

The Three-child Policy and Its Positive Impacts on Female Labor Engagement in China

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Abstract: With the implementation of the three-child policy in July 2021, many worry that women's role in the Chinese labor market will be further diminished due to the tradeoff between fertility and labor commitment, worsening the already lowered female labor engagement. However, after evaluating the new models for female employment, this paper finds that the new policy might have a positive impact on women's labor participation for two reasons. Firstly, the increased availability of public and commercialized childcare as well as progression in social values means that the motherhood penalty for childbirth has largely diminished compared to past decades, and there might be a positive correlation between fertility and female labor engagement. Secondly, the government subsidies and parental leave schemes implemented along with the three-child policy could further reduce the opportunity of childbirth for women and therefore increase female labor participation. In conclusion, this paper finds that family planning policies such as the three-child policy can well encourage women's engagement in the labor force and foster female employment.

Keywords: three-child policy, female labor engagement, China

1. Introduction

Female labor participation rate has been steadily falling in China from 1990 to 2021, decreasing from 73.02% to 61.61% in only 3 decades [1]. While the difference between male and female labor engagement in China continues to increase, such difference is beginning to reduce in numerous other countries [2]. With the implementation of the three-child policy in July 2021, many worry that women's role in the Chinese labor market will be further diminished due to the tradeoff between fertility and labor commitment, worsening the already lowered female labor engagement [3-5]. Therefore, this paper explores the potential ramifications of the new family-planning policy and demonstrates why it could have positive effects on female labor engagement. This paper shows that the three-child policy, along with the childcare subsidies and parental leave policies that come with it, can encourage Chinese women's participation in the labor market, suggesting that such state policies that regulate the family structure of Chinese households could contribute to a more equal work role allocation between genders.

To illustrate the prospective effects of the three-child policy on female labor engagement, this paper will first review the past literature on women's labor participation in China. Then, this paper will provide new models on female employment in China and elaborate the various ways that the three-child policy could impact female labor, including its effects on fertility and the motherhood

penalty. Lastly, this paper will further discuss its contributions to the current literature as well as its limitations.

2. Literature Review

Much of the current literature on family planning policies in China predicts that the introduction of the three-child policy will have a negative impact on female labor engagement. In Zhang et al.'s commentary on three-child policy's influences on the Chinese economy, the authors speculate that with the new policy in place, firms might be reluctant to hire women who now have the prospects of having a second or third child, causing the employment of female labor to decrease [3]. Aside from the worsening the bias of employers, it is also possible that women might find it difficult to return to the workplace after consecutive childbirths. With firms finding other labor to replace the women on maternity leaves, females might find themselves in an awkward position after being away from the labor force for so long, especially now that having a third child becomes a viable option. Further, it is also possible that women might not be able to keep on with the constant changes and developments in the businesses they work in after long periods of leave [4]. Other researchers such as Chen have also pointed out that there is an opportunity cost that comes with increased fertility. When women give birth to a second or third child, they will have to invest more time in childcare which in turn disincentivizes them from actively participating in the labor force. This is especially true under the status quo that women predominantly take on the role of childcare in households. If the implementation of the three-child policy increases the fertility of Chinese women, then the labor participation of females would decrease accordingly [5]. The factors above are all potential reasons why the three-child policy might sabotage the role of women in the labor market.

Although there is currently little quantitative analysis in the current literature on how the three-child policy has affected women's employment in China, past empirical evidence suggests a negative correlation between increased childbirths and female labor engagement. After the two-child policy was implemented, it was found that women's weekly labor would fall by 7.5~12.3% after the birth of a second child [6]. This is echoed by Wu's study on the effects of two-child policy, which also found that an additional child would decrease maternal labor supply by 3.8% and reduce women's probability to work by 26.6% [7]. Conversely, it is also found that female employment would decrease a woman's fertility by 0.50 based on a survey in China on 2,355 women in 2006 [8]. In summary, past data seems to indicate that attempts of increasing fertility rate in China have resulted in negative impacts on female labor participation.

