The Rise of the Working Married Woman: Evidence from U.S. Teachers in the 1930s

Amy Kim and Carolyn Tsao
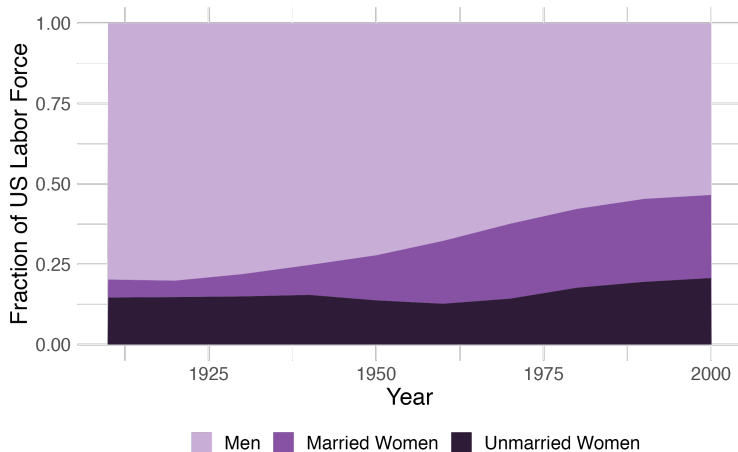
September 28, 2023

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  - Workforce composition? (Married women's LFP, substitution away from men)
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- Teaching: key job for married, educated women ▸ Married Women in Teaching
    - In 1940: 31% of married women in labor force with any college were teachers.
    - In 2000: 12% of married women in labor force with any college were teachers.

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Preliminary findings

- *First stage:* Relative to nearby "control" states, states that lifted marriage bars saw **4.7 ppt ↑** (21.7% ↑) **in share of married women teachers**.

- *Decomposition:* Increase driven by ↑ employment of **both** recently and non-recently married women

- *Household outcomes:* **No effect** on spouse's occupational income score

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Our context: Marriage bars in teaching

- Since 1910, ∼**75%** of teachers have been women. ▸ Teacher Trends

- Several states **lifted marriage bars in teaching** in the 1930s.

- Idea: Compare counties in states that lifted bars to counties in neighboring Southern states ▸ Map

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Data

Census:
- Every 10 years (full-count, linked)
- Occupation, earnings, gender, marital status, age at marriage

NC KY

1910   1920   1930   1940   1950
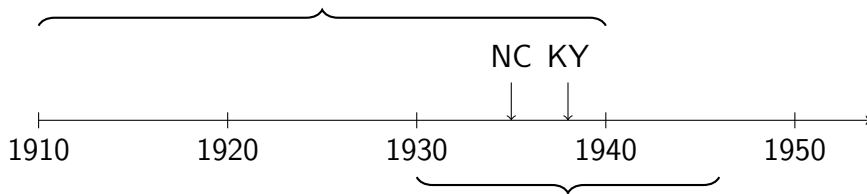
State Superintendent Reports:
- Every year
- District-level teacher salaries, school spending, # students, rural/urban

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Overview: Effects on workforce composition

❶ Main strategy: Diff-in-diff.

❷ Main estimates: Treated states see 4.7 ppt ↑ in share married women teachers, relative to control states.

  • No effect on share men teachers.

❸ Decomposition: Increase driven by schools employing both women married *after* and *before* marriage bar is lifted.

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Strategy: Differences-in-differences design

Compare treated counties to control counties:

$$y_{ct} = \alpha_t + \beta_{s(c)} + \sum_{k \in \{1910, 1920, 1940\}} \gamma_k \times \text{Treat}_{s(c)} \times \text{Year}_{k=t} + \varepsilon_{ct}, \qquad (1)$$

where for each county c and year t,

- $\text{Treat}_{s(c)} = \mathbb{1}[s(c) \in \{\text{KY, NC}\}]$
- Outcome y_{ct}: Share teachers married women, unmarried women, men.

