

Extended Maternity Leaves and Squeezed Job Prospects for Young Females: Evidence from Job-Searching and Callback Behaviors

Most countries, especially high-income ones, have implemented maternity leave policies to protect the rights of female workers and improve child development outcomes. However, the impact of maternity leave on women's labor market outcomes remains highly debated, with no clear consensus (Olivetti and Petrongolo, 2017). One potential reason for the mixed findings is that most analyses focus on equilibrium labor outcomes, which are shaped by both employer and employee behaviors. **This paper addresses this gap by separately examining the effects of maternity leave extensions on female job seekers' application behaviors and employers' callback decisions in the job-searching process.** By disentangling the supply and demand sides of the labor market, we provide a clearer understanding of how maternity leave policies affect gender disparities in employment and wages.

Despite the importance of understanding these employer and applicant dynamics, empirical evidence remains scarce due to the lack of detailed, real-time, and high-frequency job application records. In this paper, we use a unique dataset of day-level job application data from Zhaopin.com, one of China's largest online job boards. Zhaopin's job posting data have appeared in several important research on gender disparities in the labor market (prominently, Kuhn and Shen, 2013). In addition to job postings, the dataset used in this paper consists of millions of real-time application records, where each observation represents an applicant-job posting pair containing detailed information on job listings, applicant characteristics, and employer responses. Due to data processing constraints, we randomly sample millions of observations for analysis.

Data and methodology---For employer-side analysis, we randomly select job postings and extract all applications to them. For applicant-side analysis, we randomly sample job seekers and retrieve all their submitted applications. These sampling strategies control for job fixed effects in employer analysis and individual fixed effects in applicant analysis, ensuring more accurate identification of the effects on employers and job seekers separately. Moreover, the dataset covers nearly all industries, spans regions with diverse economic conditions, and includes job seekers with varying levels of human capital, ensuring an enriched heterogeneous analysis and facilitating the exploration of potential mechanisms.

Institutional background---The recent staggered maternity leave extensions in China, combined with detailed job application records, provide a unique opportunity to investigate the effects on the labor market in a large developing country. China mandates fully paid maternity leave, with salaries primarily funded by the government. From 2021 to 2022, several Chinese provinces (one level below the central government) enacted exogenous policy changes, extending maternity leave by 10 to 50 days to ease the childbearing burden. Leveraging these policy shocks, we employ a staggered difference-in-differences (DID) approach to estimate the average treatment effect, while an event study method is used to capture the dynamic effects over time.

Main findings---Our analysis of employer behaviors shows that **employers are less likely to extend a positive response (e.g., an interview invitation) to female applicants than to male applicants with similar characteristics after the extension of local maternity leaves.** Specifically, a 10% increase in maternity leave reduces the likelihood of positive callback rates by 2 percentage points, representing to a 9.6% decline from the pre-policy mean. The negative effect is more pronounced in lower-wage jobs, jobs offering performance-based bonuses, and positions requiring lower educational and experience qualifications. Employers in industries with high female workforce participation, such as education and finance, exhibit much stronger discriminatory responses, reducing positive response rates at nearly twice the magnitude of the baseline effect. This may be due to their higher sensitivity to wage costs resulting from maternity leave adjustments. In contrast, jobs offering greater time flexibility, such as those without mandatory overtime, and positions within government-owned firms show little and insignificant changes in employer responses.

Furthermore, we find that the cost-sharing scheme matters for the labor market discrimination against young female workers in the job searching process. Our hypothesis is that employers who expect to bear the majority share of the potential costs of extended maternity leaves will demonstrate stronger preferences against females. Consistent with this hypothesis, firms that offer full social security benefits, which means the government will mainly undertake maternity pay, experience smaller reductions in callback rates. The negative effect is most severe for females in their prime fertility age (those aged 25–29), which further support our argument. We also find more pronounced effects on females without a college degree and those with limited

work experience, indicating that maternity leave extensions not only widen the gender gap but also exacerbate welfare inequalities among females.

In response to reduced employer demand, women adjust their application strategies by shifting toward lower-wage jobs. The analysis of employer behavior shows that for every 10% increase in maternity leave, the average wage of jobs applied for by women decreases by 3.6% compared to pre-policy levels. In contrast, the wages of jobs applied for by males show insignificant and modest increases. Additionally, women increase the duration of their job search and apply to positions below their qualification level more frequently. Consistent with the employer-side findings, the tendency to apply for lower-wage jobs is strongest among women aged 25–29 and those with lower educational attainment, implying that this behavior serves as a response to the increased hiring discrimination they face. Female job seekers appear to give “voluntary” compensation for policy costs of employers by applying to less competitive and lower-paid positions, further reinforcing the gender gap in hiring and wages.