3. Influences

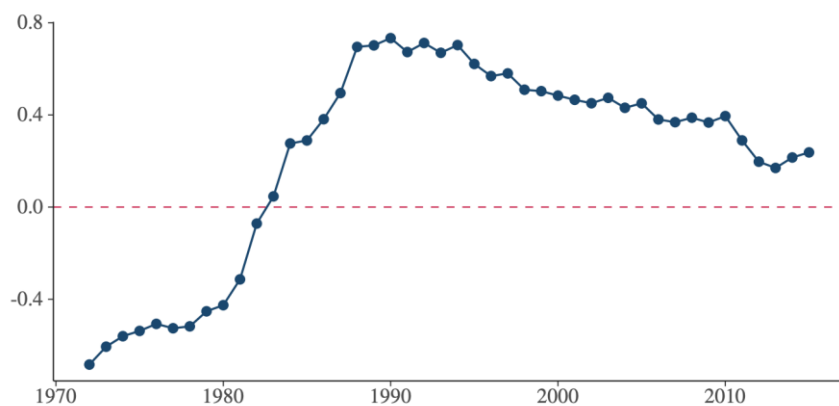
Although the past literature suggests that the three-child policy would sabotage female labor participation, new models on female employment suggest that this might be the opposite of what would happen. This section will provide a close examination how the three-child policy could influence women's labor participation, explaining why the new policy might encourage female labor engagement despite what the past literature theorizes. Firstly, this section discusses how the three-child policy can increase female labor engagement by promoting fertility. Secondly, this part explains how childcare subsidies and parental leave schemes that accompany the three-child policy will also increase female labor participation.

3.1. The Fundamental Relationship Between Fertility and Female Labor Engagement

The essential goal of the three-child policy is to increasing fertility rate in China [9]. Therefore, to explore the policy's influence on female labor participation, the relationship between fertility and women's involvement in the labor market must be examined.

Earlier literature before the 1970s often suggests that fertility and labor engagement of women are negatively correlated. It was perceived that there was a tradeoff between the time women spent on labor and the time women spent on childcare. After the start of industrialization in the late 18th and early 19th century, the female and male role in a household became increasingly differentiated. While the men committed most of their time to working in factories, the women took on the responsibilities of raising children at home. Therefore, raising children became the primary commitment of women and posed an opportunity cost for female labor engagement [10]. Such opportunity cost is also known as the motherhood penalty, or how much a woman's labor participation and income reduce after giving birth to a child [11]. Naturally, when women are giving birth to more children and investing more time in childcare, the severeness of such penalty increases [2]. Consequently, based on the rationale of 20th century models, if the three-child policy increases the fertility rate and thus the motherhood penalty of women in China, labor engagement would decrease accordingly just as the current literature suggests.

However, such negative correlation overturned in the 1980s when a positive correlation between fertility and female labor engagement started to show. As demonstrated in Figure 1, the correlation coefficient of the two variables increased from -0.5 to 0.75 within a decade and remained positive for the 20 years to come [10]. He's empirical analysis on female labor participation and fertility in urban China also suggests that there seems to be no negative correlation between the two during the 2000s [12].



Notes: The figure plots the correlation coefficients between total fertility rates and female labor force participation rates across 22 OECD countries in each year. Data for the total fertility rate and female labor force participation rate (25-54-year-old age group) comes from the OECD's statistical database.

Figure 1: Cross-country correlation between total fertility rate and female labor force participation rate [10].

The reason why such negative correlation has disappeared can be attributed to several factors that reduced the opportunity cost of childcare and thus alleviated the motherhood penalty for women. Firstly, the increased availability of public education over the decades means that children spend much more time in school than at home. As a result, women are no longer obligated to stay at home to take care of the children once they reach school age, weakening the tradeoff between childcare and labor [10]. The pervasiveness of free education is especially evident in China – all children must participate in at least 9 years of compulsory education, entirely paid by the government. Secondly, the availability of commercialized childcare also diminishes the negative correlation between fertility and female labor participation. If parents are willing and able to purchase nanny services, then it is no longer necessary for women to undertake the responsibility of childcare, thus enabling the choice for females to engage in the labor market. The childcare market is also very developed in China, with

the number of nannies consistently rising from 25 to 30 million during 2015-2020 [13]. Thirdly, the increased availability of public kindergartens as well as the free childcare services offered by state-owned enterprises also allows women to raise children without investing too much time outside of labor [2]. These factors combined means that fertility poses a much smaller burden for women who want to participate in the labor and invest in their career.

