



China's Practices to Address Its Skewed Sex Ratio at Birth

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China Population and Development Research Center (CPDRC)

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Foreword

In response to international concerns over the highly skewed sex ratio at birth (SRB) in China, China Population and Development Research Center (CPDRC) has, with the support of the UNFPA Office in China, prompted a review of China's practices to tame its SRB, which has been high for over 30 years. With constant efforts in policy and governance, gradual improvements have been seen at China's SRB level. We have consulted a mass of documents and conducted field visits, in an effort to unfold the clear trajectory regarding China's response to its skewed SRB.

Since China's SRB deviates from what is considered the normal level, these exploratory practices cannot be cited as China's "successful experience". Many of these practices are unique to China and are not entirely applicable to other countries and regions. However, as part of the global reactions to the high SRB, the Chinese cases accumulated through these practices can certainly be used as a model by other countries.

This report is authored by Tang Mengjun and Wang Qian from CPDRC and Zhao Yi from Renmin University of China. We would also like to extend our sincere gratitude to the subject matter experts who contributed their knowledge and insightful opinions on the outline and content of this report.

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Abstract

China has the longest history of abnormally high SRB worldwide. China's SRB soared in the 1980s and ranked the highest in the world in the first decade of the 21st century. It has then embarked on a downward spiral since 2009 and stood at 110.14 in 2019, still higher than the normal level. High SRB spread from partial areas of the country to the entire nation, from high to low birth orders and from rural to urban areas, exhibiting major differences among women of different ethnic groups and different education levels. The fundamental reason for the high SRB is the same as it is in other nations: as the fertility rate declines, more and more people are turning to induced abortions and fetal sex determination to achieve their goal of "having a son". While the preference for having a son remains the root cause, the declining fertility rate that constricts the family size is an important underlining reason, and the availability of sex selection technologies then creates new possibilities.

China attaches great importance to bringing down its skewed SRB. In addition to fervently advancing socioeconomic growth, accelerating modernization, and empowering women, China has progressively begun to implement strict measures to reduce the high SRB and support socioeconomic development. The thriving socioeconomic development has contributed to the broad dissemination of the notion of gender equality and the quick modernization of lifestyles, thereby upending the socioeconomic context underlying son preference. These special actions, which fully illustrate the Chinese government's capacity for effective implementation, not only succeeded in achieving multi-departmental participation and diversified governance involving the government, businesses, and social organizations but also created efficient working mechanisms through pertinent laws and regulations, accountability for monitoring and evaluation, awareness transformation, capacity building, and resource assurance. Among the specific measures, the restrictive and direct actions to stop "illegal fetal sex determination and sex-selective abortion" were complemented by the directive and indirect publicity efforts and benefit-oriented policies to address both "symptoms" and root causes. These comprehensive approaches not only addressed the root causes of son preference and expanded the benefits provided to daughter-only families, but also curtailed the spread of "illegal fetal sex determination and sex-selective abortion". In the meantime, China has also improved the accuracy of birth statistics to better inform SRB-related decisions.

It must be noted that China's efforts to curb high SRB were backed by the strong governance capabilities and the efficient organizing and functioning mechanisms of the Chinese Government and took place in the context of China's burgeoning socioeconomic development. As a country with a large population, China shows its uniqueness in SRB changes and SRB reduction, and its practices are not necessarily applicable to other countries. However, China's coordinated methods for SRB reduction, top-down resource mobilization, and the proven concept of providing classified instructions and taking targeted action could serve as a reliable reference for other nations and regions.

At present, China is still faced with many challenges in bringing down its SRB, and there is still much progress to be made in promoting gender equality. Only by joining hands with international communities and proactively sharing successful experiences and best practices can China then bring its SRB back to a normal level.

CONTENTS

I. Background.....	07
II. Changes in SRB: Facts and Figures	08
(I) Characteristics of the Changes in SRB	08
(II) Causes of the Changes in SRB	13
III. Social Background of the Decline in SRB	19
(I) Economic Development and the Decline in SRB	19
(II) Social Development and the Decline in SRB	20
(III) Improvement of Women's Family and Social Status.....	21
IV. Special Actions to Tame the Skewed SRB.....	24
(I) Four Stages of SRB Reduction	24
(II) Assurance Measures for SRB reduction	26
(III) Specific Practices of SRB Reduction	34
1. Publicity and Education—Addressing Son Preference.....	34
2. Benefit-Oriented Policies—Giving More Benefits to Daughter-Only Families	38
3. Crackdown on "Illegal Fetal Sex Determination and Sex-Selective Abortion"—Cut Off Access to Technical Services.....	40
4. Birth Data Improvement—Enable Scientific Policymaking	43

V. Experience and Challenges	46
(I) Experience.....	46
(II) Challenges	48
(III) Suggestions.....	51
References.....	53



I. Background

The sex ratio at birth (SRB) refers to the number of live male births per 100 live female births within a certain period, with the normal range being 103-107. Instead of being a simple quantitative comparison, SRB determines the future gender structure of the population and serves as one of the key indicators for measuring gender equality. Persistently high SRB could lead to social problems such as marriage squeeze, mercenary marriage, and trafficking in women, and undermine the harmonious development of both family and society and the long-term stability of a nation. More importantly, high SRB mirrors severe gender inequality and could severely jeopardize women's rights to survival and development.

China has the longest period of abnormally high SRB in the world. China's SRB soared in the 1980s and ranked the highest in the world in the first ten years of the 21st century. It has then embarked on a downward spiral since 2009 despite subtle fluctuations and stood at 110.14 in 2019. Attaching great importance to taming its skewed SRB, China has gradually taken stringent measures to bring down the high SRB. By far, China has not brought its SRB back to the normal level yet, though its SRB has maintained for years a downward trend, which is expected to continue in the years to come (Wang Jun et al., 2016).

Presently, more than ten countries across the globe are being plagued by high SRB. In terms of geographic distribution, these countries are mainly concentrated in West Asia, Southeast Europe, East Asia, and South Asia, accounting for roughly 40% of the world population. In that sense, high SRB is without question a global issue. In addition to advancing the ongoing discussions in this realm and accelerating a solution to this global issue, summarizing China's methods for reducing high SRB and sharing China's success would strengthen China's position as a responsible power.





II. Changes in SRB: Facts and Figures

(I) Characteristics of the Changes in SRB

1. SRB rose first and then descended

China's high SRB was first brought to light in the Third Census (1982) and has continued to this day. After 1982, China's SRB rose rapidly and peaked in 2004 before embarking on a downward slope in 2008, though the rate remained high. Over the recent years, China's SRB has seen a steady decline despite subtle fluctuations.

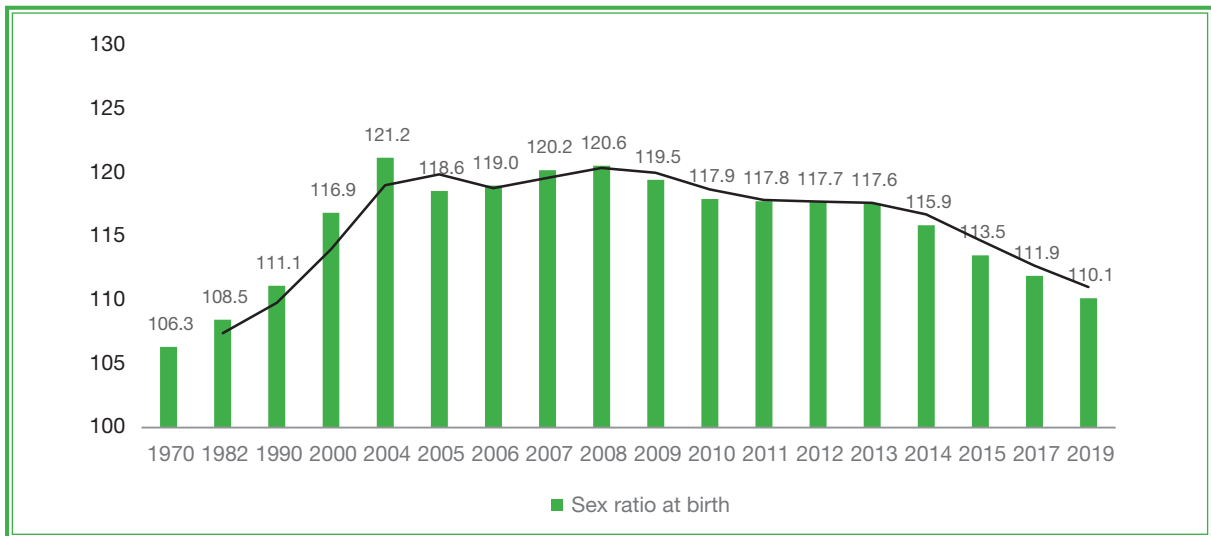


Figure 1 The changing trend of China's SRB from 1970 to 2019

Note: Figures for certain years are not available. The curve in the figure is the two-year moving average trendline.

Sources: China 1982 Population Census 10% Sampling Data Tabulation; China 1990 Population Census 10% Sampling Data Tabulation; China 2000 Population Census Short-Form Data Assembly; China 2005 1% Population Sample Survey Data Assembly; 2006-2016 China Statistical Yearbook. The figure for 2017 comes from the Statistical Data on the Status of Women and Children in China 2018, and the figure for 2019 comes from the Statistical Bulletin of Health Development in China 2019.

2. Skewed SRB emerged in certain areas and spread to the whole country, high in the eastern regions and low in the western regions, and exhibited an evident trend of trans-provincial concentration.

During the 20 years from 1990 to 2010, SRB remained universally high in all provinces (autonomous regions and municipalities directly under the Central Government) in mainland China and demonstrated significant differences among regions, with certain provinces in the central and eastern regions contributing the most to the overall increase in China's SRB (Cai Fei,





2007). The 2010 rankings of SRB contribution rates by province and municipality¹ reveal that Anhui, Guangdong, and Hunan played a crucial role in changing the national SRB.

In terms of stages, the period from 1990 to 2000 saw SRB rising in all provinces, with an increasing number of provinces getting plagued by SRB imbalances (see Figure 2), while the period from 2000 to 2010 witnessed the gradual polarization of SRB development in various provinces, with provinces such as Guangdong, Hainan, Shaanxi, and Hubei ushering in a major decline in SRB, while provinces such as Guizhou, Jiangxi, Fujian, and Shandong underwent significant increases in SRB (Shi Yaming, Liu Shuang, 2015).

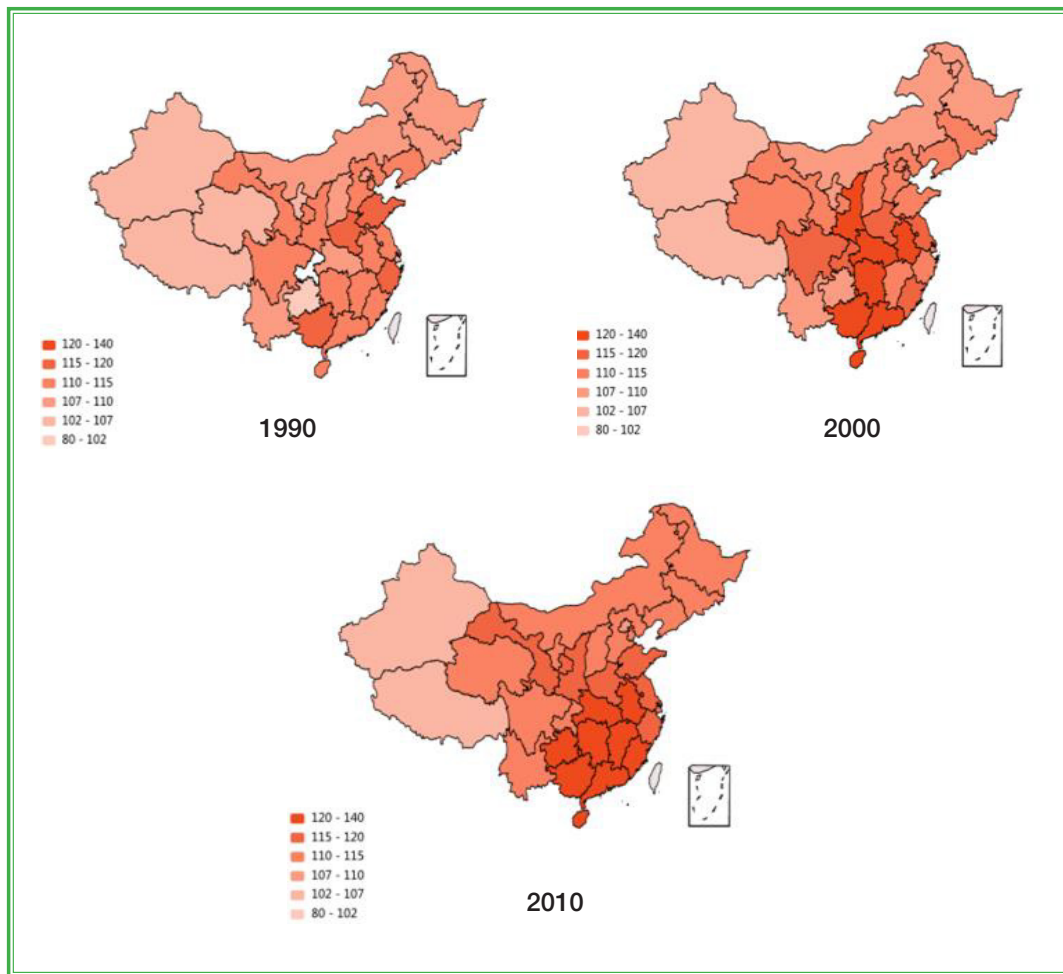


Figure 2 SRB in respective Chinese provinces (autonomous regions and municipalities) from 1990 to 2010.

Sources: China 1990 Population Census Data Assembly; China 2000 Population Census Short-Form Data Assembly; China 2010 Population Census Short-Form Data Assembly. The range of values corresponding to each color: 80-102 (low); 102-107 (normal); 107-110 (slightly high); 110-115 (moderately high); 115-120 (severely high); and 120+ (extremely high).

¹ The contribution rate here refers to the ratio of the SRB increment in a specific administrative division to the overall SRB increment in the whole nation. The equation is: $(\text{provincial SRB}/100-1.07)/(\text{national SRB}/100-1.07) \times (\text{provincial female births}/\text{national female births})$. Reference: Cai Fei. Factor-Specific Contribution Rate of the Rising Sex Ratio at Birth in China [J]. Population Research, 2007(04): 9-19.



At the county level, SRB exhibited the characteristics of concentration across administrative regions. Through the analysis of county-level data from the three national censuses in 1982, 1990, and 2000, it's found that areas with high SRB were concentrated at the junction of provinces and regions with relatively similar social cultures. This study shows that the skewed SRB might be closely related to a region's cultural background (Wang Fei, Liu Shuang, 2011).

3. While SRB differed from birth order to birth order, skewed SRB had spread from high to low birth orders

During the years shown in Table 1, the SRB for third births was greater than the SRB for second births, while the SRB for second births was also higher than the SRB for first births. The skewed SRB first appeared in the third births, and as time passed, it expanded to the lower birth orders. According to the findings of the 1982 Census, the skewed SRB was exclusively present in the third births. The results of the 1982 Census showed that the skewed SRB was only found in the third births. Later, in 1990 and 2000, the skewed SRB was found in both the second and third births. By 2010, the skewed SRB was present in the first, second, and third births. The shift of fetal sex selection from high to low birth orders indicates a decline in people of reproductive age's desire to have children in the wake of progressive modernization and urbanization. In 2016, the average desired number of children was only 1.8 in women aged 25-34 (Zhuang Yaer, et al., 2014; He, et al., 2019). On one hand, couples wanted a smaller family unit, and on the other hand, they also pursued the desired sex of their child, thereby pushing up the possibility for families to attempt sex selection in firstborn children. By 2015, although SRB remained high in all three birth orders, it had dropped significantly, especially for the second births.

