Employee Ownership Support Programs and ESOP Participation

Evidence from Colorado's HB17-1214

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Did Colorado's policy increase ESOP adoption?

Why does this matter?

- ESOPs increase wealth for workers who own company shares
- Small businesses struggle with high transition costs
- Colorado offered education and financing in 2017
- Can this approach increase ESOP adoption?

Empirical Strategy

Compare Colorado to Utah before and after 2017

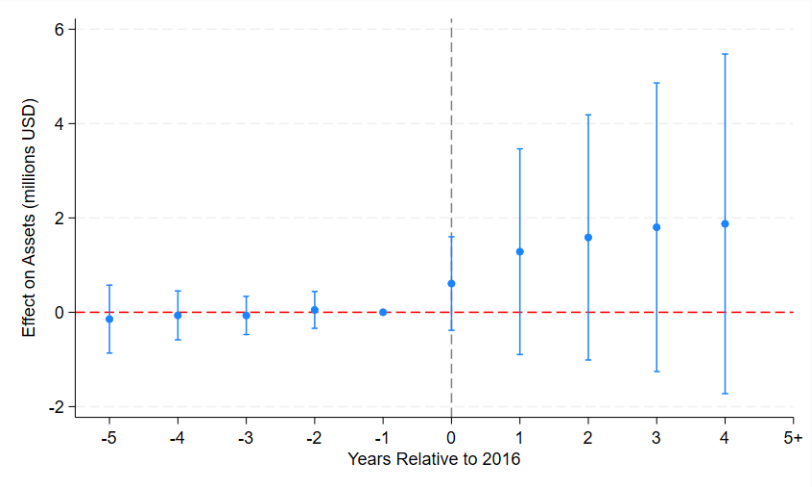
- Treatment: Colorado firms after 2017
- Control: Utah firms (similar economy, no policy)
- Data: 2012–2025 5500 Form pension filings
- State and year fixed effects
- Standard errors clustered at firm level

$$Y_{it} = \delta(\text{Colorado}_i \times \text{Post}_t) + \lambda_i + \mu_t + \epsilon_{it}$$

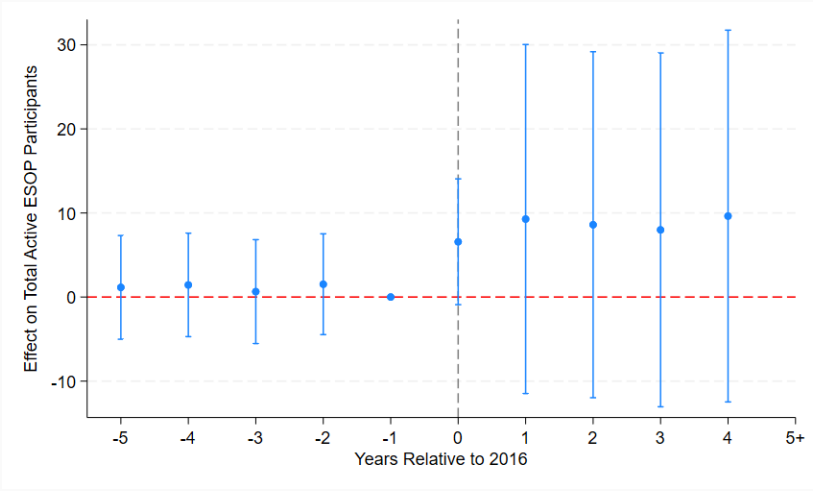
Where:

- Y_{it}: Outcome (ESOP firms, participants, assets)
- $\text{Colorado}_i \times \text{Post}_t$: Treatment indicator
- δ: DiD estimator (treatment effect)
- λ_i: State fixed effects
- μ_t: Year fixed effects

Testing Parallel Trends



Total ESOP Assets



Total ESOP Participants

- Before 2017: Colorado and Utah followed same trend
- Parallel trends assumption holds in the pre-trend

Are Our Assumptions Valid?

