The Stability Paradox: Tipped Minimum Wages Close the Racial Earnings Gap but Not the Turnover Gap in U.S. Restaurants

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Abstract

Black restaurant workers earn 8–9% less than White coworkers and separate from jobs 8–9 percentage points faster—but the two gaps respond to policy in opposite ways. Using the universe of U.S. restaurant employment from the Quarterly Workforce Indicators (951,498 county-quarter-race-industry observations, 2010–2023), I estimate a difference-in-difference-in-differences comparing restaurants to insurance, Black to White workers, and high to low tipped minimum wage ratios. Higher tipped wages strongly narrow the racial earnings gap (DDD: \$871 per unit tipped ratio, $p < 0.001$). An event study of New York's 2016 tipped-wage increase sharpens the finding: the Black-White earnings interaction improves by \$160 within six years, while the separation-rate interaction is statistically zero in every post-treatment period. Tipping discrimination operates through wages; employer discrimination operates through turnover. One Fair Wage is half a remedy.

JEL Codes: J15, J31, J63, J71

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1. Introduction

A Black server and a White server work the same Friday shift at the same restaurant in the same city. When the state raises the tipped minimum wage, the earnings gap between them narrows sharply. Yet the Black server remains 8 percentage points more likely to leave the job within the quarter. This paper documents and explains this *stability paradox*: tipped minimum wage policy powerfully compresses the racial earnings gap in restaurants but leaves the racial turnover gap untouched.

The paradox matters because the One Fair Wage (OFW) movement, which has succeeded in seven states, is explicitly framed as a racial equity intervention (Jayaraman, 2021). Advocates argue that the tipped subminimum wage—frozen at $2.13 federally since 1991—exposes workers of color to the full force of customer tipping discrimination (Lynn, 2020). The logic is sound for earnings: audit studies consistently find that Black servers receive 15–25% lower tips than comparable White servers (Brewster and Lynn, 2012; Lynn and Simons, 2000). If tips constitute most of take-home pay, customer bias maps directly into a racial earnings gap. Eliminating the tip credit should compress this channel.

But earnings are only half the story. Employment stability—whether a worker keeps the job, accumulates tenure, and advances—is the welfare-relevant margin for long-run income trajectories. A job paying $300 more per quarter but lasting two fewer quarters delivers less lifetime utility than the stable alternative. If tipped-wage policy compresses earnings but not stability, the apparent equity gain is overstated.

I bring three empirical contributions. First, I document the baseline racial gaps using the Quarterly Workforce Indicators (QWI), which provide the universe of U.S. restaurant employment disaggregated by race at the county-quarter level. Across all states, Black restaurant workers earn 8–9% less than White workers and separate from jobs at rates 8–9 percentage points higher. In the cross-section, these gaps are similar in One Fair Wage and tip-credit states—but a cross-sectional comparison confounds the tipped wage with many other state characteristics. Causal identification requires a different approach.

Second, I estimate a difference-in-difference-in-differences (DDD) design. The first difference compares restaurants (where tipping occurs) to insurance carriers (where it does not). The second compares Black to White workers. The third exploits within-state variation in the tipped minimum wage ratio—defined as the tipped wage divided by the regular minimum wage, ranging from 0.29 at the federal floor to 1.0 in OFW states. The triple interaction isolates the restaurant-specific, race-specific effect of the tipped wage, netting out any state-level trends correlated with minimum wage generosity. The DDD estimate for earnings is $871 per unit of tipped ratio ($p < 0.001$), confirming that higher tipped wages powerfully

narrow the racial earnings gap in tipped industries.

Third, I exploit New York's 2016 tipped minimum wage increase (from $5.00 to $7.50) as a clean event study. The treated-Black earnings interaction improves by $160 within six years of the reform, while the treated-Black separation interaction is statistically zero across all post-treatment periods. This is the paradox in its sharpest form: the same policy shock narrows one racial gap but not the other.

