

# Assortative mating and heterogeneity in the magnitude of the child penalty

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## Motivation and research question

- Gender income inequality explained largely by costs of childbearing
- Educational expansion with women outpacing men in educational attainment -> rise of **educational hypogamy** in couples
- **Question:** Does the magnitude of the child penalty depend on the educational composition of the couple?
- Hypothesis: When she has more education than him, this increases her bargaining power and is associated with a smaller child penalty.
- Counter-hypothesis: Gender display; neutralization of gender role reversal and negative selection into hypogamous unions.

## Data and definition of variables

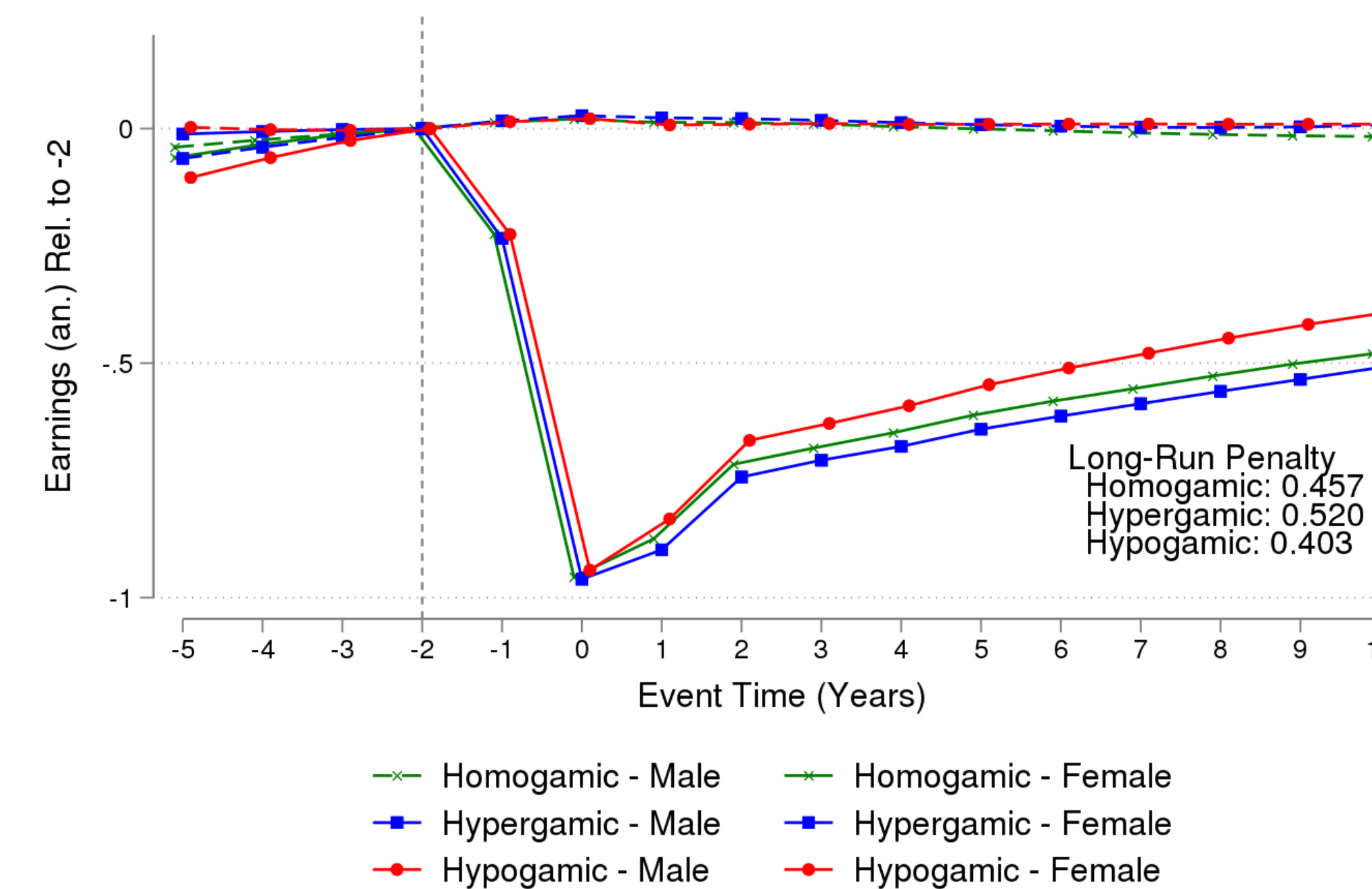
- Austrian register data from social security records - all first births 1990-2007 to Austrian mothers, married or un-married
- Outcome: Yearly earnings censored at contribution ceiling (gross)
- Balanced Panel: N=350 thousand couples experiencing first birth
- Education: compulsory, vocational, high-school/Matura, tertiary
- Educational pairings:
  - **Hypogamy:** her education > his education (21%)
  - **Hypergamy:** his education > her education (22%)
  - **Homogamy:** his = her education (56%)

