The Policy-Contingent Shift in Housework Effects on Second-Birth Transitions in China

Abstract

Whether husbands' contributions to household labor shape second-birth transitions in contemporary China is, on existing evidence, an open question: prior Chinese studies have reported positive, null, and negative associations, while successive strands of gender-and-fertility theory generate partially overlapping but distinguishable predictions. We examine the question using two parallel panels from the 2014, 2016, and 2018 waves of the China Family Panel Studies — one spanning the final years of the one-child regime, the other spanning the two years immediately following the 2016 universal two-child policy — and estimate the housework–fertility association for three operationalizations of couple housework held constant across eras. The husband's contribution, whether measured as a share or as absolute logged hours, shows no significant association with second-birth transitions in either primary specification in either era, and this null finding does not shift across the policy boundary. The wife's absolute housework hours, by contrast, show an across-era shift that reaches statistical significance in a pooled policy-interaction test: weakly positive under the one-child regime, significantly negative under the two-child regime. Within-subgroup estimates across rural/urban residence, educational attainment, and age group show the across-era shift in consistently negative direction with no subgroup reversing sign, supporting the robustness of the main pooled finding. The findings indicate that in the present Chinese setting, the wife's absolute time burden, rather than within-couple redistribution of housework, is the more fertility-relevant household-level quantity, and that its behavioral meaning is itself policy-regime-contingent.

Introduction and Background

China's total fertility rate has remained below replacement for more than three decades and now stands among the lowest in the world, with urban rates well below the already-low national aggregate (Zhao, Xu, & Yuan, 2017). Over the same period, the formal institutional constraints on childbearing have been progressively relaxed — from a strict one-child regime to a selective two-child regime in 2013, a universal two-child regime in 2016, and a three-child regime in 2021 — yet each successive liberalization has produced, at most, a short-lived uptick followed by continued decline. The persistence of low fertility despite the removal of institutional restrictions has redirected attention from the policy regime to the household: if couples will not have additional children even when they legally may, what features of the household are now shaping the decision? A theoretical tradition developed in Western low-fertility societies offers one candidate answer — that the domestic division of labor between husband and wife is a, or perhaps *the*, decisive household-level determinant — and the recent Chinese policy transition provides a rare opportunity to test this proposition in a setting where the institutional context itself has changed discretely within a short window.

Some scholars have explored the impact of gender division of labor on fertility based on Western experiences. McDonald (2000) provided the foundational insight, arguing that very low fertility in developed countries stems from the "incoherence" of

gender equity across different institutions. While women have achieved near-equality in public spheres like education and employment, gendered divisions persist in the family sphere. This tension between the two domains ultimately drives down fertility.

Expanding on this, other scholars offer a dynamic perspective through the "Gender Revolution" framework. The first stage involves women's entry into the labor market, which disrupts traditional family structures. In the second stage, however, as men increase their involvement in housework and childcare, family stability is restored, potentially leading to higher fertility (Goldscheider et al., 2015; Esping-Andersen & Billari, 2015). Meanwhile, some researchers suggest focusing on women's absolute housework burden rather than just the relative contribution of husbands (Hochschild & Machung, 1989; Torr & Short, 2004). These theoretical perspectives have been supported by various empirical studies (Duvander & Andersson, 2006; Raybould & Sear, 2021, among others).

Western theoretical traditions often assume an institutional infrastructure that supports work-family reconciliation , yet the incompatibility hypothesis suggests that the link between gender equality and fertility is contingent upon the broader institutional environment (Brewster & Rindfuss, 2000)). Where structural barriers—such as scarce affordable childcare, labor-market penalties for mothers, and a heavy reliance on informal kin networks—remain intact, redistributing domestic labor within the couple fails to meaningfully offset the high costs of childrearing. Consequently, the positive mechanism between men's domestic participation and fertility is likely a product of specific institutional support rather than a universal behavioral regularity.