Table 1 China's SRB in major years (by birth order)

Year	1st Births	2nd Births	3rd Births
1982	106.5	105.0	127.0
1990	105.4	121.4	154.3
2000	107.1	151.9	160.3
2010	113.7	130.3	161.6
2015	109.8	113.3	147.5

Source: National Bureau of Statistics, Data from national censuses, and the 2015 1% National Population Sample Survey.





4. While SRB differed between urban and rural areas, skewed SRB had spread from smaller villages to larger towns and metropolitan areas.

For some time in China, socioeconomic development had remained uneven between urban and rural areas, with cities outperforming towns and towns outperforming villages. Skewed SRB first surfaced in towns and villages, with villages generally outrunning towns and towns outrunning cities (see Table 2). SRB has remained abnormally high since 1990 in both urban and rural areas. With the lapse of time, SRB dipped sharply in cities, but the SRB gap between towns and villages was narrowing. Eventually, towns took over the role of villages as the hardest-hit areas with skewed SRB.

Table 2 China's SRB during Major Years (by urban and rural areas)

Year	Cities	Towns	Villages
1982	106.9	107.7	107.7
1990	108.9	112.1	111.7
1995	111.9	115.6	117.8
2000	112.8	116.5	118.1
2005	115.2	119.9	122.9
2010	118.3	122.8	122.1
2015	110.4	115.2	114.8

Source: National Bureau of Statistics, Data from National Censuses, and the 2015 1% National Population Sample Survey

5. While SRB differed from ethnic group to ethnic group, the SRB in Han ethnic group was higher than that in minority ethnic groups

China is a multi-ethnic country. According to the Sixth Census conducted in 2010, Han people accounted for 91.51% of China's total population. There are significant differences in SRB between Han and ethnic minorities. Table 3 reveals that the SRB in Han people was higher than that of ethnic minorities in the period from 1990 to 2010, and the gap peaked around 2000 (Zhang Liping, 2006).

In terms of the shift in SRB, speaking from the "rise-fall" cycle, the ethnic minorities lagged substantially behind the Han ethnic group in terms of the shift in SRB, because skewed SRB occurred in the ethnic minorities approximately 10 years after it surfaced in the Han population. From 2000 to 2010, SRB embarked on a downward slope in the Han ethnic group but an upward trajectory in the ethnic minorities (Table 3).



**Table 3 Changes in SRB in Han People and Ethnic Minorities in the Censuses from 1990 to 2010**

Ethic Group \ Year	1990	2000	2010
Han	112.2	121.1	118.5
Ethnic Minorities	107.1	111.9	114.3
Overall	111.1	116.9	117.9

Source: National Bureau of Statistics, 1990-2010 National Censuses

6. The lower the education level of reproductive-age women, the higher the SRB

Education level influences both the fertility behavior and fertility intention of women (Yang Juhua, 2008; Chen Wei, Jin Yongai, 2011). SRB also differed among women with different education levels. It can be seen from Figure 3 that from 2000 to 2010 respectively, SRB increased in women with different education levels. In the same period, however, the higher the level of education, the lower the SRB and the smaller the increment.

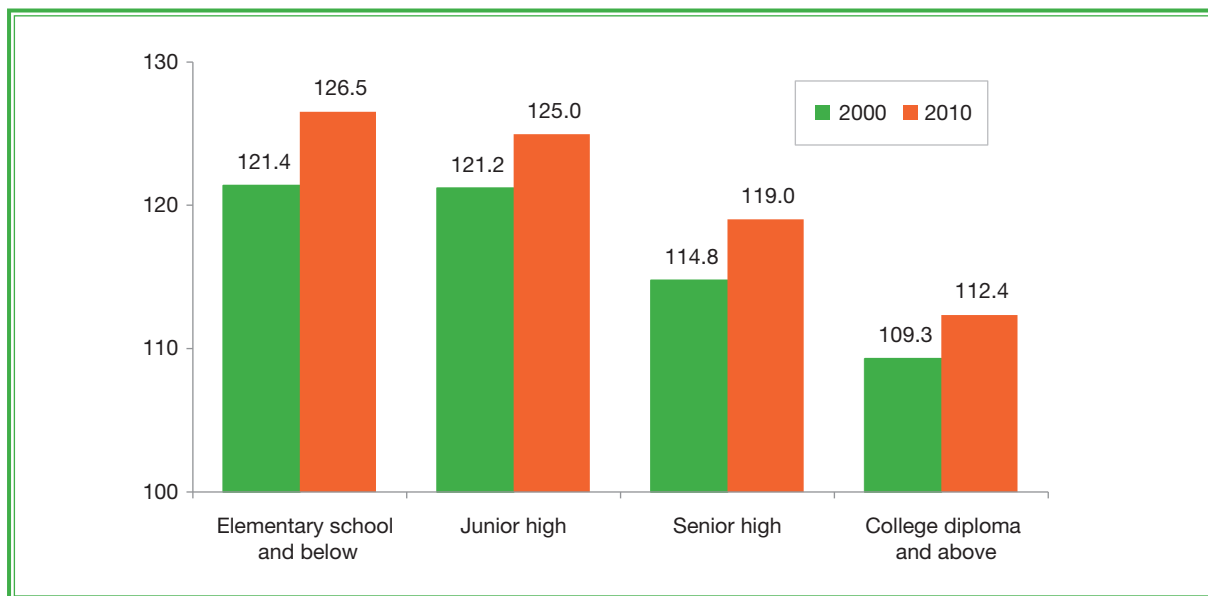


Figure 3 SRBs in 2000 and 2010 by the education level of reproductive-age women

Sources: (1) Population Census Office of the State Council, Department of Population and Employment Statistics of the National Bureau of Statistics (2012). China 2010 Population Census Data Assembly. China Statistics Press, June 2012. (2) Population Census Office of the State Council, Department of Population and Employment Statistics of the National Bureau of Statistics (2002). China 2000 Population Census Data Assembly. China Statistics Press, August 2002.





7. Summary

The overall trajectory of China's SRB changes is similar to that of other countries—that is, it displays an inverted U-shaped curve with the lapse of time, and is divided into three stages of rising, stable, and falling (Guilmoto, 2015)—and there have been regional, urban-rural, birth order and ethnic differences. The fluctuations in China's SRB reveal some characteristics unique only to China, due to the large population, unequal development across different regions, and inconsistent rate of decline in fertility. Unlike other countries, China's SRB ascended faster and remained exponentially high for a longer time, which, in turn, took a significant amount of time for the SRB to go down. Skewed SRB first appeared in certain provinces, rural areas, Han people, and higher birth orders, and then gradually spread to other provinces and ethnic groups. Some provinces ushered in the decline in SRB after 2000, and the greatest dip was found in cities, with higher birth orders and Han people following 2010.

(II) Causes of the Changes in SRB

Skewed SRB is the result of multiple influencing factors, such as society, economy, culture, and population. With the "Social Mapping" analysis method², we can categorize the internal motivations and external environments that contribute to China's SRB imbalance into four levels: phenomenon, behavior & practice, social system, and spiritual ideology (see Figure 4). All social phenomena are caused by people's behaviors, which result from certain social systems and mechanisms with deeper cultural roots, such as moral norms, religious beliefs, and social values. While distorted SRB remains a social phenomenon, under-reporting female births might have exacerbated this phenomenon. Fetal sex determination and induced abortions are the behaviors and practices that contribute to SRB imbalance; the decline in fertility rate and the fertility policy is the external institutional environment underlying SRB imbalance; and the "son preference" tradition under the "family-centric" culture creates the cultural basis underpinning skewed SRB (Liu Shuang, 2009).

Economic and social factors account for the rise and fall of SRB and directly impact the fertility rate, son preference and the availability of gender selection technologies. While propelling a decline in fertility and the broader spread of sex selection technologies, development itself can promote gender equality and weaken son preference. On the other hand, economic and social stagnation or regression might lead to a rapid decline in fertility.

² Liu Shuang. *Sex Ratio at Birth and Gender Preferences for Children in China: Phenomena, Causes and Consequences* [M]. Social Sciences Academic Press, 2009.



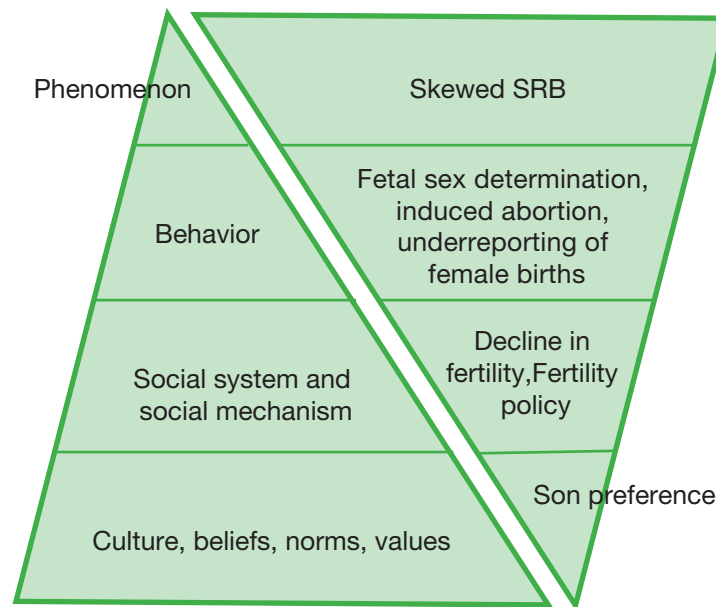


Figure 4 "Social Mapping" of skewed SRB

So far, South Korea and Georgia are the only other countries whose SRB once soared high and then dropped to the normal level. Such a decline was also inseparable from factors such as socioeconomic development and changes in fertility. Although South Korea's fertility rate has been gradually declining, urbanization and advancement of the status of female citizens have caused a decline in son preference, which is a major factor that is contributing to the decrease in SRB. In addition to socioeconomic development and the empowerment of women, the rebound in fertility rate after 2007 is also believed to have pushed Georgia's SRB back to normal (Guilmoto et. al., 2017).

1. The Shift in Son Preference

While an agricultural society is characterized by low productivity, economic development relies heavily on labor input. Due to the strong physical strength of men, peasant families would always want to have at least one son to secure their agricultural production (Tang Guizhong, 1991), and boy preference was the rational result after people had weighed up the costs and benefits in such a social context.

During a stage of low agricultural productivity, China developed a social structure centered on the father-son bond, including patriarchy, patrilocal residency, and patrilineality (LI Junkui, 2003). This family-centric culture, putting male and agnatic descent at its core, was reinforced through property inheritance, family name continuation, and family culture (Ouyang Xiaoming, Zhou Hong, 2004), and had been consolidated through funeral ceremonies and customs of renovating the ancestral hall, compiling the family tree and worshiping ancestors (Li Huiying, 2012). Under





the family-centric culture, the sons must be responsible for supporting their elderly parents; once the daughters are married, they are required to live with their husbands. Sons are the only offspring that can pass on the family name and continue the family lineage. The traditional patrilineal family system restricted women's equal access to education, employment, and economic development as men, leading to the further strengthening of son preference (Zhuang Yuxia, 2006). Strong son preference was manifested in the prevalent notion of "must have a son" and in the practices of having more children, drowning or abandoning female infants, or attempting sex selection, though such practices might vary in different periods in China's history and through different cultural backgrounds.

The thriving socioeconomic development led to the gradual collapse of the traditional patrilineal family system, and yet the shift in spiritual culture has always lagged behind the transition in material culture (Ouyang Xiaoming, Zhou Hong, 2004). Moreover, Chinese people also have a strong preference for having both a son and a daughter, and in some instances the preference for having a daughter. In the transition towards modernization, either son preference or daughter preference is weakening, only that son preference is diminishing at a slower pace. This is why China is still plagued by sex selection and a high SRB (Hou Jiawei et al., 2018).

2. Changes in Fertility Rate

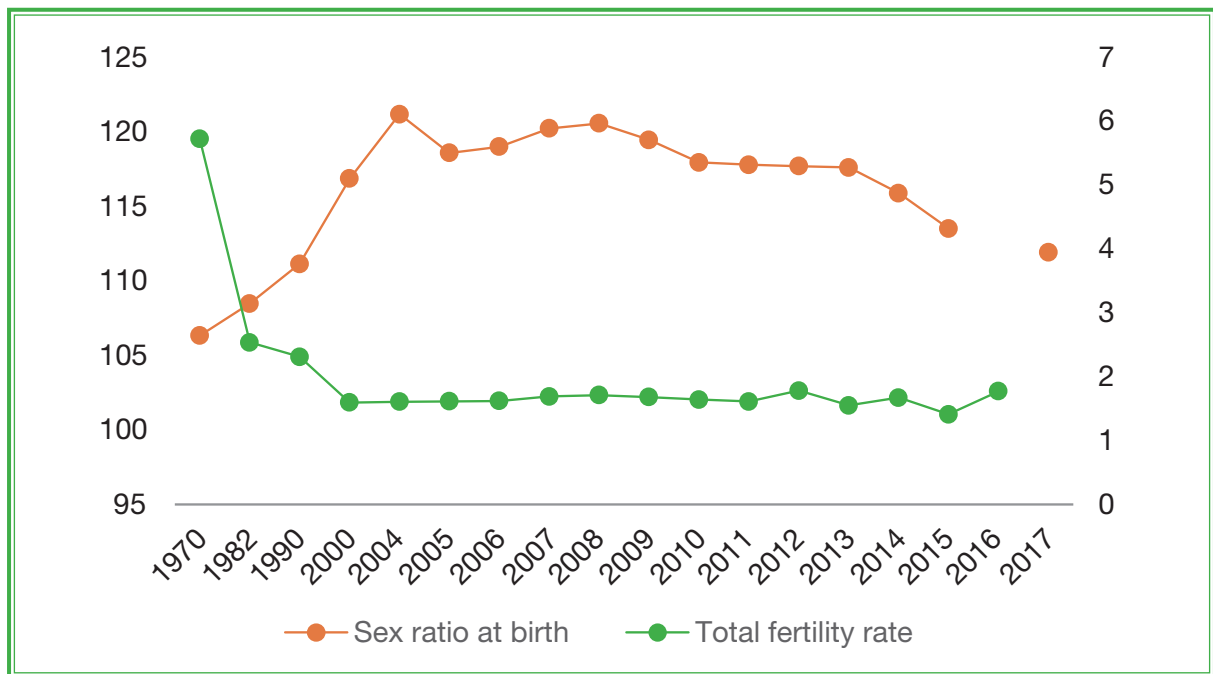


Figure 5 Changes in China's TFR and SRB from 1970 to 2017

Source: TFRs from 1970 to 2005 come from the World Bank database; TFRs from 2006 to 2016 come from He Dan et al., 2019; SRBs come from the same sources for Figure 1.





