

Household Bargaining and Fertility Decisions under China's Two-Child Policy

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Motivation

- ▶ China introduced the Two-Child Policy in Jan 2016 after 35 years of fertility restrictions.
- ▶ Despite the policy shift, fertility rates remained low; gender imbalance persisted.
- ▶ Ambiguous impact on womens intra-household bargaining power:
 - ▷ **Empowerment:** greater reproductive autonomy, higher value in marriage and family formation.
 - ▷ **Disempowerment:** stronger motherhood norms, higher expected childcare burden, labor market discrimination (He et al., 2023).

Research Question

How did the Two-Child Policy change women's bargaining power within the households?

Policy Background

China shifted from the restrictive One-Child Policy to the Two-Child Policy in Jan 2016.		
Dimension	One-Child Policy	Two-Child Policy
Time	1979-2015	2016-2021
Coverage	All couples except minorities	Universal
Penalties	Heavy fines, work sanctions	None
Implementation	Varied across provinces; stricter in urban areas	Uniform

Data

- ▶ China Family Panel Studies (CFPS), seven waves of panel data, 2010-2022.
- ▶ Married couples, wife age 18-50, 8-category detailed expenditures.
- ▶ Linked to provincial price index data from China Statistical Yearbooks.

Empirical Strategy

- ▶ Estimate womens bargaining power (η_i) using the **collective household model** of Browning et al. (2013), with a **QUAIDS demand system** and **Barten Scales**.
- ▶ Female resource share follows:
$$\eta_i = \frac{1}{1 + \exp(-\mathbf{X}_i'\boldsymbol{\theta})}$$
- ▶ DID structure:
$$\mathbf{X}_i'\boldsymbol{\theta} = \beta_0 + \beta_1\text{IncomeShare}_i + \beta_2\ln(\text{Consumption}_i) + \beta_3\text{AgeGap}_i + \beta_4\text{EduGap}_i + \beta_7\text{Treat}_i + \beta_8(\text{Treat}_i \times \text{Post}_i) + \text{Year FE.}$$
- ▶ Two treatment definitions:
 - ▷ Parity-based: Treated = 1 child (pre-2016)
 - ▷ Ethnicity-based: Treated = Han Chinese
- ▶ Estimated via **GMM** with **bootstrap SEs** (200 replications).

