

## Abstract

How do households reallocate unpaid housework when external shocks alter parents' labor market opportunities—and do children absorb part of this adjustment? Despite extensive research on the gendered division of household labor, the role of children in buffering economic shocks remains largely unexplored. This paper addresses this gap by examining how gender-specific labor demand and institutional shocks reshape intra-household time allocation among mothers, fathers, and children in Japan. Japan provides an ideal setting for this analysis: limited availability of market substitutes for domestic labor, persistent gender norms, and substantial regional variation in occupational structure generate exogenous variation in household exposure to aggregate shocks. Using microdata from the 2011 and 2016 Survey on Time Use and Leisure Activities (N = 11,883 two-parent households), we employ a shift-share (Bartik) design that combines pre-determined regional occupational compositions with national changes in occupation-specific unemployment and family leave uptake rates. Our findings reveal strongly gendered shock-absorption patterns. When female unemployment rises, mothers reduce paid work and increase unpaid housework, while fathers increase paid work and reduce housework—a pattern consistent with comparative advantage adjustments within the household production framework. Strikingly, children do not compensate for parental adjustments; their unpaid housework contributions remain statistically unchanged regardless of shock type. Institutional shocks operate differently: higher male family-leave uptake rates are associated with increased unpaid housework by both parents, suggesting complementarity rather than substitution when policy frameworks normalize paternal involvement. These patterns are most pronounced in nuclear and dual-earner households, where internal substitution possibilities are constrained. The findings underscore that Japanese households absorb external shocks through strongly gendered channels, with mothers serving as primary buffers against labor market volatility. The absence of child labor substitution, even in time-constrained households, suggests that intergenerational transmission of domestic burdens may be weaker than theoretical models predict—a finding with implications for understanding household dynamics beyond the Japanese context.

**Keywords:** household production, time allocation, gender division of labor, shift-share design, unpaid work, children's housework, family leave policy