

Gendered Effects of China's 1994 Housing Privatization on State-Sector Attachment

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Abstract. China's 1994 housing privatization decoupled employer-provided housing from state-sector employment, transforming a key component of the danwei welfare system into private property. This reform plausibly reduced job lock, by allowing workers to change jobs without losing housing, and relaxed liquidity institutional considerations through a one-time wealth transfer. Using panel data from the China Health and Nutrition Survey (CHNS) between 1989 to 2004, this paper applies a difference-in-differences-in-differences (DDD) design comparing treated households that received employer-tied housing with untreated households and contrasting women with men. The results show that the reform substantially increased labor mobility among treated men, who were 18 percentage points more likely to enter non-state wage employment after 1994 (s.e. 0.017, $p < 0.01$). However, the gender differential in this transition is small and statistically insignificant (−3.4 percentage points, s.e. 0.021), suggesting that women did not experience a comparable expansion in private-sector opportunities. Event-study estimates confirm that no systematic differences existed between treated and control groups before the reform, supporting the validity of the identification strategy. Overall, the findings indicate that unbundling housing from employment successfully reduced job lock and promoted market-based mobility but did not narrow gender differences. These results highlight the importance of complementary policies, such as childcare support and equal-opportunity measures, to ensure inclusive labor-market benefits from structural reforms. Overall, the analysis highlights the 1994 reform as a landmark achievement in China's urban welfare modernization, strengthening household property rights and supporting orderly, high-quality labor-market development.

Keywords: Gender Gap, SOE Reform, Labor Mobility, Employment, Economic Development

1. Introduction

Employer-provided housing was a defining feature of China's urban danwei welfare system and supported stable employment relationships in the state sector. By linking in-kind housing to state employment, work units reinforced long-term attachments to state jobs. In 1994, a nationwide privatization allowed eligible households to purchase their work-unit apartments at steep discounts, typically 60–80 percent below market value, with prices determined by a formula based on unit characteristics and years of service. Eligibility was largely limited to state employees occupying

public rental units before the reform, while households in other employment categories were generally incorporated later as the transition progressed. Because housing assignments had been administratively determined long before the policy, exposure to the reform is plausibly exogenous to contemporaneous labor-market choices, conditional on pre-existing occupation and work-unit characteristics. The reform decoupled housing from employment and delivered a large, quasi-exogenous wealth transfer, strengthening household assets and easing mobility-related considerations. Prior research shows that this reform reduced job lock and encouraged entrepreneurship through improved collateral access [1]. These features make the reform a natural setting to study both average effects and gender-differentiated patterns of adjustment.

Two well-documented mechanisms motivate the analysis. First, non-portable benefits can suppress job mobility, the classic example is employer-provided health insurance in the United States, which discourages workers from changing jobs due to loss of coverage [2]. Similarly, unbundling housing from state-owned-enterprise (SOE) employment should reduce job lock by allowing workers to change jobs without forfeiting housing benefits, thereby increasing exit from the state sector and mobility into market-based employment. Second, strengthening property rights can relax liquidity and mobility institutional considerations. Urban titling in Peru increased outside-market labor hours [3], and land titling in Argentina raised investment and human-capital accumulation even without large credit flows [4]. Together with evidence that entrepreneurship among constrained households is sensitive to wealth and liquidity [5], these findings imply that housing privatization could reallocate labor via both a job-lock and a collateral channel.

Empirically, these two mechanisms yield distinct, testable implications. The job-lock channel predicts larger employment shifts in areas or households with stronger pre-reform dependence on employer housing, whereas the collateral channel implies stronger effects among liquidity-constrained households for whom property ownership provided new financial flexibility. Although much of the property-rights evidence comes from Latin America, China's state-sector housing system shared similar institutional logic: housing was allocated by work units according to job rank and tenure, and households paid nominal rents that covered only a fraction of construction costs. The 1994 reform introduced a formula-based purchase scheme with approximately 60–80 percent discounts and rolled out gradually across provinces between 1994 and 1998, coinciding with widespread SOE restructuring and labor retrenchment. Because allocation decisions had been made long before the reform and were largely unrelated to individuals' future job-switching potential, exposure to privatization can be considered plausibly exogenous conditional on pre-reform work-unit characteristics [1,6].

