, Yonsei University, Seoul, South Korea, and ⁴Department of Anthropology and Sociology, Amherst College, Amherst, MA, USA

Corresponding author: Cong Zhang, email: congzhang@fudan.edu.cn

(First published online 16 September 2022)

Abstract

This article examines the fertility desires, intentions and outcomes of 406 alumni of a middle school in Dalian city, Liaoning province, when they were surveyed in 2014–2015 (during their late 20s and early 30s). It also looks at how and why the fertility desires, plans and outcomes of a 47-member representative subsample and their spouses changed from year to year as they moved through their 20s and 30s between 2008 and 2021. Although most respondents started out wanting two children, longitudinal interviews with the representative subsample and their spouses showed that most gradually resigned themselves to having no more than one child. This was because they felt unable to provide two children with the high standard of living and childcare that their own experiences as singletons had led them to consider essential for proper childrearing.

摘要

本文研究了中国辽宁省大连市一所中学 406 名校友在 2014–2015 年（30 岁前后）接受调查时的生育意愿和实际生育子女数量，以及其中 47 名具有代表性的子样本及其配偶，在 2008 至 2021 年间（即其最易生育期间）生育愿望、生育计划和生育子女数量的逐年变化及其原因。尽管大多数受访者最初希望生育两个孩子，但针对代表性子样本及其配偶的纵向访谈表明，他们中的大多数逐渐屈从于生育不超过一个孩子，因为他们无法为两个孩子提供高标准的生活和照料，而作为独生子女的自身经历使他们认为这是优质育儿的必要条件。

Keywords: fertility intentions; fertility outcomes; two-child policy; childcare; childrearing; China

关键词: 生育意愿; 生育结果; 二孩政策; 儿童照料; 儿童养育; 中国

This article examines how and why a cohort of Chinese born under China's one-child policy started out during their 20s and early 30s with widespread desires and plans to have two children but then gradually settled for having only one child by their mid-30s. Their plans changed owing to increasing concerns about the immense amount of time and money needed to raise each child and because of age-related health declines that they, their spouses and their parents and parents-in-law increasingly faced.

China's one-child policy, which allowed only one child per couple in most Chinese cities, began in 1979, although it was unevenly enforced and allowed many exceptions, especially in rural areas.¹ China's average total fertility rate dropped from 5.8 births per woman in the 1970s to 2.1 in the early 1990s, and has been on a downward trend ever since, dropping to 1.7 in 2019.² In response to

1 Zhang, Weiguo 1999; Gu et al. 2007.

2 World Bank Group 2021.

growing concerns about rapid population aging and a diminishing labour supply, the Chinese government initiated a “selective two-child policy” in 2013 which allowed each couple consisting of at least one singleton to have two children. In 2016, the birth planning policy was further relaxed with the “universal two-child policy,” which allows every couple to have two children. Yet, in 2018, most urban Chinese couples of childbearing age still opted not to have a second child.³

Our study examines how the fertility intentions of our interviewees changed between 2008 and 2021. We found that when our respondents were in their late 20s and early 30s, most desired and planned to have two children. However, by their mid-30s, concerns about lack of the resources needed for childrearing prevented those we interviewed from actualizing these desires and plans.

How Childrearing Costs May Explain Discrepancies between Fertility Intentions and Behaviour

Fertility intentions have often been treated as being equivalent to fertility behaviour as previous studies worldwide have found that fertility intentions are usually the primary determinant of subsequent fertility behaviour.⁴ The correspondence between fertility intentions and behaviour is assumed to be particularly strong in societies where contraception is widely practised by couples with the means to decide on the number and timing of births.⁵ However, some recent studies have shown that fertility has generally been lower than fertility intentions in Asia, Europe and the US.⁶ Aart Liefbroer points out that fertility intentions are often adjusted, usually downwards, along with the transitions in one’s life course paths.⁷

The theory of planned behaviour has been used to explain discrepancies between fertility intention and fertility behaviour.⁸ It focuses on the extent of the perceived individual control people have over their own fertility behaviour, such that the more resources they perceive themselves to have to act on their fertility intention, the greater the likelihood of realizing that fertility intention. Such resources include age, educational and employment status, the availability of childcare and partner.⁹

China’s birth planning policies left most Chinese citizens with little choice about how many children they could have, so little research has been done about how and why Chinese citizens change their fertility intentions over time, or what factors other than birth planning policies and enforcement might prevent Chinese citizens from actualizing their fertility intentions. The few studies of such issues in China have focused on populations legally eligible to have two children owing to exceptions in the one-child policy granted by the Chinese government and found that economic concerns were the most commonly cited reasons for these populations to have fewer children than they were allowed to have. In a study of the fertility intentions and behaviour of Jiangsu women who were eligible to have two children, Hao Luo and Zhuoyan Mao report that those with more economic potential and childcare support were more likely to realize their intention of having a second child within three years.¹⁰ Zhenzhen Zheng and colleagues’ interviews with mostly rural couples in Jiangsu province confirmed that childrearing costs and concerns about financial security strongly influenced desired family size, and that women had very clear ideas about the preconditions under which they would have second children, most of which were economically based such as having adequate savings or paying off housing loans.¹¹ Fuqin Liu and

3 According to the China Family Panel Studies, among Chinese families that already had one child, only 15.14% of urban families and 28.68% of rural families had a second child between 2014 and 2018 (Qing, Chen and Cheng 2021).