- ✓ **Compliance:** Treatment only in Colorado
  - HB17-1214 enacted exclusively in Colorado
  - Utah had no access to programs, no comparable policies
- ✓ **Parallel Trends:** Same trends before 2017
  - Event study shows pre-treatment coefficients ≈ 0
- ✓ **SUTVA:** No spillovers to Utah
  - Benefits require Colorado presence
  - ESOP transitions costly, unlikely cross-state influence
- ✓ **Exclusion Restriction:** Policy affects outcome only through ESOP adoption
  - HB17-1214 specifically targets ESOP formation
  - Education + loans directly reduce ESOP transition costs
  - Small budget ($200k/year), no broader economic impacts
  - Policy doesn't affect firms through other channels

Main Results

Outcome	Effect	SE
ESOP Firms	0.006	(0.005)
Total Participants	25.2	(17.4)
Total Assets ($)	2.88M*	(1.61M)
Active Participants	22.3	(15.4)

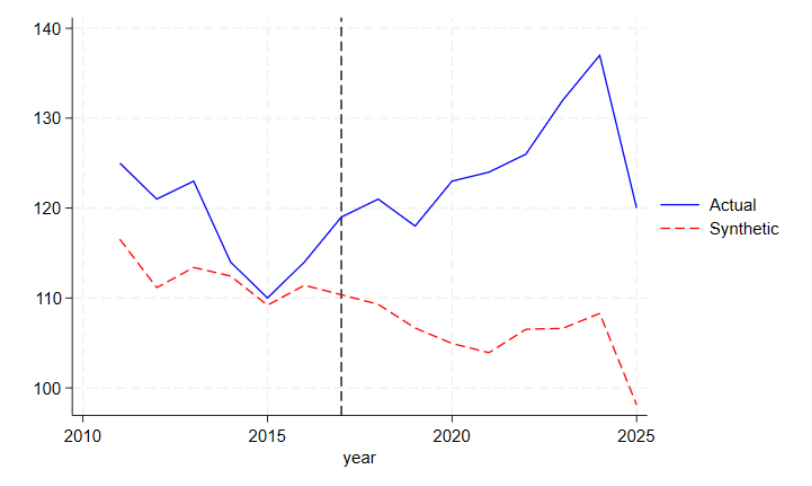
The policy had no significant effect

- Almost all results statistically insignificant
- Effects are economically small

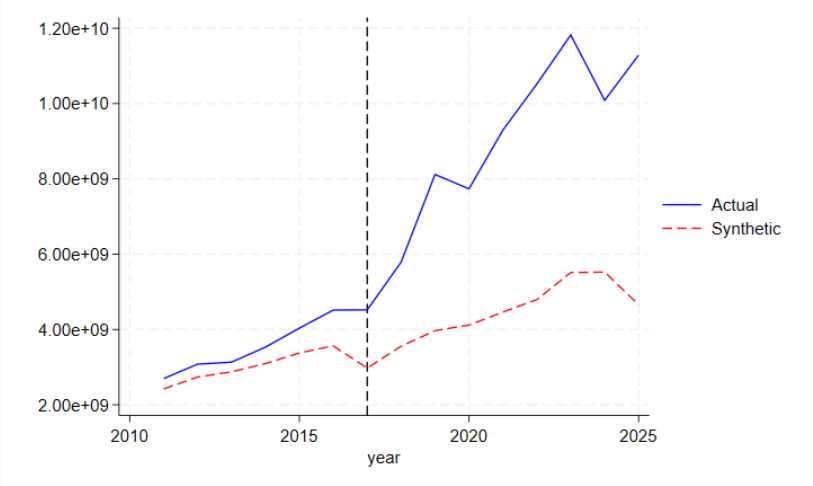
MAJOR CAVEAT: Only 2 states $\Rightarrow$ cannot cluster at state level

Standard errors understated, precision overstated

Robustness: Synthetic Control



Number of ESOP Firms



Total ESOP Assets

- Synthetic control uses all US states as comparison
- Shows larger effects than our main analysis
- Problem: Poor fit before 2017 means results not reliable
- We trust our main DiD estimates more

Appendix: Full Regression Results

Table 1: *

Table 1: Difference-in-Differences Results (Year and State Fixed Effects)

Variable	(1) ESOP Firm	(2) Total Partcps.	(3) Total Assets	(4) Active Partcps.	(5) Partcp. Rate
DiD	0.00607	25.19	2,878,102.7*	22.29	0.00613
	(0.00486)	(17.35)	(1,611,044.2)	(15.37)	(0.00426)
Constant	0.0215***	18.16***	1,258,818.5***	13.99***	0.0175***
	(0.00131)	(6.636)	(445,403.5)	(5.124)	(0.00113)
Observations	209,399	209,399	209,399	209,399	191,912

Standard errors (clustered at firm level) in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Standard errors are clustered at the firm level. Theoretically appropriate state-level clustering is infeasible with only two states.