There is a relatively complicated relationship between fertility rate and SRB. In a population with a strong "son preference", a significant decline in the fertility rate is often accompanied by an increase in SRB (Park and Cho, 1995). When a family is allowed to reproduce freely, the family can achieve the desired gender composition of children through multiple births. However, when the fertility rate drops and the family size is squeezed, some families would use sex selection at certain birth orders to ensure having a son (Li Nan et al., 1999; Mu Guangzong, 1995). There is a "close temporal connection" between the increase in SRB and the decline in the fertility rate in China (Wang Jun, Guo Zhigang, 2014). It can be seen from Figure 5 that in the period from 1970 to 2004, with the decrease in China's TFR, SRB continued to climb and lingered at a high level.

China's TFR hovered around 1.65 from 2006 to 2016. China has accelerated the pace of its policy adjustments and substantially loosened fertility limitations since 2013. This is the same year China announced the "Selective Two-Child" policy, under which couples were permitted to have a second child under the condition that one of the parents was an only child. In 2016, China announced the "Universal Two-Child" policy. Fueled by these two policies, China's TFR increased slightly in 2014 and 2016 compared with the years immediately preceding, reaching 1.67 and 1.77 respectively (He, et al., 2019), but then a downward trend occurred suddenly. The short-lived rebound and the continued drop of the fertility rate came in tandem with the accelerated decline of SRB and then its stability amid mild fluctuations, implying that the relationship between the two requires further studies.

A study has found that the number of sex-selective abortions in China has plummeted since 2010 due to the restrictions of the fertility policy gradually loosening, the slump of fertility desire, and the weakening of son preference (Wang Penggang et al., 2021). For the time being, China's policy on reproduction has little impact on people's desire to have children, which is more malleable to the situational circumstances of people and families. Existing studies have failed to pinpoint factors influencing the changes in both fertility desire and son preference. Therefore, further studies are needed to prove the coalition between fertility desire, fertility rate, and SRB.

3. The Increasing Spread and Wide Application of Fetal Sex Determination and Induced Abortion Technologies

Fetal sex determination and induced abortion technologies are the direct causes of skewed SRB. Due to ultrasound examination's simplicity and affordability, it has been widely used in China since 1980, and the use of this device to illegally determine the sex of a fetus has steadily gained momentum. In China, induced abortion is easily available and can be carried out by either a private hospital or medical facility that is about the county level. Following the widespread use of ultrasonography, the related legal frameworks and management were neither





complex nor strict, which made induced abortions easily accessible. Some scholars have found that sex-selective induced abortion was the most important and the direct cause of the spike in SRB as observed in 1990 (Li Yongping, 1993; Li Shuzhuo, Zhu Chuzhu, 1996).

The pace of technological progress will never cease. Over recent years, new technologies such as fetal blood sampling and genetic diagnosis allow for a more convenient fetal sex determination in the early stage of pregnancy than ultrasound. If the government does not impose relevant restrictions, these technologies could be easily and widely used for fetal sex determination.

4. The Underreporting of Female Births Might have Exacerbated the High SRB

In the strict sense, demographic bias is not the cause of high SRB, but it distorts data and/or covers up the facts about SRB. A survey conducted in Beijing in the early 1980s found that many births were hidden from household registration in mountainous areas, and most of those were female births (Zou Ping, 1983). During the 1982 and 1990 censuses, a large number of male and female infants went underreported, but the underreporting rate of female infants was slightly higher than that of male infants. Therefore, the actual SRBs should be lower than those calculated through the census data (Xu Yi, et al., 1991; Qiao Xiaochun, 1992; Zeng Y., et al., 1993; Liu Chengbin, Feng Xiaotian, 2008; Goodkind D., 2011). It's estimated that at least one-half to three-quarters of the portion of China's SRB exceeding the normal value in the 1980s was caused by the underreporting of female infants (Zeng Y., et al., 1993). Due to the underreporting of female infants, the SRBs announced by China from 2000 to 2010 were most likely 2-3 percent higher than the actual values (Zhai Zhenwu, Yang Fan, 2011). By using education statistics to estimate the real number of births in previous years, it was found that there have been systematic deviations in the results of the 2000 Census and the 2005 1% Population Sample Survey. The underreporting of female infants has led to an overestimation of SRB in lower age groups during the 2000 Census and the 2005 1% Population Sample Survey (Zhai Zhenwu, Yang Fan, 2009).

5. Summary

Figure 6 reveals the path of how SRB was changed and also illustrates how socioeconomic development and the Chinese government's special actions spurred the change in SRB. The existence of gender differences in children can account for the prevalence of son preference. In the context of the reduced number of children in the family, couples used fetal sex selection technologies to satisfy their preference for having a son, which in turn increased the SRB. Phenomena such as underreporting in birth statistics had led to the distortion of SRB data. The advantages of economic growth, social advancement, the improvement in the status of women, and Government-led special initiatives that have girl-focused policies have contributed to the



narrowing of the gender gap in children. Persistent and extensive publicity and advocacy efforts also helped change the fertility intention and weaken the son preference in couples. The strict control over fetal sex selection technologies curtailed access to such technologies and thereby minimized the occurrence of sex selection while improving the quality of birth statistics and also helped enhance the accuracy of SRB statistics to allow scientific policymaking.

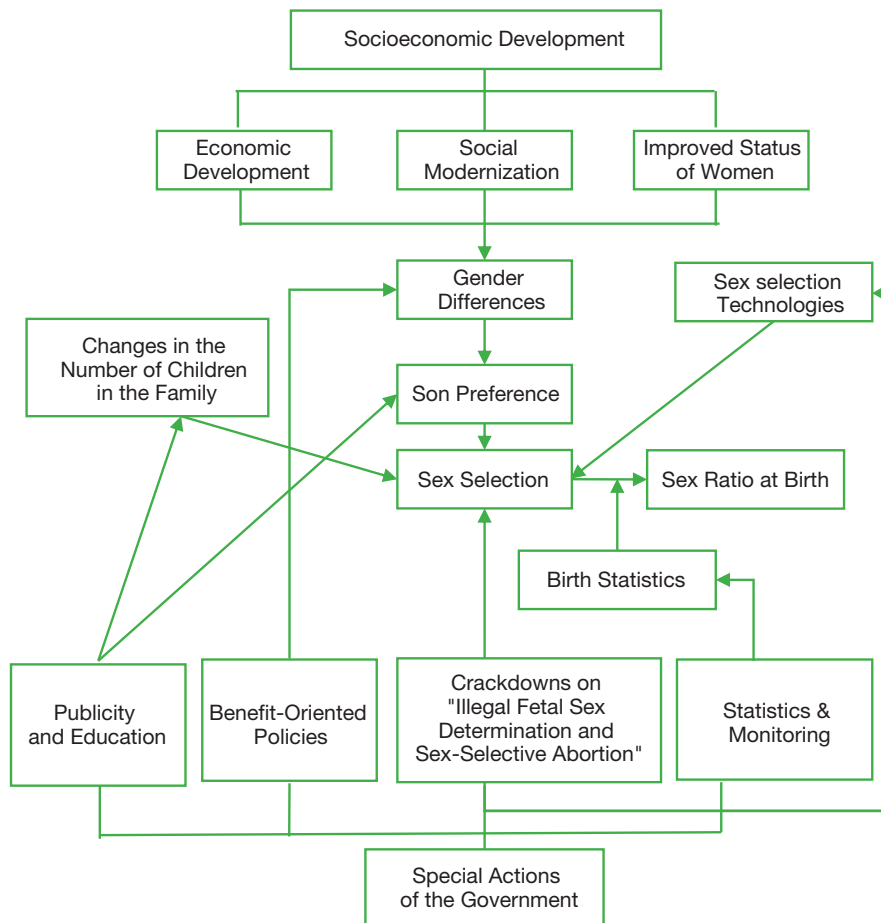


Figure 6 How socioeconomic development and the government's special actions contribute to the change in SRB





III. Social Background of the Decline in SRB

Since the reform, the thriving economic growth and the accelerating social modernization have been gradually pushing SRB back to the normal level. Economic development has brought about changes in the modes of production and shaken the economic foundation underlying "son preference". The progressive reduction in SRB is being driven by the acceleration of social modernization which is expediting the dissolution of traditional rural societies and driving radical lifestyle changes. The national policies to empower women have significantly improved women's social, economic, political, and status within the family unit. All of these facets together constitute the contextual factors that are bringing down China's SRB.

(I) Economic Development and the Decline in SRB

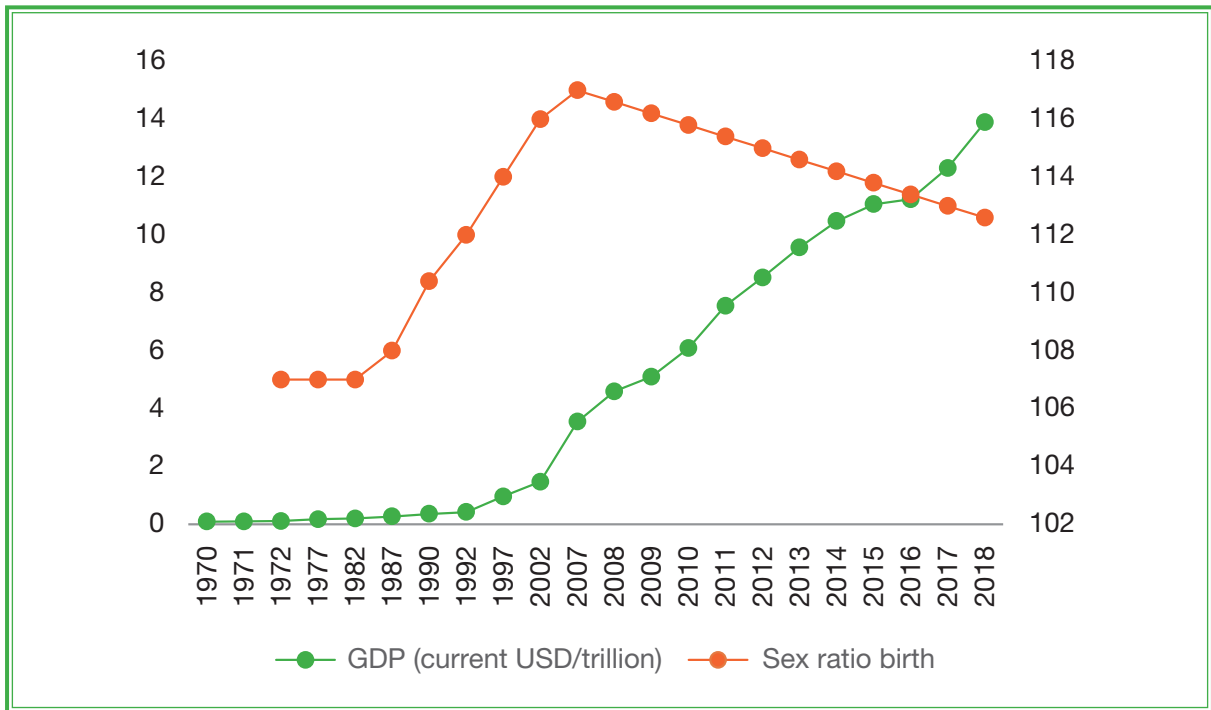


Figure 7 Changes in China's GDP and SRB in major years from 1970 to 2018

Source: GDP figures are from the World Bank database; SRBs, come from the same sources as Figure 1.





Figure 7 shows that China's GDP has been steadily growing since 1970, while in the meantime, China's SRB displays an inverted V-shaped curve—it went up quickly and then decreased slowly. This shows that SRB is neither positively nor negatively correlated with socioeconomic development. In the first stage, SRB and economic development went in the same direction but went in opposite directions during the second stage. This kind of relationship between the two is not unique to China, as a similar relationship is also present in South Korea (Tang Zhaoyun, Guo Zhenzhen, 2011).

In the first stage, the thriving economic development and the increase in income gradually led to the accessibility of fetal sex selection technologies. Under the dual effect of son preference and easily accessible technologies, the practices of fetal sex selection soared which then gradually increased SRB. When the economy developed to a certain level—that is, the second stage of divided changes as shown in the figure—the modes of production were upgraded; the pace of industrialization began to quicken; the tertiary industry was booming; the relative advantage of male income was diminishing, and people's needs were shifting from food and clothing to higher levels—the emotional needs and the pursuit to achieve self-realization. Against this backdrop, "son preference" weakened.

(II) Social Development and the Decline in SRB

China's urbanization rate is soaring from 20% in the 1980s to 60.6% in 2019. The urbanization process is accompanied by the massive migration of the rural population to cities, and the migrant population has remained above 200 million since 2000³. Urbanization and population movement have prompted a shift from rural lifestyles to urban ones, which is accelerating the collapse of the traditional rural society of acquaintances, loosening the restraint of rural cultures on villagers, easing the pressure on peasants to "have a son", and leading to free and diverse reproductive choices. Men continue to be the primary providers. The geographic range of marriage has expanded due to the migration of rural women. In some underdeveloped rural areas, males outnumber females in the "marriage market", thereby making it increasingly difficult for men to find a wife, pushing up the cost of marriage and thereby weakening "son preference".

China's social security and welfare systems are constantly being improved. Following the establishment of the rural subsistence allowance system in 2007, the New Rural Social Endowment Insurance Pilot Scheme was introduced in 2009 in China. The country first developed the urban subsistence allowance system in 1997. In 2014, the New Rural Social Endowment Insurance Scheme and the Urban Resident Social Endowment Insurance Scheme



³ Source: Statistical yearbooks of the National Bureau of Statistics and population sample survey data assembly.





were merged into the Urban-Rural Resident Basic Endowment Insurance System. By the end of 2019, the coverage of medical insurance schemes has stabilized at over 95%⁴, marking the initial establishment of a social security system covering urban and rural residents. The increasingly sophisticated social security system enables society itself to take over certain functions of the family in providing support for the elderly, which protects those in their later years of life, and reduces the financial dependence of the elderly on their children, thereby further weakening the belief of "bringing up sons to provide for the old age".

Miniaturization and the nuclearization of families are other traits of modernization. In 2015, the average size of Chinese families stood at 3.02 persons only, with nuclear families accounting for more than 60%. 2-person and 3-person families have become the mainstream⁵. Such a change in family structure has endowed inter-generational continuation with diverse characteristics. The family belief of "continuing the family line" is gradually disappearing. While the elderly's financial dependence on children is weakening, their emotional needs have become increasingly stronger, and in some cities, daughters have become the main caretakers of their parents (Yang Guocai, Yang Jindong, 2013).

The rapid rise of mass media and the Internet has endowed social culture with inclusive and diverse characteristics, and individualism has become increasingly popular, especially among younger generations. Li Yinhe and Feng Xiaoshuang (1991) believe that these days, young people's longing for marriage is more likely based on the pursuit of "a beautiful life" rather than on their duties to their family and lineage continuation. In other words, the continuation of the family line is no longer the ultimate goal for young people. The younger generations place more emphasis on self-realization and the emotional value of children, and the belief in "bringing up sons to continue the family line" is diminishing among them (Li Dongli, 2001).

(III) Improvement of Women's Family and Social Status

The improvement of women's family and social status has weakened the "son preference" which propelled the decline in SRB. By empowering women, the Chinese Government established an overarching gender equality promotion policy system. In addition to stipulating that the "equality between men and women" is one of China's basic national policies, the Law of the People's Republic of China on the Protection of Women's Rights and Interests also addresses in detail women's political rights, women's cultural and educational rights, women's labor and social security rights, women's property rights, women's rights, and women's marriage and

4 Source: National Healthcare Security Administration: More than 1.35 billion people are covered, with coverage rate hitting 95% and the balance of medical insurance fund hitting RMB 2.69 trillion, China.com.cn. March 20, 2020.