4 Schoen et al. 1999; Barber 2001; Hayford 2009; Jiang, Li and Sanchez-Barricarte 2016.

5 Islam and Bairagi 2003.

6 Goldstein, Lutz and Testa 2003; Van de Kaa 2001; Quesnel-Vallée and Morgan 2003.

7 Liefbroer 2009.

8 Ajzen 1988; 1991; Ajzen and Madden 1986.

9 Liefbroer, 2009; Barber 2001.

10 Luo and Mao 2014.

11 Zheng et al. 2009.

colleagues also pointed to perceptions of financial situations as prerequisites for pregnancy among Chinese parents who posted online in 2015.¹² Eileen Wang and Therese Hesketh found that many of the 45 Zhejiang women they surveyed emphasized financial concerns when considering having a second child.¹³

Zheng et al. reported a U-shaped relationship between couples' income and their fertility intentions in Jiangsu province, such that the fertility intentions of those with mid-level incomes tended to be lower than those of respondents with higher or lower incomes.¹⁴ Those with very high incomes had relatively little concern about childrearing costs, while the choices of those with lower incomes may be explained as part of a gamble to improve their socioeconomic status by raising more children who could serve as resources in the future. Luoman Bao, Feinian Chen and Zhenzhen Zheng together investigated how Jiangsu women's second birth intentions changed along with other life transitions in a three-year interval between 2007 and 2010.¹⁵ They found that large increases in family income during that three-year period could increase women's likelihood of wanting a second child, suggesting that socioeconomic resources shifted fertility intentions upward.

Most previous studies of these issues in China focused either on fertility intentions or on fertility outcomes rather than on the gap between fertility intentions and outcomes, did not start collecting data on how many children people wanted and planned for until after they already had their first child, and examined only women's childbearing plans rather than how a husband and wife negotiated their childbearing plans. Our study looks longitudinally at how fertility desires, plans and outcomes changed over 13 of our interviewees' and their spouses' most fertile years (in their 20s and 30s), as they moved through a wide range of life stages and circumstances, to gain a better understanding of the processes that changed their minds about their fertility desires and plans. In doing so, we hope to shed light on why so few members of their generation are choosing to have more than one child, despite being allowed to have a second child.

Research Methods

This article draws on a survey conducted in 1999 of 406 eighth and ninth graders at a middle school in Dalian city, Liaoning province, China; a survey conducted in 2014–2015 with those same 406 respondents;¹⁶ annual surveys (2008–2021) of 47 of those respondents; and interviews with those 47 and their spouses whenever they reached a pivotal life stage (when they were single and childless, childless newlyweds, and parents of children aged one, four, or in first grade) between 2012 and 2021.¹⁷ The first wave of surveys was collected in 1999 when one of the authors (Vanessa L. Fong) taught our respondents English and conducted participant observations for two years between 1998 and 2000 and then for almost every summer between 2002 and 2019. The middle school from which our respondents were originally recruited was purposively selected because it included proportions of various groups defined by socioeconomic status, demographics and academic achievement levels that were similar to those of the overall population of Dalian middle schoolers in 1997–1998.

12 Liu et al. 2016.

13 Wang and Hesketh 2018.

14 Zheng et al. 2009.

15 Bao, Cheng and Zheng 2017.

16 Our original 1999 survey (Fong 2004) received 738 responses (94% of the 785 students enrolled in 8th and 9th grade at a Dalian middle school). This article, however, looks only at the 406 of those who responded in 1999 and 2012, were living in Dalian in 2012, and had not spent more than one month outside of China by 2012. We exclude the rest because the very different policies and social and economic conditions they experienced in other cities and countries put them outside the scope of this study.

17 Of the 47 surviving members of our representative subsample, 42 had married by 2021. We surveyed them every year between 2008 and 2021, and interviewed them and their spouses between 2012 and 2021 whenever they reached a pivotal life stage. Spouses were interviewed and surveyed separately but within a few hours to a few weeks of each other.

In 2012, we selected 48 of these respondents as a representative subsample using a procedure that combined random sampling with purposive sampling to ensure that this subsample's demographic characteristics would be similar to those of our 406 survey respondents from which the subsample was drawn. One of those 48 died in 2016 while he was still childless; his data is therefore not included in this study.

Fong conducted audio-recorded interviews in Mandarin Chinese with all 47 surviving members of this subsample and their spouses. All interviews were audio-recorded with the consent of the interviewees and then transcribed and translated into English by those of Fong's students who were fluent in both English and Mandarin Chinese, and then checked by Fong for accuracy. The other authors then worked with Fong to code, analyse and write about the interview and survey data. All interviewees have been given pseudonyms.

Explaining Discrepancies between Desired/Planned Fertility and Actual Fertility

When asked, "How many children do you plan to have in your lifetime?" (*Nin dasuan yibeizi you ji ge haize* 您打算一辈子有几个孩子?) in our 2014–2015 survey, only 32.5 per cent of 391 respondents indicated that they planned to have one and only one child, and only 3.3 per cent planned to have no children. The few who planned to have no children cited reasons ranging from not wanting to ever marry, to feeling they would never be ready for the responsibilities of childrearing, to having health conditions that they believed would make fertility, pregnancy, childbearing or childrearing difficult. The vast majority, however, wanted at least one child, and a majority of the respondents (62.6 per cent) indicated that they wanted at least two children. Their answers were very similar when asked, "If China's birth planning policies were to be abolished in the future, how many children would you hope to have in your lifetime?" (*Ruguo jianglái jìhuá shèngyú zhèngcè qùxiǎole, nín huì xīwàng yibeizi you ji ge haizi* 如果将来计划生育政策取消了, 您会希望一辈子有几个孩子?) (see Table 1).¹⁸

However, only 36 per cent of our 406 respondents had one child, and only 1.2 per cent had more than one child, by the time of our 2014–2015 survey (see Table 2). In 2015, 94 per cent of those 406 were 30–31 years of age, and of the 218 who were married and reported their spouses' birth years, 80.7 per cent had spouses who were aged 30 or older (see Table 3). In contrast, according to our 1999 survey, 93.8 per cent of respondents' mothers ($N = 373$) and 86.0 per cent of their fathers ($N = 372$) had become our respondents' parents before they had reached the age of 31.

