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FERTILITY DECISIONS AND LABOR MARKET PARTICIPATION AMONG CHINESE WOMEN

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ABSTRACT
The relationship between demographic behavior, economic incentives and institutional structures is a complicated one as fertility choices and labor market engagement are strongly connected in modern China. The article focuses on the factors that drive fertility intention of women, especially, whether to have a second child, and how the effect of such choices affects the action of participation in the labor market and wage results. Based on the empirical and theoretical literature, the research identifies the role of education, labour market segmentation, sectoral distribution, digitalization, and the socio-demographic factors including migration and family obligations. It is shown that fertility choices tend to limit the labor force participation of women and cause gender pay gaps particularly in the privatized and market-oriented sectors. These effects are mediated by institutional mechanisms such as state policies, union representation and employment protection which influence the trade-off between work and family duties. This paper brings to the fore a broad picture of the relationship between fertility behavior and labor market structure in affecting the employment of women in China by integrating the information on labor economics, demography and social policy. The results support the need to combine the family policy, labor regulation, and gender equity in order to achieve both fertility and equity with entry into the labor market.

Keywords:
Fertility choices; Second child plans; Labor market status; Wage disparity; Labor market specialization; Education; Institutional insurance; Gig economy; China; Women employment.

INTRODUCTION

China has experienced radical demographic and economic changes in the last four decades, such as the transformation of a centrally planned economy in a market-based labor market and the one-child policy in a two-child (and currently three-child) policy. These institutional and demographic transformations have made fertility decision to the center of policy and research discussion. The fertility choice, especially the choice of the second child, is also an important implication of the labor market participation since it is associated with trade-offs between parenting and professional development (Li and Xu, 2022). Even after the family planning policy is relaxed, the role of women in the labor market continues to be conditioned by societal expectations, roles, and employment trends in the sector (Hannum, 2005; Qin et al., 2016). The institutional and sectoral conditions also influence the participation of women in the labor market not only due to their educational level and acquired skills but also due to their educational level and trained competencies. The mechanisms of sectoral allocation, occupational sorting, and wage-setting determine the ability of women to have continuous employment when bearing a child. Among them, the employment in the public sector tends to offer maternity guarantees and uniform wage scales that minimize the trade-off between fertility and career (Liu et al., 2000; Ma, 2018). Conversely, the private sector companies and new gig economy platforms typically offer few maternity and flexible but insecure jobs, which eventually exacerbates the trade-off between fertility and work (Han et al., 2024; Li, Hu, Jin, and Han, 2025).

LITERATURE REVIEW

1.1 Infertile China: Fertility Decisions in Modern China.

The Chinese fertility has always been influenced by both state policies and social conventions. One-child policy (19792015) limited the reproductive choice of women and shaped the labor market trends whereas the next two-child policy and the future three-child policy is intended to deal with demographic aging and population decline. The overall research shows that fertility intentions, especially towards the second children, are affected by such factors as education, economic status, urban living, and household duties (Li and Xu, 2022). More educated women tend to delay or restrict childbearing because of their career and

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associated opportunity costs of lack of labor force. On the other hand, the females working in less-paid or informal jobs can also regulate fertility behavior according to the economic needs (Qin et al., 2016).

1.2 Education, Human Capital and Fertility-Labor Trade-offs.

Vital in the fertility choices, as well as the workforce, is educational attainment. The better educated the woman the more the chances to enter the labor market and the higher the potential wage returns, which can contribute to delayed fertility or fewer children (Hannum, 2005; Li, Hu, and Jin, 2025). Nevertheless, educational gains are not accompanied by the reduction of gendered differences in wages and returns to education are less frequently among women because of sectoral and occupational segregation (Bai et al., 2022). This shows that although education promotes the labor market potentials of women, it also plays off with fertility factors, in that it affects the timing and quantity of children women bear.

1.3 Gig Economy and Fertility Implications.

The new forms of labor, especially the involvement in the gig economy, introduce a new aspect to the fertility-labor nexus. The nature of platform-based labor by women can be frequently driven by the flexibility that the system allows them to achieve to strike a balance between bearing children and working (Li, Hu, Jin, and Han, 2025). Nevertheless, this flexibility has its trade-offs: unpredictable incomes, less access to benefits, and allocation of tasks on an algorithmic basis can disfavor those who have to look after children, and the wage gap will continue to be unequal (Han et al., 2024). These results indicate that the role of employment form should be taken into consideration when discussing fertility decisions and the outcomes in the labor market.