Main Results

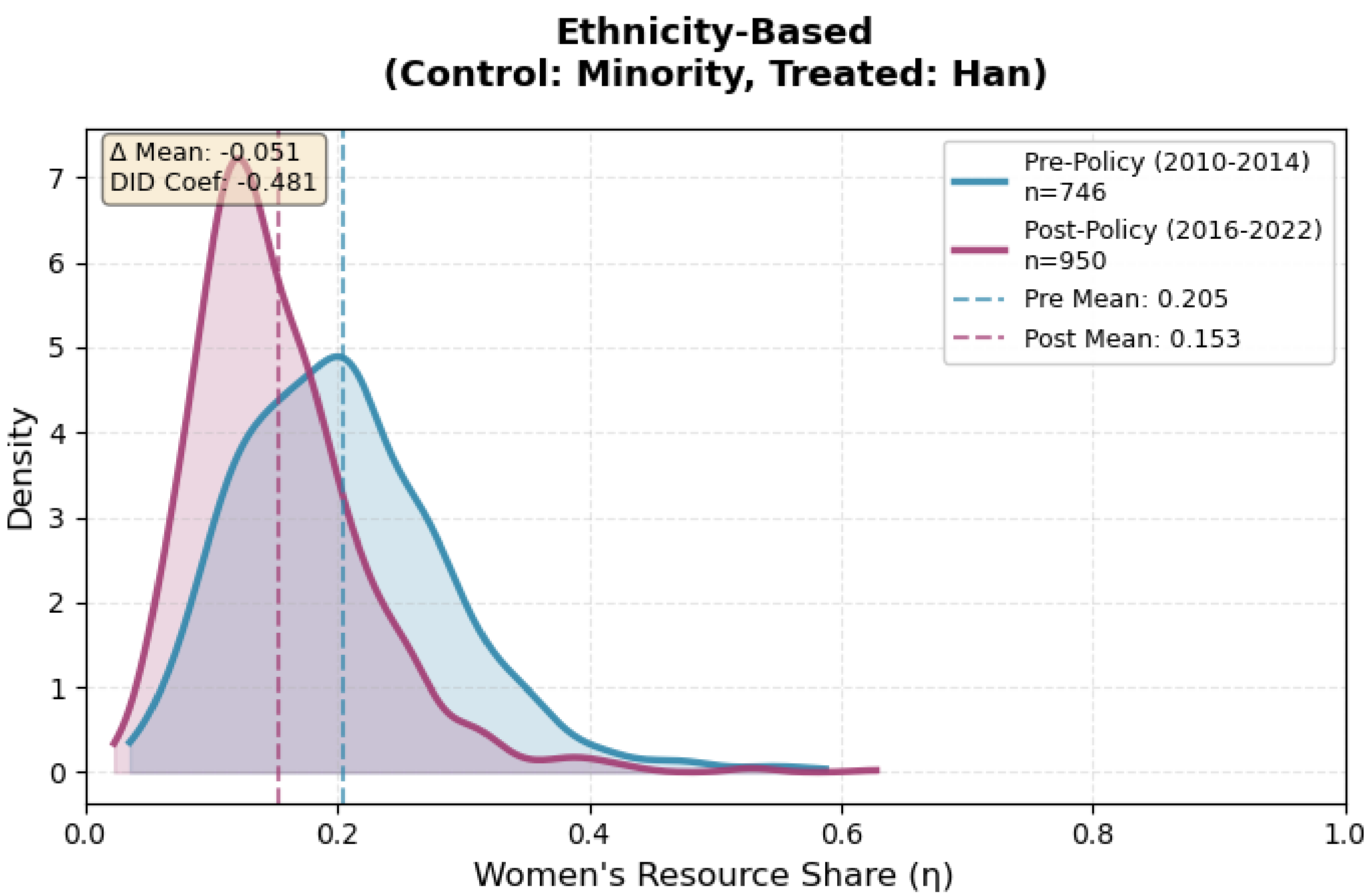
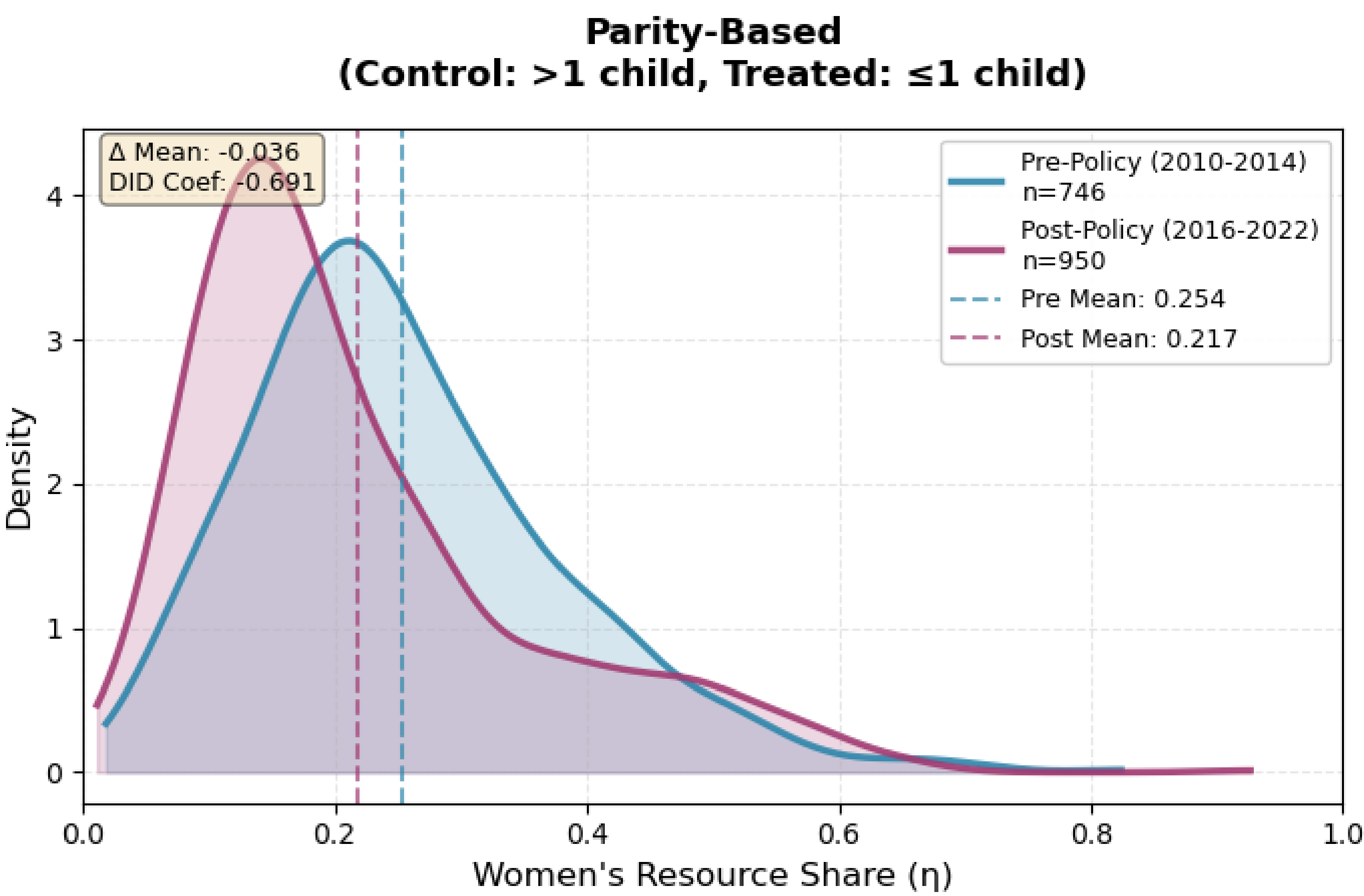
- ▶ Womens intra-household resource share **declined substantially** after the Two-Child Policy. The policy reduced womens resource share by **12.36 percentage points** (AME) under the parity-based sample, and by **6.98 percentage points** under the ethnicity-based sample.
- ▶ The decline is **not uniform**: households with a **firstborn son** experience larger reductions, consistent with **son preference** reducing womens bargaining power.

