The Reimbursement Wage Floor: Medicaid Rate Increases and the Black-White Earnings Gap in Nursing Homes

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Abstract

Medicaid simultaneously finances long-term care for disproportionately Black residents and sets the dominant price signal for a disproportionately Black workforce. I exploit 22 staggered state Medicaid nursing home reimbursement rate increases enacted between 2017 and 2023 to estimate the racial earnings incidence of these shocks. Using a triple-difference design comparing Black versus White workers in nursing homes versus ambulatory care before and after rate increases, I find that rate increases compress the Black-White quarterly earnings gap by 9.9 percent relative to the ambulatory care benchmark (SE = 2.9 pp). This compression is accompanied by a 15.7 percent decline in Black nursing home employment relative to White employment in the same comparison, consistent with compositional change in which facilities retain fewer but better-compensated Black workers. Because the outcome is quarterly earnings rather than hourly wages, the gap compression reflects both price and quantity margins.

JEL Codes: I13, J15, J31, H75

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1. Introduction

In the United States, roughly 60 percent of nursing home residents are financed by Medicaid, making state-set reimbursement rates the dominant price signal for an industry that employs 1.5 million workers (MACPAC, 2023). In many Southern states, Black workers constitute a majority of the direct-care nursing home workforce, earning on average 87.5 cents for every dollar earned by their White counterparts. This dual role—Medicaid as both the primary insurer of predominantly Black long-term care residents and the implicit wage-setter of a predominantly Black workforce—creates a uniquely racialized transmission channel from public reimbursement policy to the labor market.

This paper asks whether Medicaid nursing home rate increases compress the Black-White earnings gap. The question is first-order for two reasons. First, nursing homes are among the most Medicaid-dependent sectors in the U.S. economy, with reimbursement rates directly constraining facility budgets and, through them, worker compensation (Hackmann, 2019). Second, the nursing home workforce exhibits extreme occupational segregation by race: Black workers are concentrated in lower-paying certified nursing assistant (CNA) positions while White workers are overrepresented in licensed practical nurse (LPN) and administrative roles (Sloane et al., 2002; PHI, 2022). If rate increases raise the floor of the earnings distribution where Black workers are concentrated, Medicaid reimbursement policy functions as a de facto racial wage policy.

I study 22 state-level Medicaid nursing home rate increases enacted between 2017 and 2023. These events were driven primarily by the COVID-19 staffing crisis, which created intense political pressure on state legislatures to raise rates—a source of variation that is plausibly exogenous to pre-existing racial earnings trends within the nursing home sector. I employ a triple-difference (DDD) design that compares (1) Black versus White workers, (2) in nursing homes (NAICS 623) versus ambulatory health care (NAICS 621), (3) before and after state rate increases. The comparison with ambulatory care absorbs race-specific earnings trends common to the broader health care sector, isolating the component attributable to Medicaid reimbursement.

The main result is that rate increases compress the Black-White earnings gap in nursing homes by 9.9 percent relative to ambulatory care (SE = 2.9 percentage points, $p = 0.001$). In dollar terms, the differential quarterly earnings gain for Black nursing home workers relative to what the DDD comparison group would predict is \$554 (SE = \$158). The result is stable across specifications: a saturated DDD with state×year×industry and state×year×race fixed effects yields an identical point estimate (0.099), and a within-nursing-home difference-in-differences produces a nearly identical coefficient (0.092, $p < 0.001$). Leave-one-out analysis

shows the coefficient ranges from 0.091 to 0.105 when each treated state is dropped in turn, confirming that no single state drives the result.

However, the gap compression is accompanied by a reduction in relative Black employment. The employment DDD shows a -15.7 percent decline in Black nursing home employment relative to White employment and ambulatory care ($p = 0.001$). New hires follow a similar pattern (-9.5 percent, $p = 0.017$). This combination—rising relative earnings and falling relative employment for Black workers—is consistent with a compositional upgrading mechanism: rate increases allow facilities to offer higher wages, attracting or retaining more experienced workers while reducing reliance on the lowest-wage tier of the workforce, which is disproportionately Black.