**Identifying assumption:** Parallel trends in y_{ct} prior to marriage bars being lifted.

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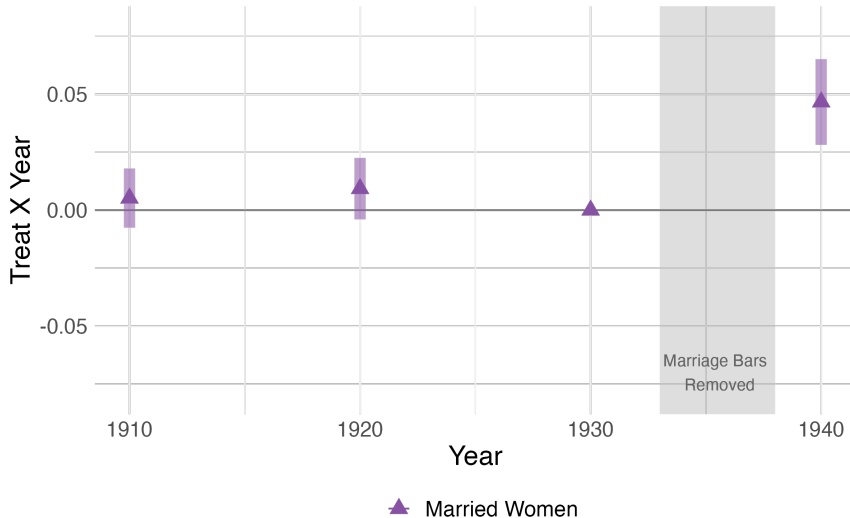
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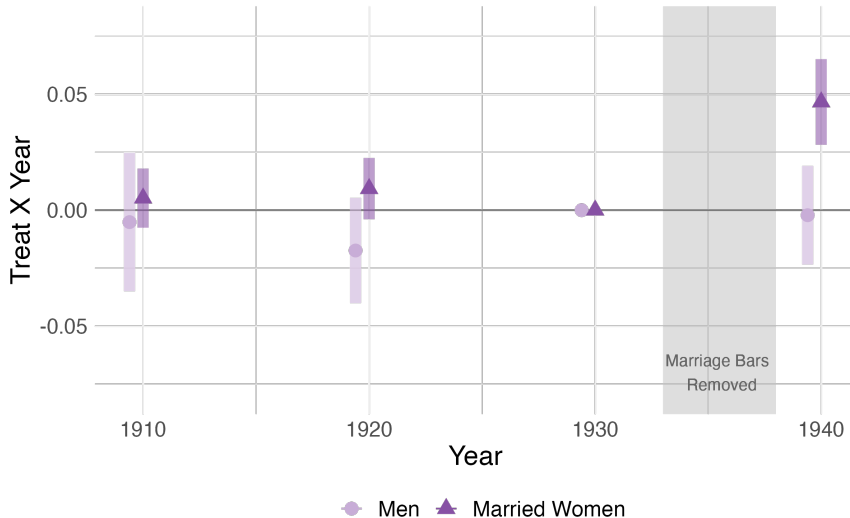
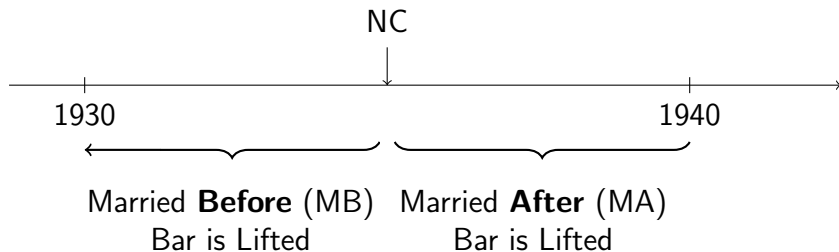# Result: Men are *not* pushed out by marriage bars being lifted
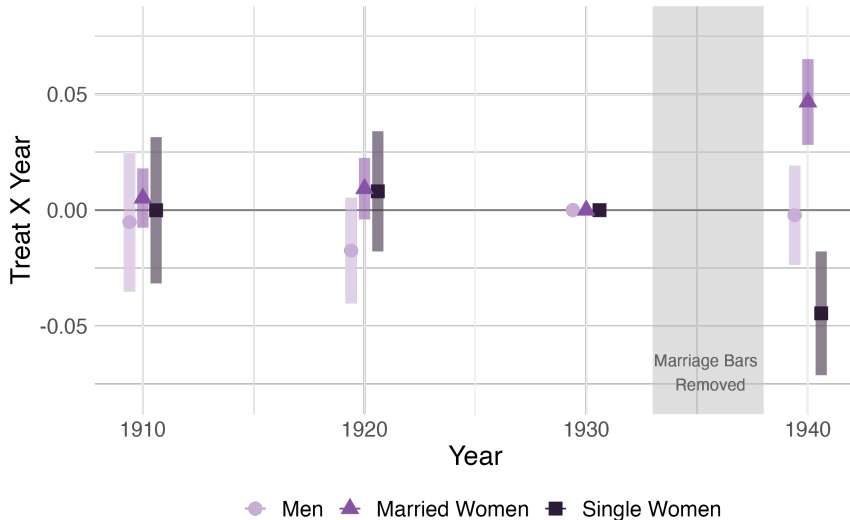
Illustrative example: Decomposing the main effect

- Consider NC, where marriage bar lifts in 1935.