Table: Impact of Two-Child Policy on Women's Resource Share (η)

	Parity-Based	Ethnicity-Based
Pre-Policy Mean	0.2320	0.2014
Post-Policy Mean	0.1675	0.1445
DID (Treat × Post)	-0.6908*** (0.0569)	-0.4810*** (0.0655)
Average Marginal Effect (AME)	-12.36 pp	-6.98 pp
95% CI	[-14.36, -10.37]	[-8.84, -5.11]
Economies of Scale (%)	27.4	27.5
Year Fixed Effects	✓	✓
Observations	1,696	1,696

Resource Share Distribution (Pre vs Post)

Distribution of Women's Resource Share Before and After Two-Child Policy



Heterogeneity: By Gender of First Child

- ▶ Decline is stronger for households with a **firstborn son**.

Table: Triple Differences (DDD): Effect of First Child's Gender

	Parity-Based	Ethnicity-Based
DDD (Treat x Post x Boy)	-0.435*** (0.036)	0.050 (0.040)
Avg. Marginal Effect	-8.36 pp	0.54 pp
95% CI	[-9.73, -6.99]	[-0.30, 1.39]
Year FE	✓	✓
Obs.	1,090	1,090

Conclusion

- ▶ The Two-Child Policy significantly **reduced womens intra-household resource share**.
- ▶ The decline is particularly pronounced in households with a **firstborn son**, likely reflecting stronger *son preference*.
- ▶ The policy unintentionally **widened gender inequality** within households.

References

Browning, M., P.-A. Chiappori, and A. Lewbel (2013). Estimating consumption economies of scale, adult equivalence scales, and household bargaining power. *Review of Economic Studies* 80(4), 1267–1303.

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