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# Policies, Attitudes, Design: Promoting the Social Inclusion of Vulnerable Women in Greater China

Edited by Liu Liu and Xuemeng Li

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# Feminism in China Today: What We Have Achieved and What Lies Ahead

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## Abstract

In this editorial, we will review the social history of gender-based labor division in ancient and contemporary China and present a few questions this thematic issue attempts to explore, namely, how to interpret and evaluate the progress feminism has achieved in China, and what to do next. We then introduce the five articles selected to be part of this thematic issue and briefly discuss their findings. Finally, we share our belief that, whereas more opportunities are being granted to contemporary Chinese women, there has not been a corresponding decline in traditional gender roles. Although women are presented with the prospect of a more active role and new responsibilities within the family realm and society, we should not settle on momentary feelings of accomplishment, but remain aware that the fight for a social structure that truly supports gender equality continues.

## Keywords

Chinese women; feminism; gender equality; gender role

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## 1. Introduction

The academic editors of this thematic issue are Liu Liu and Xuemeng Li, two Chinese female sociologists who have worked closely with each other during the past ten years. Having written extensively on different Chinese females' life experiences (e.g., L. Liu & Li, 2021; L. Liu et al., 2025), we noticed that ongoing discussions about feminism in China were often based on international social movements and Western feminist theories (e.g., M. Liu, 2023; F. Xu, 2009). To respond to some questions that Western societies have raised on this topic (e.g., Spakowski, 2011), we decided to put together this insightful collection of academic articles in the hope

that it will shed light on the real-life experiences of contemporary Chinese women. All five articles selected for this thematic issue used fieldwork in mainland China, and the data were analyzed from the perspectives of gender and feminism.

Chinese mythical stories set the tone for gendered labor division in Chinese society. Pangu, a god, supposedly a male, separated the sky from the earth and created the world. Meanwhile, Nv Wa, a goddess, supposedly a female, created humans and mended the sky. Throughout thousands of years of Chinese history, women lagged behind men, reproducing and nurturing, while men were “out there” in the world, making a “real” difference. Admittedly, patriarchy is not unique to Chinese history and societies; however, the fatalistic nature inherent in the feminist movement in modern and contemporary China is due to these mythical stories and patriarchal traditions. Indeed, since the late Qing Dynasty and the beginning of Chinese society’s modernization, the roles women play in the family realm and in society have been subject to tremendous change (see Yin, 2021). But what about our “fates”? Has the “Chinese woman’s responsibility” to society changed with the independence, modernization, and the Reform and Opening Up of “new China”?

We often hear the term “feminist movement” mentioned in the same context as “liberation” in modern China, especially when the stories and narratives are situated in the same historical context of fighting against imperialism and colonialism in the early 1900s (Zheng, 2005). Gender equality was proposed as a part of the revolution and rebuilding of the social structure (He et al., 2025). To mobilize and utilize women in the labor market, “gender roles” became the most discussed topic during the Great Leap Forward and the Cultural Revolution (Wedeman, 2017). Thanks to the historical “iron girls” who proved women could do anything men do and better, doors began to open for women. The potentials of Chinese women as the labor force in both the professional world and the public sphere have been thoroughly explored (e.g., M. Zhang & Liu, 2015). But a “gender-blind” approach often undermines the biological differences between women and men, which has caused harmful consequences to women (Jin, 2006).

In contemporary China, especially in urban areas, women often hold college degrees and have full-time jobs in most professional fields (C. Li et al., 2025). Unlike the Maoist “iron girls” who had short hair and the same outfit as their male counterparts, now clothes showing female body features are usually seen on TV and out in the streets. Pop culture and fashion design, especially through the younger generations, often celebrate femininity and feminine traits, in what is now understood as a celebration of feminism. Feminism has now moved beyond discussions of gender roles and delved further into issues related to sex and sexuality, specifically, the biological features of female bodies, dating culture, and the sex life of Chinese couples. Chinese feminists are sensitive and cautious about the changed standards of beauty, identifying the influence of the male gaze (M. Li & Li, 2025), as well as the symbolic meaning of practices attached to the biological features of female bodies (Yang, 2016; H. Zhang & Xi, 2025). Not long ago, the quality of female hygiene products was a heated discussion topic on Chinese social media, which can be seen as bold and innovative in a patriarchal society like China (Ewe, 2024; Wang, 2024).

While research on women and partner-seeking strategies (Bu, 2025), family–career balance (Shi et al., 2025), and entrepreneurship and leadership in business (H. Hu et al., 2024) is more commonly discussed in Chinese academic journals, this thematic issue is guided by several interrelated questions directly related to feminism in China. What is the social status of women in contemporary China, and how does it inform both opportunities and constraints in their lives? How is “gender equality” interpreted in different historical, political, and cultural

contexts in China? How is feminism understood, expressed, and practiced in China today, and to what extent does it converge with or diverge from global feminist discourses?

## 2. The Featured Articles

To explore these questions, we brought together five insightful works that concern Chinese women's experiences in getting formal education, working in male-dominated professions, and fulfilling parenting roles in both rural and urban China.

In rural China, thanks to the Internet and smartphones, rural women today are able to create and maintain fast and direct connections to the world. Some of them became influencers on social platforms and are well-liked by their fanbase. Bai and Ventura (2025) present an audience engagement study, introducing us to rural women influencers on Douyin (the Chinese TikTok): They are described as embodiments of a relaxing lifestyle and educators of practical knowledge. The knowledge with which rural women face their daily lives, including household chores, cooking, and taking care of their crops, together with their new social media skills, not only granted them the attention and love of their audience online but also a newfound voice at home. Instead of "attaching" to their husbands, these women challenge gender roles and gender-based labor division in domestic affairs, now making decisions for their family and sometimes their family businesses. Audiences, especially those who have relocated from rural to urban areas, feel empowered by these rural female influencers and look up to them as they reconstruct their own lives in a new environment. The generally positive feedback these rural women influencers receive on the content they create and post indicates that they are someone to be celebrated and deserving of appreciation.

Through 17 in-depth interviews, Zhou and Han (2025) present a dilemma many Chinese female college students face: Girls from younger generations are allowed and, in some cases, encouraged to enter STEM (science, technology, engineering, and mathematics) fields, yet career paths are not paved for them. Respondents worked very hard during their secondary education, scored extremely high on the college entrance exams, and were admitted to STEM majors in college. After graduating with high marks, however, most of them soon found themselves in male-dominated workspaces, as STEM is, traditionally, a male-dominated field of study and occupations. Just like how first-generation immigrants have to integrate into their hosting societies through fighting discrimination and gathering resources to make a living, female engineers in Zhou and Han's research felt the obstacles and strategically created networks for female engineers to help each other and fight what they call "technical elite masculinity."

In another article, Chen (2025) documented how femininity is celebrated and utilized in workspaces. By observing their workstations, the author shows how female employees feel comfortable expressing their femininity, reflecting a significant change in contemporary Chinese workplaces: particularly, that there is a growing acceptance of women and the symbols they carry, especially for females with white-collar jobs. Through the theoretical framework of gender performativity theory (Butler, 1990), Chen observes that such "celebrations" can be reactions to disciplinary power and the workspace order created and maintained by males, but this too is a two-edged sword: On the one hand, white-collar female employees self-present as "harmless" by decorating their workstations with colorful, feminine objects. On the other hand, the carefully chosen slogans on these objects are a form of resistance to established powers and allowed arrangements in the workspace.



Back to the domestic sphere, it is more common now for new moms in China to be assisted by their parents and/or in-laws in taking care of their newborns. As an unintended consequence of the one-child policy, the so-called “intergenerational support system” described by C. Xu and Wang (2025) has been found effective in sending new moms back to work quickly after giving birth and continuing to focus on advancing their careers. This seems to suggest that women in China are being encouraged to work, but truly, it reflects a labor shortage in the larger structure and the updated social expectation that women should provide for families alongside their husbands. Meanwhile, the pressure of motherhood on women remains. Often, it is the female figure of those available to assist the new mom at home, i.e., a grandmother rather than the grandfather, who ends up providing most of the necessary care with the newborn. As for the new mom, rather than feeling accomplished by their contribution to the family income, many suffer with the guilt of not mothering their own child.

Wu et al. (2025) used obfuscated data collected from a Chinese female prison and explored the “myth of the sewing women.” Among all vocational training programs provided in Chinese prisons, sewing is almost exclusively found in all-female facilities, an arrangement that seems to mirror the gendered labor division in China (Ma & Jacobs, 2010) and Chinese communities overseas (Chin, 2005). Learning how to sew is expected to make sense for female prisoners on the assumption that it will help them find a job upon being discharged. Yet, the effectiveness of the sewing program on Chinese female prisoners, both in the job market and in adaptation to imprisonment, remains unknown. In fact, the results of Wu et al.’s research show that participating in the sewing program does not significantly contribute to prisoners’ adaptation to imprisonment. The psychological well-being of female residents in prison, i.e., mental health score, is found to be the strongest factor. For most female prisoners, sewing is neither a comforting activity nor is it where their future lies.

### 3. Concluding Thoughts

We want this thematic issue to contribute to current discussions of feminism in China by presenting empirical evidence for what we, as a society, have achieved, critically reflecting on this evidence, and revealing what lies ahead. With changes in women’s social status within both the family and society, along with a rising percentage of women now employed in professional fields, women, femininity, and even feminism itself are becoming increasingly visible in public spaces. These are very important achievements. However, many other areas of the feminist struggle remain underexplored and warrant closer attention if true equality is to be achieved. For instance, issues of sex, gender, and sexuality are not discussed with the same openness and level of importance in contemporary China as, e.g., the situation of women in the workplace. Sexuality at large has not yet become a topic open for public debate in China (Z. Yu, 2015; J. Yu et al., 2022), and one can argue that this is tightly related to how political participation remains limited among women, with few choosing to take up leadership positions in either government or grassroots organizations (see Zeng, 2014).

As we critically reflect on the achievements we’ve made so far, it’s important to keep in mind that women’s value and accomplishments are often assessed through the “male gaze,” judged by masculine standards, and approved (or not) by patriarchal expectations. Take the case of highly educated women in the dating and marriage scenes as an example. While the notion of “leftover women” highlights persistent patriarchal expectations and constraints on women, women with college or postgraduate degrees and professional skills are increasingly valued as a financial asset and their ability to share household expenses with their husbands (Lake, 2018). However, economic contribution does not necessarily lessen women’s domestic

responsibilities. Even when employed, many women are still expected to fulfill traditional female roles in the house (Tu et al., 2025).

In conclusion, while granted new opportunities, contemporary Chinese women often find themselves carrying additional responsibilities in both public and private spheres. It is also hard to hope for a corresponding reduction in traditional obligations as Chinese women are still socially designated life-long caregivers: a dutiful daughter-in-law caring for elderly in-laws, a supportive wife attending to her husband, a devoted mother responsible for childcare and household management, and now, a grandma who volunteers to take care of their grandchildren after retirement. Even though the law tries to protect women of childbearing age on the job market, women who are married, pregnant, and lactating are facing persistent discrimination (Q. Li & Xiao, 2025), while the number of depressed new moms has also been increasing (C. Li et al., 2021). These facts make the achievements of feminism in China inherently a reproduction of male dominance, new empirical evidence for “women existing for men” (Gao, 2003), and a function instead of a dysfunction for the social structure today (Whyke et al., 2024). Because of what we have achieved, we, Chinese women, need to keep on thinking, talking, and acting for what lies ahead.

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### Conflict of Interests

The authors declare no conflict of interests.

### References

- Bai, M., & Ventura, R. (2025). Engaging with Chinese rural women influencers on Douyin: Female viewers' perspectives on gender norms. *Social Inclusion*, 13, Article 9657. <https://doi.org/10.17645/si.9657>
- Bu, N. (2025). The dilemma of mate selection among young women in organized matchmaking practices. *China Youth Studies*, 5, 85–92. <https://doi.org/10.19633/j.cnki.11-2579/d.2025.0054>
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. Routledge.
- Chen, J. (2025). Celebrating femininity in the public sphere: The workstation arrangements of Chinese female white-collar workers. *Social Inclusion*, 13, Article 9621. <https://doi.org/10.17645/si.9621>
- Chin, M. M. (2005). *Sewing women: Immigrants and the New York City garment industry*. Columbia University Press.
- Ewe, K. (2024, September 17). Chinese companies apologise for ‘shrunk’ sanitary pads. *BBC News*. <https://www.bbc.com/news/articles/cev9ry341dyo.amp>
- Gao, X. (2003). Women existing for men: Confucianism and social injustice against women in China. *Race, Gender & Class*, 10(3), 114–125. <http://www.jstor.org/stable/41675091>
- He, E., Li, Y., & Yao, Y. (2025). Long-term impacts of the central Soviet area on women's status. *Research in Chinese Economic History*, 4, 75–94.
- Hu, H., Zhou, J., Wei, P., & Wang, Y. (2024). A study on the construction of high-quality actor networks for female entrepreneurial enterprises: Analysis of “empowerment of beauty power” management thoughts. *Chinese Journal of Management*, 21(10), 1423–1434, 1551. <https://doi.org/10.3969/j.issn.1672-884x.2024.10.001>
- Jin, Y., Manning, K. E., & Chu, L. (2006). Rethinking the “Iron Girls”: Gender and labour during the Chinese cultural revolution. *Gender & History*, 18(3), 613–634.



- Lake, R. (2018). *Leftover in China: The women shaping the world's next superpower*. W. W. Norton & Company.
- Li, C., Huo, L., Wang, R., Qi, L., Wang, W., Zhou, X., Zhou, Y., & Zhang, X. (2021). The prevalence and risk factors of depression in prenatal and postnatal women in China with the outbreak of Coronavirus Disease 2019. *Journal of Affective Disorders*, 282, 1203–1209. <https://doi.org/10.1016/j.jad.2021.01.019>
- Li, M., & Li, Y. V. (2025). The rejection of beauty servitude: Voices from Chinese feminists. *Women's Studies*, 54(4), 431–454. <https://doi.org/10.1080/00497878.2025.2477263>
- Li, Q., & Xiao, D. (2025). Fertility discrimination in the Chinese labor market: Evidence from a correspondence study and an employer survey. *Labour Economics*, 92, Article 102668. <https://doi.org/10.1016/j.labeco.2024.102668>
- Li, C., Li, X., & Yu, X. (2025). Trends, challenges and responses of female youth employment in China. *Contemporary Economic Management*, 47(5), 73–85. <https://doi.org/10.13253/j.cnki.ddjjgl.2025.05.009>
- Liu, M. (2023). #MeToo in China: Visceral accounts of rape culture, a non-domestic feminist counterpublic, and networked solidarity. *Feminist Media Studies*, 25(2), 357–372. <https://doi.org/10.1080/14680777.2023.2285718>
- Liu, L., & Li, X. (2021). An exploratory study of women who use and sell drugs in China. *International Journal of Drug Policy*, 97, Article 103408. <https://doi.org/10.1016/j.drugpo.2021.103408>
- Liu, L., Wang, X., & Li, X. (2025). Conventional and electronic cigarettes consumption among young Chinese adults: A perspective on masculinity and gender system. *International Journal of Mental Health and Addiction*, 23, 219–235. <https://doi.org/10.1007/s11469-023-01095-x>
- Ma, L., & Jacobs, F. (2010). Poor but not powerless: Women workers in production chain factories in China. *Journal of Adolescent Research*, 25(6), 807–838. <https://doi.org/10.1177/0743558410371124>
- Shi, J., Du, P., & Xue, H. (2025). Work-family conflict and its alleviation among female primary and secondary school teachers under the “Double Reduction” policy. *Education Economics Review*, 1, 111–128.
- Spakowski, N. (2011). “Gender” trouble: Feminism in China under the impact of western theory and the spatialization of identity. *Positions: East Asia Cultures Critique*, 19(1), 31–54. <https://muse.jhu.edu/article/444419>
- Tu, J., Li, M., & Shen, M. (2025). “The intertwining of work and family”: A life course perspective on the career development of older female nurses. *Women's Studies Review*, 3, 84–100.
- Wang, V. (2024, November 28). ‘A lack of respect’: Chinese women mobilize against subpar sanitary pads. *The New York Times*. <https://www.nytimes.com/2024/11/28/world/asia/china-sanitary-pads-women.html>
- Wedeman, M. (2017, August 9). Mapping gender onto the Cultural Revolution: Masculinity's triumph in a ‘genderless’ struggle. *Schwarzman Scholars*. <https://www.schwarzmanscholars.org/events-and-news/mapping-gender-onto-cultural-revolution-masculinitys-triumph-genderless-struggle>
- Whyke, T. W., Wang, Z., & Lopez-Mugica, J. (2024). State feminism with Chinese characteristics: The inextricable link between women's political representation and political episteme in contemporary China (2013–2023). *Asian Journal of Women's Studies*, 30(4), 363–390. <https://doi.org/10.1080/12259276.2024.2388352>
- Wu, Y., Bi, Y., & Zhou, H. (2025). Women sewing in Chinese prisons: Prison adaptation influenced by vocational training program. *Social Inclusion*, 13, Article 9503. <https://doi.org/10.17645/si.9503>
- Xu, F. (2009). Chinese feminisms encounter international feminisms: Identity, power, and knowledge production. *International Feminist Journal of Politics*, 11(2), 196–215. <https://doi.org/10.1080/14616740.902789567>
- Xu, C., & Wang, X. (2025). Opting back in: Chinese women's professional success and the support of grandparent caregivers. *Social Inclusion*, 13, Article 9502. <https://doi.org/10.17645/si.9502>

- Yang, Y. (2016, March 18). China made 85 billion sanitary pads last year, and not one tampon. *Los Angeles Times*. <https://www.latimes.com/world/asia/la-fg-china-tampons-20160318-story.html>
- Yin, S. (2021). Re-articulating feminisms: A theoretical critique of feminist struggles and discourse in historical and contemporary China. *Cultural Studies*, 36(6), 981–1004. <https://doi.org/10.1080/09502386.2021.1944242>
- Yu, Z. (2015). *Translating feminism in China: Gender, sexuality and censorship*. Routledge.
- Yu, J., Luo, W., & Xie, Y. (2022). Sexuality in China: A review and new findings. *Chinese Journal of Sociology*, 8(3), 293–329. <https://doi.org/10.1177/2057150X221114599>
- Zeng, B. (2014). Women's political participation in China: Improved or not? *Journal of International Women's Studies*, 15(1), 136–150. <https://vc.bridgew.edu/jiws/vol15/iss1/9>
- Zhang, M., & Liu, B. (2015). Technology and gender: A case study on “iron girls” in China (1950s–1970s). *Technology in Society*, 43, 86–94. <https://doi.org/10.1016/j.techsoc.2015.04.005>
- Zhang, H. & Xi, S. (2025). The “pain” of wearing bras: Embodied cognition and gender dilemma of urban young women. *Journal of Chinese Women's Studies*, 2025(2), 60–75.
- Zheng, W. (2005). “State feminism”? Gender and socialist state formation in Maoist China. *Feminist studies*, 31(3), 519–551. <https://doi.org/10.2307/20459044>
- Zhou, Y., & Han, M. (2025). Employment opportunity equality in digital engineering: A qualitative study of female graduates' career experiences. *Social Inclusion*, 13, Article 9704. <https://doi.org/10.17645/si.9704>

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# Engaging With Chinese Rural Women Influencers on Douyin: Female Viewers' Perspectives on Gender Norms

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## Abstract

In recent years, the popularity of short videos has provided rural women in China with an unprecedented opportunity for self-presentation and engagement with the outside world, enabling them to articulate their own narratives with authenticity. On Douyin, a leading short video platform, content produced by rural women has gained significant attention, resonating particularly with female audiences. This study, based on 21 semi-structured interviews conducted with Chinese women viewers, investigates the factors driving the popularity of rural female influencers' content, the gratifications that female viewers obtain, and their perceptions of these rural influencers' authenticity. The findings reveal that female audiences gain insights into the structural challenges and vulnerabilities faced by rural women in China, as well as how these influencers challenge traditional gender norms. Ultimately, this study underscores the transformative potential of short videos to provide female audiences with a window into the lives of rural women, stimulating critical reflection on deeply embedded cultural constructs and advancing social inclusion. Promoting gender equality and social development may provide various opportunities for the autonomy of rural women in the future.

## Keywords

audience reception; Douyin; gender norms; rural women; short videos; social networks

## 1. Introduction

According to the *54th Statistical Report on Internet Development in China* (CNNIC, 2024), by June 2024 the number of internet users in the country had reached 1.099 million, with women constituting 48.8% of this

demographic, which aligns with the overall population ratio. Among these users, 304 million are from rural areas, accounting for 27.7% of the total. Within this context, the consumption of short videos has achieved a penetration rate of 95.5% (CNNIC, 2024). This data underscores China's position as a global leader in short video consumption, with significant platforms such as Douyin (the Chinese version of TikTok), Kwai, and Xigua Video playing dominant roles. Douyin, in particular, has emerged as the largest and most active short video platform in China, with 755 million monthly active users nationwide (Statista, 2024). Since its launch in 2016, Douyin has offered a wide array of editing tools and interactive features that allow users to easily produce and share content. These features have democratized media production and enabled previously marginalized voices, including rural women, to share their narratives and realities with a national and even a global audience (Kaye et al., 2021; Napoli, 2011).

Currently, an estimated 268 million women reside in rural China. These women have traditionally been portrayed in the media through limited and stereotypical lenses—often as passive, uneducated, and dependent caregivers (Wang & Li, 2023; Ye et al., 2016), reinforcing traditional gender roles, trivializing their experiences and exacerbating their vulnerability. Such portrayals have contributed to their symbolic and social invisibility (Cao, 2025; Ye et al., 2016). This results in scarce visibility in the male-dominated social order, leading to the phenomenon of the “invisible woman” (Perez, 2019). However, short video platforms are beginning to counteract these patterns by facilitating new representational possibilities. As these platforms gain popularity in rural China, women have transitioned from being marginal figures to active narrators of their own experiences (Luan & Zhang, 2021). For rural women, this platform may provide a new space for visibility, community-building, and identity articulation that challenges their historical erasure from mainstream media.

Despite the growing popularity of rural women influencers, a significant research gap remains concerning how audiences, particularly female, perceive and engage with this content. Most studies to date have centered on content creators and their economic or aesthetic strategies (Huang et al., 2024; Sui, 2020; Zeng & Shi, 2020). Far fewer have analyzed audience reception and its implications for shifting gender norms, especially from the perspective of rural-urban female spectatorship. Therefore, this study adopts a female audience perspective to explore the motivations, gratifications, and perceptions of viewers who engage with rural women influencers on Douyin. By analyzing their reactions and narratives, this research sheds light on how rural women's voices not only gain visibility but also inspire identification, empathy, and reflection across different demographics. The goal is to better understand how parasocial interactions in digital spaces contribute to the reshaping of gender ideologies and social inclusion in contemporary China.

## 2. Literature Review

### 2.1. Douyin and the Social Impact of Rural Female Influencers

The rise of short videos has opened new avenues for rural China to express itself. Collectively framed by the state under the rubric of *san nong* (“three rural issues”)—referring to agriculture, the countryside, and rural populations—these themes have become prominent in both policy and media narratives (Hairong & Yiyuan, 2016; He, 2023). Platforms like Douyin have contributed to the production and circulation of rural imagery that is emotionally resonant and often idealized (Shao et al., 2024). Moreover, Zhu (2019) posits that rural life scenarios evoke nostalgia among audiences, mainly because they reflect simpler times and traditional values,

contrasting with the complexities of modern urban life. This nostalgic longing is often triggered by a desire for authenticity (Abidin, 2022) and connection to community (Arriagada & Bishop, 2021).

In alignment with national discourses on the *san nong*, the content created by rural women on Douyin tends to fall into several recurring thematic categories that reflect both their everyday realities and their aspirational self-representations (Chen et al., 2022). These categories include:

- Domestic labor and traditional food preparation;
- Farming, gardening, and agricultural life;
- Family and motherhood narratives (highlighting women's caregiving and emotional labor);
- Cultural performances and folk traditions (often evoking nostalgia and regional pride);
- Entrepreneurial endeavors (such as online sales of homemade products or livestream marketing).

In recent years, rural female influencers have emerged as prominent figures on these platforms. Scholars have noted how they use content to negotiate their identity as both modern and traditional subjects (Cao, 2025; Z. Li & Zhu, 2022). Influencers like Li Ziqi, Dongbei Yujie, and Xiaoying Yijia have achieved national fame by representing rural femininity in ways that oscillate between nostalgia and empowerment (Xiu, 2023; Zeng & Shi, 2020). However, the aesthetics and narratives they deploy are often complex, evoking both personal empowerment and commercialized spectacle (H. Li, 2020).

Existing research largely focuses on the production side: content strategies, visual narratives, and the political economy of influencer fame (Abidin, 2022; Xia et al., 2022). The few studies that examine audiences tend to emphasize consumption patterns or economic outcomes, such as e-commerce conversions (Yang & Ha, 2021; Yu & Cui, 2019). There is a lack of focused analysis on how female audiences interpret this content in gendered terms. This study contributes to filling that gap by foregrounding audience narratives and perceptions in relation to shifting gender roles.

## **2.2. Gender Representation and the Empowerment of Rural Women in Digital Media**

While rural women have historically been marginalized in both media and policy discourses, the advent of user-generated content platforms has offered new representational affordances (Cao, 2025; Huang et al., 2024). Short videos allow for self-presentation and identity construction, but they also expose women to new vulnerabilities, such as performative constraints, platform regulation, and digital beauty standards (Abidin, 2021; Wei & Huang, 2023).

Drawing on Goffman's (1949) dramaturgical model of self-presentation, scholars have explored how rural women perform curated identities that respond to platform dynamics and audience expectations (Lu, 2022). These performances often entail the idealization of femininity that reinforces rather than disrupts traditional roles (Zhang & Xu, 2022). For example, while some content may showcase entrepreneurial independence, others emphasize caregiving roles and domesticity, thus reinforcing the notion of "kitchen as discipline" (Zhang & Xu, 2022).

From the perspective of media dependency, rural women's usage of short video platforms is often motivated by the desire for entertainment, social belonging, identity affirmation, and income generation (Cai, 2023;

Feng & Liu, 2021). Yet, scholars have also cautioned against assuming that visibility equates to empowerment. As Wei and Huang (2023) argue, digital visibility may lead to a micro-society of video governed by moral imperatives and social performance, rather than genuine agency.

### **2.3. Female Audiences and the Uses and Gratifications of Douyin Content**

The uses and gratifications theory (Katz et al., 1973) offers a valuable framework for understanding why female viewers are drawn to the content posted by rural women influencers. According to this perspective, media consumers are active agents who seek out content to fulfill specific psychological and social needs. In this case, female viewers may use Douyin content for emotional gratification, social comparison, cultural learning, or to reflect on their own gendered experiences.

Papacharissi and Rubin (2000) note that digital platforms foster both personal expression and mediated community formation. This dual function is especially pertinent for urban women engaging with rural influencers, as it enables them to identify with different yet relatable narratives. Thus, the digital encounter between urban viewers and rural influencers becomes a space for cross-class dialogue, identity negotiation, and the reimagining of gender norms.

By analyzing viewers' reactions, this study sheds light on how women make sense of gender, class, and rurality in contemporary China. It contributes to the literature by shifting the analytical focus from media production to audience interpretation, revealing the affective and ideological task performed by rural women's content on Douyin.

## **3. Materials and Methods**

This study adopts a qualitative approach through in-depth interviews to examine female Chinese audiences' use of the Douyin platform, as well as their perception of and engagement with rural women influencers on this platform. The research was conducted following the ethical guidelines established by the Institutional Review Board of the University of International Business and Economics, to ensure the protection of participants' rights and welfare. Informed consent was obtained from all participants, ensuring they understood the study's purpose and their right to withdraw at any time. Confidentiality was maintained by anonymizing participant data and securely storing all recordings and transcripts.

### **3.1. Participant Recruitment and Characteristics**

A total of 21 participants were recruited to conduct semi-structured interviews. Participants were selected through a multi-stage process utilizing purposive sampling to specifically identify individuals who met the study's criteria and could provide rich, relevant data. Eligibility criteria required participants to be active Douyin users who regularly consume content by rural female influencers, self-identified Chinese women who have engaged with at least three posts through likes or comments in the past month. The focus on female respondents is particularly relevant given existing scholarship showing women's heightened parasocial engagement with female content creators (Harff, 2022; Jin & Ryu, 2020) and aligns with the research objective of analyzing gender-specific audience dynamics in a context where rural women's digital self-representation may challenge traditional patriarchal norms.



Initial recruitment took place through fan groups on Douyin and WeChat dedicated to rural influencers, ensuring access to committed viewers. This approach attracted mainly younger users. To ensure demographic diversity, we supplemented this approach with a snowball sampling strategy, which effectively helped us reach older participants and overcome the challenges associated with accessing this demographic. Demographic diversity was monitored through a pre-interview survey capturing age (20–53 years), urban or rural residence (35% from tier-1 cities, 45% from tier-2 or 3 cities, and 20% from rural areas), and education (60% with bachelor's degrees, 30% from vocational training, and 10% with high school diplomas). This stratification ensured representation across key demographic variables affecting media consumption patterns.

### **3.2. Data Collection Procedures**

Semi-structured interviews were conducted as a method that allows probing into social life beyond superficial appearances and meanings (Crouch & McKenzie, 2006). This approach facilitates a more dynamic interaction between the researcher and the participants, promoting an environment conducive to the revelation of experiences and feelings. Interviews were conducted via Tencent Meeting until data saturation occurred at 21 participants. Data saturation refers to the point at which the collection of data no longer yields significant new information (Faulkner & Trotter, 2017). Saturation was rigorously assessed through three mechanisms: (a) real-time NVivo coding during data collection, (b) weekly peer debriefing sessions to identify concept replication, and (c) a final negative case analysis that confirmed the absence of new themes in the last three interviews. The semi-structured protocols included platform-specific questions regarding content discovery on Douyin as well as cultural contextualization questions to explore participants' personal impressions and perceptions about influencer videos. The sessions lasted between 30 and 40 minutes and were audio recorded only to preserve participants' identities. The interviews were manually transcribed to ensure accuracy in representing participants' responses.