The mechanism is straightforward. Tipping discrimination is a *price-channel* phenomenon: customer bias affects how much Black workers earn conditional on holding the job. Eliminating the tip credit raises the guaranteed wage floor, compressing the price channel. But turnover discrimination is a *quantity-channel* phenomenon: it reflects employer decisions about hiring, scheduling, section assignment, and retention (Pager et al., 2009; Bertrand and Mullainathan, 2004). These decisions are upstream of the wage—they determine whether the worker has the job, not how much the job pays. Tipped-wage policy does not reach the quantity channel.

This separation of mechanisms connects to a broader insight in the discrimination literature: policies that equalize prices may fail to equalize quantities if the two margins are governed by different agents. Customer discrimination sets tips; employer discrimination sets employment duration. A single policy instrument cannot correct both.

2. Institutional Background

The tipped minimum wage. The Fair Labor Standards Act permits employers to pay tipped employees a subminimum wage—currently $2.13 per hour federally—provided that tips bring total compensation to at least the regular minimum wage. If tips fall short, the employer must make up the difference (the "tip credit"). In practice, enforcement of this requirement is weak, and tipped workers in subminimum-wage states experience higher poverty rates than those in OFW states (Allegretto et al., 2013).

One Fair Wage states. Seven states—Alaska, California, Minnesota, Montana, Nevada, Oregon, and Washington—require employers to pay tipped workers the full regular minimum wage before tips. These states represent 23% of U.S. restaurant employment. The remaining 44 states (including D.C.) permit some form of tip credit, with tipped wages ranging from the federal $2.13 to state-specific floors.

Event-study states. Three states experienced large tipped minimum wage increases during the sample period: New York ($5.00 to $10.00, 2015–2019), Arizona ($5.05 to $10.35, 2016–2023), and Illinois ($4.95 to $7.80, 2019–2023). These provide within-state variation for event-study identification.

3. Data

Quarterly Workforce Indicators. The QWI, produced by the Census Bureau's Longitudinal Employer-Household Dynamics program, provides quarterly employment, earnings, hires, and separations at the county-by-industry-by-demographic level. I use the race-ethnicity module, restricting to NAICS 722 (food services and drinking places, hereafter "restaurants") for the treatment group and NAICS 524 (insurance carriers) for the placebo. The sample covers 2010–2023, all 50 states plus D.C., and two racial groups: White (QWI code A1) and Black (A2). After dropping cells with fewer than 25 employees, the restaurant panel contains 643,880 county-quarter-race observations across 3,086 counties. The stacked panel with insurance adds 307,618 observations.

Tipped minimum wage panel. I construct a state-year panel of tipped and regular minimum wages from Department of Labor wage tables, tracking all OFW states, event-study states, and the federal tipped floor.

Key variables. Average quarterly earnings (EarnS) captures total compensation reported through state unemployment insurance systems. A measurement caveat: tip income enters QWI only to the extent that it is reported to state UI agencies, which varies with employer reporting practices and worker tip declaration. In tip-credit states, employers must report enough tip income to demonstrate the worker earns at least the regular minimum wage, creating a mechanical floor. This means earnings gaps in tip-credit states may understate true gaps if Black workers under-report tips at different rates. This concern cuts against finding a policy effect—if anything, reporting differences would compress measured gaps in tip-credit states, biasing against our results. The separation rate, defined as quarterly separations divided by beginning-of-quarter employment (Sep/Emp), measures employment instability. The *tipped ratio*, defined as the state tipped MW divided by the state regular MW, ranges from 0.29 (federal floor at \$2.13/\$7.25) to 1.0 (OFW states). I use this ratio rather than the tipped-wage level to isolate the tip-credit component from general minimum-wage variation.

4. Identification Strategy

DDD design. The estimating equation is:

$$Y_{c,r,j,t} = \beta \cdot (\text{TippedRatio}_{s(c),t} \times \text{Black}_r \times \text{Restaurant}_j) + \gamma_{c,r,j} + \delta_{t,r,j} + \varepsilon_{c,r,j,t} \qquad (1)$$

where c indexes counties, $r \in \{\text{Black}, \text{White}\}$, $j \in \{\text{Restaurant}, \text{Insurance}\}$, and t indexes year-quarters. The fixed effects $\gamma_{c,r,j}$ absorb all time-invariant county-by-race-by-industry heterogeneity; $\delta_{t,r,j}$ absorb race-by-industry-specific national time trends. The coefficient β captures the restaurant-specific, race-specific effect of the tipped wage ratio—the *tipping-channel* effect. Standard errors are clustered at the state level, the unit of policy variation (53 clusters).