Although the reasons above could explain why the negative correlation between fertility and female labor engagement has diminished, they do not justify why the correlation has turned positive after the 1990s. To explore the causes of such positive relationship, one must examine the change in women's aspiration in recent decades. Increasingly, women are beginning to strive for both a successful career and a fulfilling family life. Such change in social values indicates that women are less likely to sacrifice one for the other, but are more incentivized to pursue both, thus causing a positive correlation between fertility and labor participation [10]. Such patterns are also supported by the literatures of Rindfuss and Brewster, Ahn and Mira, and Feyrer, Sacerdote, and Stern [14-16].

The change in social values also play a big role in reducing the motherhood penalty. It is found that gender perception is a significant determinant of the motherhood penalty. If social norms dictate that women should stay at home to take care of their children, then the motherhood penalty would be relatively high. However, if social norms allow or celebrate a woman's simultaneous commitment for career and childcare, then the motherhood penalty would relatively lower. It is shown statistically that if girls grow up in a household with more conservative values on gender labor division, they are more likely to suffer from motherhood penalties when they bear children [11]. As the three-child policy encourages working women to consider having children, it would perhaps weaken the traditional social norms that limits a woman's role to childcare and stay-at-home parenting, thus reducing the negative effects of the motherhood penalty on women's earning. As a result, women would be more willing and able to give birth without worrying about negative ramifications on their career, thus increasing female labor engagement. Again, such change in social values would further facilitate a positive correlation between fertility and female labor engagement.

In summary, the empirical data in urban China and across the globe, as well as theoretical frameworks proposed by labor economists seem to suggest that higher fertility no longer proposes a barrier to women's involvement in the labor market. Rather, the two variables seem to be positively correlated due to a drastic reduce in the motherhood penalty caused by social value change. Therefore, by encouraging childbirths, the three-child policy might encourage women in China to increase their engagement in the labor market.

3.2. Government Legislation and Female Labor Engagement

Additional to the effects of increased fertility on labor engagement, government provisions and subsidies for three-child families which comes with the three-child policy could also boost female labor participation. In Shenzhen, families with three children can receive up to 18,000 RMB of government provision, or \$2800, over the course of 3 years [17]. In Jinan, families with 2 or more children are offered 600 RMB a month per newborn, or \$87 dollars, until the baby reaches three years old. In Yichang, families with two or more children will also reportedly get 500 RMB a month, or \$73 [18]. Literature suggest that such subsidies will also encourage maternal employment. Since government provisions helps families afford nanny services lowers the women's opportunity cost of going to work, female's participation in the labor market would increase. Bick's study of across 18 counties in 2018 suggests that an increase in government subsidies for childcare would increase the total working hours of married women with children. Although the subsidies do not directly impact the fertility of married women, they do increase female labor engagement substantially by reducing the motherhood penalty [19].

Furthermore, parental leave policies that comes with two-child policy and three-child policy in China can also encourage female labor engagement. After the implementation of two-child policy in 2016, Guangdong has extended the paid maternity leave from 128-158 days to 178-208 days [20]. Similarly, Chongqing has implemented a 15-day paternity leave, as well as extending the paid maternity leave from 98 days to 128 days [21]. Although many worry that longer paid maternity leave would exacerbate employment discrimination against women, studies suggests that if women and their husbands can take paid time off to take care of their children, they are less likely to quit their jobs for childcare [10, 22]. In 1998, Ruhm's study finds that a maternity leave of three months would increase female participation in labor by 4-11% [23]. In more recent studies such as Olivetti and Petrongolo's in 2017, it is also found a positive correlation between female labor engagement and paid maternity leave within 50 weeks [22]. As a result, legislations around paid parental leaves which accompanies the three-child policy also increases female participation in the labor market.

Admittedly, parental leave policies exacerbate the motherhood penalty for women, but only in the short run. Kleven's study of the motherhood penalty in Sweden and Denmark suggests that a more generous parental leave scheme with longer paid leave might worsen the penalty. However, such effects are only temporary, since after women go back to their jobs after the maternity leave, their income and labor engagement would rise back up to the pre-childbirth level. Consequently, parental leave schemes have insignificant effects on female labor participation in the long run. Further, it is also found that paid paternity leave schemes would also mitigate the short-term impacts of the motherhood penalty, as fathers will be able to partially undertake the responsibility of childcare and reduce the opportunity of childbirth for the mothers [11]. Since paid paternity leaves are already legalized in parts of China as mentioned above, the negative effects of parental leave policies on female labor engagement becomes more negligible in the long run. As a result, paid maternity leaves would only reduce the labor participation of women temporarily.