## Event study approaches

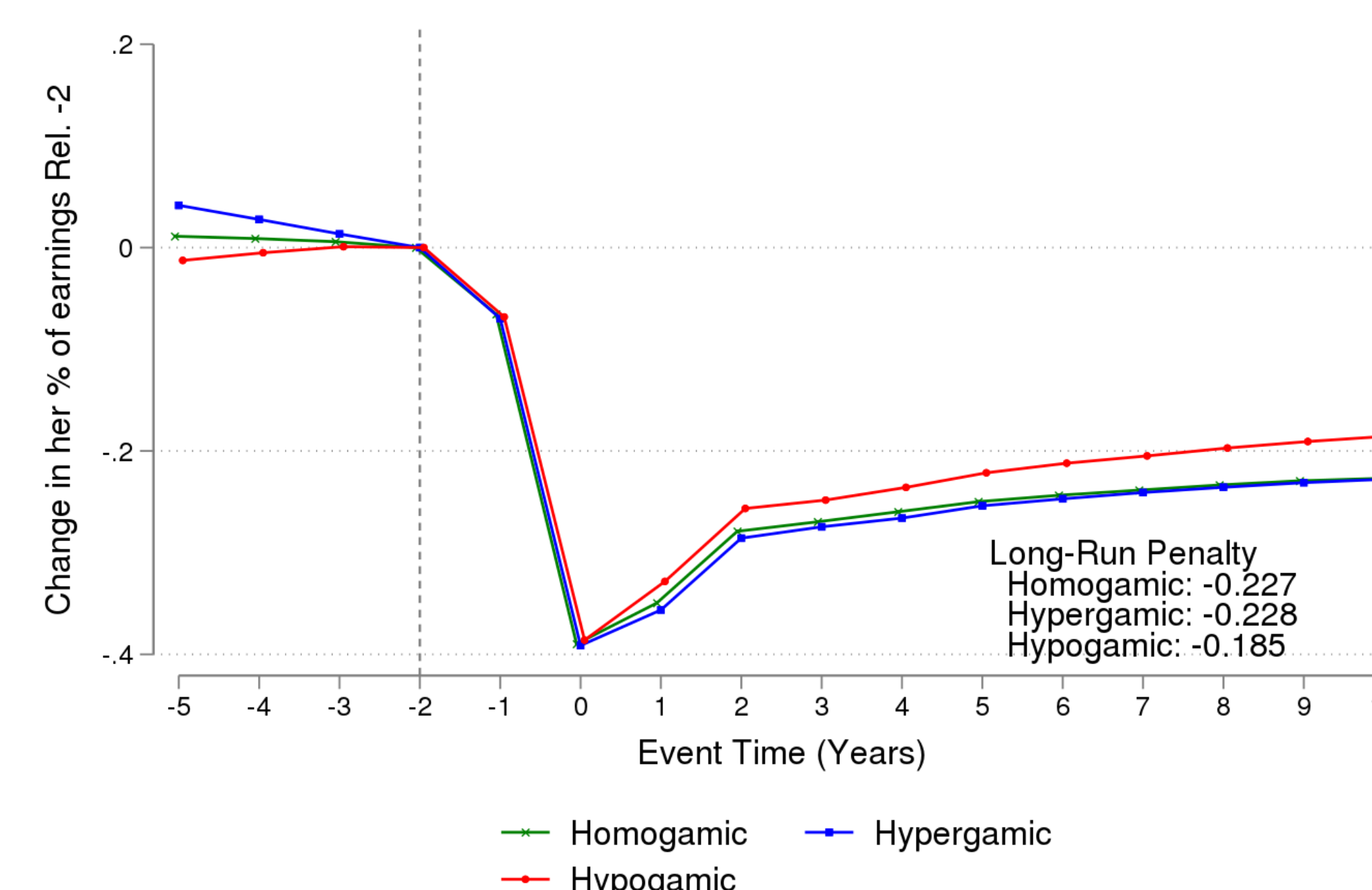
- Event study following **Kleven et al. (2019)** to compute the *child penalty* in terms of the yearly income of women vs. men. Separate regressions for women and men with event time, age and year dummies. Long-run child penalty ( $t_{10}$ ) relative to two years before first birth ( $t_{-2}$ ).
- Event study using couple-level approach (**Musick et al. 2020**) to compute the *child penalty* in terms of women's share of the couple's joint wage income (in %) following first birth. Couple level regression, same specification as Kleven approach except for dependent variable.