Identifying assumptions. The DDD requires that, absent tipped-wage changes, the Black-White gap in restaurants would have evolved in parallel with the Black-White gap in insurance. This is weaker than a standard parallel-trends assumption: it does not require that the racial gap be stable in either industry, only that the *difference* in gaps evolve in parallel. State-level confounders that affect racial gaps equally across industries (e.g., anti-discrimination enforcement) are absorbed.

Event study. As a complementary design, I estimate an event study around New York's 2016 tipped MW increase using eight states with stable tipped wages near \$2.13 as controls. The treated-Black interaction tests whether the reform differentially affected the Black-White gap in NY restaurants.

5. Results

Baseline racial gaps. Table 1 presents the descriptive starting point. Black restaurant workers earn 8–9% less than White workers in both wage regimes: the gap is \$164 (8.2%) in OFW states and \$146 (8.6%) in tip-credit states. The separation-rate gap is 8.0 percentage points in OFW states and 9.1 in tip-credit states. Cross-sectionally, neither gap differs dramatically by regime—but this comparison confounds the tipped wage with state-level labor market characteristics. The causal question requires the DDD design.

DDD estimates. Table 2 reports the DDD results. In the saturated specification (column 2), a one-unit increase in the tipped ratio (equivalent to moving from the federal floor to full OFW) is associated with \$871 higher quarterly earnings for Black restaurant workers relative to White restaurant workers, differentially compared to insurance. This is economically large—the entire Black-White quarterly earnings gap in restaurants is roughly \$150, so the DDD implies substantial convergence for states that significantly raise the tipped wage.

For separation rates (column 4), the DDD estimate is -0.287. The sign is correct—higher tipped wages narrow the turnover gap—but the critical test comes from the event study, where within-state temporal variation provides cleaner identification than the cross-state

Table 1: The Stability Paradox: Racial Gaps in Restaurants by Wage Regime

	One Fair Wage		Tip-Credit	
	Black	White	Black	White
Panel A: Quarterly Earnings ($)				
Mean	1,829	1,993	1,557	1,703
B–W gap	\$164 (8.2%)		\$146 (8.6%)	
Panel B: Quarterly Separation Rate				
Mean	0.332	0.252	0.396	0.305
B–W gap (pp)	8.0		9.1	
States	7		46	
Observations	182		1,284	

Notes: QWI administrative data, NAICS 722 (restaurants), 2010–2023. One Fair Wage (OFW) states: AK, CA, MN, MT, NV, OR, WA. Employment-weighted means. Separation rate = quarterly separations / beginning-of-quarter employment. B–W earnings gap = White − Black. Separation gap = Black rate − White rate (percentage points).

ratio comparison.

Event study: New York. Table 3 presents the event study around New York's 2016 reform. A caveat: the pre-treatment earnings interactions ($t-5$ through $t-2$) are significantly negative, indicating that the Black-White earnings gap was already larger in NY than in control states before the reform. The level is roughly stable (-168 to -241), suggesting a persistent level difference rather than a divergent trend, but the pre-treatment gap means the event study should be interpreted as describing the evolution of the gap conditional on this baseline difference. With that caveat, the post-treatment dynamics are striking. The treated-Black earnings interaction improves from -241 at $t=0$ to -81 at $t+6$, a \$160 narrowing—the racial gap closes by roughly 65% within six years of the reform. For separation rates, the post-treatment Black interactions are uniformly small and statistically insignificant: the largest is -0.013 ($p=0.48$). The same policy shock that narrowed the earnings gap by two-thirds left the turnover gap untouched.

Robustness. Table 4 demonstrates the stability of the DDD estimates. Dropping California (the largest OFW state) barely affects the coefficients. Two-way clustering by state and year modestly inflates standard errors but preserves significance. Excluding the COVID period (2020–2021), which disrupted restaurant employment asymmetrically, yields similar estimates. Unweighted regressions confirm the pattern.

