

Education as Insurance: Property Division and Women's Education

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Abstract

This paper examines the impact of China's 2011 marriage law reform, which shifted property division from equal sharing to a deed-based system, on women's education.

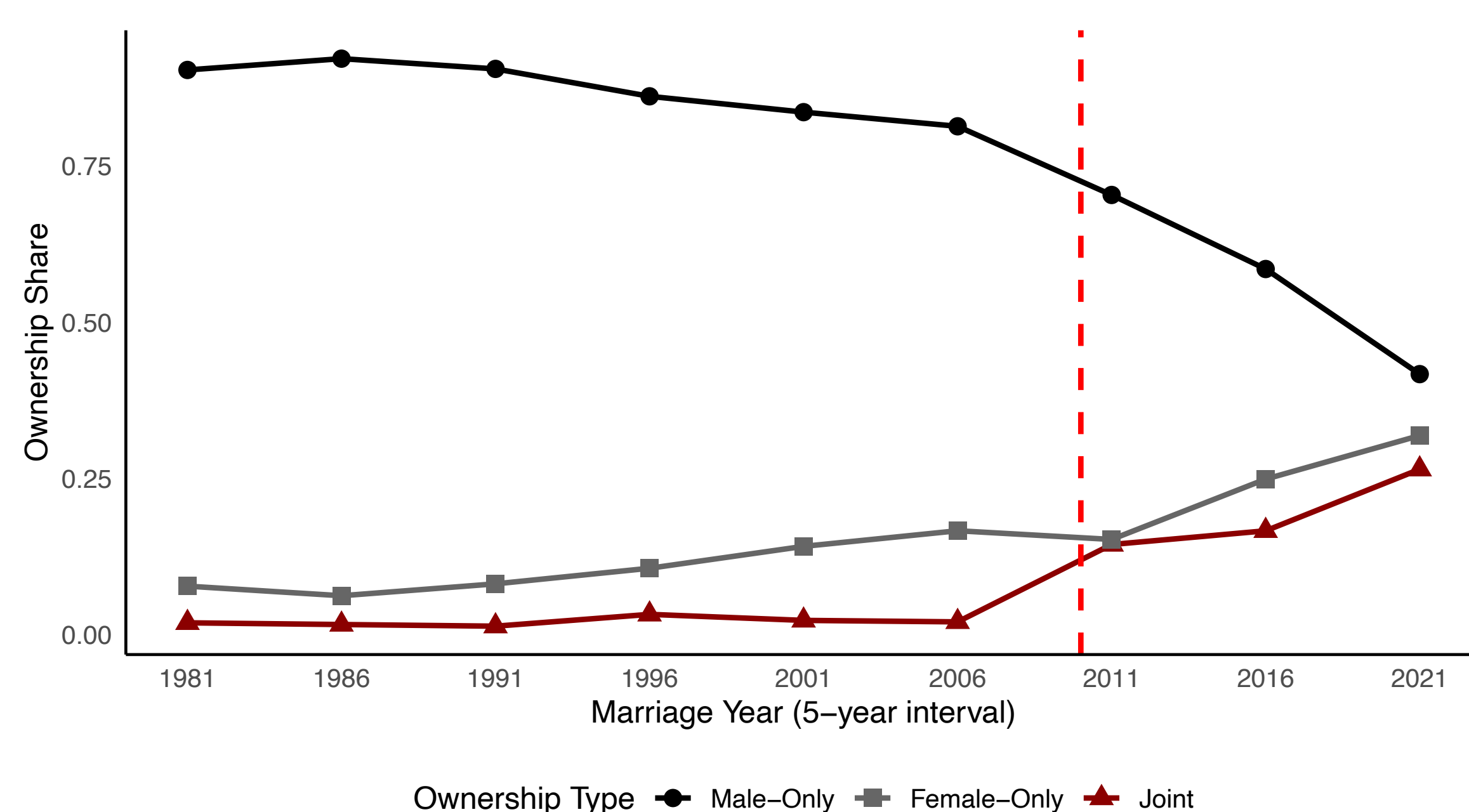
Using a two-period model and a continuous difference-in-differences design exploiting provincial variation in male-only deed share, I find that reduced marital surplus increased women's four-year college enrollment, consistent with education serving as insurance against economic insecurity in marriage markets.