5 Source: China Family Development Report (2015) issued by the former National Health and Family Planning Commission.





family rights. In 2015, China enacted the Anti-Domestic Violence Law of the People's Republic of China. Thus far, China has forged "a legal system based on the Constitution, spearheaded by the Law on the Protection of Women's Rights and Interests and underpinned by the Marriage Law, the Inheritance Law, the Labor Law, the Law on Maternal and Child Health Care, the Special Rules on the Labor Protection of Female Employees and other relevant laws, administrative rules and local regulations to safeguard women's rights and interests and to promote women's development. "Together, these unique laws, rules, and detailed programs outline a powerful system that supports the growth of women, and defends their rights, thereby fostering a culture of gender equality.

To better promote equality between men and women, the Chinese Government has been releasing the Outlines for the Development of Women (1995-2000, 2001-2010, and 2010-2020) since 1995 to set forth a broad array of specific goals and indicators for promoting women's development in the realms of economy, education, health, and social security. Working committees for women and children have been established by the State Council and local governments at all levels to plan, coordinate, direct, and monitor the implementation of the Outline. Relevant government departments, public institutions, and social organizations are urged to implement the corresponding goals and tasks stated in the Outline according to their respective responsibilities, to establish a comprehensive statistical system for women's development, to standardize and improve the statistical indicators related to women's survival and development, to include the same into the national and departmental regular statistics or statistical surveys, and to establish and improve women's development monitoring databases at the national, provincial and prefecture levels. Backed by an increasingly sophisticated policy system, China's goal of gender equality has continued to thrive.

Over the past years, China has eliminated the gender difference in compulsory education. Furthermore, the number of highly educated women has increased significantly, with the proportion already topping 50%. In 2019, the proportion of female students among all undergraduates was 54%, and that of all graduate students and doctoral students topped 50%⁶ and 40% respectively, all seeing a notable increase compared with 2000 (see Figure 8). Relevant studies have revealed that the increase in women's education level could diminish fertility intention (Chen Wei, Jin Yongai, 2011; Blumberg, 2015; Gwako, 1997), and even weaken gender preferences in fertility behaviors (Li, Lavelly, 2003).



6 Source: *China Education Statistics Yearbook 2019*



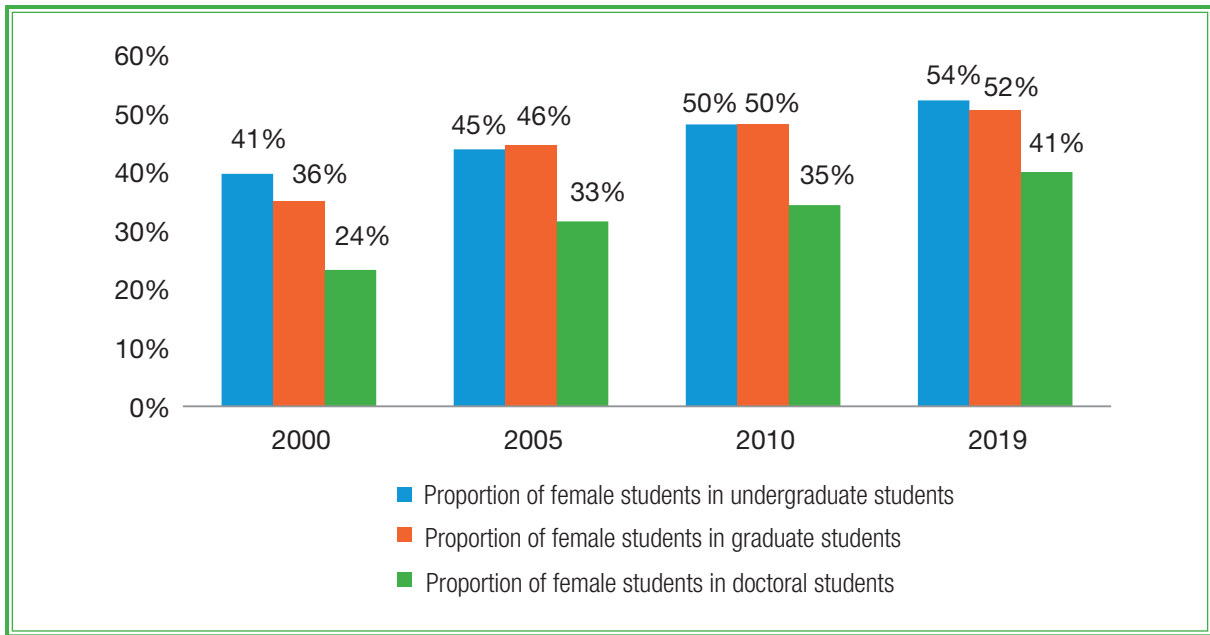


Figure 8 Proportions of female students in all undergraduate, graduate, and doctoral students from 2000 to 2019

Source: Ministry of Education. *China Education Statistics Yearbook (2000-2019)*. Beijing: China Statistics Press.

Universal education has further propelled women's participation in the labor market. In 2019, female employees accounted for 43.2% of all people employed across the country⁷. The labor force participation rate of Chinese women has remained above 70%, almost first in the world. The proportion of Chinese women holding senior management and technical positions is also on the rise. In 2019, the proportions of female employee directors and female employee supervisors stood at 33.4% and 36.4%, an increase of 0.7 and 1.2 percentage points respectively from 2010⁸.

Women's participation in politics is also increasing significantly to highlight their improving political status. Among deputies to the 13th National People's Congress, the proportion of female deputies has increased from 12.0% in 1954 to 24.9% in 2018. Women are also extensively taking part in grassroots democratic management. In 2019, the proportions of women in village committees and community neighborhood committees stood at 11.9% and 50% respectively, up 0.8 and 0.5 percentage from the previous year⁹.

7 Source: 2019 Statistical Monitoring Report on the Guidelines of China on Women's Development (2011-2020).

8 Source: 2019 Statistical Monitoring Report on the Guidelines of China on Women's Development (2011-2020).

9 Source: 2019 Statistical Monitoring Report on the Guidelines of China on Women's Development (2011-2020).





IV. Special Actions to Tame the Skewed SRB

(I) Four Stages of SRB Reduction

China's SRB has remained abnormally high for the past 40 years, and the understanding of this phenomenon and the corresponding control measures and policies are also in continuous progress. China's drive to tame its distorted SRB can be divided into four stages, each with a different focus:

1. Understanding of this phenomenon (1982-1995)

Chinese academics launched pertinent investigations when distorted SRB was discovered in the 1982 Census and discovered that female infanticide was not the primary cause. Fetal sex determination in the 1990s and underreporting of female births in the 1980s were the primary causes of the elevated SRB (Zeng Y., et al., 1993). In addition to the prevailing fetal sex determination, due to the unfair treatment of girls, their death rate between the ages 0-4 remained high in the 1990s (Li Shuzhuo, Zhu Chuzhu, et al., 1999). Research reveals that "son preference", as a result of gender inequality, is the root cause of high SRB (Tang Zhaoyun, 2008; Chen Tingting, Ye Wenzhen, 2011; Zhuang Yuxia, 2006). The studies carried out at this stage identified the root causes of this phenomenon and provided a theoretical basis for the interventions in the next stage.

2. Independent attempts made by local governments and the campaign of "bringing a new marriage and childbearing culture into 10,000 households" was launched by the Central Government (1996-2003)

Given the stark fact of the ever-rising SRB and influenced by the 1994 International Conference on Population and Development (ICPD) and the 1995 World Conference on Women, 1994 the Chinese Government launched the campaign of "Bringing a new marriage and childbearing culture into 10,000 households" across the country, one major effort of this campaign was to forge and spread a culture of gender equality in marriage and childbearing. Starting with this campaign, China vigorously launched gender equality publicity activities across the country. The timeframe from 1999 to 2000, led by the government and supported by the Institute for Population and Development Studies (IPDS) of Xi'an Jiaotong University, 39 counties teamed up to establish a community development network that covered a population of approximately 15 million to "forge a new community childbearing culture" by kicking off a community-based experimental project of "Improving the Living Conditions of Rural Girls in China".



**Table 4 Targets set for SRB reduction in China's national plans**

Plan	Year	Target	Completion
The 11th Five-Year Plan for the Development of Population and Family Planning Undertaking.	2010	The rising trend of SRB is effectively curbed.	Completed
The 12th Five-Year Plan for the Development of Population and Family Planning Undertaking.	2015	The national average SRB falls below 115.	Completed
National Plan on Population and Development. (2016-2030)	2020	SRB <= 112.	Uncertain
National Plan on Population and Development. (2016-2030)	2030	SRB goes back to the normal level of 107.	Uncertain

Efforts to control the skewed SRB were all carried out under the legal framework in areas such as marriage, maternal and child health care, adoption, population & family planning, protection of women's rights and interests, protection of minors, drug management, etc. Specifically, infanticide is prohibited by the Marriage Law; infanticide and other acts of cruelty towards infants are prohibited by the Law on the Protection of Minors; provisions for adoption are detailed in the Adoption Law; fetal sex determination for non-medical purposes is banned by the Law on Maternal and Child Health Care and the Law on Population and Family Planning; and practicing medicine and trading drugs without a license both are banned by the Drug Administration Law and the Criminal Law.

In addition, other laws and regulations contain the same legal principles and specific provisions, such as the Regulations on the Management of Family Planning Technical Services and Regulations on the Management of Medical Institutions. In 2002, NPFPC, the Ministry of Health, and the National Medical Products Administration jointly promulgated the Regulations on Prohibiting Fetal Sex Determination and Sex-Selective Termination of Pregnancy for Non-Medical Purposes. All these laws and regulations have legalized the work of SRB reduction. The applicable laws, administrative rules, and departmental rules that forbid fetal sex determination and sex selection are listed below.

Laws, Administrative Regulations and Departmental Rules Prohibiting Fetal Sex Determination and Sex-Selective Abortion

In 1986, the Ministry of Health and NPFPC jointly distributed the "Notice on Prohibiting Discretionary Fetal Sex Determination" promulgated by Beijing Municipal Family Planning Commission and Beijing Municipal Health Bureau;





In 1989, the Ministry of Health issued the "Emergency Notice on Prohibiting the Use of Medical Technology for Fetal Sex Determination and the Abuse of Artificial Insemination Technology";

In 1993, the Ministry of Health and NPFPC issued the "Notice on Reiterating the Prohibition of Fetal Sex Determination";

In 1994, the Law on Maternal and Child Health Care was enacted to prohibit fetal sex determination and termination of pregnancy for non-medical purposes.

In 2001, the Measures for the Implementation of the Law on Maternal and Child Health Care was enacted to prohibit fetal sex determination for non-medical purposes.

In 2001, the Regulations on the Management of Family Planning Technical Services was implemented, stipulating that "no institution or individual may carry out fetal sex determination or sex-selective termination of pregnancy for non-medical purposes".

In 2001, the Law on Population and Family Planning was passed, stipulating that "the use of ultrasound technology and other technical means for fetal sex determination for non-medical purposes is strictly prohibited, so is sex-selective termination of pregnancy for non-medical purposes".

In 2002, the Ministry of Health released the Administrative Measures for Prenatal Diagnosis Technology, which prohibits healthcare institutions and medical staff from using prenatal diagnosis technology for non-medical purposes.

In 2002, NPFPC issued Ministerial Decree No. 8—Regulations on Prohibiting Fetal Sex Determination and Sex-Selective Termination of Pregnancy for Non-Medical Purposes, which stipulate that "without prior approval of the health authority or the family planning authority, no institution or individual may carry out fetal sex determination or perform the procedure of induced abortion".

In 2003, NPFPC, the Ministry of Health, and the National Medical Products Administration jointly released the "Regulations on Strictly Implementing the Ban on Fetal Sex Determination and Sex-Selective Abortion for Non-Medical Purposes".

In 2016, the National Health and Family Planning Commission (NHFPC), the State Administration for Industry and Commerce, and the State Food and Drug Administration jointly released the "Regulations on Prohibiting Fetal Sex Determination and Sex-Selective Termination of Pregnancy for Non-Medical Purposes".

2. Working Mechanisms

The Chinese Government boasts strong implementation capabilities. In 1980, China announced take family planning as a national policy, integrated population issues into its national strategies, and included the same into the then-national plan for economic and social development. As a prominent problem related to population structure, high SRB drew much attention from the government.

To tame the skewed SRB, the Central Government established the national leading group for promoting the "Care for Girls Action", which was led by the then minister of NPFPC, with its office being housed in the premises of NPFPC and comprehensive SRB reduction becoming one of the duties of NPFPC. Under the leadership of CPC and the Central Government, all provinces have successively set up a leading group for comprehensive SRB reduction—led by a high-ranking government official and staffed by the heads of relevant departments—





and established a joint meeting mechanism to guarantee consistent communication and cooperation, ensuring that this work is properly implemented, pertinent policies are put in place, relevant duties are fulfilled, crucial information is communicated effectively, and imperative issues are collectively resolved.

China has established a highly sophisticated grass-roots administrative network consisting of the township, sub-district, and village/neighborhood levels to efficiently implement various policies and measures adopted by the superior authorities. The lowest administrative units (such as communities and villages) maintain a certain number of staff, at least one of whom is responsible for population and family planning affairs. After receiving the necessary training, these full-time employees will visit households regularly to advertise and implement relevant policies, to elicit opinions from the general population, and to gather data regarding each family's births, deaths, aging and illnesses. Due to the existence of this team, a significant amount of administrative work and services (including work related to SRB) will be completed. -

Comprehensive SRB reduction entails joint actions and multi-department collaboration. The government has extensively mobilized all sectors of society—including enterprises, civil societies, media, academia, and other forces—to bring into shape the work pattern "led by the party committee, undertaken by the government, supported by the society, and participated by the public".

Multi-department collaboration was particularly highlighted amid SRB reduction. In 2002, 11 government departments jointly issued opinions on comprehensive SRB reduction, which also clarified the responsibilities of respective departments (see Table 5). In 2012, six national ministries and commissions identified that year as the "Key Year of SRB reduction" and jointly launched a special activity during the year.

China has developed a top-down SRB reduction mechanism. China's government system is defined by distinct roles and consistent directives among different administrative levels. The Central Government's plans and decisions may be promptly conveyed and put into action level by level, with a unified understanding that has been diligently created at all levels. When formulating policies, the superior authority would consider the feasibility of relevant work at the grassroots level, while the field experience gained by the grassroots units also informs the improvement of decisions made by the superior authority. The superior authority does encourage their subordinates to improve upon their methods, but only under the circumstance that the innovations fall within the parameters of the policy framework, the superior authority will reinforce and promote any successful improvements made by the subordinate units.

In taming the distorted SRB, the Central Government has established relevant laws, plans, and macro-policies; the provincial governments have developed distinctive SRB reduction





models based on their economic development, social status, and cultural heritage; and the county governments have innovated their working styles and methods within the parameters of their functions and power to develop their distinct SRB reduction models at the county or district level. Some scholars have summarized these models as the mechanism-building model, publicity and advocacy model, organizational leadership model, and comprehensive control model (Yang Xueyan, et al., 2010). There is also the model of reforming the marriage pattern in Daye City, Hubei Province (Yan Meifu et al., 1999), the model of comprehensively adjusting social policies in Anxi County, Fujian Province (Song Jian, 2009), the model of launching "Seven Guarantees Policy" to provide protections for daughter-only families in Yancheng District, Henan Province (Chen Ping, 2008), and the model of pursuing a leap-forward in SRB reduction from the micro to the macro level in Changfeng County, Anhui Province (Liu Hongyan, Tang Mengjun, 2015). These models help in forming a multi-level (national, provincial, county/district) SRD reduction framework and continue to enhance SRB reduction methods.