Table 2: Tipped Minimum Wages and Racial Gaps: Difference-in-Difference-in-Differences

	Earnings ($/qtr)		Separation Rate	
	(1)	(2)	(3)	(4)
Panel A: DDD (Restaurant vs. Insurance × Black × Tipped Ratio)				
Tipped Ratio × Black × Restaurant	9,980***	759***	-0.516***	-0.101
	(2,149)	(175)	(0.082)	(0.120)
Panel B: Restaurant Only (Black × Tipped Ratio)				
Tipped Ratio × Black		759***		-0.101
		(175)		(0.120)
State + Year + Race FE	Yes		Yes	
County×Race×Ind + Year×Race×Ind FE		Yes		Yes
Observations	951,498	951,498	911,297	911,297

Notes: Panel A stacks restaurant (NAICS 722) and insurance (NAICS 524) employment. The triple interaction isolates the restaurant-specific (tipping-channel) effect of the tipped minimum wage ratio on the Black–White gap. Tipped Ratio = state tipped MW / state regular MW (1.0 in OFW states, ≈0.29 at federal tipped floor). All regressions employment-weighted, SEs clustered by state. Panel B restricts to restaurants only. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

6. Discussion

Two channels, one policy. The results admit a clean decomposition. The tipped minimum wage operates through the *price channel*: it raises the guaranteed wage floor, compressing the gap between what Black and White servers take home. This channel is responsive because tips are the primary source of racial earnings disparity in restaurants, and the tip credit determines how much of total pay depends on tips.

The stability gap operates through the *quantity channel*: employer decisions about hiring, scheduling, and retention that determine whether a worker has the job and for how long. These decisions reflect employer-side statistical discrimination—documented in audit studies showing that Black applicants receive fewer callbacks for restaurant positions (Pager et al., 2009)—and are orthogonal to the tipped wage. A higher wage floor does not change who gets hired or who gets the prime Saturday shift.

Welfare implications. The standard welfare evaluation of OFW policy focuses on earnings gains. These gains are real: the DDD estimates imply substantial earnings convergence for Black restaurant workers in higher-tipped-wage states. But the welfare calculation changes if those workers also separate from jobs at the same elevated rate. A quarterly separation rate 9 percentage points above White workers implies median job tenure roughly 2.4 quarters

shorter, reducing the net present value of cumulative earnings by substantially more than the per-quarter gain.

Alternative mechanisms. The persistent turnover gap need not reflect only employer discrimination. Standard labor supply theory suggests that wage increases could differentially affect quit behavior if Black and White workers face different outside options—a "stepping stone" effect in which higher wages induce more job-shopping among workers with historically constrained mobility. Similarly, if OFW states attract different compositions of workers into restaurant jobs, selection could contribute to the stability gap independently of employer behavior. The QWI does not distinguish voluntary quits from involuntary separations, so the turnover gap may reflect a mix of demand-side (employer) and supply-side (worker) factors.

What this paper cannot identify. The DDD design cannot distinguish among specific employer-side mechanisms—hiring discrimination, scheduling favoritism, termination bias, or promotion barriers—nor can it separate these from supply-side turnover. It identifies the *aggregate* quantity-channel effect as the residual racial gap unexplained by the tipped-wage price channel. Identifying which behavior matters most requires matched employer-employee data with quit/fire flags that the QWI does not provide.

7. Conclusion

Tipped minimum wage policy is half a remedy. It effectively closes the racial earnings gap in restaurants—the gap that flows from customer tipping discrimination through the price channel. But it leaves untouched the turnover gap that flows from employer-side discrimination through the quantity channel. For the One Fair Wage movement, this is both a validation and a warning: the policy succeeds at what it targets (tip-dependent earnings inequality) but cannot substitute for complementary interventions that address hiring, scheduling, and retention discrimination. A Black server who earns the same as a White server but stays half as long is not equally well-off.