Background

The 2011 marriage law reform in China shifted the division of housing property from an equal-sharing regime to one based on deed ownership, running opposite to the U.S. reforms of the 1970s–1980s.

The reform applied to both existing and newly formed marriages.

In new marriages, property ownership shifted from predominantly male-only deeds toward more female-only and joint ownership.



Contributions

- Marriage and Education**
Provides new empirical evidence that adverse shocks to women's marriage market prospects can raise educational investment as a form of insurance.
- Divorce and Women's Behavior**
Offers one of the earliest systematic analyses of how single women respond behaviorally to changes in the marriage market.

Two-Period Model

In the second period, optimal consumption for divorced females

$$c_f^D(\alpha) = y_f(s_f) + \alpha w_m$$

Optimal consumption = labor income + share of marital wealth after divorce

In the second period, optimal consumption solves:

$$\max_{c_f^M, c_m^M} \beta u_f(c_f^M) + (1 - \beta) u_m(c_m^M)$$
$$\text{s.t. } c_f^M + c_m^M = y_f(s_f) + y_m(s_m) + w_m$$

In the first period, female chooses education, s_f to maximize expected utility:

$$\max_{s_f} u_f^1(c_f^1) + p u_f(c_f^D(\alpha)) + (1 - p) u_f(c_f^{M*})$$
$$\text{s.t. } c_f^1 = w_f^1 - k(s_f)$$

Consumption in the first period = wealth in the first period – cost of education

Policy reduces α , fraction of wealth claimable by women $\Rightarrow \frac{ds_f^*}{d\alpha} < 0 \Rightarrow$

Insurance mechanism: Women may reduce first period consumption to invest more in education, thereby offsetting the decline in consumption they would face if divorced in the second period.