By 2021, only 55.3 per cent of our 47 representative subsample had one child, only 4.3 per cent of them had two children, and none had more than two, even though 96 per cent of them were aged 35–36, and 79.5 per cent of their spouses were aged 35 or older. In contrast, according to our 1999 survey, 90.5 per cent of the subsample's mothers ($n = 42$) and 85.7 per cent of their fathers ($n = 42$) had become our interviewees' parents prior to the age of 31.

As other studies of Chinese families have found,¹⁹ fertility plans are often made through complex negotiations between the needs and desires of husbands, wives and their parents and parents-in-law.

18 While these results were obtained from our 2014–2015 survey and some respondents responded before China officially enacted a universal two-child policy in 2015, almost all of our respondents knew at the time they responded that they would be eligible to have two children, as 96.6% of our 406 respondents were singletons, and Liaoning province has allowed couples consisting of two singletons to have up to two children since 1997 (Gu et al. 2007). Additionally, in 2013, almost all provinces, including Liaoning, started allowing couples in which at least one spouse was a singleton to have up to two children. Most also knew by 2014 (based on media reports and what local officials told them) that the national law would probably soon allow everyone, including those with siblings, to have up to two children. Liaoning's fertility rate has generally been similar to those of most other Chinese provinces. Liaoning's fertility rate was 0.9 in 2015, which was close to China's national average of 1.05. See "Liaoning ruhe zìjiú? Jùjué shèng er hái de bìlì dà 80.3%" (How can Liaoning save itself? The percentage of those refusing to have two children reached 80.3%). *Zhongguo xīnwén wǎng*, 10 August 2018, <https://finance.sina.cn/china/gncj/2018-08-10/detail-ihhnunsq4592646.d.html>. Access 26 June 2022.

19 Lee and Wang 1999; Qi 2021.

Table 1. Planned and Desired Fertility, 2014–2015

	All Survey Respondents (<i>N</i> = 391) %	Representative Subsample (<i>n</i> = 47) %
How many children do you plan to have in your lifetime?		
0	3.3	0.0
1	32.5	25.5
1-2	1.5	0.0
2	62.1	74.5
3+	0.5	0
How many children do you want to have in your lifetime?		
0	3.3	0.0
1	32.5	25.5
1-2	1.5	0.0
2	60.4	74.5
2-3	0.3	0.0
3+	2.0	0.0

Table 2. Demographics, 2014–2015 and 2021 Surveys

	Survey Respondents (<i>N</i> = 406)	Representative Subsample (<i>n</i> = 47)	Representative Subsample (<i>n</i> = 47)
Year of survey	2014–15	2014–15	2021
Variables	%	%	%
Female	50	51.1	51.1
Married	71.2	68.1	78.7
Divorced and single	2.2	2.1	10.6
Never married	26.6	29.8	10.6
Number of children			
0	62.8	63.8	40.4
1	36.0	36.2	55.3
2	1.0	0.0	4.3
3	0.2	0.0	0

Like most Chinese parents of their generation,²⁰ the majority of our interviewees (female as well as male) needed to work long hours and relied on their parents to provide childcare. This became less feasible, however, as their parents increasingly experienced the frailty, poor health, disabilities and low energy associated with old age. Our interviewees have thus left themselves with only a few more years to actualize their fertility desires and plans.

²⁰ Zhang et al. 2019.

Table 3. Respondents' and Spouses' Ages

		All Survey Respondents	Representative Subsample
Age in 2015	Mean (N, SD)	31.4 (406, 0.6)	30.5 (47, 0.6)
Spouse's age in 2015, according to 2014–15 survey	Mean (N, SD)	32 (218, 3.6)	31.3 (32, 2.1)
Spouse's age in 2021, according to 2021 survey	Mean (N, SD)	—	36.8 (39, 2.2)

Most interviewees had said during their 20s and early 30s that they wanted two children to give both children the benefits of siblinghood,²¹ but they had changed their minds by their mid-30s. Some acknowledged that it would be possible to afford two children, or even many more, if they were willing to deprive these offspring of the expensive food, leisure, childcare, healthcare, education and housing in good school districts that they considered necessary for good childrearing. No interviewees considered the benefits of having two children worth the harm that would be done to both children by making them settle for less expensive and lower quality childrearing. In addition, because the final interviews for this study were conducted during the COVID-19 pandemic, some interviewees mentioned the heightened stress of providing childcare while daycare centres and schools were closed, or had shifted to remote learning, as a factor that made them even more reluctant to have a second child. Although they believed that the pandemic would be temporary, the added childcare burdens it caused them and others they knew made them even more viscerally aware of how stressful childcare could be and how little capacity they had to deal with increased childcare burdens that may befall them owing to unexpected future events, even when the pandemic ended.

The high cost of providing ideal levels of parental investment rests primarily on the family because the Chinese government provides only enough assistance with the costs of healthcare, childcare, education and housing to prevent extreme poverty. This is not nearly enough assistance to meet the high standards of parental investment our interviewees believed was necessary for good childrearing. Most interviewees, therefore, chose to concentrate resources on one child to maximize that child's well-being and success, rather than having two children who would have to split those resources between them.