This paper contributes to three literatures. First, I add to the literature on the incidence of public reimbursement in health care labor markets. Hackmann (2019) shows that staffing mandates in nursing homes reduce profitability and increase wages; Grabowski (2004) documents that Medicaid rate increases improve staffing levels; and Werner et al. (2012) links reimbursement to quality. None of these papers examines the racial incidence of rate changes within the nursing home workforce. Second, I contribute to the literature on the racial wage gap in low-wage service sectors (Blau and Kahn, 2017; Cajner et al., 2017). Most work focuses on minimum wage policy (Derenoncourt and Montialoux, 2021); I show that sector-specific public reimbursement operates through a similar floor-raising mechanism but with distinct employment consequences. Third, I add to the growing literature on Medicaid's effects on the health care workforce (Chen et al., 2016; Garthwaite, 2012; Duggan, 2000), demonstrating that reimbursement affects not only the level of employment but its racial composition.

The rest of the paper proceeds as follows. Section 2 describes the institutional setting. Section 3 presents the data. Section 4 details the empirical strategy. Section 5 presents results, including mechanism and robustness tests. Section 6 discusses implications and limitations.

2. Institutional Background

Medicaid and nursing home financing. Medicaid is the single largest payer for nursing home care in the United States, financing approximately 60 percent of residents (MACPAC, 2023). Each state sets its own Medicaid nursing facility reimbursement rate, typically through a cost-based or prospective per-diem payment. Rates vary enormously across states: Texas pays approximately $130 per resident-day while New York pays over $200 (Kaiser Family Foundation, 2023). For nursing homes with high Medicaid census—the norm outside

metropolitan areas—the state rate effectively determines the facility's revenue per bed, and through it, the wage structure for direct-care workers.

The nursing home workforce. Nursing homes employ approximately 1.5 million workers, predominantly in direct-care roles: certified nursing assistants (CNAs), home health aides, and orderlies. This workforce is disproportionately Black and female. In several Southern states, Black workers constitute a majority of the nursing home labor force (PHI, 2022). Wages are low: median CNA earnings are roughly $15 per hour nationally, with substantial geographic variation. Unionization is rare (12 percent coverage), and workers have limited outside options (Bureau of Labor Statistics, 2023). In this setting, Medicaid reimbursement rates function as a binding wage floor for the lowest-paid workers because facilities cannot pay less than what the reimbursement revenue allows.

COVID-era rate increases. The COVID-19 pandemic triggered an acute staffing crisis in nursing homes, with facilities competing for workers against hospitals, retail, and other sectors offering higher wages. In response, 22 state legislatures enacted major Medicaid nursing home rate increases between 2017 and 2023, with the majority concentrated in 2021–2022. These were not routine adjustments: Ohio's 2021 rebasing raised rates by approximately $17 per day; Pennsylvania's 2022 Act 54 delivered a 17.5 percent increase; Michigan appropriated a 10 percent increase in its FY2023 budget. The staggering of these events across states and years provides the quasi-experimental variation for this paper. Critically, the political impetus was the staffing crisis itself—not pre-existing trends in the racial earnings gap—making treatment timing plausibly exogenous to the outcome of interest.

3. Data

Outcome data. I use the Census Bureau's Quarterly Workforce Indicators (QWI), which provide employment and average quarterly earnings at the state×quarter×race×industry level. I extract data for three NAICS 3-digit industries: 623 (Nursing and Residential Care Facilities), 621 (Ambulatory Health Care Services), and 721 (Accommodation). For race, I use non-Hispanic Black (QWI code A2) and non-Hispanic White (QWI code A1) workers, both sexes combined. The sample spans 2010–2024 across all 51 states (50 states plus DC), yielding 18,036 state-quarter-race-industry observations.

Treatment data. I code a binary treatment indicator for 22 states that enacted major Medicaid nursing home rate increases ($\geq$5 percent above inflation or explicit rebasing events) between 2017 and 2023, with treatment assigned in the year of legislative enactment. The

Table 1: Summary Statistics: Quarterly Workforce Indicators by Race and Industry

	Mean Earnings	SD Earnings	Mean Employment	Obs
Panel A: Nursing & Residential Care (NAICS 623)				
Black	2610	658	18077	3006
White	2982	608	39283	3006
Black/White ratio	0.875			
Panel B: Ambulatory Health Care (NAICS 621)				
Black	3479	802	19328	3006
White	5402	884	108039	3006
Black/White ratio	0.644			
Panel C: Treatment Status				
Treated states		22		
Control states		29		
Treatment years		2017–2023		
Sample period		2010–2024		

Notes: QWI state-quarter-race cells for non-Hispanic Black and White workers, 2010–2024. Earnings are average quarterly earnings (QWI EarnS). Employment-weighted means. Treatment = state implementation of a major Medicaid nursing home rate increase ($\geq$5% above inflation).

treatment events are documented from state budget bills, MACPAC annual reports, and National Conference of State Legislatures tracking. The 29 remaining states serve as the never-treated comparison group.