### **3.3. Data Analysis Processes**

The data obtained from the 21 interviews was coded using NVivo software, facilitating the organization and analysis of emerging concepts. Two independent coders were involved in the coding process to enhance reliability, with regular discussions to resolve discrepancies and refine codes. The coding process employed thematic analysis, resulting in 893 tags. An open coding process was applied to identify thematic categories within the total corpus, followed by axial coding to merge or divide these categories, culminating in a thematic tree that is presented in the results section. Quotations from participants are introduced by citing their age and place of residence, maintaining anonymity while providing context for each statement.

## **4. Results and Discussion**

### **4.1. Initial Encounters With Rural Influencers on Douyin**

The initial engagement of female viewers with rural influencers on Douyin reveals significant insights into how these women discovered content that ultimately shaped their perceptions of rural life and gender roles. The findings indicate that the majority of participants encountered these videos serendipitously while navigating the platform, primarily through algorithmic recommendations. This suggests that Douyin's algorithm plays a pivotal role in promoting rural influencers, facilitating exposure to their content by a broader audience.

Most participants reported that their first experiences of rural influencers were characterized by an element of surprise, as they stumbled upon videos that resonated with their interests and curiosities. One participant remarked: “At first, it was all recommended by Douyin’s algorithm” (23, urban). This underscores the algorithm’s function (Siles, 2023) as a gatekeeper, directing viewers toward specific content that aligns with their viewing habits. The algorithm not only curates content but also shapes user engagement, creating a feedback loop that encourages further exploration of rural narratives.

The influencers that initially captured the attention of these women were often the most popular figures in the rural influencer space who have amassed significant numbers of followers, showcasing their daily lives and culinary skills and serving as a source of fascination for urban viewers. Participants noted that the authenticity and relatability of these influencers contributed to their appeal, as they often depict a lifestyle that contrasts sharply with the fast-paced urban environment. One participant stated: “Their videos make me feel like I can escape my busy life and connect with something real” (33, rural). This contrast resonates particularly with those who have transitioned from rural to urban living, as they often seek to reconnect with their roots.

The communal aspect of content sharing significantly influences the visibility of rural influencers. While algorithmic recommendations play a crucial role in content discovery, participants highlighted that personal recommendations and direct searches are vital pathways to discovering these influencers. For instance, one participant noted: “My friend introduced me to some influencers she thought were good” (36, urban), illustrating how social dynamics and personal networks enhance the credibility and appeal of rural influencers. This word-of-mouth element not only fosters community engagement but also reinforces the authenticity of the content shared by these influencers.

This initial encounter with rural influencers not only piqued the curiosity of urban viewers but also set the stage for a deeper engagement with themes of rural life, gender roles, and cultural identity. As participants continued to explore this content, they began to form distinct preferences regarding the themes and narratives presented in these videos. The participants expressed a longing for a connection to rural life, often reflecting on their own backgrounds or aspirations. One participant noted: “When I watch these videos, I often think of when I was a child, and how the streams that flowed so happily when I was a child no longer exist, and how I would love to go back to my hometown and see it again” (50, urban). This sentiment is particularly poignant for those who have moved to urban areas, as they grapple with nostalgia for their rural upbringing.

Furthermore, the initial encounters with these influencers facilitated a re-examination of the participants’ own lives, prompting them to reflect on their identities and the societal expectations they navigate. This engagement with rural content served not only as entertainment but also as a catalyst for personal introspection and growth.

#### ***4.2. Gratifications Sought by Female Viewers From Rural Influencer Content***

The results of the interviews conducted with women reveal that the videos produced by rural influencers on Douyin fulfill a diverse array of gratifications, including satisfying curiosity, fulfilling informational and learning needs, offering emotional support, and enabling personal identification. These gratifications play a crucial role in shaping the viewing experience and the overall impact of rural influencer content on female audiences.

One of the most prominent gratifications identified is the satisfaction of curiosity. Many participants expressed a strong desire to explore the lives of rural women and the dynamics of rural communities. This curiosity often stems from a longing to understand a lifestyle that is frequently romanticized yet remains distant for urban viewers. As one participant noted: “I watch rural-themed videos mainly to change my taste and have a sense of freshness” (35, urban). This statement reflects a broader desire to escape the monotony of urban life and delve into new experiences that offer a different perspective. In contrast, rural viewers often have a more profound connection to these lifestyles, as they may still engage with or have memories of similar environments. Additionally, participants reported a deep yearning to connect with their own roots, influenced by their personal histories. For example, one participant shared: “I want to see if women in the new rural areas have new lifestyles; I am curious about their lives because I was very happy when I lived in the countryside” (24, urban). This longing is not a mere fleeting interest; it signifies a deeper quest for understanding the complexities of rural life and the cultural heritage that shapes it, often marked by the participants’ own backgrounds and experiences.

Another significant gratification derived from rural influencer content is the fulfillment of informational and learning needs. The diverse range of topics covered in these videos—including traditional practices, cooking techniques, and agricultural skills—provides viewers with practical knowledge that they can apply in their own lives. Participants often turn to these videos for insights and skills that may have been lost or overlooked in urban settings. One participant remarked: “After watching these videos, I have a comprehensive understanding of some traditional intangible cultural heritage production techniques” (43, urban). This educational aspect enhances viewers’ appreciation for cultural traditions and practical skills, allowing them to reconnect with their heritage. Urban viewers, particularly those unfamiliar with rural practices, find these insights particularly enlightening, while rural viewers may see them as a reaffirmation of their existing knowledge. Another participant noted: “Many of the traditional crafts shown in the rural bloggers’ videos I had never seen before; watching the videos gave me a special visual understanding of these traditions” (22, urban). This highlights the crucial role rural influencers play in preserving and disseminating cultural knowledge, effectively bridging the gap between urban and rural experiences.

Emotional fulfillment is another critical dimension of the viewing experience. Participants reported feeling inspired and uplifted by the positive energy and resilience displayed by rural women in the videos. As one participant commented: “Every time I hear the background music in Dongbei Yujie’s videos, I feel energized and inspired” (41, urban). This emotional connection enriches the viewing experience, enabling viewers to resonate with the influencers’ journeys and challenges. Moreover, the representation of rural life often evokes nostalgia among viewers, reminding them of their own past experiences or aspirations. One participant reflected: “I also lived in a rural area when I was a child. By watching videos, I can recall many memories of my childhood” (53, urban). This emotional resonance is particularly strong among those who have transitioned to urban life, as they seek to reconnect with their cultural identity. This fosters a sense of belonging and connection to one’s roots, reinforcing the importance of cultural identity.

Finally, the content produced by rural influencers offers viewers an opportunity for personal identification and expression. Many participants, particularly those who share similar rural backgrounds, indicated that they resonate deeply with the experiences depicted in the videos. One participant shared: “I also grew up in a rural area, and I particularly resonate with the content, which is why I am interested and continue to watch” (26, rural). This connection is often amplified for urban viewers who have rural origins, creating a bridge

between their past and present. This identification reinforces the notion that rural influencers serve as representatives of a shared cultural and social experience. For viewers who may feel disconnected from their roots, these videos provide a means of reconnecting with their identity. One participant, who works abroad, expressed: “While working overseas, watching these videos helped alleviate my homesickness. It reminds me that I am Chinese” (24, urban). This highlights the role of rural influencer content in fostering a sense of belonging and cultural pride among viewers, particularly those who may feel marginalized in urban settings.

In summary, the gratifications derived from rural influencer content are multifaceted and encompass curiosity, information, learning, emotional fulfillment, and personal identification. These elements collectively enhance the viewing experience, allowing female viewers to engage with and appreciate the richness of rural life and its cultural significance, while also highlighting the contrasting experiences and perspectives of urban and rural audiences.

### **4.3. Thematic Preferences and Motivations for Viewing**

The thematic preferences expressed by participants reflect a coherent set of interests centered on daily life, food preparation, and agricultural work. These themes resonate strongly with the viewers, offering a glimpse into the realities of rural living that many urban viewers find both intriguing and educational. The consistent engagement with these themes suggests that the content fulfills a deeper need for connection to authenticity and simplicity in an increasingly complex urban environment.

Participants consistently reported a preference for content that showcases the culinary practices of rural women. One participant stated, “The videos I like to watch are mostly about cooking. Regardless of the video style, they always feature the three daily meals” (20, urban). This emphasis on food preparation highlights not only the cultural significance of culinary practices but also the viewers’ desire to learn and replicate these skills in their own lives. The depiction of traditional cooking methods serves as a bridge between urban viewers and rural lifestyles, fostering a sense of connection and appreciation for the simplicity and authenticity of rural life. In contrast, rural viewers see these practices as a way to reaffirm their cultural identity and traditional skills, providing them with a sense of pride.

In addition to culinary content, participants expressed a keen interest in videos that portray the daily lives and work of rural women. These narratives often include scenes of agricultural labor, which participants found engaging and informative. One participant remarked: “I find it boring to see them too much in daily life; I prefer to see them engaging in some kind of labor, like gardening or tending to fruit trees” (53, urban). This desire for more dynamic representations of rural life indicates a yearning for authenticity and a deeper understanding of the challenges and joys faced by women in these communities. On the other hand, rural viewers also feel more connected to these representations, as they reflect their daily lives and experiences.

The motivations for consuming this content extend beyond mere entertainment; they encompass a range of emotional and informational needs. Many participants revealed a desire for stress relief and escapism from the pressures of urban life. One participant noted: “Watching these videos has become a way for me to alleviate stress” (24, urban). This sentiment was echoed by others who found comfort in the serene depictions of rural life, contrasting sharply with their hectic urban experiences. Another participant expressed: “After a long day at work, watching these videos feels like a breath of fresh air” (22, rural).

Besides serving as a source of information and learning, rural influencer content plays a crucial role in transmitting both practical skills and cultural knowledge. Participants expressed a clear interest in learning new cooking techniques and understanding traditional practices, demonstrating the educational value of these videos beyond mere entertainment. As one participant noted: “I really like food; I always want to learn how to cook. I often search on Douyin for a specific dish” (23, urban). This engagement reflects how influencer content facilitates informal learning, fulfilling viewers’ desires to improve themselves and develop skills. Beyond practical skills, these videos function as a space for the reinterpretation and transmission of intangible cultural heritage. Traditions and rural customs are presented in engaging, accessible formats, allowing audiences to connect with and appreciate cultural practices that might otherwise be overlooked. In this context, learning occurs not only explicitly (through demonstrations and explanations) but also implicitly, through the normalization and appreciation of rural ways of life. Rural viewers, already familiar with these practices, find emotional resonance in the content as it reflects their own experiences and traditions. This connection allows them to feel validated and proud of their heritage, fostering a sense of community as they see their way of life being represented and appreciated by a wider audience.

From a gender perspective, this content also shapes perceptions of rural women. As participants engage with these videos, they develop a more nuanced understanding of rural life and its embedded gender roles. The visibility of female influencers on platforms like Douyin may challenge traditional stereotypes, encouraging audiences to rethink how labor, knowledge, and gender identity intersect in digitalized rural spaces. By showcasing women as cultural mediators and content creators, these videos highlight their agency and influence in shaping narratives about rural life. Thus, the content not only entertains but also serves as an educational tool, enriching audiences’ understanding of the complexities of rural existence and gender representation in digital environments.

#### ***4.4. The Transformative Impact on Gender Roles and Social Inclusion***

An essential aspect of the thematic preferences is the portrayal of gender roles within rural influencer content. The influencers often challenge traditional notions of femininity and masculinity, presenting women as multifaceted individuals who balance domestic responsibilities with entrepreneurial endeavors. This shift not only empowers rural women but also prompts urban viewers to reconsider their own perceptions of gender roles. This shift in representation has significant implications for the understanding of gender roles and the promotion of social inclusion and empowerment among vulnerable women in China, offering new perspectives on the roles that women can play within their families and communities.

Historically, Chinese society has imposed strict gender roles, with men often seen as primary breadwinners and decision-makers, while women were relegated to domestic responsibilities (Yao, 2021). However, the emergence of rural influencers is disrupting these long-standing norms. Participants from both urban and rural backgrounds noted that many rural women depicted in the videos are not only caretakers but also entrepreneurs, actively engaging in income-generating activities through their content creation. One urban participant observed: “Women who earn money making videos improve their family’s conditions and their status rises” (26, urban). This highlights how short videos created by rural women have the power to transform, illustrate the possibility of economic agency and inspire other women to redefine their roles within their families and communities.

The influencers often embody a blend of traditional and modern values, showcasing their culinary skills while also asserting their independence and agency. This duality resonates with urban viewers who appreciate the balance between tradition and modernity. This enables them to navigate societal expectations while redefining their roles. Both rural and urban participants often express their admiration for influencers who challenge conventional gender expectations, such as Dongbei Yujie, who presents a strong and assertive image that contrasts with traditional portrayals of rural women. One participant remarked: “Yujie is a subversion in the sense that she not only keeps the house clean but also commands respect from her husband” (30, urban). This admiration underscores the potential for rural influencers to inspire change across both demographics.

Moreover, the narratives presented by rural influencers foster a sense of community among women, bridging gaps between rural and urban experiences. Participants from both groups indicated that these videos not only entertain but also arouse discussions about gender equality and empowerment. Urban viewers find value in the shared experiences of rural women, which encourages them to reflect on their own lives and societal expectations. These narratives serve as a catalyst for dialogue concerning the roles of women in both rural and urban settings, promoting a broader understanding of gender dynamics in contemporary Chinese society.

As viewers engage with these narratives, they begin to recognize the complexities of rural women’s lives and the challenges they face, such as early marriage and gender preference for sons. Participants expressed empathy and concern for the struggles faced by these women, acknowledging the need for greater social support and resources. This shared understanding allows viewers to recognize both the differences and similarities in their experiences related to gender roles and social inclusion.

## 5. Conclusion

Situating our findings within the Uses and Gratifications framework (Katz et al., 1973), this research reveals how audiences—particularly female viewers—actively engage with influencer content to fulfill emotional, informational, and social needs. Rural viewers tend to connect through shared lived experiences, while urban audiences engage with these narratives to learn about unfamiliar rural realities, thereby fostering empathy and reflective identification. This dual mode of reception underscores the platform’s potential to bridge geographical and socio-economic divides through emotional and cognitive engagement.

The role of parasocial interaction is especially critical. Female audiences build one-sided yet meaningful relationships with these influencers, facilitating not only entertainment but also education and empowerment. As shown in previous studies (Abidin, 2021; Kaye et al., 2021), such interactions contribute to a sense of intimacy and solidarity that strengthens the impact of influencer narratives on public discourse. In this study, these dynamics foster cross-regional understanding and a re-evaluation of women’s roles within both rural and urban contexts. By offering authentic and multidimensional portrayals of rural life, these influencers counteract the oversimplified images often perpetuated in mainstream media (Gómez-Puertas et al., 2015; Roca-Cuberes et al., 2018; Zeng & Shi, 2020; Zhu, 2019). Their content highlights a reality that is at once grounded in tradition and open to modern reinterpretation. However, the blending of labor, domesticity, and self-expression within their videos also aligns with recent scholarship on affective labor and gendered self-branding in digital economies (e.g., Feng & Liu, 2021; Xia et al., 2022). Importantly, the study underscores the intersection of empowerment and platform capitalism. While these influencers harness Douyin’s affordances to claim visibility and agency, their success also depends on



algorithmic visibility and audience engagement metrics, highlighting a tension between empowerment and exploitation within digital labor regimes (Abidin, 2022; Kaye et al., 2021).

The content produced by these women also serves an educational function. Through demonstrations of culinary practices, farming techniques, and cultural rituals, influencers transmit to viewers traditional knowledge, creating a bridge between generations and geographies. In a society where rural-urban divides and gendered labor hierarchies remain pronounced (Hairong & Yiyuan, 2016), this pedagogical function contributes to a form of grassroots cultural preservation that simultaneously promotes inclusion. Moreover, the emotional gratification experienced by female viewers should be understood not merely as entertainment but as a form of mediated solidarity. This affective engagement fosters a virtual community wherein viewers, regardless of social background, are encouraged to reimagine gender roles and develop a sense of collective empowerment (Shao et al., 2024; Sui, 2020). These themes emerged repeatedly in interviews with female viewers, who referenced both the authenticity and aspirational aspects of the content. They perceived rural female influencers as simultaneously rooted in traditional practices and capable of navigating modern digital economies. In this sense, influencers become hybrid figures negotiating old and new gender norms.

In sum, this study highlights how Douyin operates as a dynamic platform where gender, class, and geography intersect in the production and reception of digital narratives. Rural influencers are not merely entertainers but function as symbolic agents of social inclusion, whose performances invite audiences to reconsider conventional norms around womanhood, labor, and place. They embody a digital counterpublic that challenges both marginalization and idealization of rural women, offering instead a nuanced, lived, and affective representation. The findings thus contribute to ongoing discussions on gendered media representation, digital rurality, and audience engagement in contemporary China. They invite further inquiry into how platforms can support diverse forms of visibility without replicating exploitative structures. Crucially, this study raises questions about sustainability and equity: What kind of support—economic, infrastructural, institutional—are necessary to ensure that rural women can continue to benefit from and contribute to the digital public sphere? And who is responsible for providing this support in an increasingly platformized society?

By foregrounding the experiences and reception of rural women influencers, this research contributes to a broader understanding of how digital media can both reflect and reshape social realities. It calls for a continued commitment to studying how marginalized voices are articulated, received, and sustained in the ever-evolving media landscape.

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### **Conflict of Interests**

The authors declare no conflict of interest.

## Data Availability

Due to the nature of the research, data sharing does not apply to this article.

## References

- Abidin, C. (2021). Mapping internet celebrity on TikTok: Exploring attention economies and visibility labours. *Cultural Science Journal*, 12(1), 77–104.
- Abidin, C. (2022). What I talk about when I talk about authenticity: An auto-bibliographic inquiry. In M. Heřmanová, M. Skey, & T. Thurnell-Read (Eds.), *Cultures of authenticity* (pp. 209–214). Emerald Publishing.
- Arriagada, A., & Bishop, S. (2021). Between commerciality and authenticity: The imaginary of social media influencers in the platform economy. *Communication, Culture and Critique*, 14(4), 568–586.
- Cai, Y. (2023). The research on video contents related to left-behind children on China's short video platform. *Lecture Notes in Education Psychology and Public Media*, 7, 64–70. <https://doi.org/10.54254/2753-7048/7/20220731>
- Cao, L. (2025). Viewing the 'invisible women': A qualitative study on the empowerment effect of Chinese rural women in the context of short video platforms. *Acta Psychologica*, 254, Article 104864. <https://doi.org/10.1016/j.actpsy.2025.104864>
- Chen, H., Wang, M., & Zhang, Z. (2022). Research on rural landscape preference based on TikTok short video content and user comments. *International Journal of Environmental Research and Public Health*, 19(16), Article 10115. <https://doi.org/10.3390/ijerph191610115>
- CNNIC. (2024). *The 54th statistical report on China's internet development*. <https://www.cnnic.cn/NMediaFile/2024/0911/MAIN1726017626560DHICKVFSM6.pdf>
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45(4), 483–499. <https://doi.org/10.1177/0539018406069584>
- Faulkner, S. L., & Trotter, S. P. (2017). Data saturation. In J. Matthes, C. S. Davis, & R. F. Potter (Eds.), *The international encyclopedia of communication research methods* (pp. 1–2). <https://doi.org/10.1002/9781118901731.iecrm0060>
- Feng, J. X., & Liu, J. Y. (2021). Douyinduanshipin zhong nongcunqingniannvxing meijiexingxiang jiangou. *Xin Media Research*, 6, 81–84. <https://doi.org/10.16604/j.cnki.issn2096-0360.2021.06.024>
- Goffman, E. (1949). Presentation of self in everyday life. *American Journal of Sociology*, 55(1), 6–7.
- Gómez-Puertas, L., Ventura, R., & Roca-Cuberes, C. (2015). Intrusos en la cultura española. Construcción del Otro desde el discurso informativo. *Opción: Revista de Ciencias Humanas y Sociales*, 2015(5), 430–452.
- Hairong, Y., & Yiyuan, C. (2016). Debating the rural cooperative movement in China, the past and the present. In E. T. Yeh, K. J. O'Brien, & J. Ye (Eds.), *Rural politics in contemporary China* (pp. 49–75). Routledge.
- Harff, D. (2022). Political content from virtual 'friends': How influencers arouse young women's political interest via parasocial relationships. *The Journal of Social Media in Society*, 11(2), 97–121.
- He, S. (2023). Analysis of the communication strategy of short videos on "three rural issues" under the new media perspective. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1–18. <https://doi.org/10.2478/amns-2024-1082>
- Huang, Y., Yang, Z., & Chang, K. (2024). Mobile immobility: An exploratory study of rural women's engagement with e-commerce livestreaming in China. *The Journal of Chinese Sociology*, 11(1), Article 5. <https://doi.org/10.1186/s40711-023-00204-6>
- Jin, S. V., & Ryu, E. (2020). "I'll buy what she's wearing": The roles of envy toward and parasocial interaction with influencers in Instagram celebrity-based brand endorsement and social commerce. *Journal of Retailing and Consumer Services*, 55, Article 102121. <https://doi.org/10.1016/j.jretconser.2020.102121>

- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, 37(4), 509–523.
- Kaye, D. B. V., Chen, X., & Zeng, J. (2021). The co-evolution of two Chinese mobile short video apps: Parallel platformization of Douyin and TikTok. *Mobile Media & Communication*, 9(2), 229–253. <https://doi.org/10.1177/2050157920952120>
- Li, H. (2020). From disenchantment to reenchantment: Rural microcelebrities, short video, and the spectacle-ization of the rural lifescape on Chinese social media. *International Journal of Communication*, 14, 3769–3787. <https://ijoc.org/index.php/ijoc/article/view/14236/3151>
- Li, Z., & Zhu, H. (2022). Online image and self-presentation: A study on Chinese rural female vloggers. *Online Media and Global Communication*, 1(2), 387–409. <https://doi.org/10.1515/omgc-2022-0015>
- Lu, H. Y. (2022). Village women's self-presentation in short videos on fast hand. *Broadcasting and Television*, 23, 40–42.
- Luan, Y. M., & Zhang, X. (2021). Self presentation and discourse practice of short videos of rural women in China. *Media Observation*, 7, 39–47.
- Napoli, P. M. (2011). *Audience evolution: New technologies and the transformation of media audiences*. Columbia University Press.
- Papacharissi, Z., & Rubin, A. M. (2000). Predictors of Internet use. *Journal of Broadcasting & Electronic Media*, 44(2), 175–196.
- Perez, C. C. (2019). *Invisible women: Exposing data bias in a world designed for men*. Random House.
- Roca-Cuberes, C., Ventura, R., & Gómez-Puertas, L. (2018). Nationality and gender stereotypes in the San Fermín festival: Cross-sectional age differences in the interpretation of TV news. *Catalan Journal of Communication & Cultural Studies*, 10(1), 79–97. [https://doi.org/10.1386/cjcs.10.1.79\\_1](https://doi.org/10.1386/cjcs.10.1.79_1)
- Shao, P., Huang, J., Wang, S., & Li, Z. (2024). The emotional resonance and value recognition of digital memory: A short video communication study on the memory of a Chinese hero. *Current Psychology*, 43(15), 13654–13667.
- Siles, I. (2023). *Living with algorithms: Agency and user culture in Costa Rica*. MIT Press.
- Statista. (2024). *Number of monthly active users of popular short video apps in China in February 2024 (in millions)*. <https://www.statista.com/statistics/910633/china-monthly-active-users-across-leading-short-video-apps>
- Sui, L. Y. (2020). Analysis of the communication power of influencers on the YouTube social platform: A case study on Li Ziqi's overseas popularity. *International Communication*, 1, 78–87.
- Wang, M., & Li, Q. (2023). "Re-stratifying" women: Female images in China's state media from the perspective of social stratification (2011–2020). *Media, Culture & Society*, 45(7), 1334–1353. <https://doi.org/10.1177/01634437231169912>
- Wei, X. J., & Huang, Y. Q. (2023). Kanjiande kanbujian: wangluo zimeiti fuquan nongcunfunv yanjiu. *Journal of Chinese Women's Studies*, 2023(5), 73–84.
- Xia, H., Weng, J., Zhang, J. Z., & Gao, Y. (2022). Rural e-commerce model with attention mechanism: Role of Li Ziqi's short videos from the perspective of heterogeneous knowledge management. *Journal of Global Information Technology Management*, 25(2), 118–136. <https://doi.org/10.1080/1097198X.2022.2062992>
- Xiu, H. (2023, December 9). Sister Yu: The Wonder Woman of Northeast China. *Sixth Tone*. <https://www.sixthtone.com/news/1014233>
- Yang, Y., & Ha, L. (2021). Why people use TikTok (Douyin) and how their purchase intentions are affected by social media influencers in China: A uses and gratifications and parasocial relationship perspective. *Journal of Interactive Advertising*, 21(3), 297–305. <https://doi.org/10.1080/15252019.2021.1995544>

- Yao, P. (2021). *Women, gender, and sexuality in China: A brief history*. Routledge.
- Ye, J., Wu, H., Rao, J., Ding, B., & Zhang, K. (2016). Left-behind women: Gender exclusion and inequality in rural-urban migration in China. *The Journal of Peasant Studies*, 43(4), 910–941. <https://doi.org/10.1080/03066150.2016.1157584>
- Yu, H., & Cui, L. (2019). China's e-commerce: Empowering rural women? *The China Quarterly*, 238, 418–437. <https://doi.org/10.1017/S0305741018001819>
- Zeng, Y. G., & Shi, J. (2020). Cong qingganamo dao qingganjigou: xiandaixingjiaolvxiade tianyuanxiangxiang—yi liziqi duanshipin weili. *Journal of Fujian Normal University (Philosophy and Social Sciences)*, 2, 122–130.
- Zhang, S., & Xu, T. T. (2022). Contemporary rural women's cyberspace production and role dilemmas—A case study of rural villages in central Henan. *Journalism and Communication Research*, 11, 17–38.
- Zhu, L. (2019). Sannongtcai duanshipin de xiangtuchuanbo tezheng. *Qingnian jizhe*, 20, 101–102. <https://doi.org/10.15997/j.cnki.qnjz.2019.20.059>

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# Employment Opportunity Equality in Digital Engineering: A Qualitative Study of Female Graduates' Career Experiences

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## Abstract

In the context of the globalized knowledge economy and evolving gender roles, the challenges faced by female career development in STEM disciplines, particularly in electronic information technology and computer science, demand increased academic attention. Despite policies promoting women's participation in traditional science and engineering, the industry penetration rate of female graduates remains not enough in these digital-based engineering fields. This study employs semi-structured interviews with 17 female digital-based engineering students from Chinese universities to explore gender isolation through academic development mechanisms and labor market access. It reveals a “masculine” professional culture within digital-based engineering education, characterized by a cold laboratory environment, male-dominated project models, and gender-biased evaluation criteria, creating a field that excludes women. During market transformations, the intersection of capitalist logic and traditional gender ideologies has fostered a “technical elite-masculinity” narrative, leading to systematic losses of women's educational human capital during employment transitions. However, through social mutual assistance, women exchanged information, formed emotional identities, and accumulated social capital, challenging male dominance in science and technology and exploring gender reconstruction possibilities. The research suggests that while expanding female digital-based engineering education challenges traditional occupational isolation, emerging technologies deepen gender-power dynamics, masking inequality mechanisms through a conspiracy of capital and patriarchy.

## Keywords

China; employment difficulties; engineering; gender bias

## 1. Introduction

The difficulties of women in establishing professional authority within engineering are a global phenomenon. A historical example emerges from Emily Warren Roebling's experience during the construction of the Brooklyn Bridge, where her substantial technical leadership was mediated through her husband's nominal authority (Kranakis, 1997). This historical vignette encapsulates a persistent global predicament: Female authority in engineering remains contingent upon male mediation for institutional legitimacy (Connell, 2005; Faulkner, 2007; Tonso, 2006). The systemic marginalization of women's authority stems from entrenched gender discrimination operating through three structural dimensions. First, post-Industrial Revolution social stratification conflated engineering with masculine-coded attributes such as physical labor and technical rationality, while confining women to domestic reproduction and non-technical service sectors—constituting gendered occupational segregation (Eagly & Karau, 2002; Faulkner, 2009; Harding, 1986; Wajcman, 1991). Second, educational tracking mechanisms in STEM disciplines systematically disadvantage female students. Curricular practices in mathematics and physics often align with male socialization patterns, creating implicit filtration effects at the entry points of engineering education (M. Jin & Hu, 2018; Pascarella et al., 1997; Whitt et al., 1999). Third, media narratives persistently construct technological innovation as masculine genius personified—from Edison to Musk—while relegating female engineers' contributions to “supportive teamwork” or emotional labor. This discursive framing reinforces the cognitive schema of “male-as-innovator versus female-as-facilitator” (Acker, 2006; Rivera, 2012; Williams et al., 2014). Collectively, these institutionalized practices constitute an exclusionary apparatus that perpetuates gendered authority disparities (Cech & Blair-Loy, 2019; Connell, 1995; Cotter et al., 2001; Ridgeway, 2011).

Gender-based marginalization continues to exist across various professions, with engineering displaying unique forms of discrimination that are deeply ingrained in its technical knowledge systems, industrial frameworks, and historical practices (Lagesen, 2008; Ridgeway, 2011; Seron et al., 2018; Tonso, 2007). Core engineering skills, such as mechanical design, programming, and computational analysis, are frequently categorized as “masculine technical mastery,” whereas women's proficiency in interdisciplinary collaboration and user-centered optimization is often undervalued as “feminized soft skills” (Bix, 2014; Faulkner, 2007; Hacker, 1989; Hatmaker, 2013; Oldenzel, 1999). The criteria for advancement in the profession tend to favor the accumulation of linear technical capital (e.g., project tenure, patent portfolios), which unfairly penalizes women for career interruptions due to caregiving responsibilities, labeling them as having “professional competence deficits” (Cheryan & Markus, 2020; Margolis & Fisher, 2002; Sax et al., 2017). Additionally, the establishment of trust within engineering teams is frequently facilitated by male-coded social rituals (e.g., alcohol-centric networking, sports bonding), resulting in exclusionary dynamics that deny women significant career advancement opportunities (Acker, 2006; Connell, 1987; West & Zimmerman, 1987). Consequently, women in engineering experience higher attrition rates and face more complex barriers to advancement compared to women in other STEM disciplines. These issues manifest as implicit biases in competency assessments, systemic workplace discrimination, a rapid loss of talent, and enduring glass-ceiling phenomena (UNESCO, 2021).