2. METHODOLOGY

2.1 The research design and rationale

This paper will utilize a multi-faceted literature review and analytical research design to address the associations between fertility choices, specifically, the second-child intentions and workforce involvement in the Chinese women. The socio-demographic, economic, and institutional factors affect fertility choices, whereas the labor market performance depends on education, sectoral distribution, and type of work. Considering the sophistication of such interactions, the paper combines the results of empirical studies, meta-analyses, and systematic reviews to form a sophisticated view of the role of fertility intentions in weighing options in women labor participation and wage results (Li and Xu, 2022; Hannum, 2005). Synthesis-based approach was chosen since primary data is available on fertility decision, wage outcomes, and employment dynamics to a large scale of research that has been carried out in various regions and industries in China. The methodology enables the identification of patterns and processes that can be hard to recognize in one study and makes it possible to make generalizable findings about the effects of fertility behavior on the labor market (Li, Tang, and Jin, 2024; Han et al., 2024). This design enables a comprehensive approach by combining the findings of other disciplines such as demography, labor economics, gender studies, and social policy in a systematic way and this is particularly appropriate in the analysis of gendered outcomes in the Chinese context.

2.2 Data Sources and Selection Criteria

The reviewed literature consists of peer-reviewed empirical research, meta-analyses and theoretical models which cover the fertility intentions, labor market participation, an unequal wage disparity and sectoral employment in China. The studies were to be included when they:

- Specifically dedicated to fertility intentions of women (with the emphasis on a second child) (Li & Xu, 2022).
- Evaluated labor market results, such as employment stability, wages and career ascendancy (Liu et al., 2000; Bai et al., 2022).
- Regarded educational attainment and human capital as the predictors of their labor participation and fertility behavior (Hannum, 2005; Li, Hu, and Jin, 2025).
- Sectoral disparities such as the engagement between the public and the private sector and the emergence of the so-called gig economy (Ma, 2018; Han et al., 2024).
- Socio-demographic factors (migration, urban/rural, and household structure) were included and represented the heterogeneity of the experience of women in China (Qin et al., 2016).

Exclusion criteria were used to filter out studies that were not China specific, ones without empirical data and those that were only dealing with male labor outcomes. The final number of studies brought down to 20-25 was used to offer a powerful base on which fertility-labor market interactions would be analyzed.

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2.3 Analytical Framework

The research is conducted on a multi-layered conceptual framework that incorporates fertility intentions, labor market participation, education, sectoral employment and institutional protections. It is suggested that fertility intentions can mediate labor participation in terms of career interruptions, lower working hours, and time spent with children that in turn has an impact on wage outcomes and occupational progression (Li and Xu, 2022; Hannum, 2005). Education is considered to be a moderating variable where greater educational attainment may reduce wage penalty as well as raise opportunity cost of bearing a child. Sectoral allocation distinguishes between the forms of employment including public sector which has some standardized payments, guarantees of maternity, and private or gig economy employment which do not have formal safeguards and usually need flexible but unsteady involvement (Liu et al., 2000; Han et al., 2024). Demographic factors, i.e., migration status, age, urban/rural living, and family support are also considered confounding factors that determine the level of labor market disadvantage after fertility event (Qin et al., 2016). This analytic model can integrate structure, institutional, and individual-level determinants in a systematic manner.

2.4 Analytical and Measurement Techniques

In all the reviewed studies, fertility intentions were determined through structured surveys, which used scales that measured the need to have more children, the timing of having more children, and perceived economic/social limitations (Li and Xu, 2022). The labor market contribution was determined by the level of participation in terms of employment status, hours of working, working continuity, wages earned and the occupational hierarchy.

Various quantitative methods of analysis were used in the studies and they included:

- Regression model to test the impact of fertility on wage and employment.
- Oaxaca 2 to factor in explained and unexplained wage differentials relating to fertility (Li, Tang, and Jin, 2024).
- Multivariate designs to adjust the factors of the sector, education, demographic, and institutions (Han et al., 2024; Li, Hu, and Jin, 2025).

The comparison of sectors allowed to determine structural determinants and demographic analysis helped to emphasize the difference between the effects of fertility on various subgroups of the population, such as migrant women, as well as highly educated women.

2.5 Conceptual Model

The study conceptualizes the fertility-labor relationship as interdependent and multi-dimensional, summarized as follows:

1. Fertility intentions → Time allocation, career interruptions, and household responsibilities
2. Educational attainment → Moderates ability to maintain labor market participation and wage Growth.
3. Sectoral allocation → Influences access to protections, wage structures, and flexible work arrangements
4. Demographic factors → Affect employment continuity, particularly among migrants and urban/rural residents
5. Institutional protections → Mediate the effect of childbearing on wage outcomes and employment stability

This framework provides the basis for synthesizing findings across empirical studies, highlighting structural mechanisms and policy-relevant insights.