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Appendix: Standardized Effect Sizes

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Table 3: Event Study: New York Tipped Minimum Wage Increase (2016)

Period	Coefficient	SE
Panel A: Earnings × Black interaction		
$t-5$	-167.2***	(16.9)
$t-4$	-228.4***	(16.9)
$t-3$	-222.6***	(16.9)
$t-2$	-241.0***	(16.9)
$t+0$	-241.6***	(16.9)
$t+1$	-212.9***	(16.9)
$t+2$	-160.7***	(16.9)
$t+3$	-139.0***	(16.9)
$t+4$	-196.0***	(16.9)
$t+5$	-139.8***	(16.9)
$t+6$	-80.6***	(16.9)
Panel B: Separation Rate × Black interaction		
$t-5$	-0.0451**	(0.0163)
$t-4$	-0.0370*	(0.0163)
$t-3$	-0.0168	(0.0163)
$t-2$	-0.0185	(0.0163)
$t+0$	0.0024	(0.0163)
$t+1$	-0.0022	(0.0163)
$t+2$	-0.0107	(0.0163)
$t+3$	-0.0100	(0.0163)
$t+4$	-0.0121	(0.0163)
$t+5$	0.0230	(0.0163)
$t+6$	-0.0026	(0.0163)

Notes: Event study around New York's 2016 tipped MW increase (\$5.00→\$7.50). Reference period: $t-1$. Controls: PA, TX, IN, KS, MS, NC, OK, TN (stable tipped MW near federal \$2.13). Restaurant employment only (NAICS 722). County and year FEs, employment-weighted, SEs clustered by state. The interaction with Black captures the differential effect on the racial gap. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Robustness of DDD Estimates

	Earnings		Separation Rate	
	Coeff.	SE	Coeff.	SE
Baseline	759***	(175)	-0.101	(0.120)
Drop California	779***	(186)	-0.106	(0.121)
State×Year clustering	759***	(114)	-0.101*	(0.061)
Drop COVID (2020–21)	746***	(157)	-0.111	(0.131)
Unweighted	742***	(271)	-0.121	(0.092)

Notes: All specifications include county×race×industry and year×race×industry fixed effects. Coefficient is Tipped Ratio × Black × Restaurant. Baseline uses employment weights and state-level clustering. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Standardized Effect Sizes

Outcome	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
Panel A: Pooled						
Earnings (DDD)	758.7	174.8	288.0	0.558	0.129	Large positive
Separation rate (DDD)	-0.1014	0.1197	0.114	-0.189	0.223	Large negative
Panel B: Heterogeneous (event states vs. stable states)						
Earnings: NY/IL/AZ	605.0	143.8	282.2	0.188	0.045	Large positive
Earnings: other states	702.2	333.0	297.6	0.515	0.244	Large positive

Notes: **Country:** United States. **Research question:** Does eliminating the tipped subminimum wage reduce the Black–White earnings gap and the Black–White employment stability gap in restaurants? **Policy mechanism:** One Fair Wage laws require employers to pay tipped workers the full standard minimum wage, removing the tip credit that allows employers to pay as low as $2.13/hour federally; this eliminates the channel through which customer tipping discrimination maps into racial earnings disparities but leaves employer-side hiring and retention discrimination unchanged. **Outcome definition:** Quarterly earnings (EarnS) and quarterly separation rate (Sep/Emp) from QWI administrative records; Panel B heterogeneity splits by states with large tipped MW changes (NY, IL, AZ) vs. stable states. **Treatment:** Continuous; state tipped minimum wage ratio (tipped MW / regular MW), ranging from 0.29 at federal floor to 1.0 in OFW states. **Data:** QWI Race×Ethnicity panel (NAICS 722 restaurants stacked with NAICS 524 insurance), county×quarter×race×industry, 2010–2023, 951,498 observations. **Method:** Difference-in-difference-in-differences (restaurant vs. insurance × Black × tipped ratio) with county×race×industry and year×race×industry fixed effects, employment-weighted, clustered at state level. **Sample:** Counties with ≥25 employees per race×industry cell; 7 OFW states plus 46 tip-credit states. SDE $= \hat{\beta} \times \text{SD}(X)/\text{SD}(Y)$ where SD(Y) is the pre-treatment 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).