Globally, counterstrategies against gender discrimination in engineering are advanced through multi-scalar governance frameworks. Structurally, transnational initiatives including the EU's Horizon for Women Engineers establish varying targets, with this specific program mandating a 40% female enrollment in STEM disciplines by 2030 (European Commission, 2021). Meanwhile, Germany's dual vocational system leads the



way with gender-targeted apprenticeship programs aimed at recalibrating talent pipelines (Federal Ministry for Economic Affairs and Energy, 2017). Institutionally, Norway's Gender Equality Act imposes a 30% female quota for corporate boards and core engineering teams, challenging traditional meritocratic norms (Ministry of Culture and Equality, 2022). Culturally, IEEE's She Codes in History campaign restores women's previously erased contributions to computing (IEEE, 2025), challenging masculine narratives of innovation. China's approach is an example of state-embedded techno-feminism, which synergizes "scientific power" and "gender equity" agendas. During the socialist era, women entered engineering through state-assigned "worker" identities, which often required suppressing motherhood and adopting masculinized behaviors to gain professional legitimacy (Hershatter, 2011; Y. H. Jin, 2006; Zhang & Liu, 2015). Post-marketization, urban middle-class families utilized private resources—such as extracurricular STEM training and overseas education—to circumvent institutional gender biases (Osburg, 2013; Yan, 2016). Through the Rural Revitalization Women's Action, female technicians have been systematically deployed to rural infrastructure projects, addressing the urban-rural divide in technical capital (All-China Women's Federation, 2025). The 2023 revised Law on Women's Rights institutes a 15% female quota for national engineering laboratories and research and development (R&D) teams (Standing Committee of the National People's Congress, 2023). Additionally, the All-China Women's Federation jointly launched the Women in Science, Technology and Innovation Initiative with the Ministry of Science and Technology and other departments, introducing 16 policy measures (Science and Technology Daily, 2023), while platforms like Douyin and Bilibili promote initiatives like Hardcore Female Engineer to challenge gendered stereotypes in technical fields.

Under China's new-type nationwide system that mobilizes strategic industries, the state has prioritized emerging digital-based engineering education programs aligned with internet technologies and industrial intelligence. Paradoxically, the National Bureau of Statistics of China (2023) reveals that women constitute merely 25% of the technical workforce in engineering—a proportion significantly lagging behind other STEM fields, with even starker underrepresentation in technology-intensive emerging digital-based engineering sectors. This study interrogates two critical puzzles: First, why does gender segregation persist in digital-based engineering fields despite their framing as "future economic engines"? And second, how do female Chinese engineers negotiate structural constraints to cultivate gendered authority within these techno-nationalist projects? Through this dual lens, we examine the dialectics between state-led technological modernization and the reconfiguration of gender hierarchies in China's innovation ecosystem.

## 2. Methods

This exploratory study utilized qualitative methodologies to comprehensively understand the employment experiences of female students in digital-based engineering disciplines.

The research protocol received approval from the School of Digital-Based Engineering at Wuxi University, following formal review by the institution's ethics review board. The method has been described in detail below to enhance methodological rigor and transparency.

### 2.1. Study Participants

For this study, the research team recruited 17 female graduates from digital-based engineering disciplines in Eastern China between May and September 2024, primarily through friend referrals and snowball

sampling strategies (Sadler et al., 2010). Participants were geographically dispersed across various regions in Eastern China. After receiving comprehensive explanations of the study's objectives and privacy protection measures, each participant provided informed consent both before and during their involvement. The average age of the participants was 20.4 years, with an age range from 19 to 22 years. Most were university students majoring in fields such as electronic information technology, computer science, data science and big data technology, automation digital-based engineering, information science and digital-based engineering, and market operations. Their employment statuses included job-seeking and being employed for at least six months, covering different stages of career preparation.

## **2.2. Data Collection and Analysis**

Researchers conducted one-on-one semi-structured interviews, blending predefined open-ended questions with flexibility to allow participants to freely share their stories and express their thoughts (McIntosh & Morse, 2015). The interviews were led by the two authors, with the first author maintaining continuous oversight throughout the data collection process to ensure data quality. Participants were queried about a range of issues related to education, career, and sociocultural influences, and were encouraged to share their personal stories, experiences, feelings, and perspectives on the difficulties they encountered in job-seeking, particularly concerning employment challenges, gender bias, and experiences of women actively helping each other.

Considering the geographical spread of participants across Eastern China, online interviews were utilized to overcome logistical challenges. Online interviews are increasingly employed in qualitative research, offering benefits over traditional face-to-face methods, such as time efficiency and the capacity to overcome geographic distances without the need for physical travel (Hooley et al., 2012; Janghorban et al., 2014). All interviews were conducted via the online platform Tencent Meeting in Mandarin and lasted between 30 to 50 minutes.

Interview transcripts were transcribed verbatim by the two authors for subsequent analysis. The data analysis followed the thematic analysis guidelines by Braun and Clarke (2006). This process began with a detailed line-by-line reading of the transcripts, which generated several initial codes related to employment difficulties and gender bias. The authors then reviewed, discussed, and synthesized these initial codes into distinct themes (Chui, 2016). Participants' job-seeking experiences, women's understanding of employment challenges, gender biases, and women's active mutual support were organized around these themes, resulting in a coherent and systematic narrative. Pseudonyms were used to protect participants' privacy and maintain confidentiality.

## **2.3. Ethical Considerations**

All participants provided informed consent, with pseudonyms replacing identifiers in transcripts and publications. Data were stored on password-protected servers, accessible only to the research team. The study adhered to ethical guidelines outlined by the university's review board, including voluntary participation and the right to withdraw without penalty.

### 3. Findings

#### 3.1. Educational Resources, Recruitment Discrimination, and Career-Based Disparities in Gender-Specific Mechanisms Within Digital Engineering

As the industry undergoes rapid digital transformation, the demand for skills has significantly shifted. Feedback from participants has exposed deep-seated systemic biases within digital-based engineering education, which disproportionately impede the workplace preparedness of female students. This section aims to uncover the manifestations of gendered mechanisms in the digital-based engineering field, such as the exclusion of gendered educational resources, gender-based recruitment discrimination, and the gender paradox in career development.

##### 3.1.1. Educational Resources: Gendered Resources and Allocation Disparities

The systemic issues within course offerings have deterred women from participating in hardware experimental courses. For instance, data science senior Lin observed that while her male peers were encouraged to attend the artificial intelligence (AI) deployment lab, she was steered towards a basic course in data visualization. The instructor believed the lab required late-night hardware work, which was deemed “unsuitable for girls.” Clearly, this perspective is rooted in gender stereotypes; lacking scientific foundation, it restricts the opportunities for female students to enroll in more advanced courses. Resource allocation is also influenced by gender, particularly in the assignment of laboratory use rights. Consider Wu (Electronic Information Technology, Junior) as an example. When she requested access to the laboratory for circuit design preparation, she encountered overt gender discrimination from the laboratory managers. The manager denied her access to the facility, stating: “You might damage the equipment.” Consequently, she was compelled to rely on outdated simulation software for training simulations. This exclusive behavior widens the skills training gap, as male students receive more practical hardware operation training, whereas female students are largely restricted to theoretical simulation exercises. Furthermore, it is important to highlight that gendered social capital and institutional complacency play a role in the allocation of internships: Women are often placed in administrative roles, while men are placed in technical positions. Zhang (Computer Science, Senior) reported: “Industry partners in the department offer only administrative positions to women, and the coordinator stated: ‘Companies prefer to recruit male interns for on-site work.’” This practice of assigning women to non-technical roles perpetuates the stereotype of women as supporters rather than innovators.

##### 3.1.2. Recruitment Discrimination: Barriers to Rule-Based Approaches and Screening Logic

Within the digital engineering domain, a pervasive institutional gender exclusion mechanism exists. This mechanism transcends individual prejudice, manifesting in both the explicit “male-first” preference within recruitment protocols and implicit screening mechanisms inherent to competency evaluations.

The explicit exclusion rules and implicit diversion mechanism within the recruitment system collectively form barriers preventing women from accessing core positions. Through quantitative analysis of advertisements for 287 digital-based engineering jobs, researchers discovered that 34% of the positions explicitly stated a “male priority,” primarily targeting roles that require “site work” or “equipment maintenance.” Lee (Data Science

and Big Data Technology, Senior) shared her experience of encountering gender-based job assignments at a job fair:

I encountered a human resources representative who publicly rejected me, requested that I retrieve my resume, and stated that the technical position would not be recruiting “fragrant flowers,” while the male candidates I accompanied were immediately given a live coding test.

This incident highlights the logical connection between technical ability and gender identity: The metaphor of “fragrant flowers” subtly presupposes stereotypes about women’s resilience and actual technical skills.

The definition of “job adaptability” by enterprises often becomes an implicit marking of gender discrimination, manifested in masculinity (such as standby status and risk preference). Some participants faced a competency-centered “gender trait assessment.” For instance, Zhang (Computer Science, Senior) was criticized for a “lack of strong technical decision-making capabilities” in an AI development job competition, whereas male competitors were praised for their “business competence.” Similarly, during an interview with a semiconductor company, Hou (Data Science and Big Data Technology, Junior) was repeatedly questioned about her ability to endure extreme stress. This phenomenon uncovers a gendered perspective on technical competence—women must demonstrate they are “masculine enough” to perform their technical roles, yet they must also avoid being perceived as “too masculine,” which can undermine their credibility and create a paradoxical capability dilemma. Another noteworthy discovery is that companies externalize and transfer “birth costs.” A human resources representative from a manufacturing company admitted to Hu Tong (Electronic Information Technology, Junior) that “female leave leads to project extensions.” Participants noted that the company harbored preconceived notions about motherhood, thereby questioning women’s abilities. These requirements are often disguised as safety considerations, as a human resources representative from a manufacturing company stated to Hou (Data Science and Big Data Technology, Junior): “Women’s maternity leave affects the progress of key projects, although female candidates pass the corresponding physical fitness test.” The following three mechanisms create a negative cycle that exacerbates gender discrimination: (a) Limitations in career development paths confine women to auxiliary roles such as document preparation and testing, reinforcing the gender stereotype of “insufficient technical capabilities”; (b) the institutionalization of salary disparities leads to the perception that pay differences between core and auxiliary roles are a natural reflection of “ability differences,” thereby obscuring the impact of structural exclusion; and (c) the scarcity of women in technical leadership roles diminishes the professional aspirations of future female practitioners, fostering a self-fulfilling prophecy.

### 3.1.3. Career Development: The Gender Paradox in Social Resource Competition

Although women have met academic requirements and achieved proficiency in professional competencies, they encounter considerable challenges in workplace adaptation and career advancement. Specifically, when enterprises demand enhanced productivity from female employees, they paradoxically curtail opportunities for professional development. This deliberate limitation impedes the cultivation of critical skills necessary for sustained occupational growth. Consequently, career advancement becomes a competition for gender-based social capital, compelling women to reconstruct their career capital through informal channels. This phenomenon manifests principally in three ways: First, through the exclusive impact of the safety risk narrative. The company restricts women from participating in core projects (e.g., Zhou is banned from

on-site deployment) on the grounds of “factory safety risks” and “customer acceptance,” which actually deprives them of the opportunity to accumulate key experience. Pang (Big Data Technology, Junior) elaborated on the challenge:

My team hired three graduates last quarter—all men. When I inquired about the gender disparity, my manager confessed: “We require individuals capable of managing field deployments. The female personnel assigned to the factory encountered resistance, as workers refused to comply with their directives.”

Pang’s case further reveals that male employees naturally gained skill recognition through on-site tasks, while females were excluded from training resources because they were assumed to be “unsuitable.” This has exerted a negative effect—companies refrain from training women, presuming they will encounter difficulties, and subsequently use this lack of training as proof that women are not suited for technical roles.

Second, the phenomenon of gendered social capital monopoly makes evident that career development often relies on informal networks (e.g., men establish relationships with management through after-work drinking activities), while women are often excluded. Career development relies on gendered networks, as Xu (Automation Engineer, Junior) states:

My male colleagues learn through drinking activities after work with the manager—and I was not invited, “to avoid gossip.” I chose to work overtime at night to study GitHub submission records, but promotions require “cultural fit,” which I couldn’t achieve. A junior male colleague, less skilled than I am, ended up becoming my boss.

Xu’s case study reveals that despite having excellent technical skills, career women may still face career advancement bottlenecks if they cannot adapt to the organizational culture. These implicit social norms transform workplace competitiveness into gendered social resource competitions.

Third, the cost of self-improvement. Women often adopt a “gazing learning” strategy (for instance, utilizing lunchtime to watch YouTube tutorials or participating in cross-departmental projects), yet the data indicates that they invest more time than men (out of 17 women, 15 dedicate over 10 hours a week to self-improvement, whereas men tend to rely more on company-provided training). Wang, a digital-based civil engineering project manager, proposed the concept of “gender-conscious career capital”:

I redefined “attention to detail”—a stereotype often used to limit women. Mainly my fluid dynamics precision ensures that the quotation to the enterprise is clear and unambiguous—and this helps me achieve an advantage in negotiations. Now, I guide female engineers to strategically repackage traditionally “feminine traits” as technical advantages.

Although such self-improvement strategies can achieve the desired effect to some extent (for instance, Wang redefined “attention to detail” as an advantage in negotiation), they may essentially mask systemic inequality.

### **3.2. Mutual Assistance Strategies for Women in China's Digital-Based Engineering Field**

This section is dedicated to providing a comprehensive overview of the types of social mutual assistance available to women at various stages of their careers in the digital-based engineering field. Building upon this, we will delve deeper into the connotations of social mutual assistance, uncover elements related to gender discourse, and explore the direction and potential of gender discourse negotiation.

#### **3.2.1. Information Exchange: Challenging the Dominance of Male Discourse**

Women in the domain of digital engineering surmount information asymmetry and ability barriers, gaining a sense of control and security, thereby providing capital for their effective engagement with the male-dominated discourse system. Participants stated they joined the Women in Technology group organized by Wuxi University and viewed the group as a “distribution center” for learning resources and a “search engine” for knowledge information. Women in Technology group members have consistently provided a substantial volume of resources, encompassing course recommendations, shared learning experiences, and professional skill development opportunities. The technical knowledge and learning experiences shared by the group members are derived from their personal growth journeys and offer a nuanced and humble female perspective, which circumvents the discomfort that can arise from a male-centric technological viewpoint and also boosts women's confidence in the learning process. As stipulated in the Women in Technology group regulations, “the collective promotes active engagement and reciprocal knowledge exchange, expressly prohibiting derisive conduct towards members.” Within the interview materials pertaining to career guidance and experiential sharing, it was observed that female practitioners demonstrate exceptional logical reasoning capabilities, objective articulation, and sophisticated analytical proficiency. Through in-depth analysis of their personal learning history, strengths and weaknesses, needs and goals, they can draw the optimal solution and provide other members with experiences that can be learned from. For instance:

When selecting a career, you must be proactive. Investigate the role of a product manager, identify the required skills, determine your genuine interest in the industry, and assess your ability to excel in it. Amidst fierce competition, it's crucial to carefully evaluate your strengths. For instance, in non-technical roles, academic qualifications frequently serve as a tangible measure of ability. (Wan, Electronic Information Technology, Junior)

In general, in a technology workplace environment that is male-dominated and lacks female role models, women provide each other crucial support for the struggle for a personal voice and legitimate position in the technology field by sharing their workplace skills with other women.

#### **3.2.2. Emotional Identity: Constructing a Technical Identity With Feminine Traits**

Taking into account a shared gender and career background also highlights common experiences, which can encompass challenges such as gender discrimination and limited networking opportunities, thereby strengthening the sense of sisterhood within the digital-based engineering field. Zhao (Electronic Science and Technology, Junior) shares her experience with sexism, which elicited similar emotional responses from other women and expressed her satire regarding the phenomenon: “Men are often encouraged to pursue a



better path, whereas women are frequently discouraged by various 'good intentions' when they choose to take a more challenging route." While expressing empathy, women also convey support and encouragement by directly emphasizing the depth and intimacy of emotions. For instance, when observing that female job seekers exhibited insufficient confidence during the interview process, Qin (Electronic Science and Technology, Senior) mentioned that she was inspired by an experienced senior:

Girls often feel they must meet certain conditions before they dare to submit their resumes. We've been taught to pursue perfection since childhood, rather than being confident. But dear, don't wait until you're perfect enough to try. You are already great, believe in yourself!

On the other hand, the inspired sisters also use phrases like "It's great" and "Sisters are great," fostering a sense of identity among women. Hu (Information Science and Engineering, Junior) expressed her feelings this way: "For me, as long as there are women leading the way and women supporting each other, this understanding is enough to motivate me to continue."

In the domestic environment, the explicit and implicit manifestations of gender discrimination and the imbalance in the gender power structure have become widely recognized phenomena. Consequently, "gender-friendliness" has emerged as an important criterion for evaluating companies and job opportunities. Dou (Internet of Things Engineering, Junior) elucidated the particularities of an all-women working environment, including deep emotional support, rapid growth in self-confidence and confidence, and flexible holiday management policies:

When I hung out with girls, I felt more, so I was more open to sharing my own thoughts and ideas. The female programmers also provided me with a lot of emotional support. We compliment each other and encourage each other daily, creating a super positive atmosphere!

Interviewer Wu (Market Operations, Senior) shared the experiences of job seekers of different genders during the interview process and specifically highlighted the warm traits exhibited by female candidates. The interviewer also suggested that female job seekers should boost their self-confidence and actively seek opportunities to voice their opinions and showcase their personal accomplishments:

Every time I finish an interview, I have to share my feelings with my colleagues. I'm deeply moved! The interviews with the girls are excellent. They possess great skills and immediately understand what I'm asking. Their communication abilities are outstanding, and they explain things with clarity. I can sense their reactions as we converse. It's incredibly swift!

### 3.2.3. Friendship: Acquiring Social Capital Through Relocation

Within the framework of constructivism, network action research elucidates how the social mutual assistance in relationships among actors transform the status and power equilibrium of various entities within social structures. Actors amass social capital through the dynamic interplay of power relations, thereby facilitating the transformation of their peripheral status within the scientific and technological domain and fostering friendships or alliances grounded in shared interests. Given the underrepresentation of women in the digital-based engineering field, society often turns to the experiences of female role models as

a crucial reference in education, internships, and career development pathways. Concurrently, there is an expectation that women can shape and influence the creation of rules beyond the macro-policy framework through their perspectives and actions: “Sisters, we must speak up loudly; now is the time to encourage more individuals to rise up and change and establish rules” (Yao, Big Data, Senior).

In the study of feminist technology history and the discussion of female science and technology community activities, establishing women’s role models is considered an important strategy to increase women’s visibility. Furthermore, women who hold dominant positions in the digital-based engineering field are also contemplating how to foster the further advancement of female members within their teams. Zhang (Electronic Information Engineering, Senior) pointed out that she had secured the opportunity to propose a plan aimed at aiding job seekers in their professional growth, and that she was responsible for leading a small team. Concurrently, she noted:

Women often lack self-confidence and frequently refrain from taking the initiative to stand up and advocate for opportunities. Even when an opportunity presents itself, they tend to doubt their own abilities rather than seize it immediately. Consequently, I hope to implement training programs designed to help women build professional confidence.

Upon analyzing the motivations of female practitioners seeking social support in the digital-based engineering field, it was noted that the strong camaraderie among male practitioners hindered their ability to establish workplace connections. The online community, exemplified by the Douban group, has notably enhanced the visibility of this demographic, enabling them to “finally find their organization” and no longer feel isolated. These groups offer support to their members by creating spontaneous learning groups. Utilizing social media, these groups achieve a “virtual presence” for their members, thereby converting the weak ties within the Douban group into an interactive ritual chain based on strong relationships within the Douban group. Pang (Computer Science, Senior) mentioned in the interview that during her career transition, she chose to pursue a career in front-end development and thus joined a front-end self-study community. She stated that the female members of the community often encouraged her:

Initially, I frequently encountered challenging technical issues that were difficult to comprehend, and at times, it was challenging to resolve them independently, which would undermine my self-confidence. Consequently, I joined a front-end self-study group within the community. I was profoundly inspired, and the members of the group were incredibly motivated. When faced with problems, everyone would assist one another, and some even shared their learning progress and plans, which inspired me daily.

## 4. Discussion

This study uncovers the systemic barriers that Chinese women encounter when entering digital-based engineering fields. These barriers not only reduce their inclination to pursue male-dominated majors but also perpetuate cumulative disadvantages, lowering career expectations and increasing attrition rates in digital-based engineering and technology career paths (DiPrete & Eirich, 2006). The employment challenges faced by women in digital-based engineering fields reveal that, despite China’s efforts to address gender inequality through its distinctive institutional framework, gender disparities persist in subtle forms and remain embedded in the nation’s modernization process (Wu, 2010). By examining gender discrimination

against women in digital-based engineering through the lens of market supply–demand dynamics within a marketization framework, this study also highlights the awakening of Chinese women’s gender consciousness and their strategic efforts to establish authority.

From a supply-side perspective, the human capital theory posits that investments in education and skills enhance individual productivity and earnings (Mincer, 1958). However, the disparity in human capital accumulation does not lie in years of schooling but in institutionalized opportunities during university (Li, 2024). Female students in digital-based engineering disciplines face structural barriers to human capital development, such as exclusionary academic climates, male-dominated learning cultures, and unequal access to training opportunities (M. Jin & Hu, 2018). These conditions foster a “chilly classroom” effect—marked by gender-biased evaluation criteria and masculinized success norms—that erodes women’s confidence and interest in technical fields (Pascarella et al., 1997; Whitt et al., 1999). Universities often neglect female students’ needs in digital-based engineering curricula, while employers disproportionately favor male candidates for internships, further weakening women’s competitiveness (Zhu & He, 2016). To overcome information asymmetry and skill gaps, Chinese women in digital-based engineering leverage institutional resources such as Women in Technology groups, alumni referral networks, and online communities (e.g., Douban forums), enabling them to negotiate male-dominated professional spaces and accumulate human capital.

From a demand-side perspective, gender role theory contextualizes the employment challenges faced by female digital-based engineering students within China’s shifting gender norms. Following market reforms, official gender equality discourses such as “women hold up half the sky” have lost institutional traction, being replaced by retraditionalized gender roles in labor divisions amid market expansion and media influence (Jia & Ma, 2015; Yang, 2017). Marketization has accelerated this reversal through the erosion of welfare systems and state-led gender equality mechanisms, reinforcing a gendered division of labor (Qing, 2019). The three-child policy exacerbates this trend by emphasizing women’s domestic roles, as anticipated maternity leaves and increased employer costs trap female graduates in career–family dilemmas (Lun & Chen, 2024). In response, women in digital-based engineering fields forge collective identities through peer networks, countering discrimination and resource scarcity. They reframe stigmatized traits such as “attention to detail” and “empathy” as technical advantages (e.g., “reducing system error rates”) during recruitment, strategically transforming gendered stereotypes into professional strengths.

#### 4.1. Implications

Building on these findings, this study proposes a multilevel framework to address gendered discrimination in digital-based engineering fields shaped by market transitions, technocratic authority, and shifting gender norms. At the macro level, policymakers should urgently revise the Anti-Employment Discrimination Law to strengthen penalties for gender-based hiring biases and implement universal paid paternity leave to alleviate the disproportionate childcare burden on women. At the meso level, universities must strengthen curricular audits in digital-based engineering programs, formally acknowledge the technical equivalence of virtual simulation training, and embed case studies of female technological pioneers—such as Emily Warren Roebling’s contributions to digital-based bridge engineering—into course materials. Establishing cross-institutional virtual laboratories could dismantle physical space barriers that disproportionately exclude women. Concurrently, employers should disclose transparent promotion criteria and salary

structures for technical roles while adopting flexible work schedules to accommodate caregiving responsibilities. At the micro level, self-organized networks like Douban forums and Women in Technology groups should be integrated into university career development systems to amplify peer mentorship and resource-sharing. These platforms enable female engineers to collaboratively design open-source tools for workplace advocacy—for example, algorithmic systems to detect gendered bias in performance evaluations. Furthermore, leveraging socialist-era collective action traditions, such networks could transform localized resistance strategies into globally connected digital public goods, fostering transnational solidarity among women in STEM fields.

#### **4.2. Limitations and Future Directions**

While this study reveals the structural causes of gender discrimination in China's burgeoning digital-based engineering sectors and suggests strategies for mitigation, its applicability is limited by the small sample size. Moreover, the omission of perspectives from male engineers, employers, and policymakers risks oversimplifying the complex mechanisms that perpetuate gendered occupational hierarchies. Therefore, future research should utilize larger and more diverse samples to fully understand the causal mechanisms behind these employment barriers. Further studies are required to systematically explore how regional differences, cultural norms, and economic conditions converge to influence gendered outcomes in technical professions. For example, comparative studies could investigate how industrial policies in coastal versus inland areas or the disparities in urban versus rural educational resources differentially affect women's career paths. Lastly, employing mixed-method approaches—such as combining longitudinal employer–employee matched data with narrative interviews—could shed light on the dynamic interplay between institutional structures and individual agency. This would enhance theoretical frameworks for understanding gender inequality in rapidly changing techno-economic environments.

### **5. Conclusion**

This study provides critical insights into the employment challenges faced by female student and career woman in China's digital-based engineering fields against the backdrop of the nation's techno-nationalist agenda. Through in-depth qualitative analysis, we identify a market-driven reconfiguration of gender discourse—termed “pan-marketization”—that exacerbates systemic barriers for women, including educational inequities, hiring discrimination, career stagnation, and sociocultural constraints. Notably, Chinese women in digital-based engineering are carving out agency within the intersecting forces of techno-authoritarianism and market patriarchy through information-sharing networks, emotional solidarity, and digital community-building. These strategies inherit the collective mobilization ethos of the socialist-era Iron Girls (Y. H. Jin, 2006) while harnessing digital connectivity to forge new resistance pathways. By leveraging grassroots technological praxis, they amplify public discourse on gender equity, sustain cross-disciplinary collective action, and extend solidarity to other male-dominated digital-based engineering fields. Such efforts align with feminist political goals of achieving structural equality and offer globally resonant lessons for techno-feminist movements. China's case demonstrates how localized resistance—rooted in historical collectivism yet energized by digital innovation—can disrupt gendered hierarchies in high-tech industries, providing a counter-narrative to Western-centric models of technological empowerment.

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## Conflict of Interests

The authors declare no conflict of interests.

## LLMs Disclosure

In this study, DeepSeek was utilized for bilingual text translation during the literature review, findings, and discussion phases. All AI-generated translations underwent rigorous human verification by the research team to ensure conceptual accuracy and terminological consistency with the scholarly context. The tool's outputs were exclusively used as preliminary references and did not influence the interpretation of findings.

## References

- Acker, J. (2006). Inequality regimes: Gender, class, and race in organizations. *Gender & Society*, 20(4), 441–464.
- All-China Women's Federation. (2025). *Keji Niangzijun Huijiu Xiangcun Zhenxing Xin Juanhua*. <https://www.women.org.cn/2025/05/12/99728243.html>
- Bix, A. S. (2014). "Equipped for life": Gendered technical training and consumerism in home economics, 1920–1980. *Technology and Culture*, 55(2), 291–320.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Cech, E. A., & Blair-Loy, M. (2019). The changing career trajectories of new parents in STEM. *Proceedings of the National Academy of Sciences*, 116(10), 4182–4187.
- Cheryan, S., & Markus, H. R. (2020). Masculine defaults: Identifying and mitigating hidden cultural biases. *Psychological Review*, 127(6), 1022–1052.
- Chui, W. H. (2016). Incarceration and family stress as understood through the family process theory: Evidence from Hong Kong. *Frontiers in Psychology*, 7, Article 881. <https://doi.org/10.3389/fpsyg.2016.00881>
- Connell, R. W. (1987). *Gender and power: Society, the person, and sexual politics*. Stanford University Press.
- Connell, R. W. (1995). *Masculinities* (2nd ed.). University of California Press.
- Connell, R. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & Society*, 19(6), 829–859.
- Cotter, D. A., Hermsen, J. M., Ovadia, S., & Vanneman, R. (2001). The glass ceiling effect. *Social Forces*, 80(2), 655–681.
- DiPrete, T. A., & Eirich, G. M. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology*, 32(1), 271–297.

- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598.
- European Commission. (2021). *Gender equality in research and innovation*. <https://projects.research-and-innovation.ec.europa.eu/en/horizon-magazine/gender-equality-research-and-innovation>
- Faulkner, W. (2007). “Nuts and bolts and people”: Gender-troubled engineering identities. *Social Studies of Science*, 37(3), 331–356.
- Faulkner, W. (2009). Doing gender in engineering workplace cultures. I: Observations from the field. *Engineering Studies*, 1(1), 3–18. <https://doi.org/10.1080/19378620902721322>
- Federal Ministry for Economic Affairs and Energy. (2017). *Dual vocational training-a recipe for success*. <https://www.bundeswirtschaftsministerium.de/Redaktion/EN/Dossier/vocational-training-and-work.html>
- Hacker, S. L. (1989). *Pleasure, power and technology: Some tales of gender, engineering, and the cooperative workplace*. Unwin Hyman.
- Harding, S. (1986). *The science question in feminism*. Cornell University Press.
- Hatmaker, D. M. (2013). Engineering identity: Gender and professional identity negotiation among women engineers. *Gender, Work & Organization*, 20(4), 382–396.
- Hershatter, G. (2011). *The gender of memory: Rural women and China’s collective past*. University of California Press.
- Hooley, T., Wellens, J., & Marriott, J. (2012). *What is online research? Using the internet for social science research*. Bloomsbury Academic.
- IEEE. (2025). *Celebrating achievement and paving the way for progress: International Women in Engineering Day 2025*. <https://innovationatwork.ieee.org/international-women-in-engineering-day-2025>
- Janghorban, R., Roudsari, R. L., & Taghipour, A. (2014). Skype interviewing: The new generation of online synchronous interview in qualitative research. *International Journal of Qualitative Studies on Health and Well-Being*, 9(1), Article 24152.
- Jia, Y. Z., & Ma, D. L. (2015). Xingbie Guannian Bianqian de Duoshijiao Kaoliang: Yi “Nan Zhu Wai, Nv Zhu Nei” Wei Li. *Funü Yanjiu Luncong*, 2015(3), 29–36.
- Jin, M., & Hu, S. (2018). Gongke Zhuanye Benkesheng Xuexixing Touru de Xingbie Chayi Fenxi. *Fudan Jiaoyu Luntan*, 16(5), 61-69.
- Jin, Y. H. (2006). “Tie Guniang” Zai Sikao—Zhongguo Wenhua Dageming Qijian de Shehui Xingbie yu Laodong. *Shehuixue Yanjiu*, 2006(1), 169–193.
- Kranakis, E. (1997). *Constructing a bridge: An exploration of engineering culture, design, and research in nineteenth-century France and America*. MIT Press.
- Lagesen, V. A. (2008). A cyberfeminist utopia? Perceptions of gender and Computer Science science among Malaysian Women Computer Science Students and Faculty. *Science, Technology, & Human Values*, 33(1), 5–27.
- Li, M. (2024). Zhiye Xingbie Geli yu Daxue Biyesheng Qixin Xingbie Chaju — Jiyu CCSS Shuju de Shizheng Fenxi. *Shandong Nvzi Xueyuan Xuebao*, 2024(4), 33–45.
- Lun, R., & Chen, Y. (2024). Shuzi Jingji Beijing Xia de Jiuye Xingbie Pingdeng—Xianzhuang Tiaozhan yu Yingdui Fanglve. *Renkou yu Jingji*, 2024(2), 1–14.
- Margolis, J., & Fisher, A. (2002). *Unlocking the clubhouse: Women in computing*. MIT Press.
- McIntosh, M. J., & Morse, J. M. (2015). Situating and constructing diversity in semi-structured interviews. *Global Qualitative Nursing Research*, 2. <https://doi.org/10.1177/2333393615597674>
- Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, 66(4), 281–302.



- Ministry of Culture and Equality. (2022). *Act relating to equality and a prohibition against discrimination (Equality and Anti-Discrimination Act)*. Norway Government.
- National Bureau of Statistics of China. (2023, April 21). *Statistical monitoring report of China's national program for women's development (2021-2030) in 2021* [Press release]. [https://www.stats.gov.cn/english/PressRelease/202305/t20230508\\_1939254.html](https://www.stats.gov.cn/english/PressRelease/202305/t20230508_1939254.html)
- Oldenziel, R. (1999). *Making technology masculine: Men, women, and modern machines in America, 1870-1945*. Amsterdam University Press.
- Osburg, J. (2013). *Anxious wealth: Money and morality among China's new rich*. Stanford University Press.
- Pascarella, E. T., Hagedorn, L. S., Whitt, E. J., Yeager, P. M., Edison, M., Terenzini, P. T., & Nora, A. (1997). Women's perceptions of a "chilly climate" and their cognitive outcomes during the first year of college. *Journal of College Student Development*, 38(2), 109-124.
- Qing, S. S. (2019). Zhongguo Xingbie Shouru Chaju de Shehui Wenhua Genyuan—Jiyu Xingbie Juese Guannian de Jingyan Fenxi. *Shehuixue Yanjiu*, 34(1), 106-131.
- Ridgeway, C. L. (2011). *Framed by gender: How gender inequality persists in the modern world*. Oxford University Press.
- Rivera, L. A. (2012). Hiring as cultural matching: The case of elite professional service firms. *American Sociological Review*, 77(6), 999-1022.
- Sadler, G. R., Lee, H.-C., Lim, R. S.-H., & Fullerton, J. (2010). Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nursing & Health Sciences*, 12(3), 369-374.
- Sax, L. J., Lehman, K. J., Jacobs, J. A., Kanny, M. A., Lim, G., Monje-Paulson, L., & Zimmerman, H. B. (2017). Anatomy of an enduring gender gap: The evolution of women's participation in Computer Science. *The Journal of Higher Education*, 88(2), 258-293.
- Seron, C., Silbey, S., Cech, E., & Rubineau, B. (2018). "I am not a feminist, but...": Hegemony of meritocracy in engineering. *Work and Occupations*, 45(2), 131-167.
- Standing Committee of the National People's Congress. (2023). *Zhonghua Renmin Gongheguo Funü Quany Baozhang Fa*. Chinese Government.
- Science and Technology Daily. (2023). *Ta Liliang Chengqi Keji Chuangxin Banbiantian*. [https://digitalpaper.stdaily.com/http\\_www.kjrb.com/kjrb/html/2023-11/14/content\\_562548.htm?div=-1](https://digitalpaper.stdaily.com/http_www.kjrb.com/kjrb/html/2023-11/14/content_562548.htm?div=-1)
- Tonso, K. L. (2006). Teams that work: Campus culture, engineer identity, and social interactions. *Journal of Engineering Education*, 95(1), 25-37.
- Tonso, K. L. (2007). On the outskirts of engineering: Learning identity, gender, and power. *Science, Technology, & Human Values*, 32(1), 51-71.
- UNESCO. (2021). *To be smart, the digital revolution will need to be inclusive*. <https://unesdoc.unesco.org/ark:/48223/pf0000375429>
- Wajcman, J. (1991). *Feminism confronts technology*. Pennsylvania State University Press.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125-151.
- Whitt, E. J., Nora, A., Edison, M., Terenzini, P. T., & Pascarella, E. T. (1999). Women's perceptions of a "chilly climate" and cognitive outcomes in college: Additional evidence. *Journal of College Student Development*, 40(2), 163-177.
- Williams, C. L., Muller, C., & Kilanski, K. (2014). Gendered organizations in the new economy. *Gender & Society*, 28(2), 262-286.
- Wu, X. Y. (2010). Shichanghua Beijing Xia Xingbie Huayu de Zhuanxing. *Zhongguo Shehui Kexue*, 2010(2), 163-176.
- Yan, Y. (2016). *Intergenerational intimacy and descending familism in rural north China*. Cambridge University Press.

- Yang, J. H. (2017). Jin 20 Nian Zhongguoren Xingbie Guannian de Yanxu yu Bianqian. *Shandong Shehui Kexue*, 2017(11), 60–71.
- Zhang, M., & Liu, B. (2015). Technology and gender: A case study on “Iron Girls” in China (1950s–1970s). *Technology in Society*, 43, 86–94.
- Zhu, Y. N., & He, G. X. (2016). Xueshu Chanchu de Xingbie Chayi: Yige Shehui Wangluo Fenxi de Shijiao. *Shehui*, 36(4), 76–102.

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# Celebrating Femininity in the Public Sphere: The Workstation Arrangements of Chinese Female White-Collar Workers

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## Abstract

This article examines the desk items of female white-collar workers in China, using items as an entry point to explore how they are selected and arranged to construct and convey gendered meanings. The research reveals how gendered significance is materially constructed in micro-spaces within the workplace, highlighting the complex mechanisms by which “the desk” becomes an arena for gender political struggle. Adopting gender performativity theory from a social constructivist perspective and employing qualitative methods that combine multimodal ethnography and in-depth interviews, I posit that desk items function not only as a reflection of compliance or resistance to gender norms but also as a means of reproducing workplace gender orders through spatial practices. This study emphasizes that, despite formal systems professing gender neutrality, material culture subtly perpetuates gender inequality through implicit symbols, compelling women to shoulder additional costs in pursuit of professional legitimacy. Moreover, the embedded resistance present within desk items affords women a micro-narrative space where they can counteract prevailing discourses, thereby facilitating professional breakthroughs. The research also highlights the intersection of traditional and modern disciplinary mechanisms, such as the blending of Confucian ethics with the legacy of socialist women’s liberation, and the reinforcement of gender stereotypes by algorithmic recommendation systems, all of which influence the gender order in the workplace. This article offers a novel perspective on understanding gender politics in Chinese workplaces, providing both theoretical support and practical insights to promote gender equality.

## Keywords

China; desk items; female white-collar workers; gender performativity; gendered meanings; workplace gender order

## 1. Introduction

Contemporary professional women in China face a dual burden: On the one hand, they must undertake family responsibilities within a patriarchal context, and on the other, they strive for gender equality in the workplace. This structural contradiction is manifest in tangible practices within the office environment. The desk, in particular, functions as a microcosmic tool of organizational power and discipline. The objects positioned on the desk act as a distinct lens through which the dynamics of gender politics can be observed. Personal items, including family photographs, baby-related objects, and handmade decorations, are imbued with unique symbolic meanings. These objects are indicative of a form of resistance employed by women in the workplace to construct their own subjectivity, as well as reflecting societal expectations surrounding gender roles. The coexistence of “tamed bodies” and “resistant objects” reveals the survival strategies employed by professional women in China during a period of transformation, as they navigate the tension between institutional discrimination and cultural expectations.

The present study aims to explore the under-researched phenomenon of how Chinese female white-collar workers construct and convey gendered meanings through the selection and arrangement of items in their workplaces. The study focuses on how Chinese female professionals use desk items to engage in gender political negotiations. The objective of the research is to reveal the contradictions presented by personal items and how they serve as material carriers that reconcile professional identities with domestic roles.

In contradistinction to the prevailing Western studies on the materiality of the workplace, this article focuses on two specific scenarios faced by professional women in the Chinese context. Firstly, from the perspective of symbolic violence, the Confucian notion of “female virtue” and the legacy of socialist women’s liberation intertwine to create a complex disciplinary framework. Women are expected to demonstrate “gentle and attentive” professional capabilities with gendered traits, while simultaneously avoiding being perceived as “too feminine” to prevent obstacles to career advancement. This contradiction is reflected in the careful balance of desk decorations. Secondly, female workers utilize the configuration of their workspaces to concurrently exhibit dual identities. For instance, maternal items not only indicate the fulfillment of their maternal responsibilities but also suggest that parenting may affect work efficiency.

The political significance of these material practices is predicated on the fact that, in circumstances where formal organizational regulations are inadequate for ensuring gender equality, the desk assumes the role of a tactical space for women’s daily resistance. A meticulously curated succulent plant has been shown to serve as a source of emotional solace, mitigating feelings of alienation within a hierarchical structure. Moreover, it functions as a strategic instrument in managing the perception of evading the “career woman” stereotype. Furthermore, the strategic placement of family photographs frequently serves as a means to address shifts in career status prior to and following maternity leave. These practices, though seemingly subtle, play a crucial role in perpetuating established gender dynamics and accumulating cultural capital that can potentially facilitate the overcoming of barriers to advancement in professional settings.

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## 2. Literature Review

### 2.1. Current Research on Chinese White-Collar or Career Women

Research on professional women in China has undergone three major shifts in academic discourse, forming a distinct theoretical dialogue trajectory. During the period of socialist feminist heritage (1990–2000), studies continued the framework established during the planned economy era, which emphasised the idea that “women can hold up half the sky.” The primary focus of these studies was on the manner in which national policies facilitated women’s participation in the workforce. For instance, the employment rate of urban women increased from 7.5% in 1949 to 37.7% in 1990 (Min, 2006, p. 46, Figures 3–2). However, research in this phase has frequently overlooked the gradual disappearance of gender equality dividends during market transformation and paid little attention to the impact of the material work environment on gender relations.

In the 21st century, research began to incorporate Western intersectionality theory (Crenshaw, 1989), combined with China’s urban-rural binary structure, and with a focus on the dual discrimination faced by female migrant workers in terms of household registration and employment. Research has identified a significant concentration of female migrant workers within the service industry, with the study by Li et al. (2016) reporting that these professionals constituted 82% of the sector. Furthermore, the phenomenon of children being left behind by migrant workers was prevalent, with the retention rate for female migrant workers being approximately 46% (Zhilei & Taoli, 2024). While these studies revealed the spatial segregation between urban and rural areas, as well as between family and workplace, they focused less on the gendered coding of workplace power fields, such as how “standardized workstations for female assembly line workers serve as both production tools and devices for disciplining women’s bodies” (Jie & Xia, 2023, p. 253).

Following 2016, research underwent a paradigm shift towards a critique of technology, with a particular focus on the impact of digital capitalism on professional women. For instance, female delivery riders displayed notable emotional labor characteristics in the context of algorithmic management (Ping et al., 2021), and their electric bike GPS positioning and delivery box identification constituted a novel surveillance system. In the context of home-office environments, technological devices such as cameras and virtual background walls have emerged as dual mediators, both facilitating discipline and fostering resistance.

Recent studies have highlighted the challenges women have faced regarding career advancement, the balancing of professional and familial obligations, and within the context of the platform economy. For instance, although the percentage of women in Chinese boardrooms has gradually increased, reaching 16.57% in 2021, 83% of them still occupy human resources and administrative positions (China Corporate Governance Research Center, 2021), indicating the existence of a “glass maze.” Previous industry case studies suggest that spatial and social exclusions—such as smoking lounges and golf networking—operate as an implicit promotion barrier for women in male-dominated workplaces (see, e.g., Hathway & Manfredi, 2017). Intersectional discrimination based on age and gender is a significant phenomenon. The 2022 China Women’s Workplace Survey by Zhaopin revealed that 61.2% of women were asked about their marital and childbearing status during job interviews, compared to only one-third of men. Concerning fertility and career balance, the proportion of maternity insurance coverage among urban employed women reached roughly 90 percent by 2010 (National People’s Congress of China, 2010) and further approached universal coverage in 2021, with 103 million women insured (National Bureau of Statistics, 2021). However, the impact of

childbirth on women's career development remains significant. According to research from the McKinsey Global Institute (2023), the decision to have one child is associated with a 7% wage decrease for Chinese women (see also Jankowiak & Li, 2014). It has been demonstrated that companies utilize the practice of "soft layoffs" as a means of circumventing policy-related costs. This phenomenon, however, has the unintended consequence of engendering difficulties in the enforcement of policy.

In dual-income households, greater father involvement in childcare is positively associated with family well-being and higher fertility intentions (see, e.g., Duvander & Jans, 2009; Huerta et al., 2013). This has led to the development of "fragmented time management skills" among professional women, such as the utilization of commuting time for the management of school-related messages (Jian et al., 2024). This phenomenon can be interpreted as the encroachment of mobile workstations, such as smartphones and tablets, into the realm of personal time management.

Empirical studies have revealed the micro-level experiences of professional women in terms of both their physical and emotional states. For instance, women have been found to use emoticons more frequently in workplace communication, a phenomenon that may be related to emotional labor. The employment platform 51Job discovered that female users exhibit a higher level of acceptance and utilization of emoticons in comparison to their male counterparts. Furthermore, female users are more inclined to convey positive emotions through the use of emoticons (Qi, 2016). In summary, research on professional women in China is at a critical juncture for theoretical innovation. It is imperative to deconstruct the institutional paradoxes left by the planned economy while addressing the emergent forms of oppression arising from digital capitalism. This requires the establishment of locally pertinent analytical frameworks by the academic community to address societal transformation, in addition to the utilization of these frameworks as efficacious instruments to promote gender justice.

## **2.2. The Sociological Study of Objects: State of Current Research**

The sociological study of objects has a rich history. From Marcel Mauss's 1925 analysis of gift-giving in *The Gift* to Jean Baudrillard's critique of the symbolic meaning of objects, along with more recent advancements in the field, including the study of cultural heritage and digital items (Appadurai, 1986; Baudrillard, 1996, pp. 185–220; Mauss, 1925/2002), studies have demonstrated that objects are not passive entities. That being said, research has usually focused on documenting how objects influence and change social relationships, how culture and politics interact through them, and their key role in the process of individual identity formation.

While consumerism reduces objects to their symbolic representation, sociology examines the underlying power structures. In the context of globalization, local knowledge is susceptible to marginalization. However, the field of micro-archaeology and cultural heritage studies is predicated on the premise that objects possess a narrative sovereignty of their own, and that it is the responsibility of scholars to elucidate the unique stories and meanings with which these objects are imbued.

In general, sociological research on objects can be divided into four categories: (a) objects as material carriers of social relations (Miller, 1998, 2005); (b) objects as symbols in a consumer society (Baudrillard, 1996; Douglas & Isherwood 1979); (c) objects as part of cultural heritage and locality (Kirshenblatt-Gimblett, 1998; UNESCO,



2003); and (d) objects as elements in circulation and cross-cultural exchange (Appadurai, 1986). Our initial premise concerns the notion of objects serving as conduits for social relations—the first type of object.

The present research explores the manner in which objects facilitate relationships between people and society. The genesis of this theoretical framework can be traced back to classical sociology, from which it has since evolved into a multifaceted conceptual model. Mauss's seminal work *The Gift* offers a comprehensive analysis of the concept of gift exchange, demonstrating its intricate interweaving of economic and moral dimensions (Mauss, 1925/2002). The act of bestowing gifts is imbued with the giver's sentiments and social obligations, thereby fostering robust social connections (Jiandong & Weiwei, 2019). This notion constitutes the fundamental principle underlying the comprehension of objects' signification within the context of social networks.

Contemporary studies have expanded upon this perspective through the utilization of micro-ethnography, thereby illuminating the social dimensions of objects in everyday life. For instance, in Taiwanese families, thermos flasks are imbued with a significance that extends beyond mere utilitarian functionality, being intricately interwoven with health beliefs and emotional bonds. The young may use them as gifts received from friends or relatives, thus serving as a medium for reproducing social relations. Within the context of family units, the collective display of these elements serves as a symbol of the prevailing consensus on health and the maintenance of order (Zheng, 2018). Similarly, the material journey of food reflects the power structures inherent within family units. "Spatial technologies," such as refrigerators, have been instrumental in regulating the freshness of food, thereby assisting housewives in the effective management of their household rhythms and resources. Furthermore, in social life, certain objects gradually acquire a sacredness that transcends their practical utility value as they become intricately bound to the subjective perceptions of individuals or groups, such as history, identity, and emotions, through prolonged interaction or intergenerational transmission (Laiyou, 2019).

The role of objects is emphasized in the context of collecting behaviors. For instance, in Zheng's (2018) research, a research participant—Aunt Xiao An—is known to amass a collection of domestic artifacts and travel souvenirs, which she subsequently exhibits in a transparent cabinet, thereby creating a material narrative that reflects her life (pp. 71–78). Another one—David—an enthusiast of model trains, retains the packaging containers of his models, and the patterns and inscriptions on these boxes serve as a symbol index of the collection's integrity (Graham, pp. 124–125). These behaviors demonstrate the dual role of objects as both a medium for self-expression and a material carrier of memory.

The concept of "micro-artifacts" proposed by Laiyou (2019) serves to reinforce this logic. It posits that, when objects of quotidian usage become imbued with emotional significance through prolonged utilization, they are elevated from the status of mere ordinary objects to that of sacred "micro-artifacts." The sacredness attributed to these objects is rooted in metonymy, signifying their role as tangible testimonies to both personal and collective histories. These artifacts, in their heterogeneity, act as islands of resistance, defying the forces of monetary homogenization. The fundamental attribute of micro-artifacts is their inalienability. These elements cannot be reduced to market value and remain closely tied to the life history of specific individuals.

In summary, the meaning of objects is derived from specific social networks. The emotional ties associated with their social life in daily use are complex. Objects play a key role in constructing identity, turning them

into a material narrative of personal history. Consequently, objects serve as a medium of self-expression and a memory anchor.

### 3. Theoretical Framework

In this article, I adopt Judith Butler's gender performativity theory in two senses: I suggest that gender is "performed" through repetitive social practices and cultural coding, and acknowledge that gender identity seems "natural" because individuals conform to gender behaviors through repeated ritualistic practices (Butler, 1990, 1993).

Butler (also as cited in Jing, 2022) contests the notion of gender as being determined biologically, instead proposing that it is "performed" through repetitive social practices and cultural coding. She critiques the binary division between biological sex and gender, asserting that both are products of power discourses. The concept of gender as "natural" is, in fact, a "cultural fiction" constructed by institutions through discourse. From infancy, gender norms have been shown to influence the individual. Following the assignment of the labels "male" or "female" to newborns, parents select attire and playthings, and indeed nurture personalities under these labels, thereby aligning children with societal gender expectations. This approach to discipline establishes the "naturalness" of gender as the foundation for social norms.

Butler emphasizes that gender norms are not explicit regulations, but rather a standard of "intelligibility," which permeates everyday life through institutions such as family, education, and media. Individuals engage in gendered behaviors through repeated, ritualized practices, thereby giving the impression of a "natural" gender identity. This performativity not only serves to solidify gender identities but also imbues gender with meaning through bodily practices. For instance, the wearing of high heels is predicated on "feminine" norms, whilst concomitantly reinforcing their very existence (Xiaoli & Yang, 2016). Gender norms are characterized by a dual nature, exhibiting both constraining qualities and a reliance on the consistent demonstration of their validity. This contradiction gives rise to possibilities for resistance.

Within the context of the workplace, the concept of gender performativity is intricately intertwined with labor practices. For instance, the dress codes for female executives are frequently regarded as emblems of professionalism; nevertheless, they perpetuate the subjugation of feminine characteristics. However, some women have been observed to challenge established gender norms in the workplace through strategies such as the donning of conspicuous jewelry or the maintenance of long hair, thereby establishing a micro-resistance. Such behaviors may give rise to alterations in the evaluation process, thereby serving to reinforce the entrenched nature of gender norms. From a material perspective, "the desk," as a micro-space in the workplace, often carries implicit gender norms through the arrangement and use of its items. For instance, pink sticky notes or cartoon figurines might be regarded as "feminine" symbols, while minimalist styles correspond to a "gender-neutral" professional image. This material performativity is indicative not only of an individual's compliance with or resistance to gender norms but also of the reproduction of gendered workplace order through spatial practices (Jingru, 2022).

Butler's theory underscores the importance of examining how these seemingly trivial practices either serve to reinforce or challenge established gender power structures, thereby providing a critical framework for the study of gender issues in the workplace.

## 4. Methodology

### 4.1. Research Design

This study examines how gender roles are constructed among Chinese female white-collar workers in the workplace, with a particular focus on how gendered meanings are conveyed through the arrangement of workplace objects. Against the backdrop of persistent gender inequality in contemporary Chinese society, where women face multifaceted challenges in professional settings, this research aims to analyze the underlying factors contributing to these difficulties. Specifically, our aim is to (a) analyze the gendered significance of workplace objects, (b) explore how women negotiate identity through object arrangement, and (c) uncover how gender power dynamics manifest in workplace spaces through such practices. I thus propose the following research questions: How do workplace objects convey gendered meanings? How do women negotiate their identities through object arrangement? How are gender power relations in the workplace reflected through these spatial practices?

The central hypothesis posits that female workers strategically use the arrangement of objects in the workplace to communicate gendered identities and negotiate gender power dynamics in professional environments.

Adopting a qualitative approach, this study combines ethnographic observation and in-depth interviews. Fifteen female white-collar workers were recruited for online data collection over the period August–September 2024. The participants' average age was 34.7 years, ranging from 23 to 47, and they came from diverse organizational contexts (state-owned enterprises, private companies, and multinational corporations). Through photographic documentation of workspace arrangements and semi-structured interviews, the study captures the material configurations of objects and participants' narratives about their symbolic significance.

### 4.2. In-Depth Interviews and Interview Protocol Design

This study relies primarily on semi-structured, in-depth interviews. The interview protocol is designed to examine the interplay between workstation materiality and gendered meaning-making, incorporating the analytical lenses of spatial politics and symbolic violence. The protocol is structured as per the following six thematic dimensions:

1. Spatial configuration and power topology
2. Gendered coding of material symbols
3. Bodily discipline and spatial resistance
4. Gender scripts in organizational culture
5. Cross-scalar gender politics
6. Gender negotiation in time-space compression

#### 4.2.1. Spatial Configuration and Power Topology

Under this thematic category, our questions were as follows: Was your workstation assigned to its current location, or did you choose it yourself? If self-selected, what motivated your choice? What symbolic meaning does your workstation hold for you? How would you characterize the spatial features of your workstation's location? How does this spatial positioning influence your workplace interactions? If your workstation were a theater, would you describe its position as closer to the "center stage" or the "audience seating"? Use three metaphors to describe your workstation and explain their significance. If your workstation were a map of power, which objects mark your "strategic strongholds"?

#### 4.2.2. Gendered Coding of Material Symbols

Under this thematic category, our questions were as follows: Which items on your workstation were self-purchased? What motivated these purchases? Which objects are intentionally displayed versus concealed—and why? When placing family photos, do you anticipate colleagues' interpretations of them? Categorize your workstation items by "gendered attributes" (masculine, feminine, gender-neutral, other). Have you reconfigured your workstation layout? What prompted your most recent adjustment? Select three items that best define your professional identity and complete the sentence: "While [blank] appears stereotypically feminine, it enables my breakthrough in [blank]."

#### 4.2.3. Bodily Discipline and Spatial Resistance

Under this thematic category, our questions were as follows: Describe your first three ritualized actions upon arriving at your workstation daily—why these? As a follow-up to gendered practices such as organizing cosmetics, brewing herbal tea, etc., I asked: Do you consider these "feminine-coded" behaviors? Have they elicited commentary from colleagues or superiors? How do you respond?

#### 4.2.4. Gender Scripts in Organizational Culture

Under this thematic category, our questions were as follows: Do you consciously perform masculinity, femininity, or a hybrid in the workplace? What gendered expectations of female employees prevail among your colleagues? How do you navigate these? Describe the "ideal workstation" in your organization. Have you received formal/informal praise for your workstation design—why? For parents: How are childcare photos on your workstation typically perceived? Do such perceptions influence task assignments? For non-parents: Does future parenthood factor into your workstation decisions—why?

#### 4.2.5. Cross-Scalar Gender Politics

Under this thematic category, our questions were as follows: Have you purchased workstation items recommended by platform algorithms such as Taobao? Do you deliberately subvert algorithmic gender biases in online shopping, such as searching "masculine workstation accessories"? Which existing items would you retain as essential—and why? What object would you add to reshape perceptions of your professional competence? Counterfactual: How would your workstation differ if you occupied an opposite-gender role?

#### 4.2.6. Gender Negotiation in Time-Space Compression

Under this thematic category, our questions were as follows: During remote work, do you strategically design video conference backdrops to reconstruct professional identity? Which technologies could help transcend gendered spatial constraints? What emerging technologies concern you as potential amplifiers of gendered surveillance?

#### 4.3. Data Sources

This study used semi-structured in-depth interviews as its main method of collecting data. Using the researcher's professional network and snowball sampling via the WeChat platform, online interviews were conducted with female white-collar workers from a variety of institutional backgrounds. Data were collected in two stages: first, participants were asked to photograph two to three images of their workspaces during working hours and send them via WeChat; second, follow-up one-to-one interviews were conducted using these images alongside the predefined interview protocol, at a time convenient for both parties. When selecting the sample, the study prioritized qualitative depth over quantitative breadth, in line with the principle of theoretical saturation, to ensure comprehensive and precise responses to the research questions (Glaser & Strauss, 1967). To enhance representativeness, the purposive sample included employees from state and non-state organizations, as well as freelancers and individuals at different career stages: early career ( $\leq 5$  years), mid-career (5–15 years), and senior professionals ( $\geq 15$  years). Each interview lasted approximately 1–1.5 hours.

All 15 participants held bachelor's degrees or higher. Nine participants (60%) had master's degrees, and three participants (20%) had doctoral degrees. Participants' marital and parental statuses varied: nine were unmarried and childless, while four married participants had one child each. Institutional affiliations included nine state-sector employees and six non-state-sector employees. The sample spanned the full career trajectory, encompassing early-career professionals (with less than five years' experience), mid-career practitioners (with five to 15 years' experience), and senior experts (with more than 15 years' experience).

#### 4.4. Data Analysis

I employed two methods in the data processing and analysis phase. The first method involved an in-depth reading of interview transcripts to extract and summarize key content in conjunction with relevant theories. According to Foucault (1969/1972, pp. 49, 70, 126–140), discourse is not merely symbolic, but intricately connected to social culture and institutions, reflecting people's thoughts and ways of life. Therefore, when analyzing interview texts, researchers must comprehend not only the literal meaning of the discourse but also contextualize it by exploring its impact on the construction of feminine gender traits.

The second method used multimodal ethnography, combining the analysis of desk photos with the observation of work-related images on social media. This approach integrates various media forms, overcoming the text-centered limitations commonly found in traditional gender studies. It enables a more comprehensive understanding of the gendered meanings and performances underlying desk items. Multimodal ethnography is a research method that has emerged gradually in anthropology, sociology, and other fields since the 21st century. It emphasizes the integration of multiple media to document, analyze,

and present cultural phenomena (Jianmin & Jing, 2020). It is particularly useful for decoding unspoken gender politics in workplace settings.

#### **4.5. Research Ethics**

As any narratives concerning individuals' objective conditions and subjective experiences (such as working environments and workplace culture) may potentially harm participants, this article elaborates on the themes, purposes, and general overview of the interviews when inviting participants to engage in them. It also specifically emphasizes the principle of information confidentiality. Participants were assured that all information and feedback provided would be treated with strict confidentiality and not disclosed to third parties. Furthermore, the researcher respected the participants' wishes, allowing them to remain silent during the interview about any content they were unwilling or uncomfortable discussing, and granting them the right to terminate the interview at any time.

To ensure the privacy rights of participants were fully protected, this article rigorously anonymized all participants' identity information.

### **5. Research Findings**

#### **5.1. Workspace as a Spatial Manifestation of Power Allocation**

In the workplace, the desk serves as both a workspace and a reflection of power distribution and spatial practices. From a physical perspective, most interviewees reported that their desks were assigned and typically located in open spaces near corridors or walkways. Some respondents mentioned that their desks were in non-central areas with poor lighting, to the extent that they often needed to turn on the lights, even during the day (interviewee 14). This spatial arrangement aligns with Foucault's (1977) concept of the Panopticon, where visibility is used to monitor behavior, while poor lighting serves as a perceptual marker of spatial hierarchy. Some new starters indicated that they were initially assigned desks near corridors, which they did not like, but later requested a move when a preferred desk became available (interviewee 11). A few newcomers chose desks near corridors or doorways, believing that these positions would facilitate work and social interactions (interviewees 1 and 8). In contrast, managerial positions tend to be located near windows or in relatively enclosed spaces. However, even in these areas, managers tend to keep their doors open to facilitate communication (interviewee 12).