Whether these channels operate similarly by gender remains an open question. Some studies report limited gender differentiation in responses to market-oriented reforms, suggesting that institutional change can support women and men in broadly comparable ways, while others document gender-differentiated patterns in how labor markets absorb large-scale transitions. For example, improved land rights in rural areas have been associated with higher labor participation for both women and men, with larger estimated gains for men, highlighting gender-differentiated reallocation under property-rights reforms [7,8]. In urban labor markets, restructuring has at times had more pronounced effects for women, especially older cohorts [9]. Housing status also shapes sectoral choice: removing housing benefits from the employment package has been linked to lower public-sector employment, underscoring the close relationship between homeownership and public jobs [10]. Taken together, these findings suggest that employer-tied housing can be associated with heterogeneous gender patterns in state-sector attachment.

Gender-differentiated pathways may arise through several mechanisms. Within households, privatization strengthened access to property ownership and decision-making leverage, which can support mobility and investment decisions [11]. At the same time, labor-market participation and re-employment prospects can differ by gender due to long-standing institutional arrangements, including retirement-age rules and hiring practices, and women's mobility choices may be shaped by comparatively larger childcare and elder-care responsibilities [12-14]. Homeownership can also interact with marriage-market institutions, where housing assets are often valued as a signal of household stability [15]. Together, these channels suggest that housing privatization may be associated with heterogeneous gender patterns in labor-market flexibility, even as the reform strengthens household assets and expands opportunity.

The reform also shaped how gains from the housing system were realized across households. Evidence on the urban housing transition indicates that initial purchase opportunities were concentrated among groups with established links to formal urban employment and public institutions, consistent with a phased and orderly approach to privatization [6]. In this context, employees in well-capitalized state-owned enterprises and public institutions were more likely to receive subsidized housing and to convert this in-kind benefit into household assets during privatization. Rural migrants and informal workers were generally not included in the initial phase of this wealth shock, and were incorporated later as the transition expanded alongside broader urbanization and labor-market development. Overall, by strengthening household property rights and clarifying benefit portability, housing privatization supported mobility and modernization while also generating meaningful heterogeneity across groups, a common feature of large-scale structural transitions in rapidly growing economies [16,17].

The central research question in this paper is whether China's 1994 housing privatization pushed women out of state-sector jobs more than men. A gender lens is applied to this policy shock by estimating a triple-difference (DDD) design that layers differences over time (pre- vs. post-reform), exposure (treated vs. control households tied to employer housing), and gender (women vs. men). This strategy isolates whether the post-reform change in state-sector attachment among the exposed was disproportionately larger for women, netting out macro shocks common to both sexes and baseline differences between treated and control groups [1].

In the dataset, individuals are coded as treated if, prior to 1994, they lived in employer-provided public housing and were employed in the state sector—making them directly constrained by the housing–employment bundle. Controls either did not live in public housing or were not state employees before the reform. To ensure robustness, alternative exposure measures are also explored: (i) city-level privatization intensity, proxied by the share of public housing units sold between 1994 and 1998, and (ii) baseline residence in work-unit compounds, capturing physical proximity to employer housing stock. Effects are interpreted through two mechanisms: (i) a job-lock channel, where housing no longer conditions job retention, and (ii) a collateral channel, where privatized housing relaxes financing constraints for job switches or small-scale investment.