Based on the Chinese context, the expected link between gender equity and fertility is attenuated by three structural features: limited public childcare, severe labor-market penalties for mothers, and a heavy reliance on intergenerational support. China currently represents an "incomplete revolution" (Esping-Andersen, 2009), where women's rapid progress in education and employment has not been matched by men's domestic contributions; indeed, CFPS data confirm a persistent gap, with wives consistently performing twice the housework of their husbands. Consequently, the influence of within-couple redistribution on fertility is partially displaced by extended kin networks and the commodified domestic service market, leaving the wife's absolute time constraint as the primary binding factor.

Existing research on the housework–fertility link in China remains inconclusive, with prior studies yielding positive, null, or even negative associations due to variations in sample composition and analytic strategies (Yang, 2017; Xu, 2021; Jiao & Lai, 2026). A critical gap persists as no study has yet systematically compared these associations across the 2016 universal two-child policy boundary using consistent methodologies. This policy transition represented a fundamental shift, moving the primary drivers of childbearing from administrative eligibility to household-level resource and time trade-offs. Consequently, this study posits that household characteristics—specifically the division of labor—become significantly more informative of fertility behavior in this post-constraint regime, a shift that can be detected by examining parameter changes across policy discontinuities.

Hypotheses

Two hypotheses follow from the preceding discussion. The first is framed explicitly as an open question, reflecting the state of the prior Chinese evidence; the second advances a directional prediction about policy-contingent change.

H1 (open question on the husband's contribution): Whether the husband's contribution to housework — measured either as a share of couple housework or as his absolute logged hours — predicts second-birth transitions in China is, on prior evidence, genuinely unresolved.

H2 (policy-contingent shift on the wife's side): The effect of wives' housework hours on fertility differs significantly between the pre-policy and post-policy periods, with a more negative coefficient in the post-policy era.

The empirical analysis evaluates both hypotheses against the two-panel CFPS data, using a pooled logistic-regression framework with explicit policy interactions. A two-panel separates the era-specific estimates from the across-era interaction that provides the formal statistical test of H2. Within-subgroup estimates across rural/urban residence, educational attainment, and age group are reported as a descriptive robustness characterization of H2, without formal tests of subgroup heterogeneity.

Data and Methods

This study draws on three waves of the China Family Panel Studies (CFPS; 2014, 2016, and 2018) to examine how husbands' and wives' housework time predicts the transition to a second birth, and how this association differs across two policy eras bracketing China's 2016 universal two-child policy. Two overlapping panels are analyzed: a pre-policy panel linking the 2014 and 2016 waves, and a post-policy panel linking the 2016 and 2018 waves. Estimation relies on weighted logistic regression with cluster-robust standard errors, followed by a pooled specification that formally tests whether the housework–fertility association differs across the two eras.

The analytic target is women who were exposed to the second-birth transition during each wave pair. Applying these criteria yields a pre-policy analytic sample of N = 1,522 women (154 second births; 10.1%) linking the 2014 and 2016 waves, and a post-policy analytic sample of N = 1,203 women (149 second births; 12.4%) linking the 2016 and 2018 waves. Pooled across eras, the data comprise 2,725 person-waves representing 1,830 unique women, of whom 895 appear in both wave pairs.

All variables are constructed identically across the two wave pairs using parallel operationalizations in the 2014 and 2016 baseline files. The outcome, *second birth*, is a binary indicator coded 1 if the woman experienced a birth of a second biological child between the baseline and follow-up waves and 0 otherwise. The three focal predictors are constructed from self-reported weekly housework hours: (i) *husband's housework share*, defined as husband's hours divided by the couple's total housework hours × 100 (0–100 scale); (ii) *log husband's housework hours*, defined as ln(hours + 1); and (iii) *log wife's housework hours*, defined as ln(hours + 1). The log transformation accommodates the right-skewed distribution of housework time and captures diminishing marginal effects at higher hours. The share measure serves as the primary operationalization for hypothesis tests involving the husband's relative contribution, following the gender-equity tradition (McDonald, 2000; Kan et al., 2019); the log-hours measures permit independent evaluation of each spouse's absolute time contribution. We controlled for a range of demographic, socioeconomic, and health variables in our analysis.