Table 5 Duties of 11 government departments in SRB reduction

Department	Main Duty	Description of Duty
Publicity Department of the Party Committee	Publicity and Advocacy	Make efforts to bring a new marriage and childbearing culture into 10,000 households, and establish a good social atmosphere of respect for women, equality between men and women, freedom of marriage, and harmony among neighbors.
Family Planning	Comprehensive Coordination	Assist the government in the organization, coordination, and supervision of comprehensive SRB reduction; organize target responsibility assessments; coordinate and organize publicity and education activities; work with health and other departments to develop systems for ultrasound management, abortion drug management, abortion procedure management, birth & death reporting, etc.; coordinate and organize the focused control efforts in areas with a particularly high SRB.
Education	Education- Related Preferential Treatment	Promote gender equality in education; improve girls' education and increase girls' enrollment rate; give certain preferential treatment to the children of underprivileged single-child and daughter-only households in receiving compulsory education and paying tuition.
Public Security	Crack Down on Illegal Acts	Stop illegal and criminal acts such as infanticide; provide SRB-related data and information through household registration and population statistics.
Civil Affairs	Protect Women's Rights and Interests	Strengthen marriage management and safeguard women's freedom of and rights in marriage; enhance women's participation in politics and increase the proportion of female members in village (neighborhood) committees; build rural nursing homes and improve the management and service levels of nursing homes; strengthen social work and provide relief for the underprivileged elderly; transform social traditions and make changes to funeral and inheritance patterns.





Department	Main Duty	Description of Duty
Labor and Social Security	Women's Employment	Formulate and improve policies and measures to promote gender equality in employment and equal pay for equal work; strengthen employment training and the employment rate of women.
Agriculture	Women in Rural Areas	Strengthen practical technical training for rural women; support rural women to participate in economic activities; safeguard women's legitimate rights and interests in rural land contracting; encourage township and village-based enterprises to recruit and hire female workers and to ensure equal pay for equal work.
Health	Hospital Management	Establish and improve the technical specifications for fetal sex determination technologies, abortion procedures, and the use of abortion drugs; implement strict monitoring of any medical personnel in charge of performing ultrasonography procedures in hospitals; strengthen the supervision of medical institutions; establish and refine the information management system for prenatal healthcare, abortion services, and contraception; follow through with a live birth statistics system and stillbirth registration/reporting system for hospitals; properly carry out the information communication with the family planning department.
Statistics	Data Statistics	Survey and take statistics of national and provincial SRBs, analyze the development trend of SRB, and establish a system for reporting the gender of the newborn population.
Medical Products Administration	Drug Administration	Establish a stringent management and supervision system governing the circulation of abortion drugs and carry out regular inspections; prohibit the unrestricted sale of abortion drugs on the market.
Women's Federation	Empowering Women	Formulate policies and measures to safeguard women's rights and interests to improve the social and economic status of women; increase and strengthen the training of women regarding knowledge, skills, and employability to improve their skills; carry out women empowerment projects to promote gender equality.

Diversified SRB Reduction Efforts

Charity federations in some provinces have established "Caring for Girls" foundations for the education and healthcare of underprivileged girls through title sponsorship, which are specifically used for funding.

Some folk art groups organize regular large performances related to "Caring for Girls".

Some professional academic groups (such as the China Population Association) organize academic seminars and solicit articles related to "SRB reduction".





3. Monitoring, evaluation, and accountability mechanisms

The advantages supporting the Chinese government's great implementation capabilities are its extensive monitoring, evaluation, and accountability processes. Some important tasks were implemented through mechanisms such as the "chiefs of the party committee and government spearheading the actions and taking full responsibility", the "target management responsibility system" and the "veto system". The "target management responsibility system" means that monitoring and evaluation will be carried out in strict compliance with how well the targets are met. The "veto system" means that regardless of how well officials or cadres may perform in other areas of responsibility, if the task of SRB reduction is not completed correctly, they will be held accountable, which may impede their promotion.

SRB reduction has been incorporated into the population target management responsibility system, which stipulated that party and government officials, pertinent responsible authorities, and the competent population and family planning departments will each be evaluated separately on their diligence in work, the process of work, and the results of control efforts. Additionally, the "veto system" was adopted. The superior authority would monitor, evaluate, and assess the subordinate departments' work progress. For example, in 2011, NPFPC promulgated the Measures for the Assessment and Evaluation of the Work to Curb Skewed SRB in the 12th Five-Year Period, which detailed the work assessment indicators for each province during the "12th Five-Year" period. The corresponding evaluation and assessment outline would be created and circulated every year from provinces to cities, from cities to counties, and from counties to townships/sub-districts.

Given that the degree of SRB imbalance, the level of socioeconomic development, and the cultural settings varied from province to province, SRB reduction followed a strategy of classified guidance and focused control. At the national level, provinces with the highest SRB were designated as "Key Provinces for SRB reduction" to strengthen guidance and supervision, such as organizing special supervision and leadership interviews. At the provincial level, administrative divisions were classified by SRB and assigned different assessment indicators and criteria. Many administrative divisions also attempted to identify population groups who were more likely to attempt fetal sex selection to strengthen publicity, education, and services.

There have been long-standing disputes over the targets and indicators for assessing the work of SRB reduction. Should the assessment focus on the processes or outcomes of the work? What assessment indicators and methods should be used? Inappropriate assessment indicators and methods will only produce negative results. For instance, using the SRB value as a key assessment indicator could increase the likelihood of data manipulation, which could ultimately conceal the facts. The root cause of skewed SRB lies in son preference, and a shift in





this preference cannot be achieved within a short period. Therefore, more emphasis should be placed on the evaluation and assessment of the processes rather than the outcomes.

4. Awareness Raising and Capacity Building

Gender equality awareness at all levels of policymakers and officials, as well as their understanding of skewed SRB, directly influence whether they can be gender-sensitive in initiating and implementing relevant policies. Although “gender equality” remains a fundamental national policy in China, a wide range of economic, political, and cultural policies lack a gender perspective, and the majority of officials and cadres are unaware of the issue. In order to raise awareness of distorted SRB among cadres at all levels, the Chinese government frequently takes advantage of meaningful days (such as “International Girls’ Day”) to carry out advocacy activities, during high-ranking officials are invited to draw their attention to skewed SRB in China.

In China, all levels of government officials need to study various governance philosophies and methods in the "party school" (or "administrative academy") from time to time. This has made the party school an important place to spread the notion of gender equality. Since the 1990s, party schools have begun to add SRB-related content into the original course of "Demographic Facts". Influenced by the 1995 World Conference Women, party schools at all levels have increased their gender and public policy courses to include topics such as eliminating gender discrimination in employment, preserving women’s work rights, protecting rural women’s land rights, and boosting women’s political engagement. Gender-related courses given in party schools have strengthened policymakers’ and officials’ gender sensitivity, raised their knowledge of the unbalanced SRB, and fueled the passion for SRB reduction.

In addition to raising awareness and capacity-building activities carried out in China, the Chinese Government has also organized international exchange activities related to SRB reduction. Given South Korea's success in bringing down SRB, in the period from 2005 to 2013, then NPFPC successively organized several rounds of study tours for provincial and municipal government officials to study SRB reduction in South Korea. UNFPA's 5th to 8th country programs in China (2003-2020) all took the exploration of SRB reduction, enabling policies, and gender equality in service management as the main components beyond efforts to strengthen the capacity building in grassroots officials.





SRB Reduction Efforts Supported by UNFPA

In the fifth (2003-2005) and the sixth (2006-2010), country programs kicked off by UNFPA in China, "gender equality" was incorporated into the overall project framework and implemented independently as a separate component. At the national level, a variety of gender equality advocacy and training activities were organized; a guidebook on how to integrate gender equality into population and family planning management and services was developed; a collection of cases was compiled, and efforts were made in 30 project areas to engage policymakers and managers in gender equality awareness promotion activities.

In the seventh (2011-2015) and the eighth (2016-2018) country programs launched by UNFPA, "SRB reduction" was included as a part of the Program and the "top-down" advocacy and policy shift was integrated with "bottom-up" community mobilization. CP7 kicked off relevant activities in 3 counties plagued by skewed SRB, while CP8 expanded the number to 6. The Program strived to promote gender mainstreaming at the county level, create a cultural atmosphere of gender equality at the community level, push forward the revision of gender-discriminatory village regulations, raise the economic and family status of women, and advocate the equal division of work.

5. Resource Allocation

Governments at all levels have provided financial support for SRB reduction was included in the budget for population and family planning initiatives in the 1990s and was not funded separately. As China's SRB increased, particularly with the national launch of the "Care for Girls Action," SRB reduction has received a great deal of attention, and a special budget has been set aside at the national level to ensure its consistent support. The national budget is mainly used to carry out national-level publicity and advocacy, capacity building, policymaking research, and monitoring and evaluation. The respective provinces, cities, and counties would also set aside the corresponding fund from their budgets.

(III) Specific Practices of SRB Reduction

1. Publicity and Education—Addressing Son Preference

Son preference is the primary cause of distorted SRB. As a result, addressing son preference and developing gender equality awareness is the main strategy to alleviate the problem of imbalanced SRB. The Chinese Government launched the campaign "Bringing a new marriage and childbearing culture into 10,000 households" in 1998 and the "Care for Girls Action" in 2003 to promote gender equality and to propel a shift in traditional notions.

Targeting couples in their best reproductive ages and family members that could influence their fertility decisions, the publicity and education efforts mainly included public service advertisements (slogans and videos), art performances, billboard slogans, and publicity through various media. Performance evaluations, mass symposiums, amendments to village regulations,





and other activities participated by a majority of the population were also arranged to promote gender equality.

The content of the publicity included policies and regulations on gender equality, preferential policies for daughter-only families, the harmful consequences of skewed SRB, and the ban on "illegal fetal sex determination and sex-selective abortion". Such publicity campaigns were aimed at addressing son preference by circulating the following notions: a son may not necessarily provide care for the elderly; both son(s) and daughter(s) are descendants; both son(s) and daughter(s) can follow the mother's family name; daughter(s) can inherit property; daughter(s) can develop talents and skills, and daughter(s) can be emotionally closer to parents. To propel a shift in the post-marriage living pattern, efforts were made to encourage husbands to live with their wives' families.

Cultural sensitivity was taken into account in both content and style of publicity. In ethnic minority communities, public information was delivered in native languages and cultural forms treasured by the local populace. For example, Guangxi Zhuang Autonomous Region has incorporated the content of gender equality into local folk songs to be sung everywhere¹⁰.

Many traditional customs have the phenomenon of "preferring a son to a daughter", which has resulted in boys and girls being treated differently in family and community activities. These deeply ingrained customs impose a significant amount of "pressure" on daughter-only families. These traditions can also lead to a certain degree of bias against these families.

Village regulations are the rules discussed and adopted by villagers for managing village affairs. Taking the opportunity to revise village regulations, some villages have added gender equality provisions to eliminate gender discrimination in folk customs, such as the provision of "while men and women shall have the freedom of marriage, either families with only daughters or those with both son and daughter can take in son-in-law, who shall enjoy equal treatment as the native villagers". Moreover, some newly revised village regulations have included provisions to safeguard women's rights and interests, such as "divorced and widowed women shall also enjoy equal treatment as native villagers when they return to their natal homes", "both daughters and daughters-in-law shall enjoy equal land rights", etc.

¹⁰ UNFPA China Office, China Population and Development Research Center (CPDRC), *Addressing Gender-Biased Sex Selection and Skewed Sex Ratio at Birth in China: Case Summary, 2018*.





Grassroots Practices to Transform Social Traditions

A women's firecracker dragon team has been established in Binyang County, Guangxi Zhuang Autonomous Region, putting an end to the millennium-long tradition that the "Firecracker Dragon Dance" is reserved exclusively for men. A women's dragon boat team was also founded in Huangmei County, Hubei Province to transform the tradition that only men can participate in the dragon boat race.

In Anxi County, Fujian Province, the custom of holding a banquet to celebrate the birth of a son has been changed to the custom of holding a banquet to celebrate college admission, so that daughter-only families can also participate in various rituals of the clan. Women's accomplishments can now be included in the clan's list of merits and virtues, list of able people, list of successful people, list of role models, and list of longevous people. Lantern ceremonies were once held during every major traditional festival, with the number of lanterns representing the only number of boys. This practice has been abandoned completely.

While the "filial piety" culture is prevalent in China, the fertility behaviors of reproductive-age couples are often influenced by the elderly, who generally prefer grandson to granddaughter. Chaohu City, Anhui Province, arranged a "mother-in-law symposia" in villages, inviting mothers-in-law to discuss the reasons why they want a grandson, and encouraging those mothers-in-law who do not have a preference to express their viewpoints in an attempt to sway the other mothers-in-law to rethink their preferences for having a grandson. Some villages also launched "Exemplary Mothers-in-Law" selection activities to commend those elderly women who do not prefer grandson to granddaughter.

By promoting gender equality and creating an enabling social atmosphere for gender equality, these publicity and education activities are gradually weakening people's preference for sons. A shift in the long-rooted tradition cannot be achieved overnight. It entails a large amount of publicity and education. However, the evaluations of these publicity and education activities are relatively inadequate in China, not to mention the effect evaluations of publicity and education activities that target different groups of people and employ different approaches. Moreover, a majority of publicity campaigns target women rather than men, disregarding the fact that men do play an important role in fertility decisions.

Revision of Village Regulations: A Gender Revolution in a Chinese Village

Since 2011, UNFPA has carried out the project "Addressing Gender-Biased Sex Selection and Skewed Sex Ratio at Birth" in certain regions of China and the project of "Revising Village Regulations to Promote Gender Equality" in pilot areas to transform customs and benefit distribution rules that have a direct influence on villagers, thereby weakening the preference for a son.

Changfeng County, Anhui Province is one of the project counties. Anfeitang Village, Xiatang Township of this county is a traditional agricultural village, and there was a widespread preference for sons in the village. Since the implementation of this pilot project, Anfeitang Village has made several attempts to amend the village regulations and to include content related to the protection of women's rights and interests and the





2. Benefit-Oriented Policies—Giving More Benefits to Daughter-Only Families

The cost-effectiveness theory of childbearing reveals that when the benefits (economic benefit, spiritual benefit, and other benefits) of having a son outweigh the benefits of having a daughter, son preference may surface. As a result, by enacting laws that provide aid or compensation to daughter-only households, the benefit gap between families due to gender differences in children could be decreased, so affecting the behaviors and decisions of individuals and families.

From the early 1980s and 1990s to the beginning of the 21st century, the behavior of families to "have more children" was generally intended to satisfy their son's preferences. Therefore, weakening son preference can also help limit the number of births. Benefit-oriented programs to address high SRB and limit the number of births frequently overlapped. The provincial and municipal (county) administrations were primarily responsible for enacting and enforcing these policies. The funds required for policy implementation mainly came from the government, and sometimes came from enterprises and civil organizations.