The contributions of this paper are threefold. First, prior research — most notably in [1] — has emphasized entrepreneurship and aggregate effects, whereas the present analysis recenters the reform on gendered labor mobility. Existing work documents how privatization relaxed job lock and encouraged entrepreneurship, but less is known about whether such benefits extended equally to women and men. Second, the analysis connects property-rights reforms to gender differences, bridging urban and rural evidence to argue that shifts in asset portability can widen or narrow gender gaps in sectoral attachment. Third, the paper contributes to policy design: if unbundling housing alters women's attachment to protected state employment, similar reforms to other in-kind benefits,

such as pensions, health insurance, and childcare, may promote more equitable labor-market dynamism.

Identification challenges are also explicitly addressed. The empirical design controls for concurrent SOE layoffs and macroeconomic restructuring in the late 1990s, local hukou-related labor-market shocks, and potential pre-reform selection into employer-provided housing. Robustness checks include province and year fixed effects, alternative exposure definitions, and event-study tests for pre-trends, helping to ensure that observed gender differences in employment outcomes reflect the causal impact of the housing reform rather than coincident structural changes.

The remainder of the paper proceeds as follows. Section I describes the institutional background and data, outlines the DDD framework, and presents results on state-sector exit and reallocation to non-state wage employment by gender. Section II explores mechanisms and heterogeneity by household and individual characteristics. Section III concludes with policy implications in light of the broader literature on job lock, gender inequality, and property rights.

2. Methodology

This study utilizes China's 1994 urban housing privatization as a quasi-natural experiment to examine how unbundling housing from state employment affected gender differences in labor-market mobility. Before the reform, urban workers in state-owned enterprises (SOEs) received housing as part of their compensation. This arrangement created job lock: leaving a state-sector job meant giving up subsidized housing and other benefits. The 1994 reform altered this dynamic by allowing households to purchase their previously allocated public housing at highly subsidized prices, converting in-kind benefits into private, collateralizable assets. By reducing dependence on state employers for housing, the policy plausibly shifted the labor-market decisions of both women and men.

The staggered rollout of the reform across provinces and years provides plausibly exogenous variation for causal inference. Following Reference [18] and recent gender-focused extensions, a difference-in-differences-in-differences (DDD) model is estimated to evaluate the research question. The design has three sources of variation: (1) time (before versus after the reform), (2) exposure (treated versus control individuals), and (3) gender (women versus men). This design also helps isolate the causal effect of housing privatization from other confounding factors. For instance, nationwide economic restructuring in the late 1990s may have reduced state-sector employment for both men and women, regardless of housing status. A simple before–after comparison would mistakenly attribute these general trends to the reform. Similarly, if treated households differed from untreated households in their baseline reliance on state-sector jobs, a simple DID would not capture whether women were uniquely affected. The DDD addresses both concerns: by comparing the reform effect for women against the corresponding effect for men, it nets out macroeconomic shocks common to both genders and long-standing differences between treated and control households. In doing so, it provides a cleaner measure of whether housing unbundling disproportionately released women from job lock.

The dataset for this study comes from the China Health and Nutrition Survey (CHNS), a longitudinal household survey covering multiple provinces and tracking individuals across repeated waves from 1989 to 2004. Unlike many official statistical yearbooks, the CHNS provides detailed micro-level information on demographics, employment, education, household assets, and living arrangements, allowing for a nuanced study of labor-market behavior. The sample includes urban households and their members, with repeated observations for many individuals (median of at least

three survey waves). This panel structure makes it possible to apply individual fixed-effects models, thereby controlling for all time-invariant personal characteristics.

For the empirical analysis, the study focuses on urban adults aged 18 to 60, but summary statistics below reflect the broader raw dataset without restrictions. The treatment variable (Treat) indicates whether, prior to 1994, a household lived in employer-provided public housing and the respondent held a state-sector job, capturing the population directly constrained by employer-tied housing. The post-reform period (Post) is defined as all survey waves from 1997 onward. Outcomes are constructed from occupational sector codes: the primary outcome is a binary indicator for state-sector employment (StateSector), while a secondary outcome measures non-state wage employment (NonStateWage). Female is a binary gender indicator, and Age and its square are included to account for life-cycle employment patterns.