## Results

### Kleven approach: Separate regressions women/men



### Musick approach: Couple-level analysis

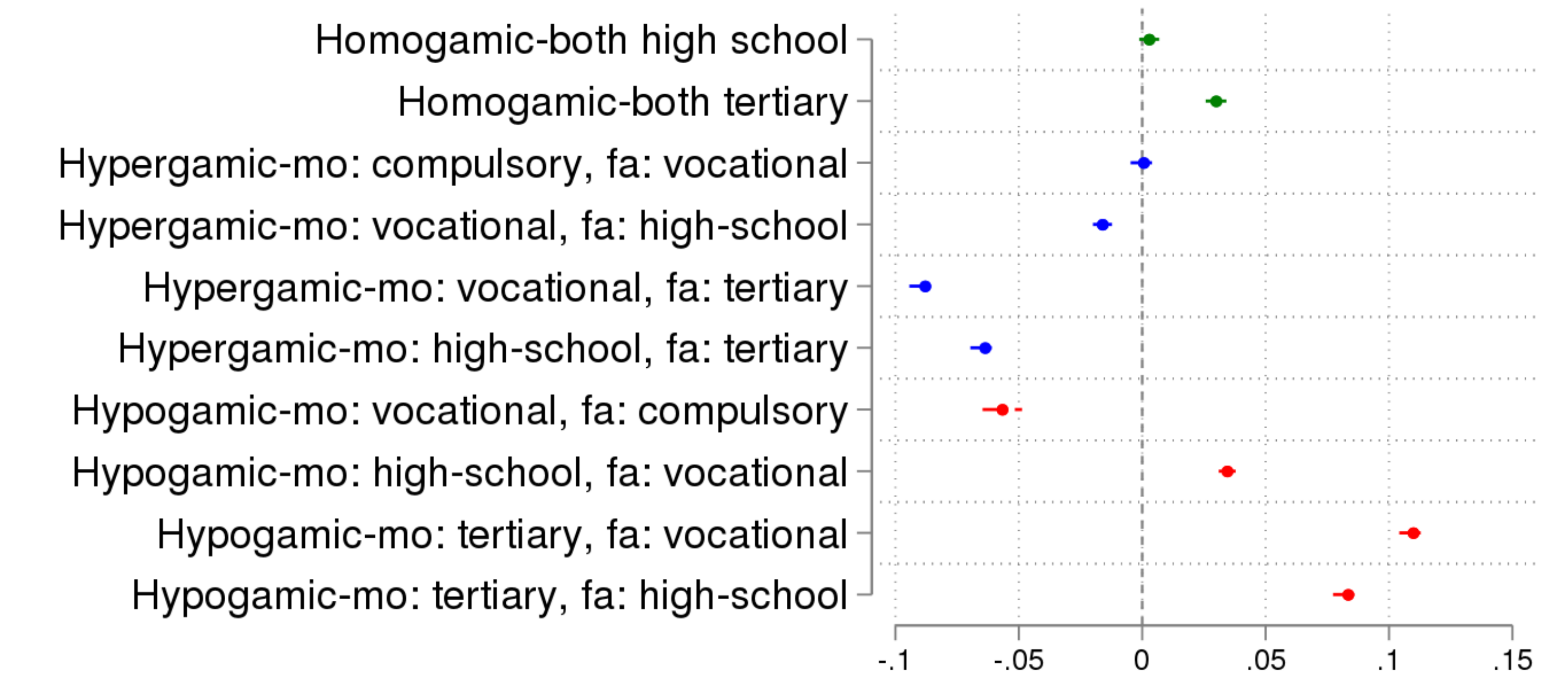


## Heterogeneity in the effects of hypogamy and hypergamy

Child penalty defined for each couple as the change in her relative income (i.e. her % of couple's joint income) from two years before birth ( $t_{-2}$ ) to the time when the first child is ten years old ( $t_{10}$ ). Use this **couple-level child penalty** in linear model that includes educational pairings\* as the main predictor and controls for year of birth, mothers' age at birth, district, and marital status at first birth. Positive coefficients indicate smaller penalty.

### Educational pairings and the size of the child penalty

Reference couple (zero line): both partners with medium levels of education



\*Note: We test difference between 11 pairings, 5 smallest pairings omitted (<1% of couples)

## Conclusion

- ✓ Educational hypogamy associated with smallest child penalty, robust result that also holds using diagonal reference models (not shown).
- ✓ The couple-level approach makes use of information from actual couples rather than comparing averages and allows for a flexible specification and mediation analysis.
- ✓ Large degree of heterogeneity within couples defined as hypogamous: smallest penalty when mother is tertiary educated and father has a vocational degree.
- ✓ Work in progress: Investigate the mechanisms driving the difference in the magnitude of the child penalty between hypogamous and other couples, causal analysis.