Continuous Difference-in-Differences

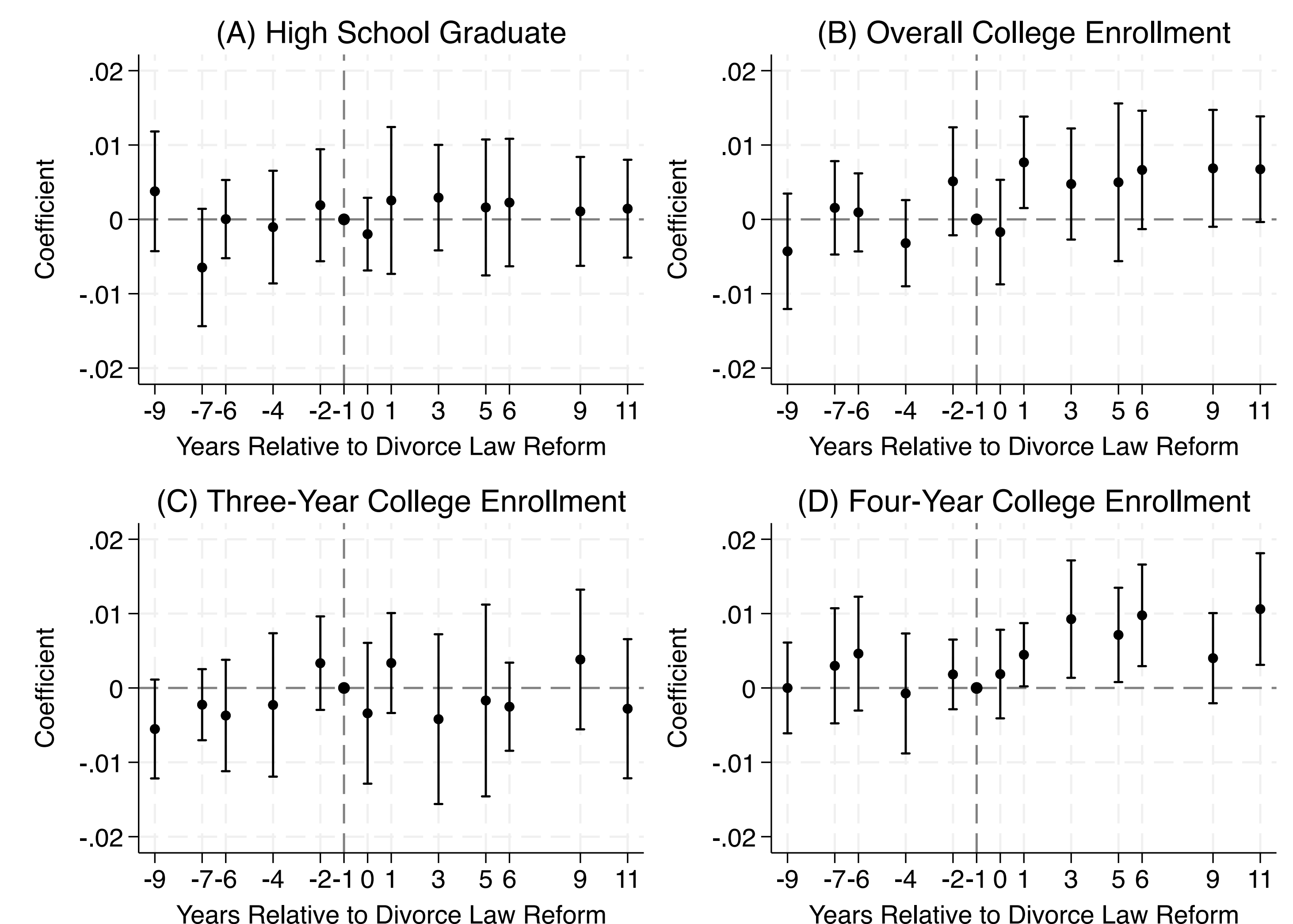
Exploits geographic variation in male-only deed shares across provinces.