These policies targeted individual females of different ages, including daughter-only families. In some areas, the policy design distinguished between families with two daughters and families with one daughter only. Men living with their wife's families are often discriminated against because of the traditions of patrilocal residence, and thusly benefits have been extended in some regions to homes in which the husband resides with his wife's family. These policies were mainly intended to give women preferential treatment in terms of schooling, employment, financial aid, pension, land, and housing.

Taking student financial aid as an example, because college tuition is covered in totality by the family, many provinces have developed student assistance programs to aid women admitted to college who come from impoverished backgrounds. For instance, from 2014 to 2017, Hubei Provincial Health and Family Planning Commission teamed up with Hubei Family Planning Association to launch the "Student Assistance Action to Help Girls from Families Practicing Family Planning". The family planning departments and family planning associations at all levels across the province raised more than RMB 80 million to help more than 40,000 girls realize their college dreams¹¹. In addition to the one-off financial aid, a follow-up tracking and contact system has been instituted for aid recipients to recruit them as volunteers to participate in the "Caring for Girls" activities, thereby inspiring more girls, passing on the "torch" and broadening the influence of this initiative.

11 Source: *Mid-term Evaluation Report on the Implementation of the 13th Five-Year Plan of Hubei Province on Comprehensively Addressing the Skewed SRB.*





In the sphere of employment support, each province followed different policies and practices. For example, some local governments paid for the personal contributions of endowment insurance; some paid for the supplementary medical insurance for daughter-only families; and some provided employment assistance beyond livelihood assistance by offering vocational skill training for daughter-only families - not only could they participate in training at no cost, they received priority access to government-subsidized micro-loans to grow the family business.

In the sphere of living support, these policies were intended to improve the quality of life and the well-being of daughter-only families. For example, some provinces have introduced health benefits packages for daughter-only families, who can enjoy an increased number of health checkups for girls in addition to the basic public health services prescribed by the government. Some provinces have mandated that the parents of daughter-only families can be granted priority admission to government-run nursing facilities, while others have given prioritized daughter-only families during resettlement.

Leaning towards girls and daughter-only families, these policies were gradually narrowing the gap between the benefits of having a son and the benefits of having a daughter, and have hence achieved fruitful results. However, due to the lack of systematic design, these policies were established, and executed by the respective provinces themselves, resulting in scattered policies, some of which have resulted in disputes.

To begin with, whether these policies can change son preference is dependent on several aspects, including whether these benefits can successfully address the desire for a son, the magnitude of benefits, and the anticipated reliability of such benefits. There are economic, cultural, psychological, and institutional reasons that lead to son preference and fetal sex selection. The short-term benefits and the long-term ones, as well as the benefits of different aspects, could have different effects on people's fertility decisions. From the magnitude of benefits, these policies are beneficial compensation for daughter-only families, but they might not be enough to make up for the "benefit losses" suffered by daughter-only families, and therefore might fail to change their fertility decisions (Tang Mengjun et al., 2009).

Secondly, such social policies might lead to new social injustice. For example, from 2009 to 2016, Hubei Province implemented a favorable scoring policy targeting single daughters from rural areas in the college entrance examination, and cumulatively 116,000 single daughters from rural areas got 10 bonus points during the college entrance examination¹². While the college entrance exam is known as an open and transparent academic competition, this 10-point gap

¹² Source: *Mid-term Evaluation Report on the Implementation of the 13th Five-Year Plan of Hubei Province on Comprehensively Addressing the Skewed SRB*.





could lead to huge differences in admission results. When parents' reproductive choice could increase the chance of their children's access to higher education, the pre-endowed family background takes precedence over personal academic efforts, thereby creating a new form of injustice. This policy was later revoked.

Therefore, in fundamental respects, empowering women requires carrying out top-level design and giving comprehensive consideration to these benefit-oriented policies—taking into account the short-term and long-term effects, socioeconomic and cultural context, national and local perspectives, and the developmental needs of women of different age brackets. One must also consider the feasibility and sustainability of such policies, and carefully evaluate their negative or unexpected consequences.

3. Crackdown on "Illegal Fetal Sex Determination and Sex-Selective Abortion" – Cut Off Access to Technical Services

Fetal sex determination and sex-selective abortion are two key technical factors underlying the skewed SRB. Since the 1980s, the Chinese Government has rolled out a succession of laws and regulations to "stop illegal fetal sex determination and sex-selective abortion" (please see above) and launched severe crackdowns.

"Stopping illegal fetal sex determination and sex-selective abortion" fully demonstrates the close collaboration among multiple government departments. These two practices are extremely covert and challenging to identify, examine, and gather evidence for. To combat these factors, certain provinces with unusually high SRB formed a "Special Working Group for Stopping Illegal Fetal Sex Determination and Sex-Selective Abortion," led by a high-ranking official, and comprised officials from government departments overseeing justice, public security, health, family planning, drug administration, and discipline inspection. Different departments are designated with different responsibilities, and major cases will be handled through joint actions mobilized and coordinated by high-ranking officials.

(1) Strengthened management of medical institutions and medical staff, and discipline of those engaging in "illegal fetal sex determination and sex-selective abortion". To begin, efforts have been taken to strengthen the publicity and education of medical personnel, who have also collectively signed a letter to enhance the self-discipline of medical staff. Secondly, relevant laws and regulations stipulate that institutions and any person engaging in "illegal fetal sex determination and sex-selective abortion" shall be ordered to correct the illegal behavior and receive administrative consequences based on the severity of the offenses, or to have all illegal profits confiscated and penalized 2-6 times the amount of income that was generated by engaging in this illegal activity. If the circumstances are severe, the offender's "Medical Institution





Practicing License" or medical license shall be revoked. If a crime is committed, the offender shall be prosecuted for criminal liability.

(2) Strict management of fetal sex determination and pregnancy termination drugs, and strict control over induced abortion after 14 weeks of pregnancy for non-medical purposes. Specific steps include forbidding the sale of secondhand ultrasound machines, requiring ultrasound machine registration and filing, and putting warning notices in areas where the ultrasound machine is utilized. The competent authorities regularly conduct special inspections of pregnancy termination drugs and devices in pharmacies and medical institutions, to check the management and use of pregnancy termination drugs, while further efforts have also been made to improve the management system for pregnancy termination drugs. Banning the advertising and promotion of "illegal fetal sex determination and sex-selective abortion" through the media and internet, the Chinese Government has removed all related advertisements and online posts.

China does not prohibit induced abortions within 14 weeks of pregnancy, provided that such abortion is the free will of pregnant women. However, after 14 weeks of pregnancy, induced abortions are subject to a report and approval system, and require a medical diagnosis opinion issued by a medical institution at the county level or higher, stating that continued pregnancy could seriously endanger the lives of the pregnant woman and fetus, or that the fetus suffers from any genetic diseases or physical defect. Only after obtaining the approval of the family planning authority can the medical institution perform induced abortions, and there must be a rigid certificate verification, registration, and reporting system.

(3) Discover cases of "illegal fetal sex determination and sex-selective abortion" by mobilizing the masses, strengthening the scrutiny of medical institutions, and combining efforts with prenatal care. During the provision of prenatal care, the monitoring of "illegal fetal sex determination and sex-selective abortion" has been strengthened. The grassroots team has quadrupled its services to critical groups, encouraging them to have prenatal examinations and actively educating them about relevant legislation to detect any suspicious induced abortions. Many local governments have announced telephone numbers and e-mail addresses for the incentive-driven reporting of "illegal fetal sex determination and sex-selective abortion", thereby promoting self-monitoring among the masses, while others have established an inspection team composed of officials from family planning, health, drug administration, and disciplinary inspection departments to regularly inspect medical institutions, to inquire medical staff, to check the records of obstetric and gynecologic outpatient departments, outpatient pharmacies and ultrasound rooms, and to examine medical wastes, thereby unveiling traces of "illegal fetal sex determination and sex-selective abortion".





(4) Strengthen regional cooperation, establish an information management system for "illegal fetal sex determination and sex-selective abortion" and strengthen the dynamic management of relevant cases and offenders. While cases involving "illegal fetal sex determination and sex-selective abortion" are particularly difficult to investigate and collect evidence on, the fact that these offenses are generally committed across jurisdictions makes it even more difficult to investigate and collect evidence on such cases. Against this backdrop, inter-provincial and inter-municipal collaborations have been carried out to facilitate and enhance the efficiency of investigation and evidence collection.

In 2013, building upon the successful pilot project carried out in Anhui Province, the Chinese Government established a nationwide case management system for stopping "illegal fetal sex determination and sex-selective abortion", which has become an effective tool for systematically overseeing relevant offenses and facilitating regional collaborations in investigations. With local authorities uploading cases into the information system, the workflow of investigating such cases has been further standardized and the real-time tracking, monitoring and statistical analysis of the entire workflow have also been made possible. If the case crosses into other jurisdictions, the authority in the other jurisdiction can instantly learn the details of the case via the information system, thereby facilitating online case transfer and coordinated case investigation.

Some provinces have also set up a database and a backlist of medical institutions and individuals committing "illegal fetal sex determination and sex-selective abortion" and included such offenses into the social credit system, while others have established and improved the offense disclosure system of publicly exposing the offenses in the publicity media, thereby increasing the cost of offenses.

(5) Discussion of Effects

Since the root cause of distorted SRB lies in fetal sex selection, it is particularly imperative to put an end to "illegal fetal sex determination and sex-selective abortion". If we count entirely on publicity, advocacy, and benefit-oriented policies without making stringent moves, it would be impossible to quickly reduce and curb the acts of fetal sex selection. In cracking down on "illegal fetal sex determination and sex-selective abortion", China has taken a variety of administrative and legal measures and imposed penalties to exert strong discipline on medical institutions and individuals.

It should be noted that these stringent measures taken by the Chinese Government only target fetal sex determination and sex-selective for "non-medical purposes". Ultrasound equipment, as well as other required medical tools and pharmaceuticals, are nonetheless frequently used without jeopardizing people's legal access to high-quality medical care. Only induced abortions





after 14 weeks of pregnancy will be subject to strict monitoring, and the autonomy in induced abortions within 14 weeks of pregnancy and access to abortion services are still available in China.

It must be pointed out that there remains a gap between the real effects and the expected effects of combating "illegal fetal sex determination and sex-selective abortion" (Song Jian, 2009; Zheng Youqing et al., 2007; Yang Xueyan, Li Shuzhuo, 2013). On the one hand, under the existing laws, except for imposing a fine and revoking the medical license, it is difficult to prosecute offenders for liability, and such relatively mild penalties cannot help restrain and alarm relevant acts (Tang Zhaoyun, Ma Lin, 2011). Due to the low cost of offenses, as long as there is demand, the acts of "illegal fetal sex determination and sex-selective abortion" won't be eliminated. On the contrary, investigating such illegal activities entail a myriad of manpower and material resources, leading to high administrative costs. From the perspective of the offenders, in the context of severe measures, the costs for them to commit these acts have become higher, thereby further concealing the illegal acts.

On the other hand, new technologies that have emerged in recent years have the ability to successfully identify the fetal sex within 10 weeks of pregnancy, making fetal sex determination and sex-selective abortion difficult to discover and thus basically disabling the original administrative measures.

4. Birth Data Improvement—Enable Scientific Policymaking

The annual number of births has surpassed 10 million in China. The household registration system implemented in China is not only a basic national administrative system but also an effective means of population management. This system gathers, validates, and records fundamental information on citizens such as birth, death, family, and legal residence. Nevertheless, as a developing country with a vast population of 1.4 billion, it is not easy to obtain accurate birth data. In the 1980s and 1990s, birth underreporting, concealing, and misreporting were some of the causes underlying the high SRB.

There are diverse reasons for the deviations in birth data. While household registration in the past was mostly voluntary on the part of parents, it was not linked to specific social advantages. Moreover, babies born in violation of the fertility policy were generally disqualified from household registration, hence the parents were likely to conceal, misreport or postpone the birth reporting of their babies.





Other Three Sources for Birth data Beyond the Household Registration System:

The National Bureau of Statistics organizes a national population census every 10 years, 1% population sample survey every 5 years, and a population sample survey every year. These are all important sources of birth data. Still, there might be underreporting, concealing, and misreporting in the lower age group during the population censuses, and there might be sampling bias during sample surveys.

Medical and health institutions will record the information of mothers and their babies delivered in the hospital, while the birth medical certificate issued will also register the relevant information of the newborn. Hospitals have no cause to conceal or underreport female births, hospital data is without a doubt extremely valuable for SRB-related research. Nonetheless, while the hospital delivery rate hovered around 50% in the early 1990s, it has recently risen in recent years to nearly 100%.

The family planning administration collects birth information through the family planning cadres of each village (neighborhood) committee, and the birth data so collected is reported level by level. However, over the past 30 years, the birth data has been tied to family planning assessments, thereby pushing up the possibility of data falsification.

On the other hand, birth data collection methods, statistical caliber, and data sources differ from one government department to the next. It was difficult to avoid misreporting and underreporting during the era of manual registration. Finally, population mobility has raised the likelihood of underreporting and repeated reporting.

Before 1990, information about infants was mainly registered manually and maintained in the form of written files. After the 1990s, with the burgeoning development of computer and network technology, all kinds of government work embarked on the track of computerized and IT applications. With various government departments successively establishing their information systems, since 2000, birth data has been gradually computerized, eliminating errors in manual summarization and statistics while simultaneously making data analysis more convenient.

The data between different population information systems were not interconnected, the government departments established a data collaboration mechanism and regularly exported data for comparison. Over the last ten years, many government agencies' population information systems have accelerated the enhancement of data quality, with data transmission and exchange interfaces built to meet the demand for comparing and assessing data from multiple sources.

Since the 2015 adjustment to fertility policy, the focus of government assessment has shifted to the accuracy of birth data, with any underreporting, concealing, or misreporting of births resulting in deductions from the final assessment score, and thus the quality of birth data has gradually improved. After 2013, medical and health institutions stepped up their data sharing with family planning departments, thereby eliminating the data barriers and further enhancing the quality of birth data.





Improving the authenticity and accuracy of birth data is conducive to reflecting the true status of SRB. However, considering that the quality of birth data has little impact on China's SRB, measures to improve the quality of birth data will only play a minor role in reflecting the SRB reduction.

National Demographic Information Database

As one of China's five major basic information databases, the National Demographic Information Database was completed and put into use in 2017. The database maintains more than 1.4 billion entries of effective demographic information covering 13 data items, of which the collection rate of 7 data items has reached 100%, thereby initially achieving the comprehensive management of China's demographic information. Aimed at facilitating data sharing among multiple ministries and commissions, the construction of this national database was led by the Ministry of Public Security and participated by the Ministry of Education, the Ministry of Civil Affairs, the Ministry of Human Resources and Social Security, and the National Health Commission. It covers the entire Chinese population and takes the ID card number as the unique identifier. The database ensures the consistency, accuracy, completeness, and authority of national demographic information through joint maintenance and multi-source verification by participating authorities, and addresses the authenticity and validity issues that previously existed when the respective departments collected and maintained birth and death information using their methods.

How is Demographic Information Collected and Managed at the Grassroots Level in China?

In Chaohu City, Anhui Province, village cadres are quite familiar with the operations of the "Anhui Province Demographic Information Comprehensive Service Platform" and the "Hefei City Full-Population Service Platform". The former platform provides demographic information about each household down to the village level, including such basic information as the birth date, marital status, and residence of all family members. In addition to the basic information, village cadres can also check the gender, birth method, gestational age, birth weight, and other information of each child by clicking on the "Birth Information" section certain child. Within one week after the birth of each newborn, the village cadres will record into the system the information they have collected in the village. The latter platform will combine the mother's hospital delivery information, the public security authority's household registration information, and the civil affairs authority's marriage registration information, and then compare countywide birth data from all sources based on registered permanent residence each month. If any omissions or errors are found, the township/sub-district shall notify cadres from respective villages and communities to verify the information and re-input the correct information into the system after verification.