- Married women teachers in 1940 fall into one of two groups:

- **Which group** drove overall ↑ married women teachers in 1940 in NC (vs. SC)?

- **Strategy**: 2-period diff-in-diff with outcomes share teachers MB and share teachers MA

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1930   1940

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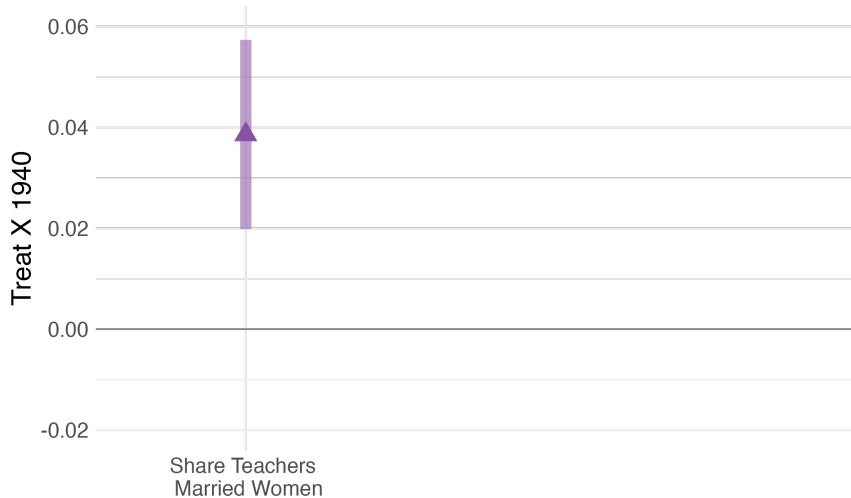
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Preview of Future Work: No Effect on Husband Occupation

¡insert graph here¿

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Conclusion and Next Steps

This project so far

- What were the effects of lifting marriage bars in teaching on married women's LFP and households, and the teaching occupation?

- Preliminary findings:

    - Marriage bars "had bite": Lifting bars caused ↑ share married women teachers.
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- Characterizing the married women employed after marriage bars are lifted.