4. Discussions

4.1. Contributions

When exploring the correlation between fertility and female labor engagement, this paper uses a new model proposed by Doepke et al. that finds a positive correlation between the two. The current literature on the effects of Chinese family planning policies presupposes the principle that additional childbirths would decrease women's labor participation due to the high opportunity cost of motherhood penalty. Such presumption is seen in the literatures of Zhang et al., Li, Tai, and Chen when they discuss the harms of the three-child policy and the negative correlation between additional childbirths and female labor engagement. Although the opportunity cost for childcare still exists for women, this paper contends and explains that the tradeoff has been greatly weakened, and the relationship between fertility and female labor participation has turned positive. The new model on fertility used in this paper offers a new perspective on how policies that encourage fertility can have a positive contribution to women's labor participation.

Additionally, this paper also provides theoretical explanations for much of the purely empirical analysis on the female labor participation in China. The literatures of He and Chen which investigates the effects of two-child policies on women's participation in labor both suggests that additional childbirths have little to no negative effects on female labor engagement. This paper provides analysis that justifies these quantitative findings and further demonstrates the potentially positive effects of loosening family-planning policies in China.

4.2. Policy Suggestions

To minimize the motherhood penalty in China and further encourage female labor participation, this paper will suggest four aspects that policymakers can consider. Firstly, policymakers can further reduce women's opportunity cost of raising children by establishing more public kindergartens and free childcare programs. Secondly, policymakers can strengthen the labor commitment of existing and future mothers by providing more generous maternity leave schemes in more regions across China. The availability of paid maternity leaves can guarantee a woman's employment after childbirth and reduce the barrier for mothers to engage in the labor market. Thirdly, policymakers can also implement longer paternity leave policies on a larger scale to further mitigate the short-term effects of the motherhood penalty for women who just gave birth. Lastly, policymakers can facilitate the formation of more progressive social norms which support women's synchronous pursuits of childcare and career. The liberalization of societal ideologies around gender roles would not only strengthen the positive correlation between fertility and female labor engagement, but also further reduce the motherhood penalty as well as the employment barrier for women with children.

4.3. Limitations

Although this paper explains the mechanism that drives the positive contributions the three-child policy might have in promoting female labor participation and reducing the motherhood penalty, it does not provide any quantitative analysis on the changes in female employment after the implementation of the policy. Since the three-child policy was only announced and adopted in July 2021, its long-term effects on female labor engagement might not be observable in the employment market just yet. To confirm the speculations about the potential influences of the three-child policy, more statistical analysis on the labor market is needed when its effects become more visible in the future.

5. Conclusion

In conclusion, this paper outlined and explained the potential mechanisms of the three-child policy which might positively contribute to female labor engagement in China. After analyzing the past research on the relationship between fertility and women's labor participation globally, this paper finds that the correlation between the two variables have turned from negative to positive after the 1970s. This paper then outlines the reasons why such overturn has occurred, including an increased availability of commercialized and public childcare services, as well as changes in social norms, all of which reduce the motherhood penalty and encourage female labor commitment. Therefore, this paper concludes that an increased fertility rate brought by the three-child policy would also increase female labor engagement. Moreover, this paper also discusses the effects government subsidies and parental leave policies which are coupled with the implementation of the three-child policy. This paper finds that government grants for families with multiple children further reduces the opportunity cost for childbirth and the motherhood penalty, and thus promotes female labor participation. This paper also finds that while parental leave schemes might hurt women's labor engagement in the short run, its long-term effects on female employment are positive. These findings further confirm that the three-child policy, along with the legislative and policy changes that come with it, can increase female labor engagement. To encourage such positive impacts on women's labor commitments, policymakers should increase the supply of public childcare services, allow longer parental paid leaves for both mothers and fathers, as well as cultivate progressive social values that reduces the motherhood penalty. Future studies can provide quantitative evidence on the effects of the three-child policy, investigating whether the employment, income, and working hours of women will decrease if they decide to have a third child. Future studies could also explore how the three-child policy could be improved to further encourage women's involvement in the labor market.

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