"Multi-source data, regular data comparison and grassroots verification" have jointly increased the accuracy rate of the local birth data to as high as 98%. The occasional inaccuracies of birth data mainly result from the delay in data update (for example, the registered permanent residents have left home to work in cities), and the entry and exit of residents.





V. Experience and Challenges

(I) Experience

In 2011, OHCHR, UNFPA, UNICEF, UN Women, and WHO jointly issued the "Preventing Gender-biased Sex Selection: An Interagency Statement" (OHCHR, UNFPA, UNICEF, UN Women and WHO, 2011), which puts forward several key recommendations for action: 1) more reliable data and research results; 2) Ensure that fetal sex determination and induced abortion technologies are used responsibly, fairly, and safely, while also ensuring women's access to safe abortion and other reproductive health services; 3) supportive measures for girls and women; 4) policies and laws that promote gender equality; and 5) extensive advocacy, communication and community mobilization.

While remaining consistent with the above recommendations put forward by the international community, China's SRB reduction measures also illustrate distinctive Chinese characteristics. These practices are rooted in China's realities and the long-term explorations of China. China's practices are not necessarily applicable to all other countries. It is hoped that other countries can come up with a response strategy best fit for their national realities by extracting the positive aspects from such practices.

1. The Chinese government's commitment and strong implementation capabilities

The Chinese Government, fully aware of the negative repercussions of the long-standing SRB imbalance, places a high priority on SRB reduction. A strong government commitment is required for effective SRB reduction.

In addition to the strong commitment, the Chinese Government also takes pride in its effective administrative system, which has led to its successful governance outcomes. The Chinese Government has pushed academia to active participation in the research into the root causes and control of the skewed SRB. Through strengthened comprehensive coordination, China has taken SRB reduction as one of the duties of relevant government departments, while different sectors of society have also been mobilized to take part in SRB reduction, making it a top-down initiative participated by the whole society. The "Care for Girls Action" has launched a gender equality public awareness campaign across the country, fostering a social environment that values women and girls. The promulgation of relevant laws, policies, and regulations has also provided the legal framework and working guidelines for SRB reduction. The direction and requirements of SRB reduction have also been clarified by incorporating SRB reduction into the





development plan and creating a working timeline. By dividing work tasks and assigning them to administrative units level by level, all tasks have been well implemented under organizational, manpower and funding support. Progress monitoring, evaluation, and accountability mechanisms also ensure that all measures are in place.

Although the Chinese Government follows a unique governance model, it does not necessarily mean that effective SRB reduction is only possible under the governance model of China. South Korea and Georgia, both of which have effectively brought down their SRBs, have their distinct governance regimes. In short, the government's strong commitment, scientific policies, and effective governance capabilities are all conducive to controlling the distorted SRB.

2. Special actions to curb the skewed SRB in conjunction with the promotion of socioeconomic development

The decline in China's SRB can be attributed to the burgeoning socioeconomic development in the same period. Promoting gender equality and narrowing the gender gap is the fundamental way to weaken son preference and bring down SRB. A thriving socioeconomic development can help to propagate the concept of gender equality and contribute to lifestyle modernization, weakening the socioeconomic foundation behind son preference. Among others, urbanization and industrialization have shaken the material basis underpinning the values regarding men as superior to women in the agricultural society, and the improvement of women's education level and the awakening of gender equality awareness have made women the vanguard of breaking gender discrimination and fighting for equal rights. The advancement of notions and awareness, driven by socioeconomic development, has undoubtedly propelled the weakening of son preference.

Although socioeconomic growth has undoubtedly played a significant role, the decrease of SRB would occur only later if appropriate special efforts were not taken to control the natural evolution of SRB. China's experience is to launch special actions across the country to address SRB imbalance while promoting rapid socioeconomic development and broadly empowering women. Marked by the "Care for Girls Action", China has transformed SRB reduction into a strategic plan to ensure broader mobilization of relevant resources and strengthening control efforts. Although it's difficult to determine through a quantitative evaluation which of the socioeconomic development and special actions is more important in taming the distorted SRB, China's experience reveals that both are indispensable— the former had resulted in a weakening of son preference and a reduction in fetal sex selection, whereas the latter had expedited these changes.





3. Comprehensive policy design and phased, classified policy implementation

China's policies and measures to curb SRB are relatively comprehensive. SRB reduction is spearheaded by the Central Government and participated by multiple government departments and a mass of market and social organizations. From the standpoint of SRB reduction approaches, restrictive and direct actions to prevent "illegal fetal sex determination and sex-selective abortion" were supplemented by the directive and indirect publicity and advocacy efforts and benefit-oriented policies to address both "symptoms" and root causes. These comprehensive efforts not only addressed underlying causes of son preference and expanded the benefits available to daughter-only families, but they also helped to limit the spread of "illegal fetal sex determination and sex-selective abortion". Such a systematic and comprehensive policy design can give full play to its synergistic effect.

In addition to the comprehensive policy design, another aspect that distinguishes China from its peers is that China's SRB reduction followed a strategy of classified guidance and focused implementation. Regional variances are unavoidable in a remarkable country like China with a vast territory and large population, and the degree of SRB imbalance differs between each province. In carrying out classified SRB reduction for different provinces, the Chinese Government had listed provinces with unusually high SRBs as key targets submitting to relatively stringent control measures and strengthened supervision and assessment. Each province needed to analyze the causes of the incorrect SRB based on its actual situation and adopted targeted measures and policies. Population groups that were inclined to attempt fetal sex selection were also identified for strengthened education and services.

As a country with significant regional and demographic differences, China has also adopted the strategy of phased implementation. Initially, China only conducted pilot projects in particular counties. After evaluating the project experience and determining that it was promotable and sustainable, China adjusted the project level and upgraded it to a province-wide action, which finally became a national strategic action such as the "Caring for Girls Action." Such a model of project implementation and promotion can not only ensure that the project experience remains concrete and viable, but also that it lay a solid foundation for the successful implementation of the final national scheme.

(II) Challenges

Although China's SRB has embarked on a downward trend, it has yet to fall to a normal level and remains relatively high on a global scale. In recent years, China's SRB has slowed its decline amid subtle fluctuations, and the decline of SRB remained particularly slow in certain provinces. On a national scale, regional differences remain significant. Due to the varying developmental levels and cultures within provinces, it's unlikely China's SRB will return to the normal level.





This points to the fact that SRB reduction is far from over in China but is ushering in a crucial stage of strategic adjustment. SRB imbalance is becoming increasingly intertwined with many emerging phenomena, such as low fertility rate, changes in family structure, population aging, urbanization, and transnational migration, as China's socioeconomic development, gradual relaxation of fertility policy, and ever-thriving international exchanges and cooperation continue. It has become a lot trickier and is also exerting a more profound influence on social security and socioeconomic development. Looking beyond, China is still faced with a myriad of challenges in taming its skewed SRB.

1. The tradition of patriarchy won't see a radical change in the short run. The awareness of gender equality has not been reflected in all policies, approaches, and services. Women still face unfair and unequal treatment in public and private spheres such as employment and family, and "hidden discrimination" remains. Although female students currently outnumber male students in the freshman class, female graduates suffer greater challenges than their male counterparts in getting work, and it is not uncommon to see men and women receive vastly different remuneration for equal labor. Women account for a relatively high proportion in the grassroots administrative units, it's quite rare to see women serving as senior executives in the company or as high-ranking officials in the government. While doing most of the housework in the family, women also suffer from the "motherhood penalty" that curtails their incomes, promotion, and career development. Rural women face severe problems regarding land loss and land rights. There are still many gender inequalities in traditional customs, and it's difficult to eliminate them within such a short period. As long as the fact of gender inequality remains, the motives underlying son preference will not perish.

2. The effects of China's long-standing high SRB are beginning to emerge. The Chinese government is ill-prepared for the implications of high SRB, focusing its current efforts on resolving the core causes of distorted SRB and paying little attention to vulnerable populations affected by these phenomena. The long-standing high SRB has led to a large number of missing females. It's estimated that 9.2 million females were missing in the birth cohort of 1980-2000 alone in China (Jiang Quanbao, 2005). China's SRB continued to linger at a high level after 2000, leading to a larger number of missing females in the corresponding birth cohort. Facing the largest number of missing females in the world, China is bound to suffer severe consequences more than other countries. In the next 40 years, China will face a gender-imbalanced society full of the unknown.

The missing females have brought adverse consequences to the marriage market and other aspects of social and economic life. First, the gender imbalance is eroding the gender structure and jeopardizing the Chinese population's long-term balanced development, which would impede growth in the economy. Women are the primary carriers of reproduction, a lack of





women, in general, could lead to a decrease in the number of reproductive-age women in the near future, exacerbating the danger of low fertility, negative population growth, and diminishing the future working population, impeding sustainable economic growth. As important manpower, women are not only playing a crucial role in society but also undertake a lot of care work in the family. The shortfall in women would lead to a growing gap in nursing staff amid China's population aging. Skewed SRB is aggravating the risks facing family development. At the macro level, it would, in conjunction with the trends of fewer children and population aging, diminish socio-economic resources and labor resources, and undermine wealth creation capabilities

Second, the decrease in women is aggravating the marriage squeeze that males are currently facing, especially men living in poverty-stricken areas. The rapid growth of single men could pose challenges to China's social tradition of universal marriage, hasten the changes in the marriage system and bring invisible threats to social security. Statistics show that the surplus of males aged 20-49 in China would top 30 million in 2025, 40 million in 2035, and 44 million in around 2040 (Chen Youhua, 2004). Under the triple effect of the excessive surplus of males in the marriage market, population migration, and the tradition of "betrothal gifts", those young single men in poverty-stricken areas would be faced with greater difficulties to get married (Zheng Xiaoru et al., 2013).

When the SRB of the population aged 15-29 increases by 0.01, the crime rate will go up by 3.03% (Jiang Quanbao & Li Bo, 2011). Skewed SRB will lead to an increase in men visiting prostitutes (Yang Xueyan et al., 2013). In rural areas, the incidences of male-to-male sex have also increased (Yang Xueyan et al., 2012). Without greater awareness of safe sex, a rise in such sexual activities would certainly raise the risk of STD infections, including HIV. The surge in the number of single males will put greater pressure on support and care for the elderly. Presently, China's old-age security system is far from perfect, and families still carry most of the financial burden of caring for the elderly. Without family members and children to care for them in their old age, single men will increase the burden of social support for the elderly and may ignite a crisis (Lu Jiehua & Zhang Yun, 2014; Jin Xiaoyi et al., 2012).

We must be wary of the increased risk posed to women as a result of the imbalance in the marriage market caused by the skewed SRB, which makes them "scarce resources" in the marriage market given the falling absolute number of women of marriageable age and provides them with greater bargaining power in the marriage market and within the family (Rapoport et al., 2011). An independent mindset has grown in women. A study has found that in rural areas in Western China, by dint of the gender imbalance in the marriage market, young women are gradually gaining power within the family unit (Pu Kun & Chen Xun, 2018). Another study has found that the skewed SRB is widening the matrimonial disparities and could intensify the materialization of women in the marriage market, thus aggravating the risk of women suffering





from domestic violence (Song Yueping & Zhang Jingwen, 2017). Marriage has become a traded commodity in China as a result of the occurrence of extravagant betrothal gifts. The growing interconnectedness of the domestic and foreign marriage markets raises the possibility of transnational female trafficking and other infringements of women's rights.

3. Currently, the work of SRB reduction is faced with a whole new situation, which requires us to summarize and evaluate the experience gained in the previous stage promptly and to make adjustments to the previous work patterns to keep pace with the times. Although China has taken a variety of measures and gained useful experiences over the past 30 years, China still needs to systematically evaluate the effects of its SRB reduction practices and sum up its successful experience in SRB reduction, especially to carry out data-based evaluation and summarization.

The influence of fertility policy on reproductive decisions is fading, indicating that policy liberalization has failed to address the reality that couples actively choose to have fewer children. To an extent, relaxing the fertility policy can help alleviate the imbalance in SRB, only the effect is relatively limited (Yang Juhua, 2016; Shi Renbing, Chen Ning, 2015). The gender and quantitative dimensions of fertility are intertwined. While low fertility has become a new normal in China, a skewed SRB makes it more challenging for China to increase its fertility rate. The advancement of fetal sex determination technologies has made it possible to accurately identify the gender of the fetus before 14 weeks of pregnancy. Therefore, the acts of "illegal fetal sex determination and sex-selective abortion" will become more furtive in the coming years, and the cost and difficulty of punishing such offenses will only be increased.

4. International cooperation in curbing gender imbalance needs to be strengthened. Gender imbalance is not a demographic phenomenon unique to China, but a common problem shared by many countries and regions. Although the appearance and degree of SRB imbalance differ by country, once SRB imbalance emerges, its impact will extend across boundaries in the context of globalization. In China, transnational marriages have continued to increase in recent years, thereby raising increasing concerns over the legality of translational marriages and the protection of the rights and interests of married-in foreigners, and giving rise to new problems such as marriage fraud and social integration. Presently, China needs to further strengthen international exchanges and dialogues regarding SRB reduction.

(III) Suggestions

1. We should persistently promote gender equality in different areas to weaken son preference. Upholding the basic national policy of equality between men and women, we should make gender equality a code of conduct and a value orientation followed by the whole society. We should rev up gender mainstreaming and incorporate gender awareness into mainstream





policies. Promoting gender equality can help weaken son preference. When the son's preference weakens to a certain extent, behaviors such as fetal sex selection would diminish. Even if the notion of son preference persists, it would not have any impact on SRB.

2. In pushing ahead with SRB reduction, we should consider the consequences of gender imbalance. We need to pay more attention to the marriage and basic needs of older single men in rural areas, strengthen the financial support and social security for them, reinforce mental health guidance and health education for them, and bolster the old-age support for their parents. To curb the tendency of women to be commoditized in the marriage market, we should take its consequences into account in bringing down SRB so that the SRB would submit to "holistic control" in China (Li Shuzhuo, Shang Zijuan, et al., 2012).

3. We should integrate SRB reduction into the family development policy framework, highlight gender equality in existing policies, transform simplex SRB reduction into a "family development policy system advocating gender equality", facilitate the inclusion of gender equality into all policies, comprehensively promote gender equality from the perspective of family development, and improve the ability of the family and family members to withstand risks. We must further empower women, particularly rural women, in terms of economic, social, and political engagement. We should recognize the value of housework and advocate for a fair and equitable share of chores between men and women.

4. We should evaluate and summarize the existing experience promptly and strengthen data collection and research in the new era. Through scientific evaluation, a broad array of SRB reduction cases in China can be summarized. In the context of fast social and economic growth, we must increase birth data monitoring to keep up with the most recent developments. We should strengthen the research on the changing trends of gender preferences and dig deep into the relationship between SRB change and socioeconomic development, thereby forecasting the future trend and impacts of SRB.