From a psychological perspective, many people consider the desk to be "half a home," since they spend more time at their desk during working hours than they do at home while awake (interviewee 2). Even in professions where desk attendance is not mandatory, such as university teaching, some people choose to rest at their desks. The desk becomes a "safe house" and "sanctuary," a place that is "both accessible and retreatable." This psychological perception reflects Lefebvre's (1974/1991, pp. 39, 143, 317, 408) concept of spatial occupation, positioning the desk as both a "micro-panoptic prison" of organizational discipline (Foucault, 1975) and a "threshold space" of intimacy, akin to a "second living room" (Turner, 1969). This duality is reflected in discourse through contradictory rhetoric, such as the metaphors of "battlefield" and "safe house."



## 5.2. Desk Objects as a Material-Semiotic System

In the modern workplace, desks serve as a richly symbolic system of signs. Through observations of desk items and interviews with respondents, this study has identified four sub-systems of items, each of which represents a distinct symbolic function. The first category reflects the standardized configuration of hierarchical systems. Organizations enforce spatial discipline through standardized office equipment, such as uniform computers and filing cabinets, which are centrally purchased. This “depersonalized” design (Hancock, 2005) is a material manifestation of Foucault’s concept of “panoptic surveillance.” Although employees have some choice regarding these items, the neutral nature of the objects consistently reinforces the organization’s power and disciplinary demands.

The second category of items serves as a symbol of professional identity. The arrangement of professional books follows Bourdieu’s (1984, pp. 18–27) logic of displaying cultural capital, whereby placing canonical works in a specific field establishes professional authority. The placement of work IDs aligns with Goffman’s (1959, pp. 22–24) concept of front-stage performance, serving as a marker of occupational identity. These items are often deliberately arranged, for example, by placing professional books near computers. As work experience increases, these books become a “standard configuration” of career development, reflecting the individual’s negotiated position within the organizational hierarchy.

The third category encompasses the emotional expression of privatization. Micro-practices such as displaying family photographs or tending to plants manifest Lefebvre’s theory of the production of space. The choice of stress-relieving toys also reflects gendered emotional regulation techniques. These seemingly private items serve as an “emotional shield” against organizational alienation (Hochschild, 1983, pp. 7, 118–189, 162–185).

The fourth category presents covert symbols of resistance. Screensavers bearing anti-motivational slogans employ Bakhtin’s (1984, pp. 88–89) theory of the carnivalesque by using mockery to subvert mainstream discourse. The deliberate display of feminine products, such as soft lighting for live streaming or easily accessible cosmetics, reflects de Certeau’s (2002) theory of everyday practices by employing organizational space to reconstruct gender discourse.

These four sub-systems form a dynamic and balanced material-symbolic system together. Standardized desk items account for around half of the overall setup. Items representing identity, emotional expression, and resistance are displayed differently by newcomers, mid-level employees, and senior staff. Senior employees generally focus on establishing professional authority through identity markers, whereas newcomers tend to demonstrate professionalism by arranging professional books. Emotional items, such as collectible toys and plants, are more commonly found on newcomers’ desks and serve to provide self-comfort and stress relief rather than to demonstrate sociability. Resistance symbols, on the other hand, are expressed in different ways by various female employees.

## 5.3. Disciplinary Logic of Management

Although most organizations lack formal regulations on workstation standards, tacit disciplinary norms persist through unwritten conventions. Notably, these norms are transmitted intergenerationally as experiential knowledge among colleagues. As one interviewee recounted: “My senior colleague often

reminds me during lunch breaks to minimize decorative items like figurines, warning that excessive personalization might signal a lack of seriousness to supervisors” (interviewee 4). Another interviewee noted managerial criticism of cluttered workstations: “Leaders occasionally reprimand employees for disorganized spaces, particularly those with visible rubbish” (interviewee 5). Such informal mentorship constitutes what Foucault (1975) termed “normalizing judgment,” which is passed on through the generations. These practices covertly facilitate organizational socialization (Van Maanen & Schein, 1979), transforming individual cautionary tales such as “my superior might perceive...” into a collective disciplinary memory.

Material hierarchies further reinforce power structures. A junior employee observed: “Our manager’s workstation is similar in layout to ours, but the desk is wooden instead of plastic” (interviewee 9). This “wooden desk politics” is consistent with Baudrillard’s (1996) critique of symbolic political economy. Despite standardized office designs, material distinctions, such as wood versus engineered plastic, function as Latour’s (2005, pp. 10–12, 71–82) non-human actors, embodying power through tactile and acoustic differentiation. Such micro-variations exemplify Elias’s (1939/2000, pp. 193–212) theory of ritualized control, whereby perceptible yet unspoken symbolic gradients maintain hierarchical order.

This disciplinary logic is less pronounced in private and multinational enterprises. One private-sector employee noted: “Our leaders prioritize skill development over workstation policing. I utilize my free time for up-skilling rather than ensuring spatial compliance” (interviewee 5). This highlights how organizational culture mediates disciplinary intensity, with neoliberal workplaces emphasizing productivity over spatial conformity.

#### 5.4. Normative Performances of Gendered Visual Coding

The normative performance of gendered visual coding in office spaces represents an ongoing citation and negotiation of gender norms within the workplace. For female white-collar workers, their workstations serve as spaces for labor and as theatres for gender norms, with the arrangement of objects influenced by dual disciplinary mechanisms. Women’s desks often display an “emotional aesthetic,” featuring items such as potted plants, family photographs, and soft desk lamps. These items subtly allude to a care ethic and the extension of motherhood, reflecting societal expectations of women as “gentle coordinators.” New employees often adhere to these social norms by purchasing workstation items in pastel colors. This color coding normalizes “soft aesthetics” as an embodiment of femininity. In Japanese “office lady” culture, for example, lace coasters and Hello Kitty stationery reflect how *kawaii* (cute) economics positions women within the framework of the harmless role (Kinsella, 1995). Among the interviewees, pink was not only favored by newcomers but also by mid-career professionals and senior employees, who incorporated pink elements into their workstations. When asked about this, most respondents stated that they did so either for “self-pleasure” or because “pink is pleasant to the eye and has a friendly feel.”

By contrast, when comparing respondents of different seniority levels, newcomers to the workplace complied with the pink norm but also incorporated slogan-based props as a form of limited resistance. For example, one participant displayed a sign saying “Do not get angry” or a self-comforting slogan on her computer screen saying “Keep going, and you’ll be off work soon” (interviewee 4). This dual coding strategy reveals the constructive nature of gender norms through exaggerated performance. Interestingly, when visual discipline intensifies, the body seeks new channels of resistance through other sensory modalities, such as smell and touch. Interviewee 12, for example, juxtaposed dried plants with cedar essential oil

to create a “de-gendered natural aesthetic,” successfully avoiding the cognitive stereotype of “women are emotional.”

Placing family photographs on workstations is a form of self-expression. Married women in the workplace often display photographs of their families or children on their desks, signaling their ability to “balance work and family” while also implying their responsibilities as mothers. One interviewee remarked that colleagues perceive such individuals as responsible family members with a happy life (interviewee 8). However, this placement may influence task assignments for superiors (interviewee 6). Although the phenomenon of maternal penalties was not widely observed among the respondents, having family photographs on one’s desk could imply: “I have children and cannot work overtime regularly” (interviewee 1). This could potentially lead to working mothers being discriminated against in terms of promotion (Budig & England, 2001). Family symbols may act as visual markers of motherhood, potentially triggering employer bias. In response to this, senior professionals have developed more sophisticated symbolic transformation strategies. Rather than placing family photographs directly on their desks, these women turn children’s photographs into paintings (interviewee 2) or display items made by their children, such as a LEGO cactus (interviewee 12). This strategy meets the need to demonstrate responsibility while avoiding direct visual associations with motherhood. Essentially, this strategy serves as a pre-emptive defense against maternal penalties, partially mitigating gender disadvantages through symbolic conversion.

### ***5.5. Strategic Evolution Across the Career Lifecycle***

Throughout the different stages of their careers, women face the challenge of balancing the need to break traditional gender roles with the desire to advance professionally. Research has shown that, regardless of whether they are in the career exploration phase (one to five years), the stable development phase (six to 15 years), or the breakthrough transformation phase (over 15 years), female participants exhibit diverse career development aspirations. These aspirations are reflected in the professional books, study materials, and motivational quotes displayed on their desks. Their gender strategies evolve in accordance with their career stage.

In the early stages of their careers, women often use strategies that make gender capital explicit, such as “ritualized morning preparations” (interviewees 3, 12, and 7), to establish their presence in the workplace. However, these strategies may reinforce gender stereotypes. Once they reach the stable phase, however, their strategies shift towards minimizing gender identification and reconstructing their professional image through workstation aesthetics. This includes using black leather notebooks (interviewee 7) and having minimalist office layouts (interviewee 12). This shift reflects the influence of male-centric aesthetic standards in professional environments, forcing women to adopt a “gender-silencing” strategy to gain recognition.

During the breakthrough phase of their careers, women employ contradictory strategies. On the one hand, they use strategies of technological empowerment, such as multi-screen collaborative operations, to build technological capital (interviewees 13 and 15). Conversely, they cultivate implicit gender cultural capital by incorporating symbols such as niche green plants and salon perfumes, thereby forming an elite female aesthetic community. This dual strategy avoids the stigmatization of traditional feminine symbols while simultaneously breaking through gender limitations in technology, creating a unique career development path.

## 6. Conclusions

### 6.1. *Workstations: A Stage Woven by Power, Space, and Material Symbolic Systems*

The interwoven and mutually reinforcing nature of power, space, and material symbolic systems collectively influences the construction of gender roles and the perpetuation of social inequality. Power is not merely a tool of domination, but rather it permeates all aspects of society. According to Foucault (1977), power infiltrates every corner of social life through mechanisms such as discipline and biopower, shaping individual behavior and thought patterns. The operation of power is not confined to coercive rules, but also occurs through symbolic normative systems, such as knowledge and law, which subtly influence individuals. However, individuals within these power structures are not entirely passive, as they can resist and alter the influence of power through acts of rebellion and self-care. Power is intricately linked with knowledge, and the production and dissemination of knowledge are significant mechanisms of power.

Space is not merely a physical entity; it is a dynamic product of social relations. In *The Production of Space*, Lefebvre (1974/1991) presents his dialectic of space, which emphasizes the interaction between the material, symbolic, and social aspects of space. The workstation is a prime example of this. It is not just a workplace, but also a micro-stage for the gender power struggle. The placement of each object and the selection of each sticker play a part in either challenging or perpetuating existing gender hierarchies. Material symbolic systems play a crucial role in this process. Bourdieu's (1984) theory of symbolic violence illustrates how power maintains social inequality through symbols and cultural practices. Material symbolic systems in consumer culture convey gender meanings and realize their value through the consumption of these meanings. For example, advertisements and the media often depict women as symbols of beauty and family, and men as symbols of power and career. This symbolic division of labor reinforces traditional stereotypes and, through symbolic violence, these roles become widely accepted by society.

Women's consumer behaviors, such as buying cosmetics and fashion items, are not just about beauty, but also about confirming gender identity. At the same time, consumer culture redefines gender roles through symbolic systems. The term "career woman," for example, reflects society's double standards regarding female power. More broadly, power operates covertly through symbolic systems and spatial practices, which are reproduced and reinforced through power relations. The interplay between power, space, and material symbolic systems collectively shapes gender roles and structures of inequality within society.

### 6.2. *The Specificity of Gender Order in China's Workplace*

The gender order in the Chinese workplace is a complex, interlocking system formed by historical and cultural factors, socio-economic transformation, and the logic of technological capital. This specificity is reflected not only in the tension between concepts and systems but also in the profound shaping of career development paths through daily practices.

The overlap of cultural influences leads to a conflict of gender roles. Chinese white-collar women are caught between traditional and modern discourses. Despite national policies advocating "equality between men and women" and market economy discourse emphasizing that "women can hold up half the sky," the Confucian ethic of "male domination of the outside world and female domination of the inside world" can still

potentially influence career choices. According to the McKinsey Global Institute (2023), women in China perform approximately 2.4 times more unpaid domestic labor than men, turning “double responsibility” into a moral burden. This conflict of values has significant structural consequences: women prioritize stability over growth, and the “motherhood penalty” phenomenon characterizes their careers in terms of loss of income and stalled promotion.

Intergenerational ethics can change gender roles in the workplace. The culture of filial piety exacerbates gender inequality by transferring intergenerational responsibilities. In the workplace, women are forced to choose between their professional roles and their roles as family caregivers. Some practitioners strive for professional recognition by “de-familiarizing” their workstations through tactics such as removing photos of parents and children, and concealing maternal identifiers. This behavior essentially reflects institutional acquiescence to gender stereotypes within organizational culture and exposes implicit discrimination based on reproductive expectations within workplace promotion mechanisms.

Corporate strategies ignore the benefits of gender equality. There is a clear governance deficit at the organizational system level. Most enterprises fail to incorporate gender equality into their strategic assessment systems, focusing solely on maternity costs such as the cost of replacing staff during pregnancy and childbirth, while ignoring the benefits of gender diversity, as revealed by empirical research from the McKinsey Global Institute (2023). Enterprises with gender-balanced executive teams are 21% more likely to exceed industry averages in terms of profitability. This cognitive bias leads to a lack of inclusive policies, creating a closed loop of institutional inhibition.

The specificity of the gender order in the Chinese workplace lies not only in the explicit barriers to promotion but also in complicit mechanisms such as cultural unconsciousness, intergenerational responsibility, and corporate short-sightedness.

### ***6.3. The Gender Politics of Workstations: Informal Discipline in Material Culture***

As a microcosmic field of gender politics, the female white-collar workplace constitutes an informal institutional arrangement of material practices that continuously reproduce gender order through symbolic networks. It is a space for implementing disciplinary techniques and reconfiguring power relations, where everyday objects, such as teacups, dolls, and professional books, become key texts for understanding gender politics in transitional societies.

Material symbols enact compensatory discipline. When the formal system asserts gender neutrality, workplace objects fill the institutional vacuum through symbolic encoding. “Gendered symbols” such as pink stationery and maternity items reinforce expectations of the division of labor by tying breastfeeding equipment to “motherhood,” forcing women to bear the dual burden of the explicit economic expense of acquiring gender-conforming objects and the implicit symbolic labor of maintaining the image of their managerial careers. These material practices normalize gender inequality at an everyday level.

Spatial practices can generate vicarious empowerment. Workspaces can be transformed into spaces of resistance. Some white-collar workers resist more subtly, for example, by subverting the meaning of objects—reconfiguring “feminine” artifacts as “symbols of creativity,” or adding specialist books to give them

an emotive reading. Those who adopt such covert strategies are more likely to be promoted, and this material resistance acts as a micropolitical hedge against structural exclusion.

Consumerism enables the parasitism of cultural genes. Traditional gender scripts have been modernized through consumerism. Algorithmic lists of “workplace goddess essentials,” such as beauty products and high heels, enforce neo-patriarchal discipline under the guise of free choice. This “flexible authoritarianism” makes women complicit, resulting in the family photo being put away to avoid the “punishment of motherhood” and subjugation to tradition.

The material practices of the workplace provide a space in which the gender order can be transformed: the structural flaws of the formal system are exposed (e.g., the institutionalization of the motherhood penalty), and alternative systems of meaning are created through micro-resistance (e.g., strategies for the reconstruction of objects). This silent carnival signals the potential for change: the put-away picture frame becomes a manifesto of institutional critique, and the everyday object is transformed into a material fulcrum for achieving gender equality.

## 7. Research Limitations and Future Work

Although this study reveals the gendered political mechanisms embedded in workstation practices, several limitations require further exploration to inform future research. Firstly, the current study focuses on gender and has yet to incorporate an intersectional analysis of race, class, and sexual orientation. All of the interviewees in this study are urban white-collar workers, most of whom are only children who have received a higher education. This means that the experiences of women from rural backgrounds in the workplace are not addressed. For instance, factory workers in urban villages in Shenzhen and financial elites in Lujiazui, Shanghai, may both be categorized as working women, but their pathways to accumulating symbolic capital through workstation items differ significantly. Would women from rural backgrounds experience cultural adaptation issues in their workstation arrangements? Do they experience de-ruralized anxiety in the workplace? These questions merit further investigation within the Chinese context.

Secondly, the ongoing development of intelligent technologies, particularly the widespread use of smart office equipment, may be changing the operational logic of gendered power networks. Could algorithmic recommendation systems become a new form of symbolic violence? Could the individual data collected by smart office chairs help promote female employees? Do women working remotely build digital substitutes to gain flexibility in maternal labor? As some interviewees mentioned, during remote work, especially when participating in less important meetings, they might turn off their video due to slow internet speeds, while keeping their audio and accounts active in order to attend to household chores.

Ultimately, workspace design guidelines based on spatial justice must transcend formal equality and address the inherent contradictions of institutional culture. Can modular workstation designs empower users with autonomy, breaking management’s monopoly over the meaning of space? Should material narratives be incorporated into promotion assessments to acknowledge the hidden leadership capital that women accumulate through resistant symbolism?

In conclusion, the workstation, as a folded map of power, continues to witness the generation and subversion of gender identities within small spaces. Only by deconstructing its seemingly neutral material appearance can we uncover the hidden gendered labor politics within it. As AI learns to interpret the power metaphors embedded in figurines and metaverse workstations replicate real-world symbolic violence, the battle for control of these micro-spaces becomes a foreshadowing of the genetic blueprint for future societal transformation. Perhaps the answer does not lie in eliminating discipline, but in teaching technology to behave in non-compliant ways. A participant's dual-screen working method is an example of this, and through its transgressed quality, it writes the gender poetics of the digital age.

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### Conflict of Interests

The author declares no conflict of interests.

### Data Availability

Data cannot be shared publicly due to a confidential agreement with all the interviewees. Access requests must be sent to the author.

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The author used DeepseekR1 for polishing English grammar. All content was verified by the author.

### References

- Andrzej, L. (2022). From a managerial perspective, gender norms and their impacts on women's career advancement. *Academy of Educational Leadership Journal*, 26(6), 1–4.
- Appadurai, A. (Ed.). (1986). *The social life of things: Commodities in cultural perspective*. Cambridge: Cambridge University Press.
- Bakhtin, M. (1984). *Rabelais and his world*. Indiana University Press.
- Baudrillard, J. (1996). *The system of objects*. Verso.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Routledge & Kegan Paul.
- Budig, M. J., & England, P. (2001). *The wage penalty for motherhood*. *American Sociological Review*.
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. Routledge.
- Butler, J. (1993). *Bodies that matter: On the discursive limits of "sex"*. Routledge.
- China Corporate Governance Research Center. (2021). *Report on the development of women directors in China's listed companies* (No. 7). Nankai University.
- Crenshaw, K. (1989). *Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine*. *University of Chicago Legal Forum*, 1, 139–167.
- de Certeau, M. (2002). *The practice of everyday life*. University of California Press.
- Douglas, M., & Isherwood, B. (1979). *The world of goods: Towards an anthropology of consumption*. Basic Books.
- Duvander, A.-Z., & Jans, A.-C. (2009). "Consequences of fathers" parental leave use: Evidence from Sweden. In I. Söderling (Ed.), *Finnish yearbook of population research* (pp. 51–62). The Population Research Institute.
- Elias, N. (2000). *The civilizing process: Sociogenetic and psychogenetic investigations*. Blackwell. (Original work published)



- Foucault, M. (1972). *The archaeology of knowledge and the discourse on language*. Pantheon Books. (Original work published 1969)
- Foucault, M. (1975). *Discipline and punish: The birth of the prison*. Gallimard.
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Pantheon Books.
- Glaser, B., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing Company.
- Goffman, E. (1959). *The presentation of self in everyday life*. Doubleday Anchor.
- Graham, D. (2024). *Bus Enthusiasm as Heritage Practice* [Unpublished PhD thesis]. Sheffield Hallam University.
- Hancock, P. (2005). Uncovering the semiotic in organizational aesthetics. *Organization*, 12(1), 38–40.
- Hathway, K. C., & Manfredi, S. (2017). *Women's representation and diversity in the horseracing industry*. Oxford Brookes University.
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. University of California Press.
- Huerta, M. del C., Adema, W., Baxter, J., Han, W.-J., Lausten, M., Lee, R., & Waldfogel, J. (2013). *Fathers' leave, fathers' involvement and child development: Are they related? Evidence from four OECD countries* (Working Paper No. 140). OECD Publishing.
- Jankowiak, W., & Li, X. (2014). The decline of the chauvinistic model of Chinese masculinity: A research report. *Chinese Sociological Review*, 46(4), 3–18.
- Jian, J., De, W., & Ying, C. (2024). Time pressure and division of labor characteristics of dual-earner families with children in Shanghai. *Shanghai Urban Planning Review*, 24(2), 39–47.
- Jiandong, Y., & Weiwei, L. (2019). The flow of objects and regional narratives: A study of Southwest China from the perspective of historical anthropology. *Ideological Front*, 19(6), 58–62.
- Jianmin, W., & Jing, C. (2020). The multimodal transformation of anthropology and its significance. *Ethno-National Studies*, 20(4), 61–73.
- Jie, Z., & Xia, G. (2023). Rural revitalization 'her power': Current status and expectation of studying cultivation of Chinese new female vocational farmer. *Modern Agricultural Research*, 29(9), 62–68.
- Jing, W. (2022). An exploration of Judith Butler's theory of gender performativity. *Masterpieces Review*, 22(18), 78–80.
- Jingru, Y. (2022). *A study of Cal's gender identity in middlesex from the perspective of Judith Butler's gender performativity*. Hebei University.
- Kinsella, S. (1995). Cuties in Japan. In L. Soko & B. Moeran (Eds.), *Women, media and consumption in Japan* (pp. 220–254). University of Hawaii Press.
- Kirshenblatt-Gimblett, B. (1998). Objects of ethnography. In B. Kirshenblatt-Gimblett (Ed.), *Destination culture: Tourism, museums, and heritage* (pp. 17–78). University of California Press.
- Laiyou, F. (2019). The sacredness gestated in everyday life—An anthropological study of 'micro artifacts.' *Ideological Front*, 19(5), 34–35.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.
- Lefebvre, H. (1991). *The production of space*. Blackwell. (Original work published 1974)
- Li, Z., Shi, L., Darity, W. A., Jr., & Sharpe, R. V. (2016). The discrimination in job obtainment by Hukou in labor market in China and its change trend. *Journal of Finance and Economics*, 42(1), 4–16.
- Mauss, M. (2002). *The gift: The form and reason for exchange in archaic societies*. Routledge. (Original work published 1925)
- McKinsey Global Institute. (2023). *The future of women at work: Transitions in the age of automation*.
- Miller, D. (1998). *A theory of shopping*. Cornell University Press.
- Miller, D. (Ed.). (2005). *Materiality*. Duke University Press.

- Min, X. (2006). *Women's employment in urban China: A historical and comparative perspective* [Unpublished doctoral dissertation]. University of Winnipeg.
- National Bureau of Statistics. (2021). *Final statistical monitoring report on the implementation of China National Program for Women's Development (2011–2020)*.
- National People's Congress of China. (2010). *Zhongguo renmin daibiao dahui changwu weiyuanhui gongbao*, 2(17).
- Ping, S., Yuchao, Z., & Qianyu, Z. (2021). Platforms, gender, and labor: Female food delivery couriers' gender performativity. *Collection of Women's Studies*, 21(6), 5–16.
- Qi, L. (2016). A review of the research on internet emoticons from the perspective of communication studies. *Media*, 16(23), 90–93.
- Turner, V. W. (1969). *The ritual process: structure and anti-structure*. Aldine Publishing Company.
- UNESCO. (2003). *Convention for the safeguarding of the intangible cultural heritage*.
- Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. In B. M. Staw (Ed.), *Research in organizational behavior* (Vol. 1, pp. 209–264). JAI Press.
- Xiaoli, H., & Yang, L. (2016). Interpretation of female identity based on 'gender performativity': Taking the works of Carson McCullers as an example. *Jiangxi Social Sciences*, 36(06), 112–116.
- Zheng, Y. (2018). *What is the relationship between everyday objects and me: Sociological imagination*. Streetcorner Sociology. <https://twstreetcorner.org/2018/04/10/chengyiping>
- Zhilei, S., & Taoli, N. (2024). Women's status, household decision-making, and left-behind children. *Chinese Journal of Population Science*, 38(5), 82–97.

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# Opting Back In: Chinese Women's Professional Success and the Support of Grandparent Caregivers

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## Abstract

In Chinese families, child-rearing responsibilities predominantly fall on mothers, reinforcing an unequal gender division of labor within the household and placing women in a vulnerable position in the labor market. To balance work and family, many mothers rely on additional childcare support, with grandparents serving as the most critical source of assistance. This study examines the impact of grandparental childcare on maternal labor market outcomes in China, with a focus on differences between only-child mothers and those with siblings, as only-child mothers often benefit from greater access to support from their own parents due to their unique position as sole offspring. Using data from six waves of the China Family Panel Studies (CFPS), this study reveals three key findings: (a) both maternal and paternal grandparental childcare significantly boost women's labor market outcomes; (b) only-child mothers are more likely to receive childcare support from maternal grandparents; and (c) the positive effects of grandparental childcare on labor market outcomes are particularly pronounced for only-child mothers, especially when the support comes from maternal grandparents. This study underscores the vulnerable position of working mothers, particularly those with young children, while demonstrating how the advantages of being an only daughter extend into adulthood. It offers new insights into how evolving family structures, shaped by China's one-child policy, continue to influence maternal employment and broader labor market dynamics.

## Keywords

China; family structure; grandparental childcare; labor market outcomes; only-child mothers in China

## 1. Introduction

In most societies, women are traditionally expected to take on primary caregiving responsibilities, while men are more likely to occupy higher-status, paid positions as primary breadwinners (Asi & Williams, 2020; Greenstein, 2000; Shelton & John, 1996). These entrenched gender norms reinforce a division between paid labor and unpaid caregiving, perpetuating unequal distributions of power and status between men and women (Davis & Greenstein, 2009; Syed, 2010). As a result, women's economic opportunities are often constrained, confining many to unpaid domestic work, such as childcare and household management (Davis & Greenstein, 2009). Historically, these norms have also restricted women's participation in the formal economy, with men owning more property and wielding greater economic power, while women are disproportionately represented in informal, lower-paid, or precarious labor sectors (Syed, 2010).

In response to these inequalities, some countries have introduced policies that provide support to caregiving mothers, recognizing the value of unpaid domestic labor. For instance, Germany offers tax breaks and benefits to families where women stay home to care for children (Ondrich et al., 1996; Preisner et al., 2018). While Finland provides significant financial support to mothers who remain at home with their children until the age of three (Gruber et al., 2023). These policies acknowledge the critical contribution of unpaid caregiving labor to the economy. However, their effectiveness remains a topic of debate, as such measures may unintentionally reinforce traditional gender roles rather than advance gender equality (Atal, 2017).

In contrast, financial support for stay-at-home mothers is not universally available in all modernized countries. For example, in the United States, mothers who stay at home to provide childcare and perform domestic work do not receive tax deductions or direct payments for their contributions (Williams & Cooper, 2004). Consequently, their unpaid labor remains undervalued and unrecognized as a financial contribution to households or the broader economy (Asi & Williams, 2020). While the absence of such support may encourage women to remain in the workforce after becoming mothers (Soparkar, 2024), it has not fundamentally disrupted traditional gender divisions of labor. Women continue to bear the dual burden of managing both professional obligations and domestic responsibilities, often at the cost of heightened stress and pressure. The dual burden of paid work and childcare places mothers, particularly those with very young children, in a vulnerable position. Many working mothers face what is often referred to as the "second shift," where a full day of paid work is followed by unpaid caregiving and household responsibilities (Hochschild & Machung, 2012; Johnston & Swanson, 2006; Warren, 2011). This demanding workload imposes significant physical and emotional strain on mothers, while also reinforcing structural inequalities in the labor market. Research consistently demonstrates that childcare responsibilities have a substantial negative impact on the labor market outcomes of young mothers, forcing them to accept reduced job mobility, lower incomes, stalled career progression, or even career breaks. This phenomenon, commonly referred to as the "motherhood penalty," underscores the persistent challenges mothers face in achieving parity in the workplace (Abendroth et al., 2014; Budig & Hodges, 2010; Correll et al., 2007; Gangl & Ziefle, 2009; Liu & Marois, 2023; Meng et al., 2023; Zhao, 2018).

In China, childcare responsibilities have traditionally fallen disproportionately on mothers, reflecting deeply ingrained gendered divisions of labor within households (W. K. Lee, 2002). Unlike in some countries, Chinese women do not receive tax breaks or government benefits for remaining at home to care for their young children. Despite this lack of formal support, the majority of young mothers continue to participate in the

workforce (Wu & Zhou, 2015). Although female labor force participation rates in China have gradually declined since the 1990s, the country still ranks among the highest globally (Short et al., 2002). In urban areas, over 80% of women aged 25–49 are engaged in paid employment (Shen et al., 2012), underscoring the significant presence of women in the labor market despite persistent caregiving responsibilities.

To address these challenges, many young Chinese mothers rely on grandparents for childcare support rather than turning to formal childcare or quitting their jobs. Unlike in many Western contexts, intergenerational caregiving partnerships play a central role in Chinese households (Goh, 2011). Although the traditional extended family model has declined with modernization, grandparents—particularly grandmothers—continue to play a pivotal role in the lives of their adult children and grandchildren. When young children require additional caregiving beyond what their parents can provide, grandparents often step in as preferred caregivers (Deng et al., 2023). They may offer direct childcare by co-residing with their children or provide financial and logistical support while living separately (Hoang & Kirby, 2020; X. Wang & Feng, 2021; Xu et al., 2019). This intergenerational support significantly alleviates the caregiving burden on mothers, allowing them to balance paid employment with family responsibilities, thereby mitigating the challenges of the dual burden (F. Chen et al., 2011; Gu et al., 2021; Y. Wang & Zhao, 2022).