These findings contribute to several strands of literature. First, this study extends research on the impact of family policies on female labor market outcomes and the gender gap (Ruhm, 1998; Dustmann and Schönberg, 2012; Blau and Kahn, 2013; Fernández-Kranz and Rodríguez-Planas, 2021; Kleven et al., 2024, et al.) by examining a unique, high-frequency dataset in the job-searching stage. Previous studies primarily focus on equilibrium effects, which reflect final labor market results but can’t distinguish between the supply-side and demand-side effects. Our study provides a direct analysis of how maternity leave extensions influence employer hiring behavior and female job application choices separately. Using detailed job application data, the results offer a clearer implication for female welfare by demonstrating that the policy intensifies employer discrimination and prompts female applicants to apply for less competitive jobs.

Second, this study contributes to the literature on gender discrimination in hiring (Goldin and Rouse, 2000; Bertrand and Mullainathan, 2004; Kuhn and Shen, 2013, 2023), particularly discrimination related to family responsibilities (He, Li, and Han, 2023). The findings show that employers significantly reduce the likelihood of hiring women of childbearing age following maternity leave extensions, primarily due to perceived higher employment costs associated with childbirth. Third, this paper offers a new perspective on the child penalty literature (Kuziemko et

al., 2018; Kleven, Landais, and Søgaaard, 2019; Cortés and Pan, 2020, et al.), which shows the critical role of childbirth in contributing to gender inequality. Our paper provides a new perspective on the child penalty—a penalty on the likelihood of becoming a mother, which affects women even before they enter the labor market.

In conclusion, our results suggest that while maternity leave extensions aim to support working mothers, they may unintentionally harm young women’s job prospects by reinforcing employer discrimination against young females in the job-searching process and inducing female applicants to apply for lower-paid and less competitive positions. These findings underscore the need for complementary policies, such as government-funded wage subsidies, to mitigate the unintended labor market consequences of maternity leave.

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Reference

Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American economic review*, 94(4), 991-1013.

Blau, F. D., & Kahn, L. M. (2013). Female labor supply: Why is the United States falling behind?. *American Economic Review*, 103(3), 251-256.

Cortés, P., & Pan, J. (2023). Children and the remaining gender gaps in the labor market. *Journal of Economic Literature*, 61(4), 1359-1409.

Dustmann, C., & Schönberg, U. (2012). The effect of expansions in maternity leave coverage on children's long-term outcomes. *American Economic Journal: Applied Economics*, 4 (3), 190–224. <https://doi.org/10.1257/app.4.3.190>

Fernández-Kranz, D., & Rodríguez-Planas, N. (2021). Too family friendly? The consequences of parent part-time working rights. *Journal of Public Economics*, 197, 104407.

Goldin, C., & Rouse, C. (2000). Orchestrating impartiality: The impact of “blind” auditions on female musicians. *American Economic Review*, 90(4), 715-741.

He, H., Li, S. X., & Han, Y. (2023). Labor market discrimination against family responsibilities: A correspondence study with policy change in China. *Journal of Labor Economics*, 41(2), 361-387.

Kleven, H., Landais, C., & Søgaaard, J. E. (2019). Children and gender inequality: Evidence from Denmark. *American Economic Journal: Applied Economics*, 11(4), 181-209.

Kleven, H., Landais, C., Posch, J., Steinhauer, A., & Zweimüller, J. (2024). Do family policies reduce gender inequality? Evidence from 60 years of policy experimentation. *American Economic Journal: Economic Policy*, 16 (2), 110–149.

Kuhn, P., & Shen, K. (2013). Gender discrimination in job ads: Evidence from China. *The Quarterly Journal of Economics*, 128(1), 287-336.

Kuhn, P., & Shen, K. (2023). What happens when employers can no longer discriminate in job ads?. *American Economic Review*, 113(4), 1013-1048.

Kuziemko, I., Pan, J., Shen, J., & Washington, E. (2018). The mommy effect: Do women anticipate the employment effects of motherhood? (No. w24740). National Bureau of Economic Research.

Olivetti, C., & Petrongolo, B. (2017). The economic consequences of family policies: lessons from a century of legislation in high-income countries. *Journal of Economic Perspectives*, 31(1), 205-230.

Ruhm, C. J. (1998). The economic consequences of parental leave mandates: Lessons from Europe. *Quarterly Journal of Economics*, 113 , 285–317.