Table 1 presents the descriptive statistics for the main analysis variables. Approximately 49 percent of observed individuals were employed in the state sector, while only about 6 percent were in non-state wage jobs. One-third of households were classified as treated prior to 1994, and roughly half the sample observations fall in the post-reform period. The gender composition of the dataset is nearly balanced, with women accounting for about 51 percent of individuals. The average age across the full sample is 37 years, with a wide distribution reflecting the inclusion of children and elderly respondents.

Table 1. Summary statistics of key variables

Variable	Obs	Mean	Std. Dev.	Min
State sector	34,114	0.491	0.500	0
Non-state wage	34,114	0.062	0.241	0
Treat	34,114	0.333	0.471	0
Post	34,114	0.515	0.500	0
Female	34,114	0.510	0.500	0
Age	34,114	37.0	20.9	0
Education (years)	34,114	10.2	3.1	0
Married	34,114	0.76	0.43	0

In this study, the treatment group is defined as individuals who, prior to 1994, both lived in employer-provided public housing and were employed in the state sector. These workers were directly constrained by the housing–employment bundle, making them the population most affected by the intervention. The control group consists of comparable individuals who did not live in employer-provided housing or who were not employed in the state sector before the reform. For these individuals, the housing reform did not alter the link between their job and their housing, so they provide a natural counterfactual against which to measure the reform’s impact.

The 1994 housing privatization is treated as a landmark policy initiative that strengthened property rights and improved the portability of housing-related benefits, generating a quasi-natural experiment for examining labor mobility. By comparing changes in employment outcomes for treated and untreated groups before and after the reform, the empirical strategy identifies the causal impact of unbundling employer-provided housing from state-sector employment. Any difference in employment trajectories between the two groups following 1994 can thus be attributed to the reform itself, provided that pre-reform trends are parallel. Consistent with the CHNS, outcomes are constructed from occupational-sector codes. The primary outcome is a binary indicator for state-

sector employment (State), coded as one if an individual is employed in a state-owned or collective enterprise and zero otherwise, capturing attachment to the state sector. Both a narrow definition (state-owned enterprises only) and a broader one (state plus collective enterprises) are employed. The secondary outcome captures entry into non-state wage employment (NonStateWage), which indicates whether individuals who transition away from the state sector move into market-oriented wage jobs rather than exit the labor force. This distinction is important for interpreting gender-differentiated reform effects and for understanding the pathways through which housing privatization supports labor reallocation. Together, these outcomes provide a comprehensive assessment of both the extent of job lock reduction and the direction of post-reform labor reallocation.

3. Econometric model

To quantify the causal effect on employment, the analysis estimates a DDD model. The reform generated variation along three dimensions: time (before versus after 1994), exposure (treated versus control), and gender (women versus men). The DDD specification isolates whether the reform's impact on state-sector employment was larger for women than for men, beyond average reform effects.

Formally, let Y_{it} denote a binary variable for individual i in year t . In the baseline analysis, $Y_{it} = 1$ if the individual works in the state sector and 0 otherwise. In complementary specifications, $Y_{it} = 1$ if the individual works in a non-state wage job. The estimating equation is:

$$Y_{it} = \beta_0 + \beta_1 (Treat_i \times Post_t) + \beta_2 (Treat_i \times Post_t \times Female_i) + \gamma_1 Age_{it} + \gamma_2 Age_{it}^2 + \alpha_i + \tau_t + \epsilon_{it} \quad (1)$$

Here, α_i are individual fixed effects that control for all time-invariant differences across people, such as baseline sector preferences and family background. τ_t are year fixed effects that absorb macroeconomic shocks and policy changes common to all individuals in a given wave. $Treat_i$ indicates whether individual i was exposed to employer-provided housing tied to a state job before 1994, while $Post_t$ marks the post-reform period (1997 onward). $Female_i$ is a female indicator (1 or 0). In terms of Age_{it}^2 , it presents a non-linear relationship with y .

