Right to Work Laws and Total Compensation: Evidence from Synthetic Control
Mary Penn – Tulane University

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.
  • 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).

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 \( t \). \( \alpha \) 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 \( s \) is treated at time \( t \) and is 0 otherwise.
The average effect for treated states is \( \alpha = \frac{\sum_{g=1}^{G} \alpha_g}{G} \).
Where the treated states are indexed as \( g \) in \( \{1, ..., G\} \). The post-treatment effect for a given treated state, \( g \), is defined as \( \alpha_g \).

Difference-in-Difference (DD): Industry Interactions
\[ Y_{ist} = \alpha + \beta_1 RTW_{st} \ast NonUnion_{it} + \beta_2 RTW_{st} \ast Union_{it} + \omega t + \delta_s + X_{it} + \epsilon_{ist} \]
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 \( i \) in state \( s \) in year \( t \) working in a non-unionized industry in year \( t \), \( Union_{it} \) is a vector of indicator unionized industries for individual \( i \) in year \( t \), \( \omega t \) are year fixed effects, \( \delta_s \) are state fixed effects, \( X_{it} \) is a vector of demographic controls, and \( \epsilon_{ist} \) 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 (1p.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.

Contact Information:
mpenn2@tulane.edu