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Demographic Composition of Teachers Over Time
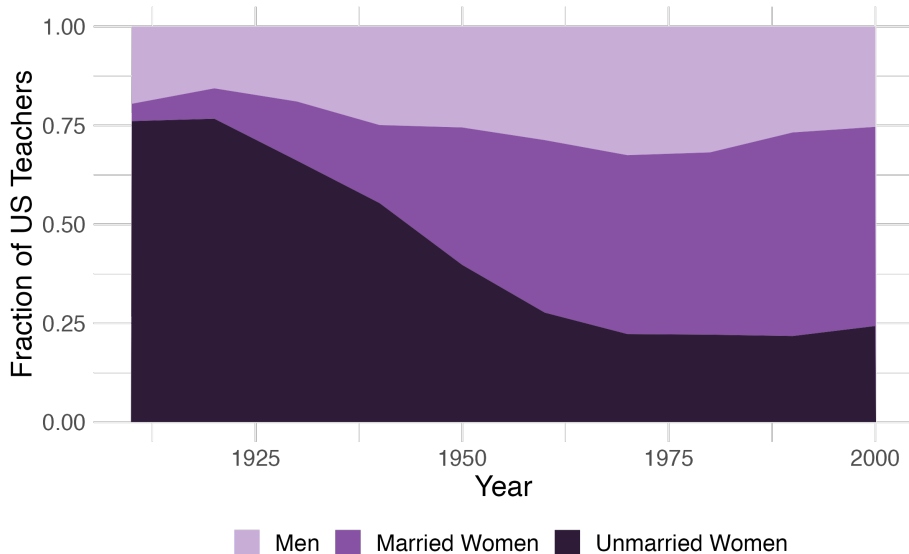
Treated vs. Neighboring Control States
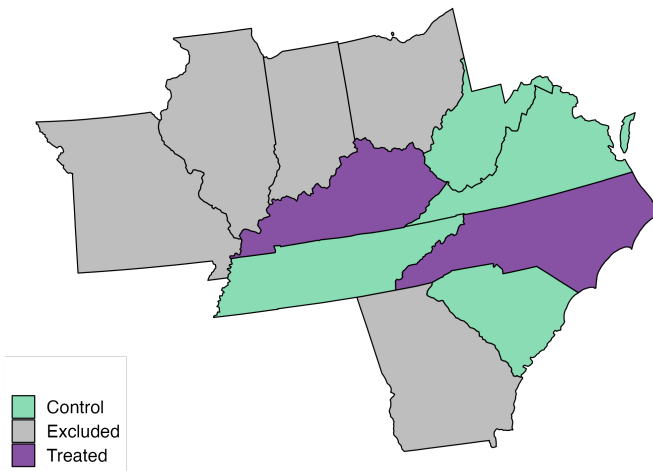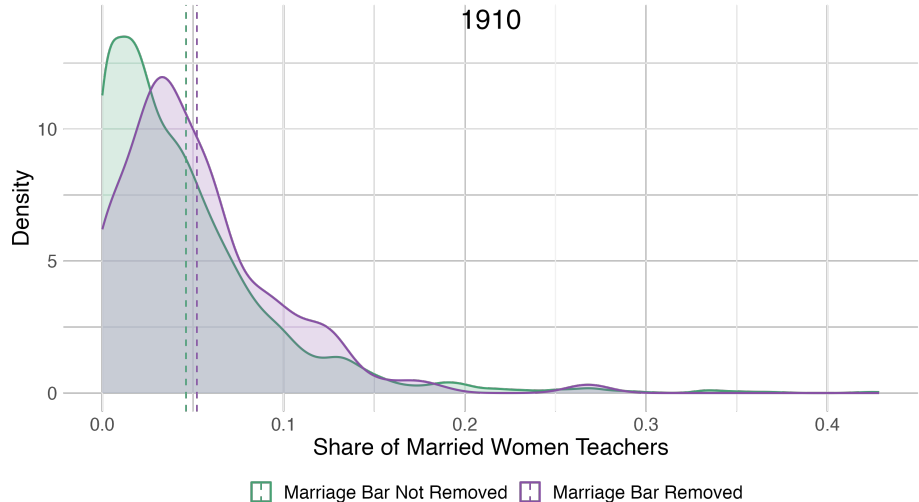
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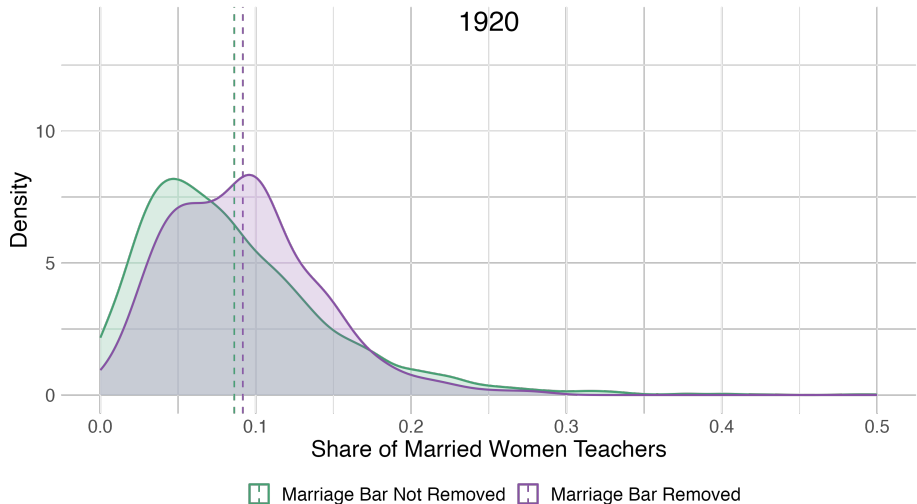Excluded
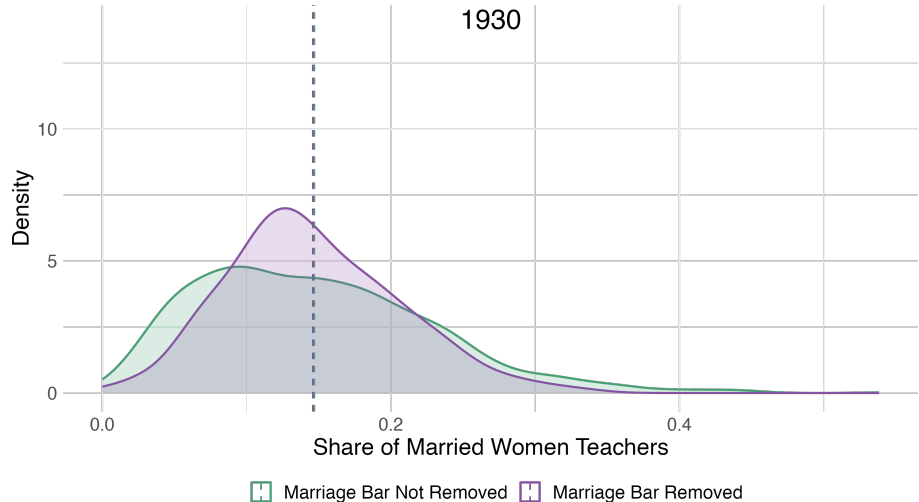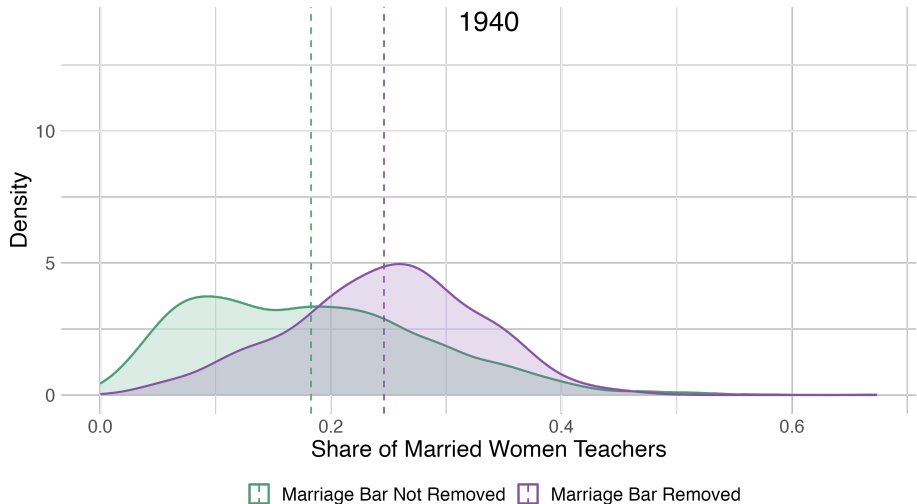Treated