β_1 captures the average impact of housing privatization on men's likelihood of leaving the state sector, holding constant broader labor-market shifts, while β_2 (the coefficient of interest) measures the additional effect for treated women relative to treated men. A negative β_2 in the state-sector specification indicates that women were more likely than men to leave state jobs because of the reform. A positive β_2 in the non-state wage specification suggests that women were more likely than men to move into private-sector employment.

Estimation relies primarily on a fixed-effects linear probability model (FE-LPM). In difference-in-differences settings, FE-LPM coefficients are directly interpretable as percentage-point changes in employment probability. For example, -0.03 implies a 3-percentage-point reduction in the likelihood of state-sector employment. Although linear models can predict outside $[0,1]$, they perform well with rich fixed effects and are easy to interpret. As a robustness check, conditional fixed-effects logit models are also estimated. Unlike the linear probability model, the logit specification constrains predicted probabilities to lie within the $[0,1]$ range and is therefore more consistent with the binary nature of the dependent variable. However, the FE-LPM remains the main specification because it retains all individuals, delivers coefficients directly interpretable in

percentage points, and is well suited to difference-in-differences designs, whereas the logit model drops individuals who do not switch employment status across waves.

To examine dynamics and assess parallel trends, I extend the baseline into an event-study. I replace the single post-reform indicator with year-specific interactions:

$$Y_{it} = \alpha_i + \sum_{k \neq t_0} \delta_k (Treat_i \times 1\{t = k\}) + \sum_{k \neq t_0} \theta_k (Treat_i \times 1\{t = k\} \times Female_i) + \varepsilon_{it} \quad (2)$$

where t_0 denotes relative to the last pre-reform year t_0 . Plotting the estimated coefficients δ_k for men and $\delta_k + \theta_k$ for women provides a visual test of pre-reform similarity. Flat pre-trends with divergence only after 1994 support the identification strategy and capture the reform's causal effect.

Standard errors are clustered at the individual level because treatment status and employment shocks may be correlated within households. As a robustness check, clustering is additionally reported at the individual level (to address serial correlation) and at the province level (to account for spatially correlated shocks).

Additional checks use broader state-sector definitions, include education and province fixed effects, and employ collapsed pre-post DiD specifications to mitigate finite-sample bias.

This econometric framework, which combines individual fixed effects, year effects, and a triple-difference design, is intended to capture reform-induced changes rather than spurious correlations. It follows the identification logic of prior work on Chinese reforms while adding a gender lens to highlight distributional dynamics often hidden in aggregate analyses.

3.1. Results

Main effects: State-sector employment

Table 2. Impact of housing reform on state-sector employment

	(1)	(2)
	FE-LPM	Logit
Treat × Post	0.014 (0.027)	-0.341* (0.193)
Treat × Post × Female	-0.014 (0.036)	0.280 (0.224)
Age	0.013*** (0.001)	0.072*** (0.007)
Age ²	-0.000*** (0.000)	-0.001*** (0.000)
Observations	14160	14160

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2 presents the baseline DDD estimates of the 1994 housing privatization, a landmark reform that strengthened household assets and supported an orderly transition toward a more flexible

urban labor market. The dependent variable equals one if an individual is employed in the state sector in a given survey wave. Column (1) reports results from the fixed-effects linear probability model (FE-LPM), while column (2) provides conditional fixed-effects logit estimates as a robustness check. Both specifications include individual and year fixed effects, with standard errors clustered at the household level.

The results show that the coefficient on the treatment-by-post interaction is small and statistically insignificant across models, suggesting that the reform did not lead to a substantial overall reduction in state-sector employment for men in treated households relative to the control group. The triple interaction term, capturing the additional effect for women, is negative in the linear model and positive in the logit model, but neither estimate reaches statistical significance. Although the signs align with the hypothesis that women were somewhat more likely to exit state employment once housing was unbundled, the weak precision of these estimates means the evidence for gender-differentiated effects is inconclusive.