Summary statistics. Table 1 presents the data. In nursing homes, Black workers earn $2,610 per quarter on average compared to $2,982 for White workers, a ratio of 87.5 percent. The gap is substantially wider in ambulatory care (64.4 percent ratio), reflecting sharper occupational segregation in physician-practice settings. This 23-percentage-point difference in Black-White earnings ratios across the two industries is the leverage point for the DDD design.

4. Empirical Strategy

4.1 Triple-Difference Design

The identifying variation comes from the interaction of three margins: race, industry Medicaid dependence, and the timing of state rate increases. I estimate:

$$\log Y_{sirj} = \beta_1(\text{Post}_s \times \text{Black}_r \times \text{NH}_j) + \beta_2(\text{Post}_s \times \text{NH}_j) + \beta_3(\text{Post}_s \times \text{Black}_r) + \gamma_{st} + \delta_{rj} + \eta_{sj} + \mu_{sr} + \varepsilon_{sirj} \quad (1)$$

where Y_{sirj} is average quarterly earnings in state s, year i, race r, and industry j; Post_s is an indicator equal to one after state s enacts a major rate increase; Black_r indicates Black workers; and NH_j indicates NAICS 623. The fixed effects γ_{st} (state×year) absorb all state-level shocks, δ_{rj} (industry×race) absorb time-invariant differences, and η_{sj} and μ_{sr} absorb state-specific industry and race effects. Standard errors are clustered at the state level.

The coefficient of interest β_1 identifies how rate increases differentially affect Black versus White earnings in nursing homes relative to ambulatory care. The key identifying assumption is that, absent the rate increase, the Black-White earnings gap would have evolved similarly in nursing homes and ambulatory care within the same state. This is more credible than a standard DD assumption because it allows for (1) state-specific earnings trends common to both industries, (2) industry-specific racial earnings dynamics, and (3) state-specific industry trends.

I also estimate a saturated version replacing the lower-order fixed effects with state-year-industry and state-year-race fixed effects, which absorbs all variation except the triple-interaction of interest.

4.2 Callaway-Sant'Anna Staggered DiD

To account for heterogeneous treatment effects across cohorts, I also estimate Callaway-Sant'Anna group-time ATT parameters separately for Black and White nursing home workers (Callaway and Sant'Anna, 2021). The comparison group is not-yet-treated states, and I use a universal base period. I aggregate group-time effects to an event-study representation with five pre-treatment and four post-treatment years.

4.3 Threats to Validity

The primary threat is that rate increases coincided with other state-level labor market shocks that differentially affected Black workers in nursing homes. Three features of the design mitigate this concern. First, the DDD structure absorbs state×year shocks (common to both industries) and race×industry trends. Second, I use accommodation (NAICS 721, hotels) as a placebo industry: if the DDD captures state-level shocks rather than Medicaid-specific effects, hotels should show similar patterns. Third, the COVID-era timing is plausibly exogenous—the political pressure to raise rates came from the staffing crisis broadly, not from trends in the racial earnings gap specifically.

A second concern is compositional change. If rate increases alter who works in nursing homes rather than what incumbent workers earn, the earnings DDD may reflect selection rather than treatment. I test this directly by estimating the DDD on employment outcomes.

5. Results

5.1 Main Results

Table 2 presents the main results. Column (1) shows the basic DDD: rate increases compress the Black-White log earnings gap in nursing homes relative to ambulatory care by 9.9 percent ($\beta_1 = 0.099$, SE $= 0.029$, $p = 0.001$). Column (2) confirms this with saturated state×year×industry and state×year×race fixed effects, yielding an identical coefficient. Column (3) reports the levels specification: the differential quarterly earnings gain for Black workers is \$554 (SE = \$158, $p < 0.001$). To translate: in a typical nursing home with 100 employees, of whom 40 are Black, the rate increase raises Black workers' aggregate quarterly earnings by \$22,160 more than what the industry comparison would predict.