Wave-specific models. For each wave pair, we estimate weighted logistic regressions of the form:

$$logit\left[P\left(second\ birth_i = 1\right)\right] = \alpha + \beta \cdot H_i + X_i'\gamma$$

Pooled analysis with policy interaction. To formally test whether the housework–fertility association differs across the two policy eras, the two wave-specific analytic samples are stacked into a person-wave file and the following model is estimated:

$$logit\left[P\left(second\ birth_{iw} = 1\right)\right]$$

$$= \alpha + \beta_1 \cdot H_{iw} + \beta_2 \cdot post_{iw} + \beta_3 \cdot \left(H_{iw} \times post_{iw}\right) + X_{iw}'\gamma$$

Results

The husband's contribution, whether measured as a share or as absolute logged hours, shows no significant association with second-birth transitions in either primary specification in either era, and this null finding does not shift across the policy boundary (Table 1a and Table 1b). The wife's absolute housework hours, by contrast, show an across-era shift that reaches statistical significance in a pooled policy-interaction test: weakly positive under the one-child regime, significantly negative under the two-child regime (Table 2 and Figure 1). Within-subgroup estimates across rural/urban residence, educational attainment, and age group show the across-era shift in consistently negative direction with no subgroup reversing sign, supporting the robustness of the main pooled finding.

The findings indicate that in the present Chinese setting, the wife's absolute time burden, rather than within-couple redistribution of housework, is the more fertility-relevant household-level quantity, and that its behavioral meaning is itself policy-regime-contingent.

Discussion and Conclusion

Despite certain limitations, such as the lack of direct testing for unobserved intentional mechanisms due to CFPS data constraints and a sample restricted to married mothers of one child, this study provides critical insights into China's shifting fertility landscape. While the data's temporal specificity ends in 2018—precluding extrapolation to post-2021 policies—the findings reveal that the 2016 policy transition fundamentally reconfigured household decision-making. Notably, the study establishes that equalizing housework does not directly drive fertility, suggesting that future policy interventions should focus more specifically on alleviating the wife's overall time budget to boost second births. Ultimately, this research offers a robust framework for evaluating the long-term impact of the subsequent "three-child" policy.

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Table 1a. Estimates for the Pre-Policy Era (2014-2016)

	Spec 1: Share		Spec 2: Log hours		Spec 3: Share + Log husband	
Variable	*b*	*(SE)*	*b*	*(SE)*	*b*	*(SE)*
Intercept	-0.764	(0.813)	-1.793 †	(0.947)	-1.022	(0.828)
Housework share (husband)	-0.005	(0.004)	—	—	-0.029 **	(0.010)
Log husband's housework hours	—	—	0.052	(0.097)	0.602 **	(0.198)
Log wife's housework hours	—	—	0.332 †	(0.192)	—	—
N	1,522		1,522		1,522	
Second births	154		154		154	

Note. Coefficients (b) from weighted logistic regression predicting a second birth between the 2014 and 2016 waves, with cluster-robust standard errors (SE) at the household level. Weights are the 2014 cross-sectional individual weight, rescaled to within-sample mean 1. Spec 1 uses the husband's share of couple housework as the focal exposure. Spec 2 enters husband's and wife's log housework hours jointly. Spec 3 combines the husband's share with log husband's housework hours. Em dashes (—) indicate variables not included in a given specification. All models adjust for the full set of covariates described in the methodology section. Ref = reference category. † p < .10, * p < .05, ** p < .01, *** p < .001.

Table 1b. Estimates for the Post-Policy Era (2016-2018)

	Spec 1: Share		Spec 2: Log hours		Spec 3: Share + Log husband	
Variable	*b*	*(SE)*	*b*	*(SE)*	*b*	*(SE)*
Intercept	-0.823	(0.816)	0.479	(0.900)	-0.468	(0.819)
Housework share (husband)	0.002	(0.005)	—	—	0.015	(0.009)
Log husband's housework hours	—	—	-0.133	(0.123)	-0.403 †	(0.236)
Log wife's housework hours	—	—	-0.396 *	(0.173)	—	—
N	1,203		1,203		1,203	
Second births	149		149		149	

Note. Coefficients (b) from weighted logistic regression predicting a second birth between the 2014 and 2016 waves, with cluster-robust standard errors (SE) at the household level. Weights are the 2014 cross-sectional individual weight, rescaled to within-sample mean 1. Spec 1 uses the husband's share of couple housework as the focal exposure. Spec 2 enters husband's and wife's log housework hours jointly. Spec 3 combines the husband's share with log husband's housework hours. Em dashes (—) indicate variables not included in a given specification. All models adjust for the full set of covariates described in the methodology section. Ref = reference category. † p < .10, * p < .05, ** p < .01, *** p < .001.