Research consistently highlights the positive role of grandparental childcare in mitigating the “motherhood penalty” by easing labor market disadvantages for mothers (Abendroth et al., 2014; England et al., 2016). However, the extent of this impact varies depending on family structures and grandparental lineage. For instance, maternal grandparents—particularly maternal grandmothers—are often thought to invest more in childcare due to evolutionary factors, such as the certainty of genetic relatedness (Euler & Weitzel, 1996). In contrast, traditional Chinese norms have historically positioned paternal grandparents as primary caregivers, particularly in patrilocal households where co-residence with sons is common (F. Chen et al., 2000, 2011). Yet, shifting social norms and the widespread prevalence of only-child families, particularly as the first generation born under the one-child policy reaches parenthood (X. Wang & Feng, 2021), have blurred these distinctions. These demographic and cultural changes have intensified intergenerational relationships, with grandparents increasingly serving as the primary source of childcare support (Bengtson, 2001; Coall & Hertwig, 2010).

Despite growing research on grandparental involvement in childcare, little attention has been paid to how maternal and paternal grandparents differ in their roles, particularly under the unique circumstances of only-child families. This study addresses this gap by exploring the effects of maternal and paternal grandparental childcare on women’s labor market outcomes in China. Specifically, it examines whether the lineage of caregiving grandparents matters and how these dynamics differ for only-child mothers compared to mothers with siblings. The study seeks to answer the following research questions: How does grandparental childcare influence women’s labor market outcomes in China? Does the impact differ between maternal and paternal grandparents, particularly for women who are only children?

## 2. Literature Review and Hypotheses

### 2.1. Grandparental Childcare's Impact on Mothers' Labor Market Outcomes

The effects of grandparental childcare on maternal labor force participation differ across contexts. Aassve et al. (2012) found mixed results in their study of seven European countries between 2003 and 2005: While grandparental childcare significantly boosted maternal employment in some nations, it had no effect in others. In the UK, Kanji (2017) observed that grandparental involvement allowed mothers to enter the labor market but did not necessarily increase the working hours of those already employed. Similarly, in the USA, Compton and Pollak (2014) found that proximity to either maternal or paternal grandparents raised maternal labor force participation by 4 to 10 percentage points.

In Asia, studies also report varying outcomes. Research from China demonstrates positive effects. Deng et al. (2023) found that grandparental childcare increased women's workforce participation and earnings without requiring longer work hours, while Meng et al. (2023) documented fewer career disruptions for mothers receiving grandparental support. In contrast, Japanese research by Asai et al. (2015) noted a declining impact of grandparental care on maternal employment, attributed to the reduced prevalence of multi-generational households and the growing reliance on formal childcare services.

Even among studies reporting positive effects, the magnitude of grandparental childcare's impact varies. For instance, Bratti et al. (2018) found that pension eligibility for maternal grandmothers in Italy increased mothers' labor force participation by 11%. Similarly, H. Yu et al. (2023), using IV-2SLS models, concluded that mothers relying on grandparents for childcare were 20% more likely to be employed compared to those without such support.

Drawing on existing research, particularly from China, the evidence strongly suggests that grandparental childcare positively influences maternal labor market outcomes. Therefore, we propose:

Hypothesis 1: Grandparental childcare positively influences women's labor market participation.

### 2.2. Differences of Maternal and Paternal Grandparental Childcare on Mothers' Labor Market Outcomes

Variations in the effects of grandparental childcare across different contexts underscore the complexity of these dynamics, which are shaped by both the nature of grandparental involvement and the societal and familial factors that influence its use. One important yet underexplored area is the distinct roles of maternal and paternal grandparents in influencing maternal labor market outcomes. Understanding these differences offers critical insights into the interplay between family structure, intergenerational support, and women's workforce participation.

The roles of maternal and paternal grandparents are deeply rooted in cultural norms but are also influenced by evolving socioeconomic conditions. In patrilineal societies, traditional customs often prioritize paternal grandparents' involvement in childcare, typically facilitated through post-marriage co-residence (Chu et al., 2011). However, economic development and demographic shifts have weakened patriarchal norms,

strengthening women's ties to their natal families (F. Chen et al., 2011; C. Zhang et al., 2019). This cultural shift has reshaped grandparental caregiving, making the comparison between maternal and paternal grandparental support increasingly relevant.

Evidence suggests that maternal grandparents, particularly maternal grandmothers, are more likely to provide intensive childcare compared to paternal grandparents (Coall et al., 2014). This trend has been observed across various cultural and welfare state contexts (Danielsbacka et al., 2011). For instance, Danielsbacka et al. (2011), using a large multinational European survey, found that maternal grandmothers consistently provided the most childcare across all European regions, prioritizing their daughters' children over their sons' children. These findings highlight the pivotal role of maternal grandparents in family decision-making and caregiving.

In China, the lineage of grandparental caregivers strongly influences maternal labor market outcomes. J. Yu and Xie (2018) found that women living with their maternal parents experienced no wage penalties, while those living with paternal parents faced significant wage reductions. C. Zhang et al. (2023) further showed that maternal grandmothers' support reduced mothers' parenting stress, whereas paternal grandmothers' involvement often heightened it.

Over time, intergenerational caregiving dynamics in China have shifted from a strong patrilineal bias to a more balanced bilateral approach. Early studies, such as F. Chen et al. (2000), found that proximity to paternal grandparents reduced mothers' childcare responsibilities, reflecting traditional patrilineal norms. However, economic reforms and the one-child policy have gradually weakened patriarchal traditions, leading to more equitable caregiving arrangements. C. Zhang et al. (2019) observed that childcare decisions now increasingly reflect practical considerations and relationship quality rather than adherence to patrilineal customs.

As maternal and paternal grandparents both play meaningful roles in childcare, we propose the following hypotheses:

Hypothesis 1a: Maternal grandparental childcare positively influences women's labor market participation.

Hypothesis 1b: Paternal grandparental childcare positively influences women's labor market participation.

### ***2.3. The Importance of Family Structure: Only-Child Status and Grandparental Care***

The rise of only-child families, driven by declining fertility rates and China's former one-child policy, has reshaped intergenerational dynamics (Feng et al., 2014). This unique family structure offers an opportunity to examine how close, exclusive ties between only children and their parents influence grandparental childcare support and its implications for maternal labor market outcomes (X. Wang & Feng, 2021). Understanding these dynamics sheds light on how family structure affects resource distribution and caregiving arrangements.



The one-child policy has created a generation of urban-only children who are now parents themselves (F. Wang et al., 2013). As these individuals enter parenthood, their status as only children significantly influences grandparental childcare patterns. Only children typically maintain stronger relationships with their parents throughout adulthood (Xu et al., 2019), benefiting from concentrated family resources and support due to their position as their parents' "only hope" (Fong, 2004). According to family resource dilution theory, family resources—such as time, attention, and financial support—are finite and are divided among children. In families with multiple children, these resources are diluted, but only children avoid competition, thereby receiving full access to family support (Blake, 1981).

Empirical studies consistently find a negative relationship between family size and children's attainment, with only children benefiting in areas such as intellectual development and educational achievement (Gibbs et al., 2016; Guo & VanWey, 1999; Sandberg & Rafail, 2014; Steelman et al., 2002). Most of this research, however, focuses on childhood. In the context of China's extended family structure (Fei, 1998), these advantages persist into adulthood. Only children maintain particularly close ties to their parents and receive greater financial and instrumental support compared to those with siblings (J. Chen & Jordan, 2018; Goh, 2011; Xie & Zhu, 2009; Xu et al., 2019). This includes access to grandparental childcare, as only children face no sibling competition for these resources (Laham et al., 2005). Thomese and Liefbroer (2013) confirmed this effect, finding that grandparents with fewer adult children provide more childcare to their grandchildren. Therefore, we propose:

Hypothesis 2: Adult-only children are more likely to receive grandparental childcare support from their own parents.

Specifically: Women who are only children are more likely to receive maternal grandparental childcare support.

In China, traditional patrilineal norms have historically influenced resource allocation, often favoring sons over daughters (Chu et al., 2007; A. Hu & Tian, 2018; Thornton & Lin, 1994). Under these norms, family resources are typically reserved for male heirs, leaving daughters—especially older daughters—at a disadvantage (Chu et al., 2007). However, only daughters occupy a unique position. As sole children, they receive exclusive access to family resources, similar to sons, and enjoy stronger parental support (Fong, 2004). Recent evidence showed that this "only-daughter advantage" had extended into adulthood, as only daughters maintained closer relationships with their parents and received substantial support for themselves and their children (X. Wang & Feng, 2021; W. Zhang, 2009).

Grandparental childcare plays a critical role in alleviating the childcare burden within families, which disproportionately falls on women. For only daughters, their exclusive access to maternal grandparental support provides them with greater flexibility and opportunities to participate in the workforce. Research indicated that women maintained strong emotional bonds with their natal families and placed high levels of trust in their parents for childcare, which reduced stress and enabled career focus (Uttal, 1999; W. Zhang, 2009; C. Zhang et al., 2023). Furthermore, only daughters often experience less gender discrimination within their families, receiving more career-oriented support compared to daughters with brothers (S. Hu & Mu, 2021).

While direct comparisons of labor market outcomes between only children and siblings receiving grandparental childcare are limited, studies on intergenerational support provide valuable insights. Larger

families tend to receive fewer parental financial transfers due to resource competition (Albertini & Kohli, 2013), and only children consistently benefit from greater parental support (Emery, 2013). Lersch (2019) found that additional siblings reduce individual wealth, particularly in affluent families, underscoring how family size influences the availability of resources like grandparental childcare.

Based on these findings, we propose the following hypothesis:

Hypothesis 3: The positive effect of grandparental childcare on labor market outcomes is stronger for women who are only children compared to those with siblings, particularly when receiving maternal grandparental support.

### 3. Data, Variables, and Methods

#### 3.1. Data

This study utilizes data from the China Family Panel Studies (CFPS), a nationally representative longitudinal survey conducted by Peking University. The CFPS employed multistage probability sampling to collect information on individuals, families, and communities (Xie & Hu, 2014; Xie & Lu, 2015).

The CFPS dataset is well-suited for this research as it provides comprehensive data on childcare arrangements, labor market outcomes, and family structure. Its longitudinal design enables the analysis of changes over time, allowing for a detailed investigation into how grandparental childcare and only-child status influence maternal labor market outcomes in China.

The analysis spans six waves of CFPS data from 2010 to 2020. The sample includes women aged 20 to 50 in the first wave who completed the children questionnaire. Farmers and self-employed individuals are excluded due to their distinct employment and income patterns. After removing observations with missing data for key variables, the final analytical sample comprises 6,352 observations from 2,333 individuals.

#### 3.2. Measures and Variables

##### 3.2.1. Labor Market Outcomes

Maternal labor market outcomes are the dependent variables and include three key measures:

1. **Employment status:** A binary variable coded as 1 if the individual is employed and 0 if unemployed or not in the labor force. This captures women's labor market participation.
2. **Weekly working hours:** This variable measures the intensity of work. For the 2010 wave, weekly hours are calculated by multiplying weekday hours by five and adding twice the reported weekend hours. In subsequent waves (2012–2020), respondents directly reported total weekly working hours. Unemployed individuals are assigned a value of zero.
3. **Annual income:** This variable reflects self-reported personal income. To ensure comparability across survey years, income data are trimmed at the 1st and 99th percentiles, adjusted for inflation using the 2010 Consumer Price Index, and transformed using the natural logarithm.

### 3.2.2. Only-Child Status

Only-child status is a binary variable coded as 1 for individuals without siblings and 0 for those with one or more siblings.

### 3.2.3. Grandparental Childcare

The primary independent variable is the type of childcare arrangement, derived from responses to the question: “In the most recent month when the parents were not on vacation, who mainly took care of the child during the daytime?” Childcare is classified into three categories: paternal grandparental care, maternal grandparental care, and other care arrangements (e.g., parental care, daycare centers, or other caregivers).

For families with multiple children receiving different forms of care, households are classified as receiving grandparental care if any child is cared for by grandparents. This approach captures the maximum level of grandparental involvement in the household. The distinction between paternal and maternal grandparental care allows for a nuanced analysis of how intergenerational caregiving patterns influence maternal labor market outcomes.

### 3.2.4. Control Variables

Several control variables are included at both individual and family levels to account for potential confounders:

1. Individual-level controls: Age, age squared, marital status (reference group: separated/divorced/widowed), educational attainment (reference group: below upper secondary), household registration status (reference group: rural hukou), self-rated health, youngest child’s age, and the number of children.
2. Grandparental characteristics: Age of the youngest parent, highest education level (reference group: primary and below), and Chinese Communist Party (CCP) membership status (reference group: no; baseline wave).
3. Family-level controls: Geographic region (East, Central, or West China, with East as the reference group) and household income (log of combined wage, business, property, and transfer income).

## 3.3. Analytical Strategies

The analysis employs random effects models to explore how grandparental childcare impacts maternal labor market outcomes, focusing on differences between maternal and paternal grandparents as well as the role of only-child status. The analysis proceeds in three steps:

1. Descriptive statistics: We compare key characteristics across households with different caregiver types (paternal grandparents, maternal grandparents, and other caregivers).
2. Caregiving arrangements: Using a random effects multinomial logit model, we analyze the relationship between only-child status and caregiving arrangements.
3. Labor market outcomes: Random effects models assess how caregiving arrangements and only-child status influence maternal labor market participation.

For employment status, linear probability models are used within the random effects framework. This approach avoids the incidental parameters problem common in nonlinear panel data models and allows for direct interpretation of marginal effects. Random effects models are also applied to analyze weekly working hours and annual income, as they account for both time-variant and time-invariant predictors, including only-child status.

To address heteroskedasticity and serial correlation in the panel data, robust standard errors clustered at the individual level are employed. Additionally, statistical graphics are used to illustrate the relationships between only-child status, caregiving arrangements, and maternal labor market outcomes.

## 4. Results

Table 1 highlights distinct patterns in women’s labor market participation across different childcare arrangements. Women receiving grandparental support—whether from maternal or paternal grandparents—are more likely to be employed, work longer hours, and earn higher incomes compared to those relying on other care arrangements. These findings underscore the critical role of grandparental assistance in facilitating women’s workforce participation after becoming mothers.

Notable differences also emerge in the family and grandparental characteristics associated with childcare arrangements. Families relying on maternal grandparents for childcare tend to have higher socioeconomic status, characterized by more college-educated mothers, higher rates of urban household registration, and greater household incomes. Maternal grandparents in these families are generally better educated, more likely to hold CCP membership, and slightly younger than paternal grandparents. Additionally, these families typically have fewer children, meaning maternal grandparents care for fewer grandchildren. This profile suggests that maternal grandparental care is more prominent in urban, highly educated families with greater social and economic resources.

**Table 1.** Descriptive statistics.

	Main childcare provider		
	Other people	Paternal grandparents	Maternal grandparents
<i>Women’s labor market outcomes</i>			
Employment status			
Employed	61.0%	75.7%	74.6%
Not employed	39.0%	24.3%	25.4%
Working hours per week	29.638 (25.342)	38.369 (24.522)	36.542 (22.380)
Logged income	1.774 (1.572)	2.223 (1.492)	2.428 (1.510)
<i>Individual-level characteristics</i>			
Only-child status			
Only child	91.9%	91.9%	70.4%
Non-only child	8.1%	8.1%	29.6%

**Table 1.**

**Table 1. (Cont.)** Descriptive statistics.

	Main childcare provider		
	Other people	Paternal grandparents	Maternal grandparents
<i>Educational attainment</i>			
Upper secondary and below	84.0%	81.9%	67.4%
College and above	16.0%	18.1%	32.6%
Age	34.897 (7.482)	33.897 (8.112)	33.632 (7.634)
<i>Marital status</i>			
Separated/divorced/widowed	4.9%	4.3%	10.9%
Currently married	95.1%	95.7%	89.1%
<i>Household registration status</i>			
Rural hukou	67.5%	69.9%	43.3%
Urban hukou	32.5%	30.1%	56.7%
Self-rated health	2.447 (1.185)	2.508 (1.165)	2.475 (1.132)
Age of the youngest child	6.378 (4.215)	5.354 (3.702)	4.806 (3.492)
Number of children	1.360 (0.579)	1.424 (0.620)	1.279 (0.549)
<i>Parental-level characteristics</i>			
Age of youngest grandparent	60.939 (10.702)	59.592 (11.151)	59.045 (10.158)
<i>CCP membership</i>			
Yes	14.9%	14.3%	20.4%
No	85.1%	85.7%	79.6%
<i>Grandparental education</i>			
Primary and below	54.6%	54.4%	38.8%
Lower secondary	26.4%	26.3%	30.6%
Upper secondary and above	19.0%	19.2%	30.6%
<i>Family-level characteristics</i>			
Logged family income	10.517 (1.088)	10.772 (0.964)	10.969 (1.002)
<i>Region</i>			
East China	42.9%	45.1%	45.0%
Central China	34.9%	31.0%	31.6%
West China	22.1%	23.8%	23.4%
N	4,146	1,804	402

Note: Categorical variables are presented as percentages and continuous variables are presented as means and standard deviations, where standard deviations are presented in parentheses.

To examine the relationship between only-child status and the likelihood of relying on different types of grandparental childcare, we employed a random effects multinomial logit model (Table 2). The results show a significant association between being an only daughter and the likelihood of depending on maternal grandparents for childcare. Specifically, being an only daughter increases the odds of using maternal grandparental care by a factor of 4.66 ( $e^{1.538}$ ) compared to other childcare arrangements. This finding

**Table 2.** Random effects multinomial logit model results: Impact of only-child status on grandparental childcare choices.

	Paternal grandparental childcare	Maternal grandparental childcare
Only child status (ref. = non-only child)	−0.229 (0.176)	1.538*** (0.230)
Age	−0.163*** (0.048)	0.017 (0.086)
Age squared	0.002*** (0.001)	0.000 (0.001)
Marital status (ref. = Separated/divorced/widowed)	0.078 (0.205)	−1.184*** (0.279)
Household registration status (ref. = rural hukou)	−0.104 (0.114)	0.809*** (0.192)
Educational attainment (ref. = upper secondary and below)	0.220 (0.144)	0.115 (0.223)
Self-rated health	0.027 (0.040)	0.147* (0.075)
age of the youngest child	−0.072*** (0.013)	−0.150*** (0.024)
Number of children	0.281*** (0.076)	0.102 (0.142)
Youngest grandparental age	0.011 (0.008)	0.025 (0.015)
Grandparental CCP membership (ref. = no)	0.034 (0.140)	0.173 (0.219)
Grandparental education (ref. = primary and below)		
Lower secondary	−0.139 (0.120)	0.176 (0.209)
Upper secondary and above	−0.159 (0.141)	0.316 (0.232)
Logged family income	0.319*** (0.046)	0.562*** (0.093)
Region (ref. = East China)		
Central China	−0.210 (0.110)	0.008 (0.189)
West China	0.072 (0.123)	0.435* (0.213)
Survey year dummies	Yes	Yes
Constant	−23.619 (15.846)	−58.232* (29.002)
N		6352

Note: Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; standard errors are clustered at the individual level.

supports Hypothesis 2, demonstrating that women who are only daughters are significantly more likely to rely on their parents—particularly maternal grandparents—for childcare support.

Table 3 illustrates that both maternal and paternal grandparental childcare positively impact mothers' labor market outcomes. These arrangements are associated with higher employment rates (Model 1), longer working hours (Model 3), and increased personal income (Model 5). These findings support Hypothesis 1 (both Hypothesis 1a and 1b). However, further analysis reveals significant differences in these effects based on mothers' sibling status.

The influence of maternal grandparental childcare is particularly striking for women who are only children. When only daughters receive childcare support from their own parents, they exhibit significantly higher employment rates (Model 2), marginally longer working hours (Model 4), and marginally higher personal income (Model 6). In contrast, while childcare provided by paternal grandparents generally benefits mothers, it does not offer additional advantages for only daughters.

These findings support Hypothesis 3, suggesting that only daughters experience greater career benefits from maternal grandparental childcare compared to support from their in-laws. This pattern highlights that the effectiveness of grandparental childcare varies depending on family dynamics and the mother's background characteristics.

**Table 3.** Random effect models predicting the differential impact of grandparental childcare on mothers' labor market outcomes.

	Labor force participation		Working hours		Logged annual income	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Only child status (ref. = non-only child)	-0.021 (0.017)	-0.037 <sup>+</sup> (0.021)	-2.570* (1.026)	-2.725* (1.287)	0.076 (0.061)	0.002 (0.074)
Main Childcare Provider (ref. = other people)						
Paternal grandparental childcare	0.142*** (0.011)	0.142*** (0.011)	9.353*** (0.672)	9.525*** (0.711)	0.400*** (0.035)	0.386*** (0.037)
Maternal grandparental childcare	0.128*** (0.022)	0.096*** (0.026)	8.231*** (1.224)	6.994*** (1.460)	0.266*** (0.061)	0.214** (0.073)
Only-child*Paternal grandparental childcare		-0.003 (0.036)		-2.176 (1.972)		0.153 (0.107)
Only-child*Maternal grandparental childcare		0.127** (0.047)		4.484 <sup>+</sup> (2.565)		0.231 <sup>+</sup> (0.130)
Age	0.036*** (0.006)	0.036*** (0.006)	2.400*** (0.380)	2.399*** (0.379)	0.122*** (0.018)	0.122*** (0.018)
Square of age	-0.000*** (0.000)	-0.000*** (0.000)	-0.035*** (0.005)	-0.035*** (0.005)	-0.002*** (0.000)	-0.002*** (0.000)
Marital status (ref. = Separated/divorced/widowed)	-0.023 (0.025)	-0.024 (0.025)	-3.403* (1.413)	-3.412* (1.414)	-0.353*** (0.066)	-0.354*** (0.066)
Household registration status (ref. = rural hukou)	0.048*** (0.013)	0.047*** (0.013)	-0.374 (0.754)	-0.410 (0.755)	0.325*** (0.044)	0.326*** (0.044)

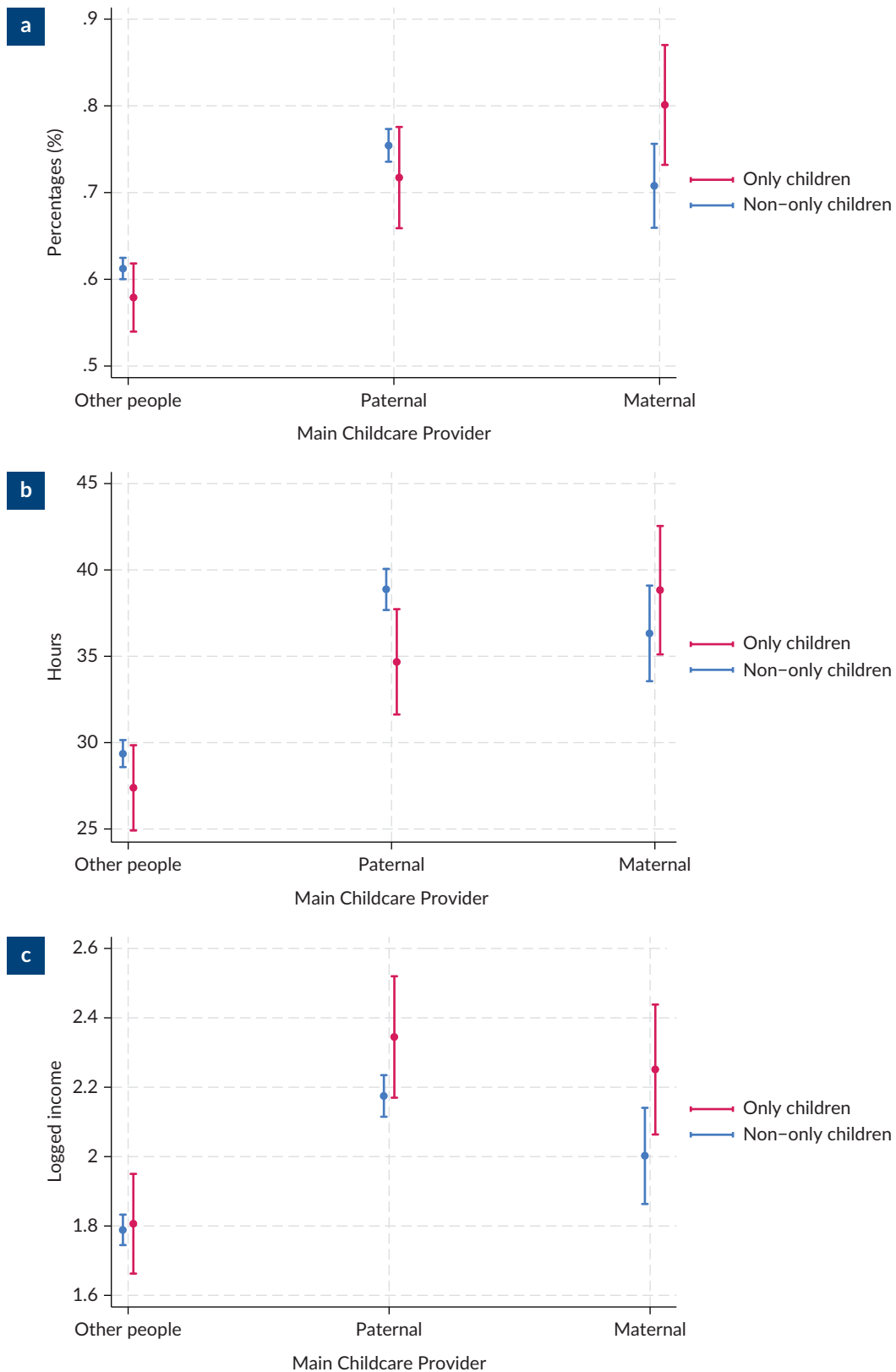


**Table 3.** (Cont.) Random effect models predicting the differential impact of grandparental childcare on mothers' labor market outcomes.

	Labor force participation		Working hours		Logged annual income	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Educational attainment (ref. = upper secondary and below)	0.157*** (0.015)	0.157*** (0.015)	2.964*** (0.849)	2.968*** (0.848)	0.693*** (0.053)	0.692*** (0.053)
Self-rated health	-0.012** (0.005)	-0.012** (0.005)	0.032 (0.305)	0.030 (0.305)	-0.029 <sup>+</sup> (0.015)	-0.029 <sup>+</sup> (0.015)
Age of the youngest child	0.012*** (0.001)	0.012*** (0.001)	0.885*** (0.091)	0.883*** (0.091)	0.039*** (0.005)	0.039*** (0.005)
Number of children	-0.034*** (0.010)	-0.034*** (0.010)	-1.606** (0.603)	-1.613** (0.603)	-0.159*** (0.032)	-0.160*** (0.032)
Logged family income	0.032*** (0.005)	0.032*** (0.005)	1.211*** (0.353)	1.217*** (0.353)	0.394*** (0.017)	0.394*** (0.017)
Youngest grandparental age	0.001 (0.001)	0.001 (0.001)	0.011 (0.058)	0.011 (0.058)	0.001 (0.003)	0.001 (0.003)
Grandparental CCP membership (ref. = no)	0.014 (0.015)	0.015 (0.015)	0.842 (0.927)	0.872 (0.927)	0.013 (0.052)	0.014 (0.052)
Grandparental education (ref. = primary and below)						
Lower secondary	0.024 <sup>+</sup> (0.013)	0.025 <sup>+</sup> (0.013)	0.149 (0.815)	0.139 (0.814)	0.146** (0.045)	0.147** (0.045)
Upper secondary and above	0.009 (0.014)	0.009 (0.014)	-0.488 (0.907)	-0.522 (0.905)	0.113* (0.052)	0.113* (0.052)
Region (ref. = East China)						
Central China	-0.054*** (0.012)	-0.054*** (0.012)	-1.887* (0.745)	-1.895* (0.745)	-0.216*** (0.040)	-0.216*** (0.040)
West China	-0.049*** (0.013)	-0.050*** (0.013)	-0.194 (0.896)	-0.243 (0.894)	-0.307*** (0.046)	-0.306*** (0.046)
Survey year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.690*** (0.111)	-0.690*** (0.111)	-32.187*** (7.441)	-32.157*** (7.432)	-4.399*** (0.365)	-4.401*** (0.365)
N	6352	6352	6352	6352	6352	6352
Within R-squared	0.410	0.410	0.206	0.206	0.295	0.295
Between R-squared	0.415	0.417	0.227	0.229	0.570	0.571
Overall R-squared	0.407	0.407	0.209	0.210	0.463	0.464

Notes: Standard errors in parentheses; <sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; standard errors are clustered at individual level.

To clarify the findings, we visualized the results from Model 2, Model 4, and Model 6 in Table 3 and presented the key outcomes in Figure 1. The figure highlights the differential effects of grandparental childcare on mothers' labor market outcomes, depending on the grandparents' lineage and the mother's only-child status.



**Figure 1.** Labor market outcomes by main childcare provider and only-child status: (a) labor force participation—results are predicted from Model 2, Table 3; (b) working hours per week—results are predicted from Model 4, Table 3; (c) logged annual income—results are predicted from Model 6, Table 3.

Figure 1 reveals that maternal grandparental childcare provides the greatest benefits for mothers who are only children, leading to significantly higher levels of labor force participation, longer working hours, and greater income compared to mothers with siblings. This suggests that only-child mothers derive the most substantial labor market advantages from maternal grandparental support.

In contrast, mothers relying on daycare centers or caring for their children themselves show the poorest outcomes across all three labor market measures. Interestingly, the figure also indicates that non-only-child mothers benefit more from paternal grandparental childcare, while only-child mothers gain more from maternal grandparental support.

Overall, Figure 1 underscores that the benefits of grandparental childcare are not uniform but vary based on family structure and the grandparents' lineage. These findings align with our hypotheses, emphasizing the critical role of intergenerational caregiving in shaping maternal labor market outcomes.

## 5. Discussion and Conclusion

Using a decade of data (2010–2020) from the CFPS, this study examines how grandparental childcare and family structure influence mothers' labor market outcomes. The findings reveal that the relationship between grandparental care and maternal employment is closely tied to family configurations, particularly in terms of generational lineage and sibling status. These results contribute to our understanding of how intergenerational support systems shape women's ability to balance work and family responsibilities in contemporary China.