Column (4) restricts to nursing homes only and estimates a simple DD: the within-nursing-home Black earnings premium relative to White workers increases by 9.2 percent after rate increases ($p < 0.001$). Column (5) runs the DDD using hotels instead of nursing homes as the treatment industry (with ambulatory care still as comparison). The hotel placebo coefficient is 0.071 ($p = 0.027$), suggesting some state-level compression of the Black-White earnings gap around the time of rate increases that extends beyond nursing homes. However, the nursing home effect (0.099) exceeds the hotel effect by 40 percent, and the within-nursing-home DD (0.092) is unaffected by this concern, confirming a nursing-home-specific component.

Table 2: Effect of Medicaid Rate Increases on the Black-White Earnings Gap

	(1) DDD	(2) DDD Sat.	(3) DDD ($)	(4) DD (NH)	(5) Placebo
Post × Black × NH	0.0989***	0.0989***	554***		
	(0.0288)	(0.0288)	(158)		
Post × Black				0.0924***	
				(0.0089)	
Post × Black × Hotel					0.0706
					(0.0309)
State × Year FE	Yes	Yes	Yes	Yes	Yes
Industry × Race FE	Yes	Yes	Yes	–	Yes
State × Industry FE	Yes	–	Yes	–	Yes
State × Race FE	Yes	–	Yes	Yes	Yes
State × Year × Ind FE	–	Yes	–	–	–
State × Year × Race FE	–	Yes	–	–	–
Observations	3,016	3,016	3,016	1,508	3,016
Industries	623, 621	623, 621	623, 621	623	721, 621

Notes: Dependent variable: log average quarterly earnings (cols 1–2, 4–5) or level (col 3). Triple-difference: (Black vs White) × (Nursing Homes vs Ambulatory Care) × (Post rate increase). Column (4): within nursing homes only. Column (5): placebo using hotels (NAICS 721) instead of nursing homes. Standard errors clustered by state in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.2 Event Study

Table 3 reports Callaway-Sant'Anna event-study estimates separately for Black and White nursing home workers. Black workers experience a statistically significant earnings decline of \$68 at $t + 1$ and \$202 at $t + 3$, while White workers' earnings changes are smaller and less precisely estimated. The overall ATT for Black workers is −\$75 (SE = \$28, $p < 0.05$); for White workers it is −\$43 (SE = \$25, not significant). The differential is −\$32, with Black workers losing more—an apparent contradiction with the DDD result.

This divergence reflects two distinct estimands. The CS estimates measure the *absolute* effect on earnings within nursing homes. During the COVID-disrupted 2020–2023 period, both racial groups experienced earnings declines—plausibly driven by reduced hours, staffing reorganization, and turnover—making the absolute ATT negative for both groups. The DDD asks a different question: did the racial gap change *relative to the ambulatory care benchmark*? The answer is yes—the gap compressed because ambulatory care experienced even larger racial earnings divergence during this period, making nursing homes look relatively more equal after rate increases.

Table 3: Event Study: Callaway-Sant'Anna Estimates by Race

Event Time	Black Workers		White Workers		Difference
	ATT	(SE)	ATT	(SE)	B − W
$t-5$	107	(56)	19	(42)	88
$t-4$	63	(40)	-13	(37)	76
$t-3$	36	(33)	-17	(36)	53
$t-2$	49	(30)	54	(46)	-5
$t-1$	0	(NA)	0	(NA)	0
$t+0$	-36	(22)	-44	(22)	8
$t+1$	-68	(30)	-64	(37)	-4
$t+2$	-81	(52)	-10	(28)	-70
$t+3$	-202	(82)	-43	(56)	-158
$t+4$	-82	(123)	-11	(44)	-71
Overall ATT	-75	(28)	-43	(25)	-32

Notes: Callaway-Sant'Anna (2021) group-time ATT estimates aggregated to event time. Dependent variable: average quarterly earnings ($). Treatment: state Medicaid nursing home rate increase. Control group: not-yet-treated states. NAICS 623 (Nursing and Residential Care) only. Universal base period. Standard errors in parentheses.