5. We should strengthen the international exchanges on skewed SRB. In the face of this complicated and long-standing dilemma, we must reach an agreement on the concept of creating a community with a common destiny for humanity, as well as constructing a global framework and system to address the SRB imbalance. At the research level, it is suggested to strengthen the evaluation and summarization of existing experience, to rev up the sharing and exchanges with other countries, and to take an active part in South-South cooperation. It is also advised that international definitions and standards for related data such as son preference be developed, that the gathering of household and community information that may have an impact on SRB be strengthened, and that cross-border cooperation research be initiated. At the policy level, it's necessary to strengthen policy dialogues and introduce policies on transnational marriages based on equal consultation.





References

- [1] Becker, G. S. (1960). An Economic Analysis of Fertility, Demographic and economic change in developed countries: a conference of the Universities. National Bureau Committee for Economic Research, 209.
- [2] Blumberg R L. "Dry" versus "Wet" Development and Women in Three World Regions. *Sociology of Development*, (1): 91-122
- [3] Coale, A. J. (1973). The demographic transition. International Union for the Scientific Study of Population. In *International Population Conference (I)*: 53-72.
- [4] Goodkind, D. (2011). Child underreporting, fertility, and sex ratio imbalance in China. *Demography*, 48(1), 291-316.
- [5] Goodkind, D. M. (2004). China's missing children: the 2000 census underreporting surprise. *Population Studies*, (58)3:281-295.
- [6] Guilмото, C.Z. (2015). Missing Girls: A Globalizing Issue.
- [7] Guilмото, C.Z., Tafuto, S. (2017). Trend in the sex ratio at birth in Georgia.
- [8] Gwako E L. (1997). Conjugal Power in Rural Kenya Families: Its Influence on Women's Decisions about Family Size and Family Planning Practices. *Sex Roles*, 36 (3-4): 127-147.
- [9] He, D., Zhang, X., Wang, Z., & Jiang, Y. (2019). China fertility report, 2006–2016. *China Population and Development Studies*, 2(4), 430-439.
- [10] Li, J.H. & Lavelly, W. (2003). Village context, women's status, and son preference among rural Chinese women. *Rural Sociology*, 68 (1): 87-106
- [11] Park, C. B., & Cho, N. H. (1995). Consequences of Son Preference in a Low-Fertility Society—Imbalance of the Sex Ratio at Birth in Korea. *Population and Development Review*, 21(1), 59-84.
- [12] Rapoport, B., Sofer, C., & Solaz, A. (2011). Household production in a collective model: some new results. *Journal of Population Economics*, 24(1), 23-45.
- [13] Zeng, Y., Tu, P., Gu, B. C., Xu, Y., Li, B. H., & Li, Y. P. (1993). Causes and implications of the recent increase in the reported sex ratio at birth in China. *Population and Development Review*, 19(2), 283-302.
- [14] Cai Fei. Factor-Specific Contribution Rate of the Rising Sex Ratio at Birth in China [J]. *Population Research*, 2007(04): 9-19(in Chinese).
- [15] Chen Ping. Implement the "Seven Guarantees Policy" to Promote Gender Equality [J]. *Policy Research & Exploration*, 2008(12): 31-32(in Chinese).
- [16] Chen Tingting, Ye Wenzhen, Gender Analysis of Differences in Sex Ratio at Birth between Rural and Urban Areas in China [J]. *Collection of Women's Studies*. 2011.6:35-41(in Chinese).
- [17] Chen Wei, Jin Yongai. Gaps between Fertility Intentions and Fertility Outcomes in China: Patterns and Determinants [J]. *Population Journal*, 2011(02): 3-13(in Chinese).
- [18] Chen Youhua. *Perspectives on the Marriage Markets in China and the EU* [M]. Nanjing: Nanjing University Press, 2004.
- [19] Zhai Zhenwu, Yang Fan, Study on the Level and Data Quality of Sex Ratio at Birth of China [J]. *Population Journal*. 2009. 4: 3-10(in Chinese).



- [20] Zhai Zhenwu, Yang Fan. Overestimated or Underestimated: Research on the Level of Sex Ratio at Birth from Different Data Sources [J]. *Journal of Fujian Jiangxia University*. 2011(1)1: 4-10(in Chinese).
- [21] CPC Anxi County Party Committee and Anxi County People's Government, Fujian Province, "Expand and Deepen Five Initiatives and Promote the Healthy Development of Pilot Work", Xi Xiaoping, Chen Shengli (Editors-in-Chief), *Evaluation of Care for Girls Action*, China Population Press. 2005(in Chinese).
- [22] Hou Jiawei, Gu Baochang, Zhang Yinfeng, Dynamic Relationship Between Gender Preferences for Children and Sex Ratio at Birth: 1979-2017 [J]. *Social Sciences in China*. 2018(4): 86-101(in Chinese).
- [23] Jiang Quanbao, Li Bo. The Effect of Gender Imbalance on Crime Rates [J]. *Journal of Public Management*, 2011, 8(01): 71-80+126.
- [24] Jiang Quanbao, Li Shuzhuo, Marcus W. Feldman. Estimation of Number of Missing Females in China: 1900-2000 [J]. *Chinese Journal of Population Science*. 2005(6): 2-11(in Chinese).
- [25] Jin Xiaoyi, Guo Qiuju, Liu Wei. Old-Age Support in China's Rural Areas in the Context of Gender Imbalance and its Policy Implications [J]. *Journal of Public Management*, 2012, 9(03): 71-81+126.
- [26] Li Dongli. How the Economic Development and the Changes in the Family System Affect Peasants' Sexual Prejudice—A Comparison of Three Modes [J]. *Collection of Women's Studies*, 2001(03): 21-28(in Chinese).
- [27] Li Huiying. Son Preference and Patriarchal Systems: Empirical and Gender Analysis of the Imbalance in Sex Ratio at Birth in China [J]. *Collection of Women's Studies*, 2012(02): 59-66(in Chinese).
- [28] Li Junkui. Influence of Family Structure on Chinese Social Behavior [J]. *Journal of Nanjing Forestry University (Humanities and Social Sciences Edition)*, 2003(03): 27-31(in Chinese).
- [29] Li Nan, Marcus W. Feldman, Li Shuzhuo. Diffusion of the Son Preference Culture: Estimates based on the Surveys in Two Chinese Counties [J]. *Population & Economics*, 1999(S1): 3-5(in Chinese).
- [30] Li Shuzhuo, Shang Zijuan, Yang Bo, Marcus W. Feldman. Social Management of Gender Imbalance in China: A Holistic Control Framework [J]. *Journal of Public Management*, 2012, 9(04): 90-98+127(in Chinese).
- [31] Li Shuzhuo, Zhu Chuzhu, Han Shihong. Analysis of the Results of Child Mortality Surveys in Jingyang County, Shaanxi Province (1994-1996) [J]. *China Journal of Population Science*, 1999(02):43-52(in Chinese).
- [32] Li Shuzhuo, Zhu Chuzhu. An Analysis of the Sex Ratio at Birth and the Survival Status of Female Infants in China [J]. *Population & Economics*, 1996(01): 13-18+7(in Chinese).
- [33] Li Yinhe, Feng Xiaoshuang. Celibacy and Its Cultural Implications [J]. *Social Sciences in China*, 1991(03): 83-94(in Chinese).
- [34] Li Yongping. Sex Ratio at Birth and Its Relationships with Socioeconomic Variables: The Results of Population Census and the Facts Behind [J]. *Population & Economics*, 1993(04): 3-13(in Chinese).
- [35] UNFPA China Office, China Population and Development Research Center (CPDRC), Addressing Gender-Biased Sex Selection and Skewed Sex Ratio at Birth in China: Case Summary, 2018(in Chinese).
- [36] Liu Chengbin, Feng Xiaotian. The Retrospection and Reflection of Chinese Sexual Ratio at Birth [J]. *Population and Development*, 2008(02): 36-47(in Chinese).
- [37] Liu Hongyan, Tang Mengjun. *Promoting Gender Equality and Curbing Skewed SRB: The Practices of Three Chinese Counties* [M]. Beijing: China Population Press, 2015(in Chinese).
- [38] Liu Huijun, Li Shuzhuo. The Pathway and Effective Mechanism for SRB Decrease [J]. *Population & Economics*, 2011(04): 1-9(in Chinese).



- [39] Liu Shuang. *Sex Ratio at Birth and Gender Preferences for Children in China* [M]. Beijing: Social Sciences Academic Press, 2009.
- [40] Lu Jiehua, Zhang Yun. The Public Governance Perspective of China's Gender Imbalance: "Diagnosis" and "Prognosis"[J]. *Journal of Xi'an Jiaotong University (Social Science Edition)*, 2014, 34(06): 24-26.
- [41] Mu Guangzong. Theoretical Explanations for China's Increasingly Skewed Sex Ratio at Birth in Recent Years [J]. *Population & Economics*, 1995(01): 48-51(in Chinese).
- [42] Ouyang Xiaoming, Zhou Hong. On the Social Behavioral Orientation in the Cultural Transformation in South of Jiangsu Province [J]. *Social Sciences in Nanjing*, 2004(07): 68-73(in Chinese).
- [43] Pu Kun, Chen Xun. Gender Imbalance, Social Stratum Competition and the Returned Young Migrant Women Workers' Family Status Rise: Based on the Investigation of Z Village in Southern Guizhou [J]. *Population and Development*, 2018, 24(05): 96-103+128.
- [44] Qiao Xiaochun. Analysis and Reflections on the Sex Ratio at Birth in the Chinese Population Censuses [J]. *Population & Economics*, 1992 (02): 21-28+20(in Chinese).
- [45] Shi Renbing, Chen Ning. A Study on the Impact of the Selective Two-Child Policy on Sex Ratio at Birth [J]. *Journal of Central China Normal University (Humanities and Social Sciences Edition)*, 2015, 54(02): 27-33.
- [46] Song Jian. Rising Sex Ratio at Birth in China: Responses and Effects of Social Policies [J]. *Population Research*, 2009, 33(04): 1-9(in Chinese).
- [47] Song Yueping, Zhang Jingwen. Less is Better? The Effects of Imbalance in Sex Ratio in the Marriage Market on Domestic Violence against Women in China [J]. *Collection of Women's Studies*, 2017(03): 5-15.
- [48] Tang Mengjun, Li Wei, Jiang Yu, Zhang Cuiling, Hu Qiangqiang. Implementation of Benefit-Oriented Family Planning Policy in the Rural Areas of Beijing and Impact Analysis [J]. *Population and Family Planning*, 2009(12): 26-28(in Chinese).
- [49] Tang Zhaoyun, Ma Lin. Comprehensive Control of Sex Ratio at Birth: Something to Do, Do Certain Things [J]. *Population Research*, 2011, 35(04): 105-113(in Chinese).
- [50] Tang Zhaoyun. The Higher Sex Ratio at Birth from the Social Gender Visual Angle [J]. *Population Journal*. 2008.4: 15-19(in Chinese).
- [51] Tang Guizhong. The Plight of Family Planning in Rural Areas and the Coping Strategies [J]. *Population Research*, 1991(01): 53-55(in Chinese).
- [52] Tian Xueyuan. *Demography* [M]. Hangzhou: Zhejiang People's Publishing House, 2004: 305(in Chinese).
- [53] Wang Fei, Liu Shuang. The Hotspot's Identification, Characteristics and Causes of Sex Ratio at Birth in China: Based on the County (city)-level Data [J]. *Population & Economics*, 2011 (05): 9-16(in Chinese).
- [54] Wang Penggang, Wang Meng, Yang Shenghui. The New Trend of Sex-selective Abortion in China [J]. *Population and Society*, 2021(01): 82-92.
- [55] Wang Jun, Guo Zhigang. Study on the Relationship between Parity Structure and Imbalance of Sex Ratio at Birth in China [J]. *Population Journal*, 2014, 36(03): 5-13(in Chinese).
- [56] Wang Jun, Wang Guangzhou, Gao Lingfei, Zhang Yang. Estimation of China's SRB and Projection of Future Trend [J]. *Study and Practice*, 2016(03): 82-91.
- [57] Xi Xiaoping, Chen Shengli. *Evaluation of Care for Girls Action* [M]. Beijing: China Population Press, 2005(in Chinese).



- [58] Xu Yi, Guo Weiming. Status Quo of Sex Ratio at Birth in China and Discussions on Related Issues [J]. *Population & Economics*, 1991(05): 9-12+54(in Chinese).
- [59] Yan Meifu. Transforming the Residence Pattern and Lowering the Sex Ratio at Birth—A Case Study of Hubei Province [J]. *Journal of Hubei University (Philosophy and Social Sciences Edition)*, 1999(05): 97-101(in Chinese).
- [60] Yang Guocai, Yang Jindong. Daughter-supporting Mechanism for the Aged in the Gender Perspective [J]. *Journal of Yunnan Nationalities University (Philosophy and Social Sciences Edition)*, 2013, 30(01): 55-62(in Chinese).
- [61] Yang Juhua. Challenges Facing SRB Reduction under the "Universal Two-Child Policy" and the Corresponding Countermeasures [J]. *Probe*, 2016(01): 75-80+2.
- [62] Yang Juhua. The Intention and Behavior of Reproduction in Developed Countries: a Review [J]. *Academia Bimestris*, 2008(01): 27-37(in Chinese).
- [63] Yang Xueyan, Li Shuzhuo. The Commercial Sex of Forced Male Bachelors in a Context of Marriage Squeeze: Results from a Survey in Rural China [J]. *Population Journal*, 2013
- [64] Yang Xueyan, Li Shuzhuo. The Impact of Prohibitive Policy on the Sex-selective Behavior during Pregnancy: The Interpretation Based on TPB [J]. *Population and Development*, 2013, 19(04): 54-64(in Chinese).
- [65] Yang Xueyan, Shang Zijuan. Mode Recognition for Gender Imbalance Governance in China—From Analysis on 24 Pilot Counties and districts in the National "Care for Girls Action Program" [J]. *Journal of Xi'an Jiaotong University (Social Science Edition)*, 2010, 30(03): 63-69(in Chinese).
- [66] Yang Xueyan, Isabelle Attané, Li Shuzhuo. The Commercial Sex of Forced Male Bachelors in a Context of Marriage Squeeze: Results from a Survey in Rural China [J]. *Population Journal*, 2013(01): 44-57.
- [67] Yang Xueyan, Isabelle Attané, Li Shuzhuo. The Homosexual Behaviors of Forced Male Bachelors and Its Implications on Public Security: Findings from Sex Imbalance in Rural China [J]. *China Soft Science*, 2012(05): 58-67.
- [68] Zhang Liping. An Historical Review on the Sex Ratio at Birth and the Fertility Level Changes of Chinese Minorities Since 1980s [J]. *Population & Economics*, 2006 (05): 66-70+47(in Chinese).
- [69] Zheng Xiaoru, Lu Weiqun. Analysis of Marriage Squeeze in Chinese Rural Youth [J]. *Tribune of Social Sciences*, 2013(02): 236-242+248.
- [70] Zhuang Yaer, Jiang Yu, Wang Zhili, Li Chengfu, Qi Jianan, Wang Hui, Liu Hongyan, Li Bohua, Qin Min. Fertility Intention of Rural and Urban Residents in China: Results from the 2013 National Fertility Intention Survey [J]. *Population Research*, 2014, 38(03): 3-13(in Chinese).
- [71] Zhuang Yuxia. The Key Variable Affecting the High Sex Ratio at Birth in China: Lower Social Status of Women [J]. *South China Population*, 2006, 1:41-50(in Chinese).
- [72] Zou Ping. A Survey on Sex Ratio at Birth in Beijing [J]. *Population Research*, 1983(04): 35-36(in Chinese).



