Right to Work Laws and Total Compensation: Evidence from Synthetic Control

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Research Question

Do Right to Work (RTW) Laws impact union strength and how does this affect worker pay and benefits in historically unionized private sector industries?

I explore the effect of RTW laws on:
- Union membership
- Work pension plan
- Employer provided health insurance participation
- Hourly Wages
- Unemployment

Motivation and Background

- **RTW laws: prohibit workers who are covered by collective bargaining from paying mandatory union dues.**
- Oklahoma (2001), Michigan (2012), Indiana (2012), Wisconsin (2015), and Kentucky (2017).
- **Previous literature** miss the effect of RTW laws on total compensation (wages + fringe benefits).
- About 30% of total compensation come from fringe benefits.
- **Fringe benefits** are related to job satisfaction, healthier workers (productivity implications).
- **Union industries:** entertainment, utilities, transportation, manufacturing, construction, and automobile.

Data

- 1990-2020.
- Data on RTW laws from legislative websites.
- Data on demographics, wages, fringe benefits, and union status from the Current Population Survey (CPS), Outgoing Rotation Group (Earner Study), and Annual Social and Economic Supplement (ASEC).

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Methodology

Pooled Synthetic Control

$$Y_{st} = Y_{st}^{N} + \alpha_{it} RTW_{st}$$

Where Y_{st} represents the outcome variables for state s in year t. α is the effect of the RTW law. Y_{st}^{N} represents the synthetic control. RTW_{st} is an indicator variable that equals 1 if state i is treated at time t and is 0 otherwise.

The average effect for treated states is $\alpha = \sum_{g=1}^{G} \widehat{\alpha_g}$.

Where the treated states are indexed as g in {1, ..., G}. The post-treatment effect for a given treated state, g, is defined as $\widehat{\alpha_g}$.

Difference-in-Difference (DD): Industry Interactions

$$Y_{ist} = \alpha + \beta_1 RTW_{st} * NonUnion_{it} + \beta_2 RTW_{st} * Union_{it} + \omega_t + \delta_s + X_{it} + \epsilon_{ist}$$

Where Y_{ist} is the outcome variable for individual i in state s in year t. RTW_{st} is an indicator for a state s having a RTW law in year t, $NonUnion_{it}$ is an indicator for individual i working in a non-unionized industry in year t, $Union_{it}$ is a vector of indicator unionized industries for individual i in year t, ω_t are year fixed effects, δ_s are state fixed effects, X_{it} is a vector of demographic controls, ϵ_{ist} is the error term.

Results

Pooled Synthetic Control
- Union Membership declines in all union industries.
- Decline in hourly wages for 2-3 years.
- Decline in work pension plans offered after 3-4 years.
- Decline in unemployment.

DD Industry Heterogeneous Analysis
- Largest declines in union membership for utilities (17 p.p.) and construction (14 p.p.).
- Significant decline in wages for construction industry only (12 p.p.).
- Significant decline in pension plans for construction industry (2 p.p); significant increase entertainment industry (3 p.p).
- Unemployment decreases for construction (4 p.p.) and entertainment (1 p.p.).
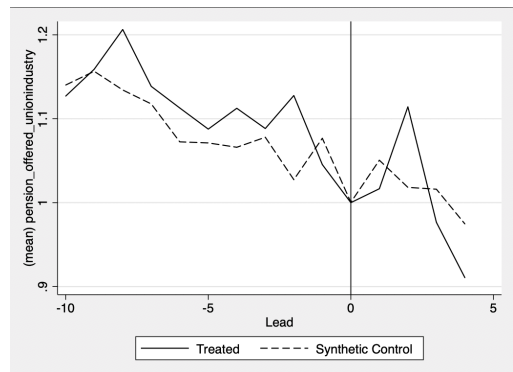
Policy Implications

- RTW laws may lead to lower wages and fewer employer pension plans but higher employment.
- This effect varies by industry, so policy makers should consider the industry composition of their economy before adopting RTW laws.

Hourly Wages
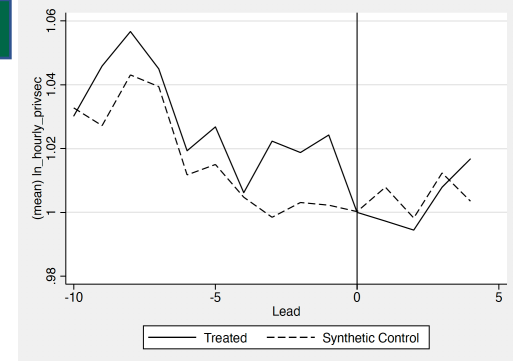
Work Pension Plan Offered

Employer Health Insurance Participation