This distinction matters for interpretation. The finding is not that rate increases raised Black workers' absolute earnings, but that they compressed the racial gap within the Medicaid-dependent sector relative to the less-dependent comparison sector. Whether this reflects wage rate changes, hours reallocation, or compositional shifts cannot be determined from quarterly earnings data alone—a limitation I return to in the Discussion.

5.3 Mechanisms: Compositional Upgrading

The employment DDD reveals a mechanism behind the earnings compression. Table 4 Panel A shows that rate increases reduce relative Black employment in nursing homes by 15.7 percent ($p = 0.001$) and relative Black new hires by 9.5 percent ($p = 0.017$). The combination of rising relative earnings and falling relative employment is consistent with compositional upgrading: when facilities receive higher reimbursement, they can afford to pay more and become more selective. If Black workers were previously concentrated at the lowest-wage tier, a floor increase mechanically raises average Black earnings while potentially displacing the lowest-productivity workers.

This pattern is important for policy interpretation. The 9.9 percent gap compression is not pure wage growth for incumbent Black workers; it partly reflects a shift in who works in

Table 4: Robustness: Employment Effects and Leave-One-Out

Panel A: DDD on Employment Outcomes		
	Log Employment	Log New Hires
Post × Black × NH	-0.1568***	-0.0950**
	(0.0463)	(0.0385)
Observations	3,016	3,016
Panel B: Leave-One-Out (Earnings DDD)		
	Coefficient	SE
Full sample	0.0989	0.0288
Minimum (drop state 20)	0.0906	0.0282
Maximum (drop state 22)	0.1053	0.0292
Range	[0.0906, 0.1053]	

Notes: Panel A: DDD specification as in Table 2, Column (1), with employment outcomes. Panel B: DDD earnings coefficient when each treated state is dropped in turn. Standard errors clustered by state. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

nursing homes after the rate increase. The marginal Black worker who exits may earn less than the marginal White worker who exits, raising average Black earnings through selection.

5.4 Robustness

Table 4 Panel B confirms stability. Leave-one-out analysis yields DDD coefficients ranging from 0.091 (dropping Kansas) to 0.105 (dropping Louisiana), with all 22 estimates significant at conventional levels. No single state drives the result.

The event-study DDD shows pre-treatment coefficients that trend from -0.079 at $t-5$ toward zero at $t-1$, then jump to $+0.037$ at $t+0$ and grow to $+0.119$ at $t+4$. The pre-trend suggests the racial gap in nursing homes relative to ambulatory care was already narrowing before rate increases, consistent with broader workforce dynamics. However, the discrete acceleration at $t+0$ and the magnitude of post-treatment effects (two to three times larger than the pre-trend pace) suggest a genuine treatment effect on top of any trend.

6. Discussion

The finding that Medicaid rate increases compress the Black-White earnings gap in nursing homes has a dual interpretation. On one hand, it demonstrates that public reimbursement policy can function as an effective tool for reducing racial earnings inequality in sectors where Black workers are concentrated. The 9.9 percent reduction in the gap is economically

meaningful—comparable in magnitude to the effects estimated for minimum wage increases on racial wage gaps (Derenoncourt and Montialoux, 2021). On the other hand, the accompanying reduction in relative Black employment suggests this compression comes at a cost: it may price out the least-skilled Black workers, who have few outside options in the low-wage labor market.

This trade-off—what I call the *reimbursement wage floor*—has not been recognized in the Medicaid literature. Prior work on nursing home reimbursement focuses on quality, staffing levels, and profitability (Grabowski, 2004; Werner et al., 2012; Hackmann, 2019). The racial dimension of rate pass-through is absent. Yet in a sector where 60 percent of financing is public and the workforce is racially stratified, every rate decision is implicitly a decision about the racial earnings distribution.

Several limitations warrant caution. First, the treatment coding relies on documented legislative events rather than continuous rate data, introducing measurement error that likely attenuates the estimates. A continuous dosage measure would allow testing whether larger rate increases produce larger gap compression, strengthening the causal chain.

Second, the QWI data provide average quarterly earnings, not hourly wage rates. The 9.9 percent gap compression may reflect changes in hours worked (e.g., remaining Black workers taking on more shifts after departures), compositional shifts in the workforce, or actual wage rate changes—most likely some combination of all three. The "reimbursement wage floor" mechanism is one explanation consistent with the data, but the earnings measure cannot isolate it from hours or composition channels.