Both maternal and paternal grandparental childcare is strongly associated with improved labor market outcomes for mothers, including higher employment rates, longer working hours, and increased income. This highlights the critical role of informal childcare, particularly from grandparents, in supporting mothers' workforce participation. By offering reliable and cost-free childcare, grandparents help alleviate the work-family conflict, allowing mothers to focus more on their careers and professional development.

Our analysis also shows that mothers who are only children are more likely to rely on their own parents for childcare. This reflects the unique dynamics of only-child families, where parents can devote their resources and attention exclusively to one child. Without siblings to share parental support, only-child mothers often maintain stronger bonds with their parents, ensuring greater access to their assistance. This concentrated parent-child relationship appears to extend to the next generation, as only-child mothers rely more heavily on their own parents for childcare. These findings suggest that China's former one-child policy not only shaped family size but also reinforced vertical family ties, particularly in how adult children access and utilize parental support.

The interaction effects in the analysis further confirm that only-child mothers benefit the most from maternal grandparental childcare. This aligns with the matrilineal advantage observed in grandparent-grandchild relationships (Chan & Elder, 2000) and the gendered division of childcare responsibilities within families (Thomese & Liefbroer, 2013). These dynamics emphasize the central role maternal grandparents play in providing childcare, especially for daughters without siblings.

This study makes contributions to the understanding of grandparental childcare and maternal labor market outcomes. First, it differentiates between maternal and paternal grandparental care, revealing distinct patterns in how each type of support influences mothers' labor market engagement. This challenges traditional assumptions about lineage-based care and highlights the evolving dynamics of family support systems. Second, the findings illustrate how China's former one-child policy reshaped family structures and intergenerational support patterns. Being an only child significantly affects how women access and benefit from grandparental childcare, suggesting a shift from strictly patrilineal practices to more balanced intergenerational relationships.

The unique family structure of only-child households—characterized by the absence of siblings and a greater concentration of parental resources—has fostered stronger intergenerational ties. The one-child policy increased the prevalence of these households, particularly in urban areas (Feng et al., 2014), and daughters often received greater parental investment in education and human capital (M.-H. Lee, 2012). This allowed women to achieve higher educational levels and access previously restricted career opportunities (Fong, 2004). Our findings suggest that these benefits extend beyond education and early careers (X. Wang & Feng, 2021), as only-child mothers continue to rely on strong maternal intergenerational support for childcare. This support enables them to sustain labor market participation and mitigate the motherhood penalty.

Although China has transitioned to policies allowing two or three children per couple (Tatum, 2021; Zeng & Hesketh, 2016), the long-lasting impact of the one-child policy continues to shape family dynamics. Our findings indicate that structural changes brought about by the policy still influence childcare arrangements, maternal workforce participation, and decisions regarding additional children (Zhong & Peng, 2020). These persistent effects underscore the need for continued research on only-child families, especially those in their childbearing years, as China moves beyond the one-child era.

However, this study also highlights persistent gender inequalities in childcare and labor market outcomes. Although only daughters may experience some advantages due to greater parental support, this does not translate into genuine gender equality. Childcare responsibilities remain disproportionately shouldered by women and their female relatives, such as grandmothers, reinforcing the patriarchal gender division of labor within the home (Thornton & Lin, 1994). Young mothers continue to face the pressures of intensive motherhood (Rizzo et al., 2013) and the motherhood penalty for unpaid family responsibilities (Folbre, 2012), leaving them disadvantaged both within their families and in the labor market. While grandparental childcare alleviates some of this burden, it does not fundamentally challenge the patriarchal norms governing work and family roles. Future research should explore pathways toward gender equality by examining how women's lived experiences at home and work can inform policy reforms (Cornwall, 2016). Structural changes are necessary to address entrenched gender norms and create equitable conditions for women in both the family and the workplace.

This study also has important implications for China's efforts to boost fertility rates. While recent policy shifts allow for larger families, macro-level changes alone have not effectively encouraged higher birth rates. Research suggests that fertility policies must be complemented by family-focused support measures (Q. Chen et al., 2023; Zhong & Peng, 2020). Our findings show that decisions about additional children are closely tied to family childcare arrangements, particularly how mothers balance work and family obligations. Effective policy development requires a nuanced understanding of Chinese family structures and their

evolving dynamics, including the needs of grandparents who provide essential childcare support. Policies that address the needs of both working mothers and caregiving grandparents will be critical for fostering sustainable family systems.

Several limitations of this study should be acknowledged. First, the analysis assumes that childcare needs remain stable, but in reality, they vary significantly as children grow, with younger children (ages 0–3) requiring the most care. Future research could explore how childcare demands evolve over time. Second, the measure of grandparental involvement used in this study is simplified, categorizing care into three broad groups: paternal grandparents, maternal grandparents, and other caregivers. In practice, many families receive support from both sets of grandparents in varying degrees. Future research should explore these dynamics in greater detail and incorporate male samples to broaden the scope of the findings. Finally, while this study offers valuable insights, it does not yet establish strong causality. Future research could build on these findings by employing more rigorous causal methods.

In conclusion, this study provides important insights into the role of grandparental childcare in mitigating the motherhood penalty and supporting maternal employment, particularly among only-child mothers in China. The findings highlight the significance of family structure and intergenerational support in shaping women's labor market outcomes and balancing work and family responsibilities. By examining these dynamics, this study contributes to a deeper understanding of how family configurations and caregiving practices influence women's careers, particularly in the context of China's rapid social and demographic changes.

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### Conflict of Interests

The authors declare no conflict of interests.

### Data Availability

The data used in this article from the CFPS are publicly available at the following website: <https://cfpsdata.pku.edu.cn/#/home>

### References

- Aassve, A., Arpino, B., & Goisis, A. (2012). Grandparenting and mothers' labour force participation: A comparative analysis using the generations and gender survey. *Demographic Research*, 27, 53–84. <https://doi.org/10.4054/DemRes.2012.27.3>
- Abendroth, A. K., Huffman, M. L., & Treas, J. (2014). The parity penalty in life course perspective: Motherhood and occupational status in 13 European countries. *American Sociological Review*, 79(5), 993–1014. <https://doi.org/10.1177/0003122414545986>
- Albertini, M., & Kohli, M. (2013). The generational contract in the family: An analysis of transfer regimes in Europe. *European Sociological Review*, 29(4), 828–840. <https://doi.org/10.1093/esr/jcs061>
- Asai, Y., Kambayashi, R., & Yamaguchi, S. (2015). Childcare availability, household structure, and maternal employment. *Journal of the Japanese and International Economies*, 38, 172–192. <https://doi.org/10.1016/j.jjie.2015.05.009>
- Asi, Y., & Williams, C. (2020). A woman's (unpaid) work: Global perspectives on gender, healthcare, and

- caregiving. In B. A. Fiedler (Ed.), *Three facets of public health and paths to improvements: Behavior, culture, and environment* (pp. 261–294). Academic Press.
- Atal, V. (2017). Say at home, or stay at home? Policy implications on female labor supply and empowerment. *Review of Economics of the Household*, 15, 1081–1103. <https://doi.org/10.1007/s11150-015-9281-1>
- Bengtson, V. L. (2001). Beyond the nuclear family: The increasing importance of multigenerational bonds. *Journal of Marriage and Family*, 63(1), 1–16. <https://doi.org/10.1111/j.1741-3737.2001.00001.x>
- Blake, J. (1981). Family size and the quality of children. *Demography*, 18(4), 421–442. <https://doi.org/10.2307/2060941>
- Bratti, M., Frattini, T., & Scervini, F. (2018). Grandparental availability for child care and maternal labor force participation: Pension reform evidence from Italy. *Journal of Population Economics*, 31(4), 1239–1277. <https://doi.org/10.1007/s00148-017-0683-7>
- Budig, M. J., & Hodges, M. J. (2010). Differences in disadvantage: Variation in the motherhood penalty across white women's earnings distribution. *American Sociological Review*, 75(5), 705–728. <https://doi.org/10.1177/0003122410381593>
- Chan, C. G., & Elder, G. H., Jr. (2000). Matrilineal advantage in grandchild–grandparent relations. *The Gerontologist*, 40(2), 179–190. <https://doi.org/10.1093/geront/40.2.179>
- Chen, F., Liu, G., & Mair, C. A. (2011). Intergenerational ties in context: Grandparents caring for grandchildren in China. *Social Forces*, 90(2), 571–594. <https://doi.org/10.1093/sf/sor012>
- Chen, F., Short, S. E., & Entwisle, B. (2000). The impact of grandparental proximity on maternal childcare in China. *Population Research and Policy Review*, 19(6), 571–590. <https://doi.org/10.1023/A:1010618302144>
- Chen, J., & Jordan, L. P. (2018). Intergenerational support in one- and multi-child families in China: Does child gender still matter? *Research on Aging*, 40(2), 180–204. <https://doi.org/10.1177/0164027517690883>
- Chen, Q., Wang, A., Song, X., Liu, X., Liu, Y., Wei, J., Shu, J., Sun, M., Zhong, T., Luo, M., Wang, T., Zhang, S., Xie, D., & Qin, J. (2023). Fertility intentions to have a second or third child among the childbearing-age population in Central China under China's three-child policy: A cross-sectional study. *Journal of Global Health*, 13, Article 04072. <https://doi.org/10.7189/jogh.13.04072>
- Chu, C. C., Xie, Y., & Yu, R. R. (2007). Effects of sibship structure revisited: Evidence from intrafamily resource transfer in Taiwan. *Sociology of Education*, 80(2), 91–113. <https://doi.org/10.1177/003804070708000201>
- Chu, C. C., Xie, Y., & Yu, R. R. (2011). Coresidence with elderly parents: A comparative study of southeast China and Taiwan. *Journal of Marriage and Family*, 73(1), 120–135. <https://doi.org/10.1111/j.1741-3737.2010.00793.x>
- Coall, D. A., & Hertwig, R. (2010). Grandparental investment: Past, present, and future. *Behavioral and Brain Sciences*, 33(1), 1–19. <https://doi.org/10.1017/S0140525X09991105>
- Coall, D. A., Hilbrand, S., & Hertwig, R. (2014). Predictors of grandparental investment decisions in contemporary Europe: Biological relatedness and beyond. *PLOS One*, 9(1), Article 84082. <https://doi.org/10.1371/journal.pone.0084082>
- Compton, J., & Pollak, R. A. (2014). Family proximity, childcare, and women's labor force attachment. *Journal of Urban Economics*, 79, 72–90. <https://doi.org/10.1016/j.jue.2013.03.007>
- Cornwall, A. (2016). Women's empowerment: What works? *Journal of International Development*, 28(3), 342–359. <https://doi.org/10.1002/jid.3210>
- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology*, 112(5), 1297–1339. <https://doi.org/10.1086/511799>

- Danielsbacka, M., Tanskanen, A. O., Jokela, M., & Rotkirch, A. (2011). Grandparental child care in Europe: Evidence for preferential investment in more certain kin. *Evolutionary Psychology*, 9(1), 3–24. <https://doi.org/10.1177/147470491100900102>
- Davis, S. N., & Greenstein, T. N. (2009). Gender ideology: Components, predictors, and consequences. *Annual Review of Sociology*, 35, 87–105. <https://doi.org/10.1146/annurev-soc-070308-115920>
- Deng, Y., Zhou, Y., & Hu, D. (2023). Grandparental childcare and female labor market behaviors: Evidence from China. *Journal of Asian Economics*, 86, Article 101614. <https://doi.org/10.1016/j.asieco.2023.101614>
- Emery, T. (2013). Intergenerational transfers and European families: Does the number of siblings matter? *Demographic Research*, 29, 247–274. <https://doi.org/10.4054/DemRes.2013.29.10>
- England, P., Bearak, J., Budig, M. J., & Hodges, M. J. (2016). Do highly paid, highly skilled women experience the largest motherhood penalty? *American Sociological Review*, 81(6), 1161–1189. <https://doi.org/10.1177/0003122416673598>
- Euler, H. A., & Weitzel, B. (1996). Discriminative grandparental solicitude as reproductive strategy. *Hu Nat*, 7(1), 39–59. <https://doi.org/10.1007/BF02733489>
- Fei, X. (1998). *Xiang tu zhong guo sheng yu zhi du*. Beijing University Press.
- Feng, X. T., Poston, D. L., Jr., & Wang, X. T. (2014). China's one-child policy and the changing family. *Journal of Comparative Family Studies*, 45(1), 17–29. <https://doi.org/10.3138/jcfs.45.1.17>
- Folbre, N. (2012). Should women care less? *British Journal of Industrial Relations*, 50, 597–619. <https://doi.org/10.1111/bjir.12000>
- Fong, V. L. (2004). *Only hope: Coming of age under china's one-child policy*. Stanford University Press.
- Gangl, M., & Ziefle, A. (2009). Motherhood, labor force behavior, and women's careers: An empirical assessment of the wage penalty for motherhood in Britain, Germany, and the United States. *Demography*, 46(2), 341–369. <https://doi.org/10.1353/dem.0.0056>
- Gibbs, B. G., Workman, J., & Downey, D. B. (2016). The (conditional) resource dilution model: State- and community-level modifications. *Demography*, 53, 723–748. <https://doi.org/10.1007/s13524-016-0471-0>
- Goh, E. C. L. (2011). *China's one child policy and multiple caregiving: Raising little suns in Xiamen*. Routledge.
- Greenstein, T. N. (2000). Economic dependence, gender, and the division of labor in the home: A replication and extension. *Journal of Marriage and Family*, 62(2), 322–335. <https://doi.org/10.1111/j.1741-3737.2000.00322.x>
- Gruber, J., Kosonen, T., & Huttunen, K. (2023). *Paying moms to stay home: Short and long run effects on parents and children*. National Bureau of Economic Research. <https://www.nber.org/papers/w30931>
- Gu, H., Bian, F., & Elahi, E. (2021). Impact of availability of grandparents' care on birth in working women: An empirical analysis based on data of Chinese dynamic labour force. *Children and Youth Services Review*, 121, Article 105859. <https://doi.org/10.1016/j.childyouth.2020.105859>
- Guo, G., & VanWey, L. K. (1999). Sibship size and intellectual development: Is the relationship causal? *American Sociological Review*, 64(2), 169–187. <https://doi.org/10.2307/2657524>
- Hoang, N. P. T., & Kirby, J. N. (2020). A meta-ethnography synthesis of joint care practices between parents and grandparents from Asian cultural backgrounds: Benefits and challenges. *Journal of Child and Family Studies*, 29, 605–619. <https://doi.org/10.1007/s10826-019-01553-y>
- Hochschild, A. R., & Machung, A. (2012). *The second shift: Working parents and the revolution at home*. Penguin Books.
- Hu, A., & Tian, F. F. (2018). Still under the ancestors' shadow? Ancestor worship and family formation in contemporary China. *Demographic Research*, 38, 1–36. <https://doi.org/10.4054/DemRes.2018.38.1>



- Hu, S., & Mu, Z. (2021). Extended gender inequality? Intergenerational coresidence and division of household labor. *Social Science Research*, 93, Article 102497. <https://doi.org/10.1016/j.ssresearch.2020.102497>
- Johnston, D. D., & Swanson, D. H. (2006). Constructing the “good mother”: The experience of mothering ideologies by work status. *Sex Roles*, 54, 509–519. <https://doi.org/10.1007/s11199-006-9021-3>
- Kanji, S. (2017). Grandparent care: A key factor in mothers’ labour force participation in the UK. *Journal of Social Policy*, 47(3), 523–542. <https://doi.org/10.1017/s004727941700071x>
- Laham, S. M., Gonsalkorale, K., & von Hippel, W. (2005). Darwinian grandparenting: Preferential investment in more certain kin. *Personality and Social Psychology Bulletin*, 31(1), 63–72. <https://doi.org/10.1177/0146167204271318>
- Lee, W. K. (2002). Gender ideology and the domestic division of labor in middle-class Chinese families in Hong Kong. *Gender, Place and Culture: A Journal of Feminist Geography*, 9(3), 245–260. <https://doi.org/10.1080/0966369022000003851>
- Lee, M.-H. (2012). The one-child policy and gender equality in education in China: Evidence from household data. *Journal of Family and Economic Issues*, 33(1), 41–52. <https://doi.org/10.1007/s10834-011-9277-9>
- Lersch, P. M. (2019). Fewer siblings, more wealth? Sibship size and wealth attainment. *European Journal of Population*, 35(5), 959–986. <https://doi.org/10.1007/s10680-018-09512-x>
- Liu, S., & Marois, G. (2023). The effect of motherhood on the labour force participation of married women in China. *Asian Population Studies*, 20(1), 104–120. <https://doi.org/10.1080/17441730.2023.2193518>
- Meng, L., Zhang, Y., & Zou, B. (2023). The motherhood penalty in China: Magnitudes, trends, and the role of grandparenting. *Journal of Comparative Economics*, 51(1), 105–132. <https://doi.org/10.1016/j.jce.2022.10.005>
- Ondrich, J., Spiess, C. K., & Yang, Q. (1996). Barefoot and in a German kitchen: Federal parental leave and benefit policy and the return to work after childbirth in Germany. *Journal of Population Economics*, 9(3), 247–266. <https://doi.org/10.1007/BF00176687>
- Preisner, K., Neuberger, F., Posselt, L., & Kratz, F. (2018). Motherhood, employment, and life satisfaction: Trends in Germany between 1984 and 2015. *Journal of Marriage and Family*, 80(5), 1107–1124. <https://doi.org/10.1111/jomf.12518>
- Rizzo, K. M., Schiffrin, H. H., & Liss, M. (2013). Insight into the parenthood paradox: Mental health outcomes of intensive mothering. *Journal of Child and Family Studies*, 22, 614–620. <https://doi.org/10.1007/s10826-012-9615-z>
- Sandberg, J., & Rafail, O. (2014). Family size, cognitive outcomes, and familial interaction in stable, two-parent families: United States, 1997–2002. *Demography*, 51, 1895–1931. <https://doi.org/10.1007/s13524-014-0331-8>
- Shelton, B. A., & John, D. (1996). The division of household labor. *Annual Review of Sociology*, 22(1), 299–322. <https://doi.org/10.1146/annurev.soc.22.1.299>
- Shen, K., Zhang, Y., & Yan, P. (2012). Zhong guo nü xing lao dong can yu lü xia jiang de xin jie shi: jia ting jie gou bian qian de shi jiao. *Population Research*, 36(5), 15–27.
- Short, S. E., Chen, F., Entwisle, B., & Zhai, F. (2002). Maternal work and child care in China: A multi-method analysis. *Population and Development Review*, 28(1), 31–57. <https://doi.org/10.1111/j.1728-4457.2002.00031.x>
- Soparkar, I. (2024). Facilitating future workforce participation for stay-at-home parents: Mitigating the career costs of parenthood. *The Yale Law Journal Forum*, 113, Article 833.
- Steelman, L. C., Powell, B., Werum, R., & Carter, S. (2002). Reconsidering the effects of sibling configuration: Recent advances and challenges. *Annual Review of Sociology*, 28(1), 243–269. <https://doi.org/10.1146/annurev.soc.28.111301.093304>

- Syed, J. (2010). Reconstructing gender empowerment. *Women's Studies International Forum*, 33(3), 283–294. <https://doi.org/10.1016/j.wsif.2010.03.002>
- Tatum, M. (2021). China's three-child policy. *The Lancet*, 397(10291), Article 2238.
- Thomese, F., & Liefbroer, A. C. (2013). Child care and child births: The role of grandparents in the Netherlands. *Journal of Marriage and Family*, 75(2), 403–421. <https://doi.org/10.1111/jomf.12005>
- Thornton, A., & Lin, H. (1994). *Social change and the family in Taiwan*. The University of Chicago Press.
- Uttal, L. (1999). Using kin for child care: Embedment in the socioeconomic networks of extended families. *Journal of Marriage and Family*, 61(4), 845–857. <https://doi.org/10.2307/354007>
- Wang, F., Cai, Y., & Gu, B. (2013). Population, policy, and politics: How will history judge China's one-child policy? *Population and Development Review*, 38, 115–129. <https://doi.org/10.1111/j.1728-4457.2013.00555.x>
- Wang, X., & Feng, X. (2021). Family resource dilution in expanded families and the empowerment of married only daughters: Evidence from the educational investment in children in Urban China. *Frontiers in Psychology*, 12, Article 610482. <https://doi.org/10.3389/fpsyg.2021.610482>
- Wang, Y., & Zhao, X. (2022). Grandparental childcare, maternal labor force participation, and the birth of a second child: Further knowledge from empirical analysis. *Journal of Business Research*, 139, 762–770. <https://doi.org/10.1016/j.jbusres.2021.10.013>
- Warren, T. (2011). Researching the gender division of unpaid domestic work: Practices, relationships, negotiations, and meanings. *The Sociological Review*, 59(1), 129–148. <https://doi.org/10.1111/j.1467-954x.2010.01993.x>
- Williams, J. C., & Cooper, H. C. (2004). The public policy of motherhood. *Journal of Social Issues*, 60(4), 849–865. <https://doi.org/10.1111/j.0022-4537.2004.00390.x>
- Wu, Y., & Zhou, D. (2015). Women's labor force participation in urban China, 1990–2010. *Chinese Sociological Review*, 47(4), 314–342. <https://doi.org/10.1080/21620555.2015.1036234>
- Xie, Y., & Hu, J. (2014). An introduction to the China Family Panel Studies (CFPS). *Chinese Sociological Review*, 47(1), 3–29. <https://doi.org/10.2753/CSA2162-0555470101.2014.11082908>
- Xie, Y., & Lu, P. (2015). The sampling design of the China Family Panel Studies (CFPS). *Chinese Journal of Sociology*, 1(4), 471–484. <https://doi.org/10.1177/2057150X15614535>
- Xie, Y., & Zhu, H. (2009). Do sons or daughters give more money to parents in urban China? *Journal of Marriage and Family*, 71(1), 174–186. <https://doi.org/10.1111/j.1741-3737.2008.00588.x>
- Xu, Q., Wang, J., & Qi, J. (2019). Intergenerational coresidence and the subjective well-being of older adults in China. *Demographic Research*, 41, 1347–1372. <https://doi.org/10.4054/DemRes.2019.41.48>
- Yu, H., Cao, J., & Kang, S. (2023). Fertility cost, grandparental childcare, and female employment. *Empirical Economics*, 64(3), 1067–1104. <https://doi.org/10.1007/s00181-022-02280-y>
- Yu, J., & Xie, Y. (2018). Motherhood penalties and living arrangements in China. *Journal of Marriage and Family*, 80(5), 1067–1086. <https://doi.org/10.1111/jomf.12496>
- Zeng, Y., & Hesketh, T. (2016). The effects of China's universal two-child policy. *The Lancet*, 388(10054), 1930–1938.
- Zhang, C., Fong, V. L., Yoshikawa, H., Way, N., Chen, X., & Lu, Z. (2019). The rise of maternal grandmother child care in urban Chinese families. *Journal of Marriage and Family*, 81(5), 1174–1191. <https://doi.org/10.1111/jomf.12598>
- Zhang, C., Kim, S., Yoshikawa, H., Fong, V. L., Chen, X., Way, N., & Lu, Z. (2023). Lineage difference in grandmothers' childcare help and mothers' parenting stress in urban China. *Journal of Family Studies*, 29(5), 2025–2045. <https://doi.org/10.1080/13229400.2022.2113338>

- Zhang, W. (2009). "A married out daughter is like spilt water"?: Women's increasing contacts and enhanced ties with their natal families in post-reform rural north China. *Modern China*, 35(3), 256–283. <https://doi.org/10.1177/0097700408329613>
- Zhao, M. (2018). From motherhood premium to motherhood penalty? Heterogeneous effects of motherhood stages on women's economic outcomes in urban China. *Population Research and Policy Review*, 37(6), 967–1002. <https://doi.org/10.1007/s11113-018-9494-0>
- Zhong, X., & Peng, M. (2020). The grandmothers' farewell to childcare provision under China's two-child policy: Evidence from Guangzhou middle-class families. *Social Inclusion*, 8(2), 36–46. <https://doi.org/10.17645/si.v8i2.2674>

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# Women Sewing in Chinese Prisons: Prison Adaptation Influenced by Vocational Training Program

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## Abstract

Our study investigates the relationship between participation in prison vocational training programs and inmates' adaptation to incarceration in a Chinese female prison, with a specific focus on the most common program in this setting—the sewing program. Drawing on survey data from 492 incarcerated women, we employed an OLS regression model to examine how participation in the sewing program relates to prison adaptation, controlling for prison-specific factors and personal/social characteristics. Contrary to expectations, sewing program participation was significantly associated with lower levels of adaptation. In contrast, the mental health score emerged as the strongest positive predictor. These findings suggest that such vocational training programs may not necessarily facilitate inmates' adjustment, and highlight the importance of psychological well-being in the rehabilitative process. The study contributes to a more nuanced understanding of prison vocational training programs and has implications for the design of gender-responsive correctional policies.

## Keywords

China; mental health; prison adaptation; sewing program; vocational training program; women's prison

## 1. Introduction

In China, prisons include several types of programs for rehabilitation purposes, such as vocational training programs, academic educational programs, thought education programs, psychological counseling programs, and recreational and cultural activity programs (Zhao et al., 2019). Among them, the sewing program is the most common form of vocational education, especially in female correctional facilities. Despite their

prevalence, few empirical studies have examined how such programs influence inmates' adaptation in female prisons—a crucial issue considering the psychological stress and social deprivation that characterize long-term incarceration (Crewe et al., 2017).

Prison adaptation is a multidimensional construct encompassing inmates' psychological, behavioral, and emotional responses to incarceration. Scholars have conceptualized this process through various theoretical lenses. One stream emphasizes behavioral conformity—rule compliance, reduced infractions, and program participation—as markers of successful adjustment (Loper, 2002; Toch, 1994). Another strand highlights the subjective quality of life, including interpersonal relationships and perceptions of fairness, which are often assessed using instruments like the Prison Adjustment Questionnaire (Warren et al., 2004; Wright, 1985). A third perspective focuses on psychological dispositions such as criminal thinking and antisocial attitudes (Gendreau et al., 1997; Walters, 2005). Others have examined physiological and cultural aspects, including stress, health outcomes, and adaptation to prison routines (Flanagan, 1981; Haney, 2003). Building upon these traditions, a three-part classification of prison adaptation was proposed: (a) institutional adjustment, referring to an inmate's ability to function and survive within the prison system; (b) societal adjustment, which reflects orientation toward post-release rehabilitation and reintegration; and (c) criminal thinking, involving the persistence of deviant beliefs, values, and subcultural norms (Van Tongeren & Klebe, 2010). This integrated model highlights that adaptation to incarceration is not only about conforming to prison rules but also about how inmates relate to their future lives and the values embedded within carceral institutions.

Vocational training programs are often promoted as key components of prison rehabilitation, offering inmates structured routines, marketable skills, and a sense of purpose. Empirical studies across various national contexts have associated such programs with reduced recidivism, improved post-release employment prospects, and enhanced emotional stability during incarceration (Bales & Mears, 2008; Visher & Courtney, 2007). For incarcerated women—many of whom come from marginalized backgrounds and have experienced limited educational or economic opportunities—vocational programs may also serve as a pathway to empowerment, even within the constraints of prison life (Laghari Balouch et al., 2023).

However, despite these potential benefits, the effectiveness of vocational training in improving in-prison adaptation, rather than post-release outcomes, remains underexplored—particularly in the case of women. Some education and training programs for women in prison are often designed without sufficient attention to their lived experiences, personal aspirations, or psychosocial needs (Danby et al., 2000). In the Chinese context, sewing programs dominate the vocational landscape of female prisons, yet they are rarely evaluated beyond their productive efficiency or disciplinary function. Given their compulsory nature and physical demands, it remains unclear whether such programs truly facilitate adaptation or merely reinforce institutional compliance. This study addresses this gap by focusing on the relationship between participation in female prison sewing program and prison adaptation. By centering on inmates' adaptation during incarceration—rather than solely on their post-release outcomes—it aims to provide a more nuanced understanding of how gendered labor practices intersect with rehabilitation within carceral institutions.

Existing research on prison adaptation is largely shaped by two foundational theoretical models: the deprivation model and the importation model. The deprivation model, proposed by Sykes (1958), posits that adaptation is primarily a response to the institutional environment of the prison itself. According to this view, inmates experience psychological and emotional strain due to the loss of liberty, autonomy, privacy, and

access to social relationships, which in turn shapes their coping behaviors and patterns of adjustment. In contrast, the importation model, introduced by Irwin and Cressey (1962), emphasizes that inmates bring pre-existing individual characteristics into the prison—such as age, education, socioeconomic background, and criminal history—which influence their adaptation styles and interactions within the institution. While both models have offered valuable insights into the mechanisms of prison adaptation, they were developed based on studies of adult male inmates in Western contexts (Zingraff & Zingraff, 2009). Therefore, their applicability to female inmates, whose carceral experiences are shaped by distinct psychological, social, and structural factors, remains limited. As prior studies have pointed out, women's adaptation to incarceration is often more relational, emotionally complex, and context-dependent than that of men (Kassebaum, 1965; Zingraff & Zingraff, 2009). The theoretical foundations of the deprivation and importation models thus require critical reconsideration and expansion when applied to the gendered realities of female imprisonment.

Recognizing the limitations of traditional models, researchers have emphasized the need to adapt deprivation and importation frameworks to reflect women's distinct prison experiences. In the Chinese context, recent studies have also integrated both deprivation and importation factors in explaining adaptation outcomes (Zhao et al., 2019). For example, longer sentences have been found to be associated with increased stress and reduced agency, potentially reinforcing identification with prison subcultures (Thompson & Loper, 2005). Women often enter prison with significant histories of trauma, mental health concerns, and caregiving responsibilities, which complicate their psychological and emotional adjustment (Covington, 2007). Health status, both physical and mental, is often compromised in prison, exacerbating stress and complicating adjustment (Haney, 2003). Unlike men, whose adaptation is frequently interpreted through behavioral or disciplinary metrics, women's prison experiences are more relationally and emotionally oriented, marked by feelings of guilt, separation from family, and loss of social identity (Carlen, 1998). Some female inmates hold internal management roles in China's prisons, involving supervision and organizing labor tasks. These roles are comparable to inmate social roles identified in Western studies (Thomas & Foster, 1976) and may influence inmates' adaptation by altering their social status and responsibilities. Age has been found to play a significant role in institutional adjustment. Older inmates are generally better adapted, exhibiting greater emotional stability and lower levels of disciplinary infractions, potentially due to increased maturity and decreased impulsivity (Zamble & Porporino, 1988). Within China's household registration type, rural-origin inmates may face limited access to social and economic resources during and after imprisonment, adding another layer of disadvantage (Zhao et al., 2020). Younger and less-educated inmates are more likely to experience adjustment difficulties (Zhao et al., 2020). Personal income or economic resources prior to incarceration, though rarely studied in non-Western contexts, have shown mixed associations with prison adaptation score. Family support has been found to serve as a key buffer against depression and anxiety, especially among female inmates (Liu & Chui, 2014), while marital status can influence emotional resilience during incarceration (Zhao et al., 2020).

