

Research question:

Did “industrialization and agricultural collectivization” normalize the skewed sex ratio in China?

Literature review:

The previous research on the imbalance of gender ratio in China mainly concentrates in the family planning policy period, because the problem of gender imbalance in the implementation stage of the family planning policy has become particularly serious and has attracted the attention of the public. Based on the result of these literature research, the driver of skewed sex ratio mainly focuses on three areas: the family planning policy itself, the implementation of Household Responsibility System and the technical improvement.

Family planning policy

Many scholars believe that the family planning policy itself is the main influential factor for China's serious gender imbalance at this stage. Zhu, Lu and Hesketh (2009) suggested that the relationship between family planning policy and gender ratio is very complex, and the data does confirm that the family planning policy has an impact on the gender ratio. The family planning policy itself includes one item specifically pointing that those families with a first-born girl are allowed to have a second child in rural areas. According to this policy itself, whether the family has one child or two children has no effect on the overall sex ratio, but the patriarchal thoughts contained within it have a great influence on the gender ratio of births through various channels. Greenhalgh and Winckler (2005) mentioned that when the family planning policy and China's male-centered culture and the current market economy of China have interacted with each other, the social order of China has become more masculine, thus creating a gender ratio. The social characteristics of China's modern society are therefore seriously sexually unbalanced.

Therefore, the China's government is aware that a strict family planning policy will

bring a series of serious social problems, such as sexually imbalanced, extremely low fertility rate, the disappearance of demographic dividend and aging problem. In November 2011, China began to relieve the extreme restriction of the one-child policy. According to the statistics of the National Population and Family Planning Commission, before 2011, the coverage rate of the one-child policy accounted for 35.4% of the total population in the country; the “one child and a half” policy in rural areas can cover 53.6% of the population; “two-child policy” could cover 9.7% of the population (some ethnic minority couples; both husband and wife are the only child in their family, can also have two children); the policy of three children and above covers 1.3% of the population (mainly Tibetan, Xinjiang minority nomads). In December 2013, China began to implement a comprehensive two-child policy. In October 2015, the communique of the Fifth Plenary Session of the 18th Central Committee of the Communist Party of China stated: we should stick to the basic national family planning policy, promote balanced population development, improve the population development strategy, and also start to implement a comprehensive two-child policy.

Therefore, this led to the academic discussion in exploration of whether implementing second-child policy can improve the serious imbalance between male and female. Based on academic discussions, most scholars believe that the opening of the second child may improve this extremely worse situation now, but will not completely eliminate the imbalance of gender ratio. For example, Zeng Yi (1993) pointed out that the revision of the strict family planning policy, which allows the birth of the second children, but there must be a period of time in between to partially restore the gender balance. However, there is no way to completely eliminate the abortion based on gender selection. Similarly, Avraham Ebenstein (2010) mentions that an open family planning policy essentially increases the absolute population, so more parents can have a boy without sex selection. Therefore, this could reduce the gender gap at the same time. Loh and Remick (2015) mentions that regardless of whether the second-child policy is open or not, China's gender imbalance has always existed. The fundamental reason is Chinese's preference for male.

Home Responsibility System

Almond, Li and Zhang (2013) proposes that since the time when the Household Responsibility System began to be fully promoted coincided with the family planning policy, the impact of the Household Responsibility System on the gender ratio in 1978-1984 was largely ignored. This paper also uses the same county level data, but the range of their data mainly focus on 1970s and 1980s. And I plan to use the county level data from 1949 to 1990 to analyze the complete effect of agricultural collectivization and family planning policy on sex ratio. In this article, when controlling the implementation time of the county-level family planning policy, they still found that the impact of this land reform on the gender ratio has a negligible effect. Based on this, they proposed two main impact mechanisms.

The income mechanism also proposed by Edlund (1999) assumes that having a boy can provide a higher utility to the family, but the utility brought by the second boy is not significantly higher than that of a girl. This hypothesis was supported by the China Deep Fertility Survey (the first study was launched in 1985 and the second study was carried out in 1987): Chinese rural families really want to have at least one boy. The income mechanism shows that an increase in income (whether wage or non-labor income) will lead to a stronger preference for boys. During the Household Responsibility System, gender selection choices are more concentrated in those parents who have received higher education or have a larger increase in their income after this reform, especially in those families whose first child is a girl.

The male labor preference mechanism, that is, more gender selection choices, occur in those areas where male labor's returns are higher. In order to test this hypothesis, Almond, Li and Zhang (2013) divided the different counties into male labor-intensive and female labor-intensive according to their main crops and tested the degree of influence on the sex ratio separately. They do have some positive finds, but did not find statistically significant differences as predicted by the model.

My paper's contribution

About my paper's contribution, there has been no study on agricultural collectivization and gender ratio in the academia. The main reason is the lack of data detailing the situation at the time. After ten years of catastrophe, many important data records were destroyed at that time. Fortunately, Harvard Yenching Library has nearly 2000 county books completely recording China's development in aspects from 1949 to around 1990. And China Gazetteer Project is responsible for digitalizing China's local-county-level and city-level gazetteers and creating a large county-level socio-economic database completely recording China's development in agriculture, population and education (covering 2,000 counties and cities, and spanning 65+ years with 300+ variables each). In my paper, I will focus on three main stages of the agricultural collectivization: mutual aid group of agricultural production; the primary agricultural production cooperative and the advanced agricultural production cooperative, and also their influence on the sex ratio at birth at that time. Based on the skewed sex ratio at birth in China now, my paper will combine the awakening of feminism during the collectivization time, the basic social structure of transition from private ownership to collective ownership, and also the related variables in the historical development of agriculture and education, then using the econometrics methods to regress and analyze the multivariate variables. I hope I could make my contribution into this field.

Reference:

1. Wei, Xing Zhu, L. Li, and T. Hesketh. "China's excess males, sex selective abortion, and one child policy: analysis of data from 2005 national intercensus survey." *Bmj* 338.7700(2009):920-923.
2. Greenhalgh and Winckler. "Governing China's Population, from Leninist to Neoliberal Biopolitics. " Stanford University Press, 2015.
3. Chen S, Lan X. There Will Be Killing: Collectivization and Death of Draft Animals[J]. *American Economic Journal Applied Economics*, 2017, 9(4):58-77.

4. Yi, Zeng, et al. "Causes and Implications of the Recent Increase in the Reported Sex Ratio at Birth in China." *Population & Development Review* 19.2(1993):283-302.
5. Ebenstein, Avraham. "The "Missing Girls" of China and the Unintended Consequences of the One Child Policy." *Journal of Human Resources* 45.1(2010):87-115.
6. Charis, Loh, and E. J. Remick. "China's Skewed Sex Ratio and the One-Child Policy." *China Quarterly* 222(2015):295-319.
7. Almond D, Hongbin L, Zhang S. Land Reform and Sex Selection in China[J]. Nber Working Papers, 2013.
8. Li, Hao, et al. "Selective agenesis of the dorsal pancreas in mice lacking homeobox gene Hlxb9." *Nature Genetics* 23.1(1999):67.