Who Ended Up Having Two Children by Their Mid-30s?

By 2021, 25 of the 47 members of our representative subsample were 37 years old; 20 were 36; and 2 were 35. Yet only two of them (Jianying and Haoyu) had two children. Jianying and Haoyu had higher incomes per couple and more flexible work schedules than the vast majority of other respondents. They had also married and started childbearing at earlier ages and were more consistent about their desires and plans to have two children. Their experiences show what it took to actualize a longstanding desire to have a second child.

A wealthy, strong-willed professional woman convinces her sceptical family to let her have two children

Jianying indicated on each of the seven annual surveys she answered between the ages of 23 and 29 that she wanted and planned to have two children. She began working as a corporate professional as soon as she received her associate degree at 20 and was 24 in 2009 when she married a 25-year-old

21 Zhang et al. 2021.

fellow corporate professional with a bachelor's degree. They had their first child, a son, two years later. They and both their mothers all shared childcare duties. Jianying's parents lived with her and cared for her two children while Jianying and her husband worked, and Jianying's mother-in-law also came to her home daily to help with childcare. Unlike some other fathers we interviewed, Jianying's husband took a very active role in childrearing even though he, like Jianying, was busy with his highly paid job. He was the only father we interviewed who claimed that his child was closer to him than to his wife: "He usually only asks me instead of his mother to play," he said of his four-year-old son. This was somewhat corroborated by Jianying, who said that her son was equally close to Jianying, her husband, and her mother; Jianying thus was one of the very few mothers we interviewed who said that they and their husbands were equally close to their child.

Jianying was eager to have a second child soon, but her husband and parents opposed it, as they believed that one child was enough and also worried that a second pregnancy would risk Jianying's health, as she had just had an operation. Jianying could not recall her parents ever saying that they wished they could have had a second child. They had been very happy just to have Jianying and doted on her; at 14, Jianying had indicated on our 1999 survey that both her parents spoiled her and that neither pressured her too much.

Jianying's husband was also a singleton but, unlike Jianying, he did not particularly wish that he had a sibling; nor did his parents wish they could have given him a sibling. Nevertheless, Jianying persisted in trying to persuade them of the value of a second child. When her son was three years old, Jianying said she very much wanted to have a second child soon, because:

two children would be better; they won't be too lonely; otherwise, I think my child is very lonely, having nobody to play with ... They can play and grow together, unlike now when my child thinks he owns everything his parents give him; if he has a sibling, he'll be more responsible and learn to care for his sibling.

Jianying wished that she herself had a sibling to help with elder care: "Because now my parents are old, I bring them for their check-ups every year," she said. "I worry that when they are not healthy, I won't be able to care for them well." Jianying also believed a second child would soon be more affordable for her family, as she was studying part-time for her bachelor's degree, which she believed would make her even more competitive in the market for managerial positions and higher incomes: "This year I'll compete for a position ... If I can do it successfully, my position and salary will be better," she said.

A year later, Jianying had succeeded in achieving her bachelor's degree and promotion – and in convincing her husband and parents of the value of giving her son a sibling. "After my persuasion, they finally agreed," she said. Her husband (who, like her, was now a manager) now agreed with her about the importance of giving their son a sibling, saying, "It's not like before, when it was common in the social environment for many children to play together. These days, in this society, children are just by themselves. I think that my child is rather lonely, all by himself." He said his parents were also willing to go along with the idea: "It's fine if we have another child, and it's fine if we don't. They won't demand anything."

When her first son was four and she was 30 and her husband was 31, Jianying gave birth to her second son, took five months of paid maternity leave, and then returned to work but chose a different position in her company. She took the position of a manager with a more flexible schedule but more challenging work and the potential to earn bonuses that would enable her to earn even more than she could in her previous position. She and her husband both continued to take active roles in childcare while working full-time as corporate managers, her parents continued to live with them and help with childcare, and her mother-in-law also continued to come to their home daily to help with childcare.

Wealth, a strong, consistent family consensus and an accidental pregnancy result in a second child

Haoyu indicated on five annual surveys in 2009, 2010 and 2012–2015 that he wanted and planned to have two children, and on his 2011 and 2013 surveys, he indicated that he wanted three children and planned to have two to three children. In 2006, Haoyu received a bachelor's degree at 22 and began working in business and finance. At 24, he married a 24-year-old with an associate degree who owned her own business. At 25, Haoyu left finance to help his parents run their family business, which he would keep doing through 2021. In 2013, when both were 29, they had their first child (a daughter). When their daughter was 14 months old, Haoyu said that he and his parents wanted him to have a second child to keep his daughter from being “too lonely,” and that his own parents had been sorry they could not give him a sibling. He himself had yearned for a sibling “for so many reasons, like when I fought with classmates, if I had a brother, I would have had help.” Two weeks later, his wife said that she wanted and planned to have two or three children, and that her parents had been sorry they were not allowed to give her a sibling, and that she herself yearned for a sibling because “it would be quite nice to have a companion.” Neither Haoyu nor his wife were in a hurry to have their second child, though, as both were busy running their businesses and felt exhausted caring for their two-year-old daughter, even with help from both sets of grandparents. But Haoyu's wife accidentally became pregnant at 31. Because they both had strongly and consistently wanted to eventually have two children, they decided to go ahead and have their second child, even though it would cost Haoyu's wife the independent career that brought her family a third of its income. Haoyu's wife closed down her business when she was five months pregnant with her second child and became a full-time homemaker. She remained a full-time homemaker, while also getting childcare help from her parents and parents-in-law, until her children were five and seven years old, when she started working part-time in Haoyu's family business.