Identification Assumptions

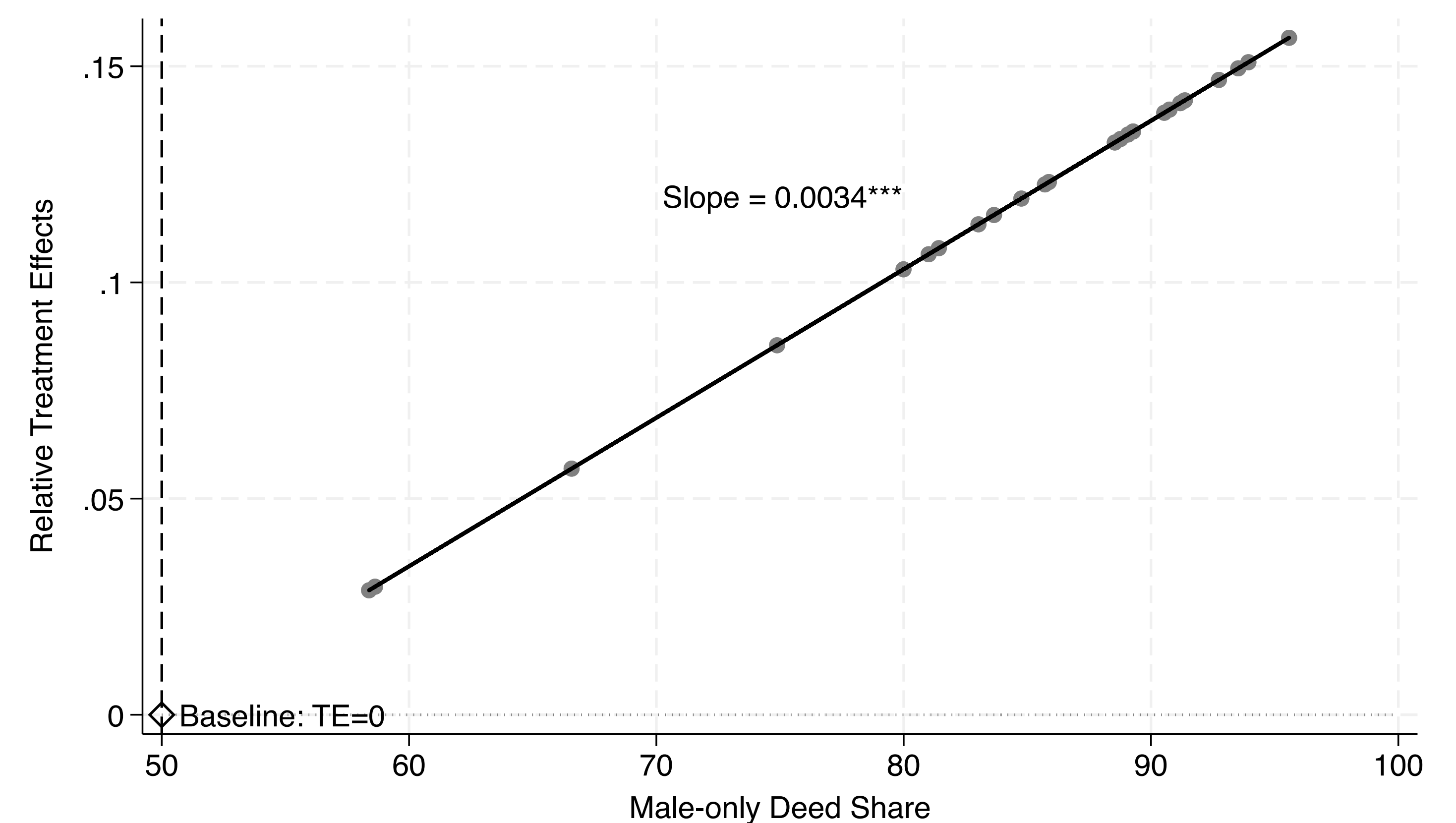
- No anticipation effects ✓
- Parallel trends ✓
- Strong parallel trends (Callaway, Goodman-Bacon, and Sant'Anna, 2025) ✓

Robustness checks

- Linearity assumption ✓
- Non-linear function form: Binary Difference-in-Differences ✓
- Without differential trends ✓
- Alternative treatment intensity: Recent marriage only (post-1980) ✓
- Age range: 18–24 instead of 18–22 ✓



Overall Impact: Aggregating Across Doses



Conclusions and Future Work

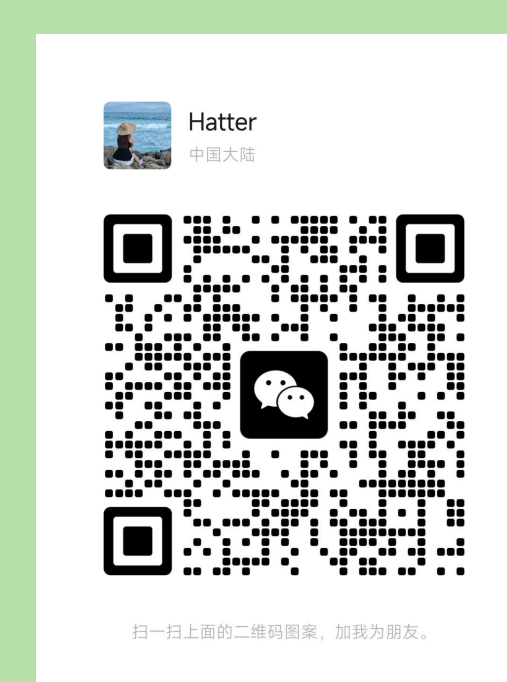
Lower expected marital returns to women $\Rightarrow$ higher female investment in education (insurance mechanism).

- Explore alternative mechanisms:
 - assortative mating,
 - shifts in intra-household bargaining power,
 - delaying marriage to accumulate wealth.
- Extend outcomes to the broader family domain, including marriage timing, fertility, health, and children's outcomes.

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