Despite growing recognition of gendered differences in prison experiences, few empirical studies have systematically examined how vocational programs influence incarcerated women's adaptation within the prison environment—particularly in non-Western settings. Existing research often prioritizes post-release outcomes such as employment and recidivism, while overlooking inmates' lived experiences and psychological adjustment during confinement. This gap is especially pronounced in China, where vocational training programs such as sewing are widespread yet under-theorized as rehabilitative interventions. This



study seeks to address this gap by focusing on the relationship between sewing program participation and prison adaptation scores among inmates in a Chinese women's prison.

## 2. Methods

### 2.1. Sampling

This study was conducted in a women's prison located in a central province of China. Unlike male facilities, women's prisons in China do not implement a tiered or hierarchical classification system, meaning inmates with varying sentence lengths and offense types are housed in the same facility. This structural feature enhances the generalizability of findings from a single-site study. The selected prison houses over 1,000 inmates and serves as a provincial demonstration unit, with management practices aligned with national standards for female correctional facilities. Data were collected from two consecutive cohorts of incarcerated women (the 12th and 13th sessions) who participated in the pre-release education program in 2023. This program is a standardized intervention offered to all inmates approaching the end of their sentence, and participation is mandatory, ensuring full sample coverage. The focus on inmates in the pre-release stage offers several advantages: their sentence durations are typically finalized, reducing the impact of pending appeals or sentence adjustments; and their psychological and behavioral responses are relatively stable, allowing for more consistent assessment of prison adaptation score. The two cohorts were separated by a three-month interval to minimize potential contextual or seasonal bias in data collection.

Instead of sampling, this study employed a census approach within the defined target population. All inmates enrolled in the 12th and 13th sessions during the pre-release period were invited to participate. These cohorts included individuals from multiple housing units and varied in offense types (e.g., economic crimes, violent crimes), sentence lengths (from less than three years to over ten years), and levels of correctional performance. Prior to data collection, trained researchers explained the purpose of the study both orally and in writing. Participants were assured of the voluntary nature of their participation, anonymity of responses, and data confidentiality. It was explicitly stated that declining participation would have no impact on their rights or access to prison services. Ultimately, 593 participants were recruited, and 593 valid responses were collected.

The study protocol was reviewed and approved by the prison administration and conducted with the support of the participating correctional institution. Informed consent was obtained from all participants, and ethical principles of voluntary participation, confidentiality, and non-interference with inmates' legal or institutional status were strictly followed.

### 2.2. Variables and Measures

Listwise deletion and imputation were applied for variables with missing values. The dependent variable, prison adaptation score, was measured using the Scale of Experience in Prison (Liu & Chui, 2014), which includes 12 items rated on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*), asking about orientation toward rehabilitation, adjustment to the prison setting, and criminal cognition. Listwise deletion was applied to all 12 items. The scale demonstrated good internal consistency in this study, with a Cronbach's  $\alpha$  of 0.9193. For each participant, an average score across the 12 items was calculated to represent their level of prison adaptation, with higher values indicating better adaptation.



For the independent variable, participation in the sewing program is a binary variable coded as “0” for *has not participated* and “1” for *has participated*. No missing or invalid values were detected during the data cleaning process.

Control variables included measures for prison-specific factors and personal/social characteristics. The mental health score served as one such control, capturing both prison-specific factors and personal/social characteristics. It was assessed using a single self-reported item on a 5-point Likert scale, in which participants rated their own psychological well-being. The coding scheme was as follows: 1 = *very poor*, 2 = *poor*, 3 = *average*, 4 = *good*, and 5 = *very good*. Six cases reported out-of-range values and missing values; these cases were deleted. Prison-specific factors include sentence length, commutation, and management role. For the variable sentence length, imputation was applied to the 98 missing values. Considering the high skewness of 1.94 before imputation, the median value was used. For commutation, missing cases were largely caused by respondents who never received sentence reductions; the value “0” was used for imputation. The variable was further recoded into a binary variable, where “0” means *no reduction* and “1” means *reduction granted*. In the Chinese prison context, inmates may be assigned to internal management roles, such as team leaders or production supervisors, which involve organizing daily labor tasks or assisting in the enforcement of rules among cellmates. The variable management role is a binary variable, where “0” means *has never served* and “1” means *has served*.

Personal/social characteristics include age, household registration type, total years of education, monthly income before incarceration, and marital status. For age, two cases reported out-of-range values and missing values. After removing the extreme values, the average age is 41.4, with a skewness of 0.42. Imputation with the mean value was applied to the variable age. The household registration type, commonly referred to as *hukou*, serves as a distinctive demographic identifier in China. It denotes not only an individual’s place of birth but also the administrative classification of that location. A rural area is frequently associated with socioeconomic disadvantage and systemic marginalization (Han, 2009). *Hukou* is a binary variable, where “0” indicates *non-peasants* and “1” indicates *peasants*; missing values were dropped. For total years of education, missing values were dropped. Monthly income before incarceration refers to the average monthly personal income from legal sources before incarceration. To address the right-skewed distribution and improve model fit, a log-transformed version of the income variable (Ln\_Monthly Income before Incarceration) was used in the analysis. Marital status refers to the respondent’s current status and was coded as “0” for *without a partner* (including single, divorced, and widowed) and “1” for *with a partner* (including married and cohabiting). Missing values were dropped.

### 2.3. Data Collection

Survey questionnaires were administered in a classroom setting within the prison. Inmates completed the paper-based questionnaires either independently or with on-site assistance from trained facilitators who were available to clarify any questions if needed. Participation was voluntary, and inmates were informed that they could choose not to fill out the questionnaire without facing any negative consequences. They were also assured that no prison staff would be present during the survey, and completed questionnaires could be submitted anonymously by leaving them on the desk and exiting the room. Blank or incomplete questionnaires were accepted without question. The entire process typically took around 20 to 30 minutes per participant. To ensure comprehension and reduce response errors, instructions were read aloud before distribution, and

assistance was offered throughout the session. All responses were anonymous, and no identifying information was collected.

After collection, the responses were manually entered into Microsoft Excel and subsequently transferred to Stata 18.0 for statistical analysis. This study employed descriptive statistics, correlation analysis, and multiple regression analysis to examine the relationship between participation in the sewing program (independent variable) and prison adaptation score (dependent variable).

## 2.4. Analytical Process

OLS regression was employed to examine the relationship between participation in the prison sewing program and inmates' adaptation to incarceration. The dependent variable, prison adaptation score, was measured as a continuous score, while the independent variable was participation in the sewing program (coded as "0" for *non-participation* and "1" for *participation*). A series of four nested models was estimated to assess the robustness and consistency of the observed associations by gradually introducing theoretically relevant control variables.

Specifically, in Model 1, we analysed how the dependent variable is influenced by the independent variable. In Model 2, prison-specific factors were added, including sentence length, whether commutation was granted ("0" for *no* and "1" for *yes*), and whether a management role was assigned ("0" for *no* and "1" for *yes*). In Model 3, we added only personal/social characteristics, including age, household registration type ("0" for *non-peasant* and "1" for *peasant*), total years of education, monthly income before incarceration, and marital status ("0" for *without a partner* and "1" for *with a partner*). Finally, Model 4 included both sets of control variables to estimate a fully adjusted model. The mental health score accounts for both prison-specific factors and personal/social characteristics, so it appears as a control variable in Models 2, 3, and 4. All models were estimated using Stata 18.0.

## 3. Results

### 3.1. Description of Samples

A total of 492 valid cases were included in the final analysis after listwise deletion of missing values. Table 1 shows the descriptive statistics of all variables. The prison adaptation score was relatively high, with an average score of 4.26 and a standard deviation of 0.45. Approximately 41.06% of the inmates had participated in the sewing program. About 28.86% of participants had received at least one commutation of sentence. Among participants, 31.5% held a management role within their housing units, such as serving as cell leaders or orderlies. The average mental health score is 3.461 with a standard deviation of 0.943, suggesting relatively good psychological well-being. The average age of participants was 41.4 years with a standard deviation of 10.89. A peasant-type household registration (*hukou*) was held by 53.05% of the respondents. In terms of education, the average total years of education received was approximately 8.69 years, equivalent to having completed senior high school or higher. The mean monthly income before incarceration was 4,770 RMB, but the distribution was highly right-skewed (Skewness = 7.113). The average sentence length was approximately 34 months (Median = 46.75), ranging from less than one year to over

10 years. Regarding marital status, 54.67% of the participants reported currently having a partner (either married or cohabiting).

**Table 1.** Descriptive statistics ( $N = 492$ ).

Variable	Mean/%	Median	SD	Skewness
Prison adaptation score	4.262	4.167	0.451	0.066
Sewing program participation (1 = yes)	41.06%	–	–	–
Sentence length	46.748	34	36.328	2.451
Commutation (1 = yes)	28.86%	–	–	–
Mental health score	3.461	3	0.943	–0.115
Management role (1 = yes)	31.50%	–	–	–
Age	41.404	40	10.889	0.425
Household registration type (1 = peasant)	53.05%	–	–	–
Total years of education	8.687	9	3.934	–0.279
Monthly income before incarceration	4769.547	3000	8317.554	7.113
Marital status (1 = with a partner)	54.67%	–	–	–

Table 2 presents the correlations between the dependent variable (prison adaptation score) and all independent variables. As shown, mental health score is positively and significantly associated with prison adaptation score, suggesting that better psychological well-being is linked to more successful adjustment. Sewing program participation shows a modest but significant negative correlation with prison adaptation score, indicating that those who participated may report slightly lower adaptation scores, which may be further explained in multivariate models. None of the other variables—including sentence length, commutation, management role, or marital status—exhibited significant correlations with the adaptation score. Likewise, personal/social characteristics such as age, household registration type, total years of education, and monthly income before incarceration did not show statistically significant relationships with prison adaptation in the bivariate analysis. These findings suggest that, at the correlational level, mental health score is the most robust positive correlate of prison adaptation among the variables considered, while sewing program participation appears to have a complex relationship with adaptation that requires further exploration through regression analysis.

### 3.2. Regression Analysis

Table 3 reports the results of four nested OLS regression models examining the relationship between sewing program participation and prison adaptation. In Model 1, the model is significant ( $p = 0.042$ ), and explains 0.64% of the variation of the dependent variable. The independent variable, sewing program participation, is negatively associated with prison adaptation score ( $b = -0.0839$ ,  $p = 0.042$ ). People in prison who participated in the sewing program show a 0.0839 decrease in adaptation score. In Model 2, the model is significant ( $p = 0.0001$ ), and explains 4.41% of the variation of the dependent variable. The independent variable has a negative influence on prison adaptation score ( $b = -0.104$ ,  $p = 0.012$ ). People in prison who participated in the sewing program show a 0.104 decrease in adaptation score. The control variable, mental health score, is positively associated with prison adaptation score ( $b = 0.097$ ,  $p = 0.000$ ). A one-point increase in the mental health score yields a 0.097 point increase in the prison adaptation score. The other

**Table 2.** Correlation analysis.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Prison adaptation score	1.000										
(2) Sewing program participation	-0.092*	1.000									
(3) Sentence length	-0.032	0.151**	1.000								
(4) Commutation	0.045	0.088	0.491***	1.000							
(5) Mental health score	0.198***	0.091*	0.067	0.117*	1.000						
(6) Management role	0.058	0.110*	0.438***	0.369***	0.137**	1.000					
(7) Age	0.067	-0.151**	0.195***	0.074	-0.171***	-0.009	1.000				
(8) Household registration type	0.035	0.015	-0.108*	0.024	-0.049	-0.072	-0.239***	1.000			
(9) Total years of education	0.004	0.041	0.020	-0.055	0.174***	0.195***	-0.295***	-0.331***	1.000		
(10) Monthly income before incarceration	0.014	-0.036	-0.078	0.039	0.059	0.033	-0.098*	-0.125**	0.229***	1.000	
(11) Marital status	0.035	-0.078	-0.060	0.003	-0.022	-0.024	0.053	0.019	-0.062	0.044	1.000

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 3.** OLS regression analysis on prison adaptation score.

Variable	Model 1	Model 2	Model 3	Model 4
Sewing program participation	−0.084* (0.041)	−0.104* (0.041)	−0.086* (0.041)	−0.084* (0.042)
Mental health score		0.0967*** (0.021)	0.108*** (0.022)	0.107*** (0.022)
<b>Prison-specific factors</b>				
Ln sentence length		−0.012 (0.036)		−0.028 (0.038)
Commutation		0.025 (0.051)		0.019 (0.052)
Management role		0.040 (0.049)		0.047 (0.050)
<b>Personal/social characteristics</b>				
Age			0.005* (0.002)	0.005* (0.002)
Household registration type			0.076 (0.046)	0.073 (0.046)
Total years of education			0.004 (0.006)	0.004 (0.006)
Ln monthly income before incarceration			−0.003 (0.006)	−0.004 (0.006)
Marital status			0.026 (0.040)	0.025 (0.040)
Constant	4.296*** (0.026)	3.994*** (0.138)	3.645*** (0.161)	3.728*** (0.190)
Adjusted R <sup>2</sup>	0.006*	0.044**	0.053***	0.050**

Notes: Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

control variables (sentence length, commutation, mental health score, management role, age, household registration type, total years of education, monthly income before incarceration, and marital status) are not significant/do not show significance. In Model 3, the model is significant ( $p = 0.0000$ ), and explains 5.31% of the variation of the dependent variable. Sewing program participation shows the same trend ( $b = -0.086$ ,  $p = 0.035$ ). Inmates who participated in the sewing program show a 0.086 decrease in adaptation score. Mental health score is the significant control variable ( $b = 0.108$ ,  $p = 0.000$ ). A one-point increase in the mental health score brings a 0.108 increase in the prison adaptation score. The variable, age, is positively associated with the dependent variable ( $b = 0.005$ ,  $p = 0.018$ ). As the inmate gets one year older, the adaptation score increases by 0.005. Model 4 is significant ( $p = 0.0001$ ), and explains 4.98% of the variation of the dependent variable. The independent variable shows the same result as in the other three models ( $b = -0.084$ ,  $p = 0.045$ ), and so does the control variable, mental health ( $b = 0.107$ ,  $p = 0.000$ ). The variable, age, is positively associated with the dependent variable ( $b = 0.005$ ,  $p = 0.018$ ).

To assess the assumption of homoscedasticity, we conducted the Breusch–Pagan/Cook–Weisberg test for heteroskedasticity across Models 2 to 4. The results showed no significant evidence of heteroskedasticity in any of the models. These results indicate that the assumption of constant variance in the error terms holds.

Combined with acceptable VIF values (mean VIF for Model 4 = 1.47), these diagnostic tests suggest that the regression estimates are statistically robust and not affected by multicollinearity or heteroskedasticity.

## 4. Discussion

This study examined the relationship between participation in a prison sewing program and prison adaptation to incarceration in a Chinese correctional facility. Contrary to common assumptions that prison labor programs promote positive institutional adjustment, our findings reveal a modest yet statistically significant negative association between sewing program participation and prison adaptation. In contrast, mental health emerged as the most robust and consistent positive predictor of adaptation. Additionally, older inmates reported slightly higher adaptation scores, while other personal/social characteristics, such as total years of education, monthly income before incarceration, and household registration type, showed no significant effects. Additionally, inmates who perform well may be assigned supervisory roles, often referred to as management roles within the workshop. These roles typically involve less physical workload and more oversight responsibilities. However, our data showed that being assigned to a management role did not significantly enhance prison adaptation scores, suggesting that the marginal elevation in status or reduced burden does not necessarily translate into psychological benefits or a stronger sense of personal agency.

### 4.1. Critical Examination of the Sewing Program in Chinese Prisons

The sewing program is widely implemented across Chinese prisons as a core component of labor reform; however, the sewing program is standardized, operating daily with fixed quotas and strict evaluations. Its compulsory nature and alignment with gendered ideals, such as obedience, patience, and diligence, reflect broader traditional constructions of female virtue (Zhang, 2021). Within traditional Chinese culture, women are typically seen as the core of the family, responsible for maintaining relationships and nurturing children. In traditional Chinese culture, the “Four Virtues” (*si de*) theory, which includes skills such as household chores, sewing, and cooking, has long been regarded as a set of ethical codes that women must follow (Vo Van Dung, 2022). Specifically, needlework has long been associated with femininity, patience, and domesticity. The virtues of being a “virtuous wife and a good mother” (*xian qi liang mu*) and “enduring hardships without complaint” (*ren lao ren yuan*) are often celebrated as ideal feminine qualities. However, these expectations are societal constructs imposed on women rather than inherent attributes.

For many women, especially those who do not internalize such values or perceive the work as monotonous and purposeless, these programs may exacerbate internalized stigma and psychological stress rather than alleviate them. Prisons that fail to promote meaning, autonomy, and legitimacy in their regimes risk producing “moral performance failures” even when rules are followed (Liebling, 2004). Additionally, some inmates may perceive sewing not as an empowering educational experience, but rather as a routine, repetitive task with punitive undertones. Previous studies have noted that when vocational training is perceived as compulsory or lacking personal relevance, it may function more as a form of institutional discipline than a tool for rehabilitation. This perception could further reduce the potential of the sewing program to enhance prison adaptation or foster a sense of agency and growth.

In correctional settings, assigning women to sewing tasks may inadvertently reproduce stereotypical gender roles, reinforcing the notion that women are more suited for manual, domestic, or “feminine” work. While

this study did not explicitly examine gendered work assignments, the institutional preference for sewing programs for women warrants critical reflection. Such practices may reflect implicit biases that limit women's access to a broader range of skill-building opportunities, especially those aligned with contemporary job markets. Moreover, in women's prisons, additional "specialty" programs are also offered to address gender-specific needs or reflect traditional femininity. These include literacy education for the illiterate, performing arts groups, and skill-based training in areas such as culinary arts, tea ceremony, hairdressing, and cosmetology. However, these programs often serve more as ceremonial functions with limited reach, as participation is usually selective—reserved for model inmates or activated only for official events and public displays. This selective approach results in low overall engagement, revealing a performative dimension of rehabilitation where the symbolic presentation of reformation overshadows substantive and inclusive programming.

Another explanation for the sewing program's negative association with prison adaptation relates to its diminishing relevance in contemporary society. Sewing, unlike other skill-based programs such as computer training or entrepreneurship courses, fails to align with evolving labor market demands in post-industrial China. This is partly due to technological advances in manufacturing and the mass availability of inexpensive, machine-made clothing. This development is not unique to China; it is a global trend. The economic value of traditional sewing skills has significantly declined due to the increasing reliance on automation in garment production. The shift towards automated machinery in the apparel industry has led to a noticeable degradation of manual sewing skills among workers (Rashid & Rötting, 2021). This technological and economic obsolescence creates a psychological double-bind for participants. On one hand, the program's compulsory nature demands daily engagement; on the other, its practical futility undermines any sense of meaningful preparation for life after incarceration. As a result, inmates may perceive sewing as outdated and disconnected from real-world opportunities after release, which in turn reduces their motivation and engagement with the program.

#### **4.2. The Central Role of Mental Health**

We conclude that inmates' mental health showed the strongest and most consistent positive association with prison adaptation. This finding aligns with a broad body of literature suggesting that psychological well-being plays a central role in shaping how individuals respond to the stresses of incarceration. Good mental health facilitates emotional regulation, strengthens coping strategies, and improves interpersonal functioning—all of which are critical for navigating the carceral environment (Haney, 2003). Inmates with stronger mental resilience are more likely to engage constructively with institutional routines, maintain social connections, and develop realistic plans for reintegration. Moreover, psychological well-being is not only an individual trait but is also influenced by the broader prison environment. Research has shown that supportive institutional climates—characterized by respectful staff-inmate relationships, opportunities for self-expression, and procedural fairness—are associated with improved mental health outcomes among prisoners (Liebling, 2004). In this context, mental health may serve as both a resource for, and a product of, positive adaptation: Those who feel mentally stable are more capable of adjusting, while prisons that promote psychological safety can, in turn, improve inmates' mental health. Importantly, mental health has also been linked to reductions in institutional misconduct, depressive symptoms, and recidivism (Covington, 1998; Fazel & Baillargeon, 2011). These findings reinforce the need to position mental health as a cornerstone of prison rehabilitation strategies. Interventions that offer counseling, peer support,



trauma-informed care, and access to mental health professionals can have far-reaching benefits—not only for individual inmates’ well-being but also for institutional stability and public safety. As such, strengthening mental health services within correctional settings should be viewed as an investment in both humane treatment and effective correctional policy.

## 5. Implication

This study highlights the importance of critically re-evaluating the structure and function of vocational programs in women’s prisons. While sewing programs remain the dominant form of vocational training in Chinese correctional facilities, our findings suggest a need to assess whether such programs continue to meet the evolving social and economic realities of incarcerated women. Vocational programming should reflect not only labor market demands but also gender-informed expectations, offering inmates meaningful skills that foster both psychological growth and post-release reintegration. In addition, the findings underscore the need for consistent and comprehensive mental health support throughout incarceration, with particular attention to younger inmates, who may be more vulnerable to institutional stress. Institutional mechanisms that screen for emotional distress, strengthen peer support, and ensure accessible mental health services can play a critical role in improving prison adaptation outcomes.

This study focused exclusively on inmates in the pre-release phase, providing insights into how women nearing sentence completion adapt to institutional life. While this focus enables a detailed analysis of gender-specific dynamics, future research could benefit from comparative studies involving male inmates or longitudinal approaches that track adaptation trajectories across different stages of incarceration. Such work would help further contextualize the gendered nature of prison adaptation and support the development of more inclusive correctional policies.

## 6. Conclusion

This study investigated the relationship between participation in a women’s prison sewing program and prison adaptation in a Chinese correctional facility. Contrary to common assumptions that institutional labor contributes positively to rehabilitation, the findings revealed a modest but statistically significant negative association between sewing program participation and prison adaptation. In contrast, mental health emerged as the most robust and consistent predictor of positive adaptation outcomes, highlighting the central role of psychological well-being in navigating prison life. Demographic variables such as total years of education, monthly income before incarceration, and household registration type showed no significant direct associations. Research on Chinese women’s prisons remains scarce, particularly concerning how institutional programs shape inmates’ psychological and behavioral adjustment. This study contributes to a growing body of empirical work that seeks to understand the unique needs and experiences of incarcerated women in China, but it also represents an early and preliminary attempt.

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## Conflict of Interests

The authors declare no conflict of interest.

## Data Availability

Due to the nature of the research, data sharing does not apply to this article.

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For language editing, we made use of the following LLMs: ChatGPT-4o mini and Wordvice AI.

## References

- Bales, W. D., & Mears, D. P. (2008). Inmate social ties and the transition to society: Does visitation reduce recidivism? *Journal of Research in Crime and Delinquency*, 45(3), 287–321. <https://doi.org/10.1177/0022427808317574>
- Carlen, P. (1998). *Women's imprisonment: A study in social control*. Routledge. <https://doi.org/10.4324/9781003172185>
- Covington, S. S. (1998). Women in prison: Approaches in the treatment of our most invisible population. *Women and Therapy*, 21(1), 141–155. [https://doi.org/10.1300/J015v21n01\\_03](https://doi.org/10.1300/J015v21n01_03)
- Covington, S. S. (2007). Women and addiction: A trauma-informed approach. *Journal of Psychoactive Drugs*, 39(Suppl. 5), 377–385. <https://doi.org/10.1080/02791072.2008.10400665>
- Crewe, B., Hulley, S., & Wright, S. (2017). The gendered pains of life imprisonment. *British Journal of Criminology*, 57(6), 1359–1378. <https://doi.org/10.1093/bjc/azw088>
- Danby, S. J., Farrell, A., Skoien, P. V., & Quadrelli, C. A. (2000, October 31–November 1). *Inmate women as participants in education in Queensland correctional centres* [Paper presentation]. Women in Corrections: Staff and Clients Conference, Australian Institute of Criminology, Adelaide, Australia.
- Fazel, S., & Baillargeon, J. (2011). The health of prisoners. *The Lancet*, 377(9769), 956–965. [https://doi.org/10.1016/S0140-6736\(10\)61053-7](https://doi.org/10.1016/S0140-6736(10)61053-7)
- Flanagan, T. J. (1981). Dealing with long-term confinement. *Criminal Justice and Behavior*, 8(2), 201–222. <https://doi.org/10.1177/009385488100800206>
- Gendreau, P., Goggin, C. E., & Law, M. (1997). Predicting prison misconducts. *Criminal Justice and Behavior*, 24(4), 414–431. <https://doi.org/10.1177/0093854897024004002>
- Han, D. (2009). Policing and racialization of rural migrant workers in Chinese cities. *Ethnic and Racial Studies*, 33(4), 593–610. <https://doi.org/10.1080/01419870903325651>
- Haney, C. (2003). The psychological impact of incarceration: Implications for post-prison adjustment. In J. Travis & M. Waul (Eds.), *Prisoners once removed: The impact of incarceration and reentry on children, families, and communities* (pp. 33–66). Urban Institute Press.
- Irwin, J., & Cressey, D. R. (1962). Thieves, convicts and the inmate culture. *Social Problems*, 10(2), 142–155. <https://doi.org/10.2307/799047>
- Kassebaum, G. (1965). *Women's prison: Sex and social structure* (1st ed.). Routledge. <https://doi.org/10.4324/9781315135892>
- Laghari Balouch, Z. U., Lashari, A. A., & Pervaiz, A. (2023). Vocational training to empower incarcerated women: Unlocking the potentials behind the bars. *PalArch's Journal of Archaeology of Egypt*, 20(1), 1124–1134.

- Liebling, A. (2004). *Prisons and their moral performance: A study of values, quality, and prison life*. Oxford University Press. <https://doi.org/10.1093/oso/9780199271221.001.0001>
- Liu, L., & Chui, W. H. (2014). Social support and Chinese female offenders' prison adjustment. *The Prison Journal*, 94(1), 30–51. <https://doi.org/10.1177/0032885513512084>
- Loper, A. B. (2002). Adjustment to prison of women convicted of possession, trafficking, and nondrug offenses. *Journal of Drug Issues*, 32(4), 1033–1050. <https://doi.org/10.1177/002204260203200402>
- Rashid, Z., & Rötting, M. (2021). Evaluation of manual skill degradation due to automation in apparel manufacturing. *Applied Sciences*, 11(23), Article 11098. <https://doi.org/10.3390/app112311098>
- Sykes, G. M. (1958). *The society of captives: A study of a maximum-security prison*. Princeton University Press. <https://doi.org/10.2307/j.ctv14164hw>
- Thomas, C. W., & Foster, S. C. (1976). On the measurement of social roles adaptations in the prison community. *Criminal Justice Review*, 1(1), 11–21. <https://doi.org/10.1177/073401687600100103>
- Thompson, C., & Loper, A. B. (2005). Adjustment patterns in incarcerated women: An analysis of differences based on sentence length. *Journal of Criminal Justice and Behavior*, 32(6), 599–618. <https://doi.org/10.1177/0093854805279949>
- Toch, H. (1994). Living in prison: The ecology of survival (1992). *Journal of Police and Criminal Psychology*, 10, Article 68. <https://doi.org/10.1007/BF02811145>
- Van Tongeren, D. R., & Klebe, K. J. (2010). Reconceptualizing prison adjustment: A multidimensional approach exploring female offenders' adjustment to prison life. *The Prison Journal*, 90(1), 48–68. <https://doi.org/10.1177/0032885509357547>
- Visher, C. A., & Courtney, S. M. E. (2007). *One year out: Experiences of prisoners returning to Cleveland* (NCJ 222732). Urban Institute. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/one-year-out-experiences-prisoners-returning-cleveland>
- Vo Van Dung. (2022). The theory of the four virtues of confucius in the pre-qin period. *Synesis*, 14(1), 207–220.
- Walters, G. D. (2005). Predicting institutional adjustment with the lifestyle criminality screening form and psychological inventory of criminal thinking styles. *International Journal of Forensic Mental Health*, 4(1), 63–70. <https://doi.org/10.1080/14999013.2005.10471213>
- Warren, J. I., Hurt, S., Loper, A. B., & Chauhan, P. (2004). Exploring prison adjustment among female inmates. *Criminal Justice and Behavior*, 31(5), 624–645. <https://doi.org/10.1177/0093854804267096>
- Wright, K. N. (1985). Developing the prison environment inventory. *Journal of Research in Crime and Delinquency*, 22(3), 257–277. <https://doi.org/10.1177/0022427885022003005>
- Zamble, E., & Porporino, F. J. (1988). *Coping, behavior, and adaptation in prison inmates*. Springer. <https://doi.org/10.1007/978-1-4613-8757-2>
- Zhang, A. (2021). Chinese culture and its influence on prison society: Women's experience. *The Prison Journal*, 101(1), 3–20. <https://doi.org/10.1177/0032885520978373>
- Zhao, Y., Messner, S. F., & Jin, C. (2019). Prisons as schools: Inmates' participation in vocational and academic programs in Chinese prisons. *International Journal of Offender Therapy and Comparative Criminology*, 63(15/16). <https://doi.org/10.1177/0306624X19861051>
- Zhao, Y., Messner, S. F., & Liu, J. (2020). The influence of importation and deprivation factors on prison adaptation: Insights from Chinese prisons. *International Journal of Law Crime and Justice*, 63, Article 100425. <https://doi.org/10.1016/j.ijlcrj.2020.100425>
- Zingraff, M., & Zingraff, R. (2009). Adaptation patterns of incarcerated female delinquents. *Juvenile and Family Court Journal*, 31(1), 35–47. <https://doi.org/10.1111/j.1755-6988.1980.tb01202.x>

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