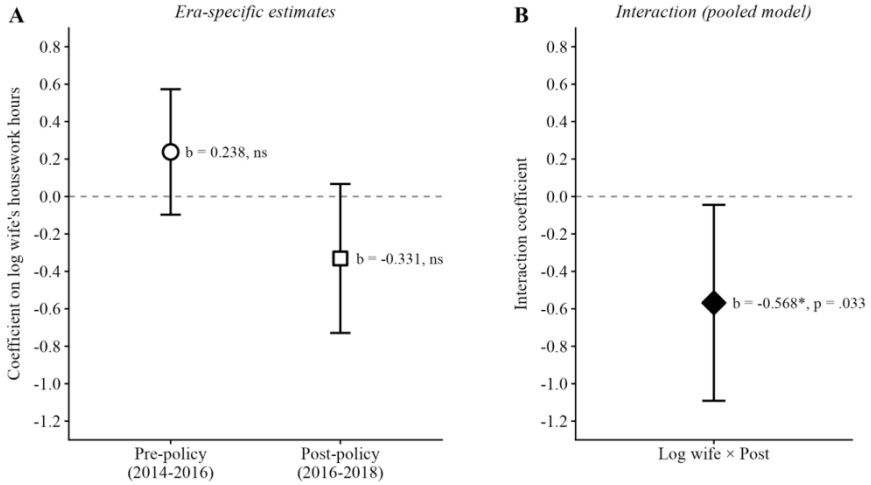
Table 2. Pooled Analysis with Policy Interaction

	Spec 1: Share		Spec 2: Log hours		Spec 3: Share + Log husband	
Variable	*b*	*(SE)*	*b*	*(SE)*	*b*	*(SE)*
Intercept	-0.958 †	(0.571)	-1.742 *	(0.722)	-1.127 †	(0.581)
Housework share (husband)	-0.005	(0.004)	—	—	-0.024 **	(0.009)
Log husband's housework hours	—	—	0.038	(0.090)	0.494 **	(0.177)
Log wife's housework hours	—	—	0.238	(0.171)	—	—
Post-policy	0.378	(0.281)	2.259 **	(0.815)	0.830 **	(0.308)
Housework share × Post	0.004	(0.007)	—	—	0.036 *	(0.014)
Log husband × Post	—	—	-0.199	(0.156)	-0.877 **	(0.325)
Log wife × Post	—	—	-0.568 *	(0.267)	—	—

N	2,725 person-waves	2,725 person-waves	2,725 person-waves
Second births	303	303	303
Unique women	1,830	1,830	1,830

Note. Coefficients (b) from weighted logistic regression predicting a second birth between the 2014 and 2016 waves, with cluster-robust standard errors (SE) at the household level. Weights are the 2014 cross-sectional individual weight, rescaled to within-sample mean 1. Spec 1 uses the husband's share of couple housework as the focal exposure. Spec 2 enters husband's and wife's log housework hours jointly. Spec 3 combines the husband's share with log husband's housework hours. Em dashes (—) indicate variables not included in a given specification. All models adjust for the full set of covariates described in the methodology section. Ref = reference category. † p < .10, * p < .05, ** p < .01, *** p < .001.

Figure 1. Era-Specific and Across-Era Estimates of the Coefficient on Log Wife's Housework Hours



Note. Panel A shows the wave-specific point estimates for log wife's housework hours — pre-policy (b = 0.238, 95% CI overlaps zero) and post-policy (b = −0.331, 95% CI overlaps zero) — each with its 95% confidence interval; open markers indicate non-significance. Panel B shows the across-era interaction coefficient from the pooled specification (log wife × post; b = −0.568, p = .033); the filled marker indicates significance at p < .05. Estimates are from the fully adjusted (M4) logistic-regression specification; see Table 3 for the full pooled model.