Even though they had married and had their first children earlier, earned higher incomes and had more consistent and longstanding plans and desires to have two children than the vast majority of other respondents, it took an accidental pregnancy and enough income to allow for one parent to become a full-time homemaker to enable Haoyu to have a second child. Furthermore, it took a very high family income, the ability to move to a position with more flexible hours without losing income, and a husband, parents and parents-in-law who were willing and able to provide a lot of childcare help, to enable Jianying to have a second child. All the others in our representative subsample who had started out wanting two children ended up with just one child, even as they passed through their mid-30s.

Losing the Desire for Two Children upon Realizing the Cost of a Second Child

Most other interviewees started out wanting two children but gradually adjusted their desires downward after they had a child and realized how much time and money a child cost. When spouses, parents and parents-in-law disagreed over whether a second child was affordable and worthwhile, it was common for the birth of a second child to be postponed until they all grew so old that a second child seemed increasingly less feasible owing to concerns about the effects of the mother's aging on the health of the mother and second child, and about the difficulty of caring for two children given the lower energy and greater health problems that parents and grandparents would have as they aged.

An office worker and a customer service assistant look at future costs and decide they cannot afford two children

On every annual survey between 2008 and 2012 (while he was a single, childless IT worker with an associate degree), Zhixin had indicated that he wanted two children; however, he switched to

wanting only one child starting in 2014, after earning an income of 35,000 yuan in 2013 (which fell in the 21.2nd percentile of individual incomes in our 2014–2015 survey). Two years later, at 32, he married a 32-year-old customer service assistant with a bachelor's degree, and said that he wanted only one child because they would not be able to afford “all the possible expenditures children need today, including milk powder, diapers and, later on, education and housing in good school districts” if they had two children, and also because “when we have children, our parents will have to take care of them, and our parents are pretty old.”

Three days later, his new wife also said she wanted only one child (whom she hoped to bear within the next one to two years), saying, “Our finances may not allow us to have a second child. The other possible reason is that a mother getting old is not good for a healthy child. If I give birth to a second child, [it] may not be healthy.”

Three years later (when he was interviewed in March 2020, during a lockdown China implemented in response to COVID-19), Zhixin had a one-year-old son who lived with his parents-in-law and not with him and his wife. He said he did not want a second child and that his parents also did not want him to have a second child, as “it is already pretty tiring to look after one child,” and because:

the cost of raising the child has risen owing to COVID-19. The everyday cost will rise a lot. One of the fellows from my workplace has complained about his primary-school child not being able to be physically in class since 1 March. The teaching format has now changed to online teaching, for example using a computer or cell phone, forcing his child to stay at home. In the past, when children were able to go to school, their school could help take care of them; however, because of COVID-19, parents had to find someone to help take care of their children at home when they go back to work because the child won't cook on his own, and he might not concentrate while watching online courses. In this case, the costs to the family will rise.

Zhixin's experiences of the challenges of childcare during the pandemic made him think more seriously about the childcare challenges a second child would bring in the long term, even aside from the specific challenges posed by the lockdown. He said:

If we have children in the future, our parents would take care of them, but they are getting old. Caring for a child would cause immense pressures for myself and my parents ... Right now, for those around me who have children, their parents on both sides are all busy caring for the child. They must all be very tired if they want to support these children. If I have two children, I feel that that would give me and my parents a lot of pressure.

When interviewed the following day, Zhixin's wife likewise said she did not want a second child, as she “had not yet recovered from the pain of giving birth to the first child yet” and was “too old.” Her parents probably also did not want her to have a second child because it would be “unaffordable.” In 2021, Zhixin and his wife were both 37, and they still had only one child.

An office worker and a salesman who wish they could have two children reluctantly decide they cannot afford it

Unlike most of our other research participants, Siping (an associate degree holder who worked in a series of service jobs and office jobs at hotels, malls and shops through her 20s) had a sibling – a sister three years younger than her. She treasured her relationship with her sister and often mentioned it as a reason why she would want two children – so that they could enjoy the kind of companionship and mutual support that she and her sister gave each other. In 2008 and on each of three

annual surveys between 2011 and 2013 (when her total income was 108,000 yuan, in the 94th percentile of single respondents' 2014–2015 incomes), Siping (who was single and childless through 2014) indicated that she wanted and planned to have two children.²² In 2014, however, she indicated for the first time that she wanted only one child, soon after she started dating a salesman who had grown up in a rural village and had no more than a ninth-grade degree and only earned 50,000 yuan in 2013. Siping married him in 2015, when she was 30 and he was 29. Soon afterwards, she took time off from her office job to take care of her ill father and simultaneously got pregnant. She suffered from so much morning sickness that she felt she could not go back to work and therefore quit her job. Even though he had been unable to attend high school or college because his parents could not afford to send him to high school after spending all their savings on his older brother's high school tuition, Siping's husband treasured his relationship with his older brother, and wished he could have two children so they could have a similar relationship. Still, even though they both wished they could have two children, and were encouraged by both sets of parents to have two children, Siping and her husband agreed from the start of their marriage that they would plan to have only one child. Their reason was because both of them were likely to have careers that would make their future incomes highly unpredictable, and they therefore could not be sure that they would be able to afford the long-term expenses of a second child.