Labor Market Segment	Fertility Impact on Employment	Wage Penalty	Key Mechanisms	Representative Studies
Public Sector	Moderate	Low	Standardized wages, maternity protection	Liu et al. (2000); Ma (2018)
Private Sector	High	Moderate to High	Market-driven wages, limited protections	Tan et al. (2025); Bai et al. (2022)
Gig Economy	Variable	High	Flexible but unstable work, algorithmic task allocation	Han et al. (2024); Li, Hu, Jin, & Han (2025)

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Migrant Women	High	High	Hukou restrictions, limited benefits	Qin et al. (2016)
Highly Educated Women	Moderate	Moderate	Career interruptions, lower returns to education	Hannum (2005); Li, Hu, & Jin (2025)

Table 1 highlights how fertility intentions interact with sectoral allocation, education, and demographic

3. RESULTS

3.1 Overview of Fertility-Labor Market Dynamics

The synthesis of the reviewed literature demonstrates that fertility decisions, particularly regarding a second child, are a critical determinant of labor market participation and wage outcomes for Chinese women. Women who plan to have additional children often experience employment interruptions, reduced hours, and slower wage growth, particularly in sectors that lack formal protections such as the private sector and gig economy (Li & Xu, 2022; Han et al., 2024). This effect is not uniform; sectoral, institutional, and demographic factors mediate the magnitude of labor market penalties. Women in public sector employment, which typically includes structured pay scales, formal maternity protections, and union oversight, experience moderate wage penalties relative to private-sector employees (Liu et al., 2000; Ma, 2018). Conversely, women working in private sector firms and gig economy platforms face higher wage penalties and reduced employment stability, reflecting the combination of flexible but precarious work arrangements and the absence of standardized maternity or family support benefits (Han et al., 2024; Li, Hu, Jin, & Han, 2025).

3.2 Sectoral Variation

Sectoral allocation emerges as one of the strongest determinants of labor market outcomes following fertility decisions. Studies consistently show that women in public institutions retain continuity in employment due to standardized pay and legal protections, while private-sector and gig economy employees experience significant disruption in career progression and wage accumulation (Tan et al., 2025; Bai et al., 2022). For example, Han et al. (2024) found that female gig economy workers with fertility intentions were more likely to reduce work hours or leave the platform temporarily, leading to substantial income reductions.

Occupational sorting further amplifies these sectoral disparities. Women are often concentrated in lower-paying administrative, clerical, or service roles, even when highly educated, whereas men disproportionately occupy managerial and technical positions that are less affected by fertility-related interruptions (Hannum, 2005; Li, Hu, & Jin, 2025). This segmentation reinforces structural wage inequalities between men and women and magnifies the labor market penalties of fertility.

3.3 Educational Attainment and Fertility Trade-offs

Educational attainment significantly influences both fertility intentions and labor market outcomes. Women with higher education often delay childbearing or limit fertility to maintain career continuity and maximize wage returns (Hannum, 2005). However, even among highly educated women, wage penalties associated with fertility persist, indicating that education alone does not fully mitigate the impact of childbearing on labor market outcomes (Li, Hu, & Jin, 2025). The interaction between education and sectoral allocation is also notable. Highly educated women employed in the public sector experience lower wage penalties and greater employment stability, whereas those in private or gig sector roles face disproportionate losses due to limited protections and the higher opportunity costs of career interruptions (Li, Tang, & Jin, 2024; Bai et al., 2022). These findings suggest that policies aimed at reducing fertility-related labor market penalties must address both sectoral inequities and gendered human capital returns.

3.4 Demographic and Migration Influence.

Socio-demographic factors such as age, family support, urban/rural residence, and migration status play critical roles in moderating the impact of fertility decisions on labor participation. Female internal migrants often face dual challenges: restricted access to formal employment due to hukou limitations and limited access to maternity benefits. Consequently, they experience larger wage penalties and reduced career progression after childbirth compared to non-migrant urban women (Qin et al., 2016).

Family support mitigates some of these disadvantages, but the lack of institutionalized childcare options in urban areas exacerbates the labor market consequences of childbearing (Li & Xu, 2022). Similarly, younger

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women who plan fertility earlier in their career face higher opportunity costs in sectors where promotions and wage increments are tightly linked to continuous employment.

3.5 Fertility-Related Wage Penalties

Across sectors, fertility-related wage penalties emerge consistently. Public sector employment moderates the negative effects of fertility through standardized pay and union protections, whereas private and gig sector workers experience more pronounced wage losses, particularly during periods of temporary labor withdrawal (Liu et al., 2000; Tan et al., 2025). The penalties are amplified for women in managerial or high-wage roles in private sectors due to both lost opportunity costs and the compounding effect of sector-specific wage structures (Han et al., 2024; Bai et al., 2022).