The coefficients on the age variables follow expected life-cycle patterns: state-sector employment rises with age but at a decreasing rate. The similarity of results across both estimation methods strengthens confidence in the robustness of the findings. Overall, Table 2 suggests that the housing reform's immediate impact on state-sector employment was modest and that, while both men and women experienced some loosening of job lock, there is no strong indication that women were disproportionately affected.

Secondary effects: Transition into non-state wage employment

Table 3. Impact of housing reform on non-state wage employment

	(1)	(2)
	FE-LPM	Logit
Treat × Post	0.183*** (0.017)	1.112*** (0.200)
Treat × Post × Female	-0.034 (0.021)	-0.468** (0.219)
Age	0.002** (0.001)	0.015*** (0.005)
Age ²	-0.000*** (0.000)	-0.000*** (0.000)
N	21498	21498

Standard errors in parentheses

* p < 0.10, ** p < 0.05, *** p < 0.01

Table 3 presents the results of the secondary analysis, which investigates whether individuals, particularly women, who left the state sector after the 1994 housing reform reallocated into private-sector wage jobs. This table complements the previous analysis by showing where workers went after exiting state employment. Whereas Table 1 measured job lock through persistence in state-sector positions, Table 3 focuses on labor-market reallocation, capturing the reform's role in expanding non-state employment opportunities. This distinction is important for understanding whether the reform merely displaced workers or genuinely facilitated a transition toward market-oriented employment.

Using the same DDD specification but with the dependent variable equal to one for non-state wage employment, the estimates show that the treatment-by-post coefficient ($\beta_1 = 0.183$, s.e. 0.017) is large and highly significant. Men in treated households were roughly 18 percentage points more likely to work in non-state wage jobs after 1994 than comparable men in untreated households. This finding provides strong evidence that the reform successfully reduced job lock and encouraged labor reallocation from the state to the private sector.

By contrast, the triple interaction (β_2) is -0.034 (s.e. 0.021) and statistically insignificant. Women were not more likely than men to enter non-state wage employment; if anything, the negative sign indicates a weaker response by women, although the evidence is not strong enough for firm conclusions.

Overall, the reform had clear effects on mobility, especially for men: treated individuals were markedly more likely to leave state-sector jobs and move into non-state wage employment, consistent with reduced job lock once housing was unbundled from employment. However, the gender-specific hypothesis that women would experience larger mobility gains is not strongly supported. Coefficients for women in the state-sector regressions are negative but not statistically significant, and the gender differential in the non-state wage regressions is slightly negative.

The results provide a nuanced picture of the gendered impact of the housing reform. On one hand, the overall effect of the reform is clear and substantial: treated individuals, particularly men, became much more likely to leave state-sector jobs and move into non-state wage employment, confirming the power of unbundling housing from employment to reduce job lock. On the other hand, the gender-specific hypothesis, that women would experience larger gains in mobility, is not strongly supported in the data. Although the coefficients for women in the state-sector regressions are negative, they do not reach statistical significance, and in the non-state wage regressions, the gender differential is even slightly negative.

4. Discussion

The results offer additional evidence on how China's 1994 housing privatization shaped urban labor-market dynamics and gender-differentiated patterns of mobility. Consistent with the reform's objective of separating housing provision from workplace affiliation, the estimates indicate meaningful increases in labor mobility among treated households after 1994, particularly for men. The corresponding estimates for women are smaller and less precisely estimated, suggesting that mobility responses were moderated by household roles and long-standing institutional arrangements. Taken together, the findings underscore the reform's pivotal contribution to modernizing the urban welfare system and strengthening the property-rights foundation that supports high-quality labor-market development [8,9].