In 2017, when Siping was 32 and her son was one, she was still a full-time homemaker and had little help with childcare: her parents were both in poor health and her husband's parents lived in their faraway rural village. Siping's husband could not help with childcare as he was very busy with his salesman job, which had earned him 150,000 yuan in 2016 but offered an unpredictable income dependent on bonuses and market conditions. Siping's parents wanted her to have a second child to keep her son from being lonely, but Siping was still adamant that she wanted and planned to have only one child; in addition to her concerns about financial limitations, she was taking care of her child on her own with little help and felt she could not handle a second child. Her husband still yearned for a second child "so that they'll have a companion, and when we're gone, they can get together and reminisce about their childhood." His parents also still wanted him to have a second child, as they believed that "watching two children is the same as watching one." Nevertheless, Siping's husband agreed with Siping that "now it's just the two of us caring for our child on our own, so for now we'll just have one."

In 2020, when her son was four years old, Siping was still a full-time homemaker with little help with childcare because her parents were too frail to help much. Meanwhile her parents-in-law were still living in their faraway rural village and her husband was even busier with his job (he was now a manager). Their son had attended preschool for just half a year before the COVID-19 lockdown caused all preschools to close. Siping's parents and relatives still very much wanted her to have a second child. Siping told us: "every time our relatives get together for Spring Festival and other holidays, they say the same; when they're sitting with us, they say, 'You should have another child to be a companion to your first!'" Siping herself still yearned for a second child but was now even more resigned to just having one child. She said:

If we didn't talk about any financial conditions, I think we could have another child ... If someday I'm gone, or if I'm old, there won't be anyone to discuss things with my son. I have a younger sister, and whenever something happens in the family, I can talk with her and we can help each other, like when my Ma was hospitalized last year, my sister and I took turns visiting her – she would go in the morning and I would go at night, or I would go in the morning and she would go at night, so I think that having a companion is still very good, so after we are old and pass away, my son will at least still have a family member to keep him company. But when we consider financial conditions, we can't have another child: our finances don't

²² Siping left these questions blank in 2009 and indicated that she wanted no children in 2010.

allow it! If our financial conditions allowed it, we would 100 per cent have another child. But if financial conditions don't allow it, I definitely will not have another child, because if I have another one, it will reduce my first child's standard of living and, to speak selfishly, cause greater stress for me and my husband. I don't want to live in such an exhausting way, so one child is enough.

In addition, Siping said that the COVID-19 pandemic made her even less likely to want a second child:

Whenever there's a crisis, I think the worst will happen to me ... After COVID-19 happened, it made me think, I really have to protect my son, and it made me think, this world is so dangerous – the news says that the North Pole icecaps are melting, and so many new microbes are coming out of them, so in the future we'll have so many dangerous diseases that humankind will have no ability to control. So, in a world with so many difficulties, where it may be difficult even to breathe like with COVID-19, I wouldn't want to bear another child to have to deal with this. With just one child, I can put all of the little ability I have into protecting him, but if I have another child, it won't be bringing them into the world to enjoy good fortune and happiness, but rather to suffer, so that makes me even more likely to not think I want a second child.

Moreover, Siping said, "in a few years I'll be old, and even if I want another child, I won't be able to." She added that she would have another child only if she and her husband earned incomes that were not only far more than what they currently earned, but also:

stable – it's not like if we won the lottery and won 100,000 yuan, we could say that this would be enough to have another child. Right now, my husband is in the early stages of his career, so everything is very unstable; even if it becomes stable eventually, I figure I won't be able to have another child by then because of my age.

A day later, Siping's husband likewise said that he still wished they could have a second child, because "one child will be under great pressure when taking care of elderly parents, but two children could take turns, and take care of each other, and have someone to depend on after we are old"; his parents still wanted him to have a second child as well. However, like Siping, Siping's husband said that that "circumstances don't allow" them to have a second child, because:

[we] don't have enough energy, and don't have enough time to take care of them, and because of the pandemic, my income is not very high ... even though China has controlled the pandemic pretty well, the impact of this pandemic worldwide is very high, especially on the economy. And with all the schools closed, education will also be a problem.

In 2021, Siping was 36, her husband was 35, and they still had only one child.

A service worker loses her desire to have a second child upon seeing how much time and money the first one cost

Xiaobao started working in a variety of low-paid service jobs after graduating from her vocational high school at 18, and never attended college. In 2010, at 26, Xiaobao wanted and planned to have two children, and married a 27-year-old with a bachelor's degree who had just started an engineering career that he would continue through 2020. She continued working as a receptionist and, in 2011, eight months before she would conceive her first child, she indicated on our survey that she wanted to have two children but planned to have one child. In 2012, when she was unemployed and five months pregnant with her first child, she was undecided about wanting to have one or two

children but planned to have two children. In 2013, however, she was back to planning and wanting to have two children, even though she was still unemployed and caring for her eight-month-old daughter with help from her parents and parents-in-law. She got a job in customer service near the end of 2013. In 2013, her total income was 38,000 yuan, while her husband's income was 60,000 yuan, putting their combined income in the 40.7th percentile of couple incomes in our 2014–2015 survey.

In 2014, she was working in customer service and still planning and wanting to have two children, saying that, as a singleton, she yearned for a sibling, because “in this society, if you have a close family member, your situation would be better; at least you would have someone who wholeheartedly helps you.” Xiaobao's husband, however, said three days later that he had never wanted two children, because “it would be too much pressure which I don't want,” even though he admitted that he himself had sometimes yearned for a sibling because “it can be rather lonely as well, we don't have this one person to share intimate thoughts with.”

In 2016, when their daughter was four, Xiaobao's husband still did not want a second child, and Xiaobao (who now worked in sales) now agreed:

one child is enough; with one child, it should be enough in terms of the quality of life, the level of education, the care I can give her. If I have too many children, then my own quality of life would probably decrease and I wouldn't be able to devote as much to her.