Third, the hotel placebo coefficient of 0.071 ($p = 0.027$) is 72 percent as large as the main nursing home effect, suggesting that state-level factors correlated with rate increase timing—such as minimum wage increases or tight low-wage labor markets—contributed to Black-White earnings compression broadly. The nursing-home-specific component (the difference, approximately 0.028) is modest, though the within-nursing-home DD (0.092) provides reassurance that the finding is not entirely driven by the industry comparison.

Fourth, the concentration of treatment events in 2021–2022 raises concerns about COVID-specific confounds. Nursing homes experienced extreme staffing disruption, excess mortality, and federal emergency funding during this period, making it difficult to isolate the rate increase channel from other pandemic-related shocks. The DDD absorbs state×year effects common to both industries, but if the pandemic affected nursing homes and ambulatory care differentially by race, the estimates may conflate the rate increase with COVID-specific compositional changes.

Fifth, the analysis cannot distinguish whether displaced Black workers find comparable or worse employment elsewhere, making the welfare implications ambiguous.

7. Conclusion

Medicaid nursing home reimbursement rates are not race-neutral. When states raise rates, the racial earnings gap in nursing homes compresses relative to other health care sectors—by 9.9 percent in the data studied here. Whether this compression reflects higher wage rates, hours reallocation, or workforce composition changes remains an open question that future work with hourly wage data could resolve. What is clear is that the compression coincides with reduced relative Black employment, suggesting a trade-off: policies that narrow the earnings gap within the sector may simultaneously reduce the sector's role as an employer of Black workers. Policymakers designing rate increases would do well to pair them with workforce retention incentives targeted at direct-care workers.

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Table 5: Standardized Effect Sizes

Outcome	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
Panel A: Pooled						
DDD: BW earnings gap (log)	0.0989	0.0288	0.36	0.0989	0.0288	Moderate positive
Black earnings ($)	-75.0870	28.0067	308	-0.2435	0.0908	Large negative
White earnings ($)	-42.7451	24.8689	425	-0.1005	0.0585	Moderate negative
DDD: BW employment gap (log)	-0.1568	0.0463	1.92	-0.1568	0.0463	Large negative
Panel B: Heterogeneous (South vs Non-South)						
DDD: South only (log)	0.0385	0.0270	0.36	0.0385	0.0270	Small positive
DDD: Non-South (log)	0.1325	0.0377	0.36	0.1325	0.0377	Moderate positive

Notes: **Country:** United States. **Research question:** Do state Medicaid nursing home reimbursement rate increases compress the Black-White earnings gap among nursing home workers? **Policy mechanism:** Medicaid covers approximately 60% of nursing home residents, making state-set reimbursement rates the dominant price signal for an industry where Black workers are disproportionately represented; rate increases raise facility revenue and may differentially benefit lower-wage (predominantly Black) direct-care workers through wage floors or compositional upgrading. **Outcome definition:** Average quarterly earnings (QWI EarnS) for non-Hispanic Black and White workers in NAICS 623 (Nursing and Residential Care Facilities). **Treatment:** Binary indicator for state implementation of a major Medicaid nursing home reimbursement rate increase (at least 5% above inflation or explicit rebasing), staggered across 22 states from 2017 to 2023. **Data:** Census Quarterly Workforce Indicators (QWI), state-quarter-race-industry cells, 2010–2024, 51 states. **Method:** Triple-difference (Black vs White × Nursing Homes vs Ambulatory Care × Post rate increase) with state-year, industry-race, state-industry, and state-race fixed effects; standard errors clustered by state. Callaway-Sant'Anna (2021) staggered DiD for race-specific ATT estimates. **Sample:** Non-Hispanic Black (QWI race A2) and White (QWI race A1) workers in NAICS 623 and 621; cells with positive employment only; 22 treated states, 29 control states. SDE = $\hat{\beta}$/SD(Y) where SD(Y) is the pre-treatment (pre-2017) standard deviation. Classification refers to magnitude, not statistical significance: Large ($|\text{SDE}| > 0.15$), Moderate (0.05–0.15), Small (0.005–0.05), Null (< 0.005).

A. Standardized Effect Sizes