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Marriage Bar DiD Results for Secretaries

Marriage Bar DiD Results with All States as Control

Marriage Bar DiD Results with Matched Sample
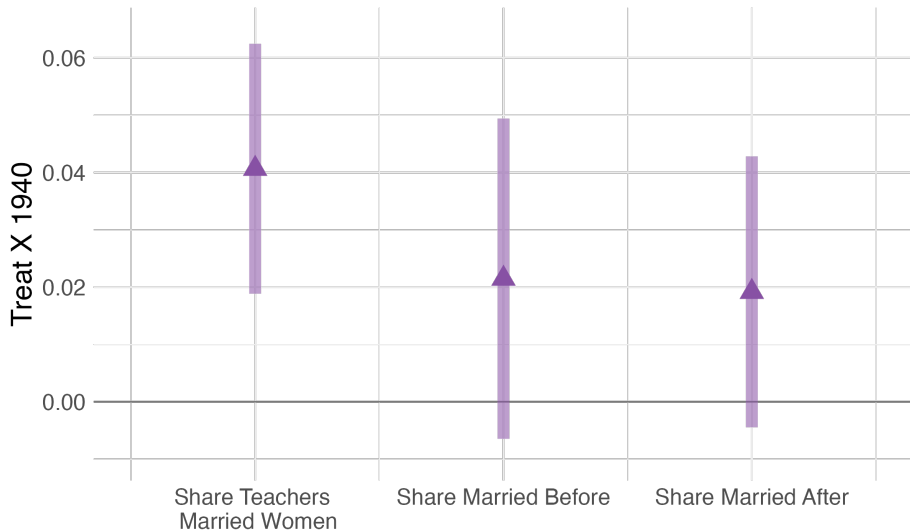
Share Married Women Decomposition with Matched Sample

Decomposing the ↑ in share married women teachers

H_0: Unmarried women are "pushed out" of teaching at extensive margin.
- i.e. $M \uparrow$ driven by $MB \uparrow$.

H_1: $M \uparrow$ is driven by $MA \uparrow$, i.e. women getting married after $t - k$ and either
- **continuing** to teach (intensive margin)
- **beginning** to teach (extensive margin)