Even with one child, she could not get enough sleep because “it's not like you can sleep whenever you want. There are times when she will just wake you up.” Although Xiaobao's change of heart seemed based especially on how overwhelmed she was by the burdens of caring for her first child, she may also have based her high standard for the sacrifices she would have to make for each child partly on her own childhood experiences, as she had reported on our 1999 survey that both her parents spoiled her, her mother had tutored her, and her parents did all the cooking, cleaning, washing and shopping for their family, while she did none of those chores.

In 2020, Xiaobao (now a 36-year-old saleswoman) opposed having a second child even more strongly than before:

with one child, in terms of the family's economic circumstances, she will have at least some advantage. If I have another child, that advantage will certainly be divided, and become very ordinary; for instance, on the weekend if I take my child out, I can spend 500 yuan on her, but if I have another child, they will each have only half of that to spend, and neither will play very happily.

When interviewed separately three days later, her husband, now 37, also opposed having a second child, saying, “our parents are old now and have no energy to care for a child all over again, and we often have to travel for work and don't have time to go home often, so we don't have the conditions or the time.” In 2021, Xiaobao was 37, her husband was 38, and they still had only one child.

Conclusion

We observed a big discrepancy between fertility intentions and actual fertility outcomes in our sample, which reflects the existence of frustrated desires for second children. Our study found that most respondents started out in their 20s and early 30s desiring and planning to have two children; however, those we followed through their mid-30s ended up having only one or no children. Their inability to attain the upward mobility they expected, their own and their parents' and parents-in-law's declining health and, in some cases, the challenges of caring for their first child convinced them that they would not have enough time and money to give their children the high standard of living and care that their own experiences as singletons had led them to consider essential for proper childrearing. These concerns deterred most of them from having two children even though all of them were allowed to have two children by 2015, and most of them had known

since childhood that as singletons who were likely to marry singletons, they would be allowed to have two children.

In May 2021, the Chinese government announced that each couple could have up to three children.²³ It seems unlikely that this will have much effect on our interviewees: only two of them currently have more than one child, and most of the women are close to the end of the age range they consider medically safe for childbearing.

As the first Chinese citizens born under China's one-child policy reach the end of their child-bearing years, the Chinese government has become increasingly concerned that this generation's low fertility rates may impede China's future economic growth and ability to support its rapidly aging population.²⁴ Our study calls into question the assumption that it is the normalization of the single-child family in China that has reduced the desire for second children and the assumption that low fertility in China has been driven mainly by family planning restrictions. It suggests that further relaxation of fertility restrictions and the implementation of the three-child policy in 2021 may have limited effectiveness in promoting fertility without complementary policies to support childcare. Our study suggests that desires and plans for having two children are actually quite strong and widespread among the singleton generation through their 20s and early 30s, and that concerns about not having enough time, money or childcare assistance are the main reasons they reluctantly change their minds and settle for having only one child as they reach their mid-30s. Increases in fertility among the generation born under China's one-child policy may therefore depend not only on policies that allow them to have additional children but also on an expansion of benefits that reduce the burdens of childbearing and childrearing, such as parental leave, increased preschool and daycare availability, and assistance with the costs of education and childcare.

Acknowledgements. This material is based on work supported by the National Science Foundation under grants BCS-0845748, BCS-1303404, and BCS-1357439. Any opinions, findings and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation. The research for this article was also supported by a Beinecke Brothers Memorial Fellowship, an Andrew W. Mellon Grant, a National Science Foundation Fellowship, a grant from the Weatherhead Center at Harvard University, a postdoctoral fellowship at the Population Studies Center of the University of Michigan at Ann Arbor, an Andrew W. Mellon Foundation Demography Fund Research Grant, a grant from the Wenner-Gren Foundation for Anthropological Research, a National Academy of Education/Spencer Foundation Postdoctoral Fellowship, a Visiting Fellowship at the Centre for Research in Arts, Social Sciences, and Humanities at Cambridge University, a grant from the Harvard University China Fund, grants from the Harvard University Asia Center, a grant from the Harvard University William F. Milton Fund, and grants from Amherst College. We thank Ruoxuan Xing, Jijia Zhang, Siyi Li, Silvia Huang, Yixiao Hou, Lianbi Ji, Zhiyuan Jia, Lily Xing, Lexi Ma, Bowen Yang, Hanqi Yao, Yushi Shao and Chenxi Zhang for their assistance.

Conflicts in interest. None.

References

- Ajzen, Icek. 1988. *Attitudes, Personality, and Behavior*. Chicago: Dorsey Press.
- Ajzen, Icek. 1991. "The theory of planned behavior." *Organizational Behavior and Human Decision Processes* 50, 179–211.
- Ajzen, Icek, and Thomas J. Madden. 1986. "Prediction of goal-directed behavior: attitudes, intentions, and perceived behavioural control." *Journal of Experimental Social Psychology* 22(5), 453–474.
- Bao, Luoman, Feinian Chen and Zhenzhen Zheng. 2017. "Transition in second birth intention in a low fertility context: the case of Jiangsu, China." *Asian Population Studies* 13(2), 198–222.
- Barber, Jennifer S. 2001. "Ideational influences on the transition to parenthood: attitudes toward childbearing and competing alternatives." *Social Psychology Quarterly* 64(2), 101–127.
- Fong, Vanessa L. 2004. *Only Hope: Coming of Age Under China's One-Child Policy*. Palo Alto, CA: Stanford University Press.

23 "The meeting of the Political Bureau of the CPC Central Committee: the implementation the policy allowing one couple to have up to three children." *Xinhua*, 31 May 2021, http://www.xinhuanet.com/english/2021-06/01/c_139981452.htm. Accessed 6 June 2021.