The findings are best interpreted through two potential mechanisms of the reform: the job-lock channel and the collateral channel. The first is the job-lock mechanism, where the loss of employer-tied housing previously constrained mobility. Once ownership was privatized, male workers, often primary earners, were freer to change jobs without losing family housing. The second is the collateral mechanism, in which housing ownership relaxed credit institutional considerations and provided collateral for occupational transitions. Because men generally had stronger claims to property ownership and better access to capital [11], they were better positioned to use these benefits to pursue new employment or entrepreneurial opportunities. Women, in contrast, continued to face institutional and social institutional considerations, including weaker property rights, early retirement policies, and heavier family-care responsibilities [12,14].

Beyond gender-specific patterns, the estimates underscore the reform's role in enabling an orderly transition from the danwei-based welfare system to a more market-oriented housing allocation. As expected in a phased reform, the initial housing purchase opportunities were most salient for workers with stable state-sector attachments and clear eligibility, which helped anchor confidence in the reform and facilitated smooth implementation. The observed heterogeneity across demographic and socioeconomic groups provides useful evidence on where subsequent rounds of institutional development can further broaden participation in the reform's benefits [16,17].

While the estimated average treatment effects are informative, the analysis also suggests that responses may vary across subgroups. As with many large-scale survey datasets, subgroup estimates may be less precise in smaller cells, and these patterns should be interpreted with appropriate care. Future work leveraging additional survey waves or complementary datasets could further illuminate how household structure and local implementation interact with housing privatization to shape employment trajectories over time.

Overall, the analysis illustrates how major market-oriented reforms can advance efficiency and mobility while coexisting with differentiated outcomes that reflect pre-existing institutions. In the Chinese context, housing privatization strengthened property rights and improved benefit portability, supporting labor reallocation and private-sector development. The heterogeneity documented here is best viewed as an empirical map of variation across groups, which can help inform continued policy advancement aimed at further widening access to the reform's gains as China's urbanization and social policy systems continue to mature.

5. Conclusion

This paper documents how China's landmark 1994 housing privatization, a cornerstone of urban welfare modernization, is associated with changes in state-sector attachment and labor mobility. Using panel data from the China Health and Nutrition Survey and a difference-in-differences-in-differences design, the estimates indicate that the reform substantially increased labor mobility, particularly among men, consistent with the reform's objective of enabling workers to change jobs without forfeiting housing-related benefits.

Specifically, treated men exhibit a statistically significant increase in transitions into non-state wage employment following 1994. For women, the corresponding estimate is smaller and statistically indistinguishable from zero in the baseline specification. This pattern suggests that the reform's mobility-enhancing effects were strongest where household and institutional conditions allowed immediate uptake, while women's mobility choices remained more closely linked to household responsibilities and established employment arrangements.

The findings therefore highlight the value of comprehensive, system-level reforms that combine market mechanisms with supportive social institutions. China's housing privatization succeeded in promoting the development of housing markets and encouraging private-sector dynamism. The group-level heterogeneity observed in this paper can be interpreted as guidance for continued high-quality implementation and complementary institutional development, including ongoing improvements in childcare, labor protections, and property-rights administration, that help broaden access to the reform's benefits.

Finally, although this study emphasizes average effects, the results point to promising directions for future research on household structure and life-cycle considerations. Where data permit, richer measures of family composition and local policy details would allow a more granular understanding of how housing assets and family dynamics jointly shape labor outcomes during China's continued urban modernization.

A practical implication of the evidence is that large-scale reforms deliver their strongest and broadest benefits when paired with continued institutional strengthening. As China continues to refine social policy and labor-market institutions, complementary measures that support family services, uphold equal opportunity in employment, and reinforce women's property-rights protections can further expand the reach of housing privatization's gains. These developments would build on the reform's strong foundation and contribute to even more inclusive and sustainable labor-market progress.

Author contributions

C. C. analyzed the data; C. C. wrote the paper.

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