DISCUSSION

The results of this paper reveal that the fertility choices, especially the intentions towards a second child, have a strong impact on the labour market participation and wage performance of women in modern China. Childbearing usually causes employment disruption, wage loss, and career advancement in most sectors (the private sector, new gig economy) especially (Li and Xu, 2022; Han et al., 2024). These findings are consistent with the existing literature showing that fertility-related working periods are one of the most enduring ways of how gender wage disparities is perpetuated (Liu et al., 2000; Bai et al., 2022). Theoretically, the findings can be explained based on the human capital theory and the labor market segmentation theory. According to the human capital theory, career interruption on child bearing lowers cumulative work experience and productivity, as well as wage (Hannum, 2005). The theory of labor market segmentation introduces a structural dimension, as it demonstrates that the institutional attribute, sectoral allocation, and forms of employment exaggerate the dissimilarity in the effects of fertility on men and women (Li, Tang, and Jin, 2024). Indicatively, women in the private sector companies or in the gig economy are not only interrupted, but also vulnerable compensation systems and minimal maternity insurance, which increase wage punishment.

Sectoral allocation proves to be an important moderator of the outcomes of fertility in the labor market. In the case of the public sector, fertility-related wage punishment is less frequent because of uniform wage rate, formal maternity leave and union insurance (Liu et al., 2000; Ma, 2018). Conversely, similar protections are not given to the works in the private sector, as well as in the gig economy, which exposes the women to greater opportunity cost in deciding between fertility and labour (Tan et al., 2025; Han et al., 2024). Such results indicate that institutional protection is critical in alleviating gendered punishment, which comes with fertility choices. Also, the systematic movement of wages in the public sector minimizes wage differences that would otherwise emerge due to temporary absence of employment. It is more likely that women in such environments are more likely to resume their jobs after having children without the need to lose wages in the long term that in the private sector, wages tend to increase with time (Li, Hu, and Jin, 2025).

Further, the research is a complement to the body of literature on the segmentation of the labor market (Liu et al., 2000; Ma, 2018) in that it shows the interaction between sectoral allocation and fertility to create sustainable gendered pay gaps. It is also in line with the human capital theory (Hannum, 2005), where education moderates, but does not completely counter wage penalty associated with fertility.

CONCLUSION

The present study is an analytic study that has attempted to explain the complicated relationship between fertility choices, especially some second-child intentions and the participation in the labor market by Chinese women. The analysis of both empirical and theoretical sources proves that the issue of fertility choices does matter greatly when it comes to the employment stability, income patterns, and professional advancement. Women that become pregnant again tend to have fewer career advancements, fewer working hours, and slower wage increments, and the extent of such consequences depends on industry, educational level, and socio-demographic backgrounds (Li and Xu, 2022; Han et al., 2024).

The factor of sectoral allocation becomes one of the key determinants of the influence of fertility on labor outcomes. Structured pay system, formality in maternity, and unions serve as shields against the worst effects of childbearing and protect women in the job sector, who are employed in the public sectors (Liu et al., 2000; Ma, 2018). Conversely, the employees of the private sector and the gig economy are more prone to wage penalties and the lack of employment stability, which is the compilation of precarious work practices and lack of institutional protection (Tan et al., 2025; Han et al., 2024). The findings demonstrate that

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institutional protection and sector-specific attributes are important in the mediation of fertility labor market outcomes.

Education level is a very important determinant of fertility intention and also result in the labor market. More educated women will either delay bearing children or have fewer kids to avoid disrupting career trajectories and to get maximum pay-off to human capital (Hannum, 2005; Li, Hu, and Jin, 2025). But education, is not sufficient to remove the punishment in the labor market that is connected with having a child. Despite the high levels of education, even highly educated women lose their income and career advancement as temporary employment gaps and occupational segregation hinder their career advancement (Bai et al., 2022; Li, Tang, and Jin, 2024). What this shows is that education improves the potential in the labor market but the structural barriers that remain, including sectoral inequality and institutional inadequacies, give rise to disparities.

The socio-demographic variables are supplementing the labor market implications of fertility choices. The internal migrants of the female sex have to encounter both problems: the lack of access to formal labor and the lack of access to protective measures during pregnancy, which results in wage punishment and a lack of security at the workplace after childbirth (Qin et al., 2016). Residence in urban or rural areas also has an impact on labor market outcomes since urban women might have a better access to childcare and family support yet have to face greater opportunity costs since labor markets are competitive, and rural women may utilise extended family support but get jobs that pay less (Li and Xu, 2022). These results emphasize the importance of the fact that fertility-related labour market performance depends on the context greatly and demands the policies that consider the region, demographic, and migration-specific issues

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