24 Ibid.

- Goldstein, Joshua, Wolfgang Lutz and Maria Rita Testa.** 2003. "The emergence of sub-replacement family size ideals in Europe." *Population Research and Policy Review* 22, 479–496.
- Gu, Baochang, Feng Wang, Zhigang Guo and Erli Zhang.** 2007. "China's local and national fertility policies at the end of the twentieth century." *Population and Development Review* 33(1), 129–148.
- Hayford, Sarah R.** 2009. "The evolution of fertility expectations over the life course." *Demography* 46(4), 765–783.
- Islam, M. Marzharul, and Radheshyam Bairagi.** 2003. "Fertility intentions and subsequent fertility behavior in Matlab: do fertility intentions matter?" *Journal of Biosocial Science* 35, 615–19.
- Jiang, Quanbao, Ying Li and Jesús J. Sanchez-Barricarte.** 2016. "Fertility intention, son preference, and second childbirth: survey findings from Shaanxi province of China." *Social Indicators Research* 125(3), 935–953.
- Lee, James Z., and Feng Wang.** 1999. *One Quarter of Humanity: Malthusian Mythology and Chinese Realities*. Cambridge, MA: Harvard University Press.
- Liefbroer, Aart C.** 2009. "Changes in family size intentions across young adulthood: a life course perspective." *European Journal of Population* 25(4), 363–386.
- Liu, Fuqin, Jiaming Bao, Doris Boutain, Marcia Straughn, Olusola Adeniran, Heather DeGrande and Stevan Harrell.** 2016. "Online responses to the ending of the one-child policy in China: implications for preconception care." *Upsala Journal of Medical Sciences* 121(4), 227–234.
- Luo, Hao, and Zhuoyan Mao.** 2014. "From fertility intention to fertility behavior." *Asian Population Studies* 10(2), 195–207.
- Qi, Xiaoying.** 2021. *Remaking Families in Contemporary China*. Oxford: Oxford University Press.
- Qing, Shisong, Tao Chen and Liyue Cheng.** 2021. "Evaluation of the effects of the two-child policy and analysis of future trends." *Population and Economics* 4(247), 83–95.
- Quesnel-Vallée, Amélie, and S. Philip Morgan.** 2003. "Missing the target? Correspondence of fertility intentions and behavior in the US." *Population Research and Policy Review* 22, 497–525.
- Schoen, Robert, Nan Marie Astone, Young J. Kim, Constance A. Nathanson and Jason M. Fields.** 1999. "Do fertility intentions affect fertility behavior?" *Journal of Marriage and Family* 61(3), 790–99.
- Van de Kaa, Dirk J.** 2001. "Postmodern fertility preferences: from changing value orientation to changing behavior." *Population and Development Review* 27, 290–331.
- Wang, Eileen, and Therese Hesketh.** 2018. "Exploring women's decisions about childbearing after the lifting of the one-child policy." *Culture, Health and Sexuality* 20(11), 1230–43.
- World Bank Group.** 2021. "Fertility rate, total (births per woman)," https://data.worldbank.org/indicator/sp.dyn.tfrt.in?year_high_desc=false. Accessed 19 September 2021.
- Zhang, Cong, Vanessa L. Fong, Hirokazu Yoshikawa, Niobe Way, Xinyin Chen and Zuhong Lu.** 2019. "The rise of maternal grandmother childcare in urban Chinese families." *Journal of Marriage and Family* 81(5), 1174–91.
- Zhang, Cong, Aaron Z. Yang, Sungwon Kim and Vanessa L. Fong.** 2021. "How Chinese newlyweds' experiences as singletons or siblings affect their fertility desires." *The China Quarterly*, 247, 835–854.
- Zhang, Weiguo.** 1999. "Implementation of state family planning programmes in a northern Chinese village." *The China Quarterly* 157, 202–230.
- Zheng, Zhenzhen, Yong Cai, Feng Wang and Baochang Gu.** 2009. "Below-replacement fertility and childbearing intention in Jiangsu province, China." *Asian Population Studies* 5(3), 329–347.

Cong ZHANG is an associate professor of social development and public policy at Fudan University. Her research focuses mainly on parenting, grandparenting, gender, families and kinship in China. Her publications have appeared in *The China Quarterly*, *Journal of Marriage and Family*, *Journal of Family Studies* and *International Journal of Educational Development*.

Aaron Z. YANG is a teacher at the Anuban Muang Chiang Rai School in Muang district, Chiang Rai, Thailand. He received a bachelor's degree from Amherst College in 2019.

Sungwon KIM is an associate professor of comparative education at Yonsei University. Her previous research on parenting, gender and education in China and worldwide has been published in *Comparative Education Review*, *Comparative Education*, *International Journal of Educational Development*, *The China Quarterly*, *The China Journal*, *Gender and Education*, *Ethos*, *Journal of Educational Psychology* and *Educational Review*.

Vanessa L. FONG is Olin professor in Asian studies (anthropology) and professor of anthropology at Amherst College. Her research focuses on longitudinal studies of Chinese childrearing. She is the author of *Paradise Redefined: Transnational Chinese Students and the Quest for Flexible Citizenship in the Developed World* (Stanford University Press, 2011) and *Only Hope: Coming of Age Under China's One-Child Policy* (Stanford University Press, 2004).

Cite this article: Zhang C, Yang AZ, Kim S, Fong VL (2023). Why Parents' Fertility Plans Changed in China: A Longitudinal Study. *The China Quarterly* 253, 183–196. <https://doi.org/10.1017/S0305741022001229>