

Minimum Wage Policy Effect on Rental Costs: A Comparison of North Carolina and Virginia

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I. Introduction

Few policies spark as much debate in politics as the minimum wage. While it has been a staple in the American economy since it was first instituted in 1938 via the Fair Labor Standards Act (U.S. Department of Labor, n.d.), its effect on the economy remains one of the most highly debated topics among economists. Most research on minimum wage looks at its effect on unemployment. Far less attention has been attributed to what minimum wage increases do to housing costs. In 2025, the National Low Income Housing Coalition reported that a full-time worker earning the federal minimum wage of \$7.25 per hour would need to work approximately 116 hours per week, nearly three full-time jobs, to afford a modest two-bedroom apartment at Fair Market Rent (NLIHC, 2025). With a national "Housing Wage" of \$33.63 per hour required to afford a two-bedroom home, the gap between what minimum wage workers earn and what they need to pay for housing has never been wider.

This gap creates a fundamental question about the effectiveness of minimum wage policy as a tool for improving living standards. If landlords raise rents in response to wage increases, then the benefit to low-wage workers is smaller than what the wage increase alone would suggest. Both Virginia and North Carolina face severe affordable housing shortages, with only 35 and 38 affordable units available per 100 low-income renter households, respectively (NLIHC, 2025). This means any policy-driven income gain for low-wage workers risks being quickly absorbed by rising rents. This is the question at the center of this paper: When Virginia raised its minimum wage starting in 2021, did rents grow faster than in neighboring North Carolina, which kept the federal minimum of \$7.25 throughout? The answer has direct implications for how effective minimum wage policy can be for improving living standards. This paper contributes to the growing literature on minimum wages and housing costs, alongside Borg, Passaro, and Hermo (2022) and Agarwal, Ambrose, and Diop (2022), by applying the two-way fixed effects difference-in-differences design of Dube, Lester, and Reich (2010) to county-level rents rather

than employment. The NC–VA natural experiment, with its shared regional economy and 11 years of common federal wage policy before treatment, allows us to isolate the causal effect of Virginia's 2021–2024 minimum wage increases on rental costs.

This paper finds no statistically significant evidence that Virginia's minimum wage increases raised rents relative to North Carolina. Using a two-way fixed effects difference-in-differences design across all 233 counties from 2010 to 2024, the estimated effect of Virginia's post-2021 minimum wage increases on rental costs is negative in sign but statistically insignificant across all three models: a continuous wage model, a binary DiD estimator, and a year-by-year event study. The null result holds even after excluding the high-growth Raleigh and Charlotte metro areas from the control group and after accounting for the survey induced lag in HUD rent data. A welfare calculation based on the study results implies that rent changes absorbed around five percent of the corresponding annual wage gain in any given year. This implies that Virginia minimum wage workers retained most of their earnings gains rather than losing them to landlords.

II. Literature Review

The Minimum Wage Debate: Methods and Employment Effects

In order study minimum wage's effect on housing, it is important to visit the origin of minimum wage studies which examined the effects on unemployment. The origin of such studies is well known. Card and Krueger (1994) compared fast food employment in New Jersey, which had just raised its minimum wage, to Pennsylvania, which had not. They used a difference-in-differences approach asking how outcomes changed in the treated state relative to a comparable untreated state. They found no evidence of job losses following the wage increase. This result contradicted the standard supply-and-demand prediction and sparked a decades-long empirical debate. It also established the DiD template that nearly all subsequent minimum wage research, including this paper, has followed.

As the literature expanded, Neumark and Wascher (2006) reviewed a large body of minimum wage research and argued that many studies compared states with already-diverging economic trajectories. Their review concluded that the weight of evidence supported the traditional prediction: higher minimum wages reduce employment among low-skill workers, particularly teenagers. Dube, Lester, and Reich (2010) addressed the control group problem

directly by restricting comparisons to counties on opposite sides of a state border. Neighboring counties often share the similar local economies and labor markets. Using this design with county-level panel data and county and year fixed effects, they found minimal employment effects, which substantially undermined Neumark and Wascher's conclusion.

The use of fixed effects in Dube, Lester, and Reich (2010) marks an important methodological step beyond the simple DiD of Card and Krueger (1994). A two-way fixed effects (TWFE) specification adds a fixed parameter for each county and each year to the regression. The county fixed effect absorbs everything about a county that does not change considerably over time, like how expensive it is, its geography, its housing stock, its industrial composition, so that the coefficient is identified only from within the individual counties over time, not from cross-county comparisons that might conflate geography with policy. The year fixed effect absorbs shocks that hit all counties simultaneously, such as national recessions or the COVID-19 pandemic's effect on rents. Together, these two sets of fixed effects make the identifying variation much cleaner than a simple before-and-after comparison: the TWFE estimate asks, within each county and net of national trends, did rents respond when the minimum wage changed? This paper applies the same TWFE framework to housing costs, using all 233 Virginia and North Carolina counties.

Minimum Wage and Rents: Emerging Empirical Evidence

Some recent work has begun to tackle whether minimum wage effects rents, this small but growing empirical literature mainly hypothesized whether minimum wage increases also increase rents. The evidence is mixed...

Borg, Passaro, and Hermo (2022) provide careful US evidence using commuting-zone exposure measures to distinguish where workers are employed from where they live. They find that a 10 percent increase in the workplace minimum wage raises rents at workers' residential ZIP codes by approximately 0.69 percent. Agarwal, Ambrose, and Diop (2022) find a similar dynamic using household-level rental payment data: minimum wage increases reduce eviction risk by roughly 10 percent in the short run, consistent with workers having more income for rent. This effect diminishes over time, as landlords make rents more expensive in response. This supports the idea that there is a possible lag the rent increases.

International evidence has also contributed to the conversation. Yamagishi (2021) studied minimum wage increases in Japan using a spatial equilibrium framework and found rent increases concentrated in the lower area of the housing market. While Japan's housing market differs from the United States, this finding is relevant because it supports a straightforward yet important assumption: minimum wage changes will affect the bottom of the rental distribution rather than the median.

Not all evidence points toward positive rent effects. Bowdle (2025), using apartment-level data from the United States, finds that minimum wage increases are associated with only small and short-lived rent responses that largely disappear within a few quarters. Tidemann (2025) reaches the opposite conclusion: a one-dollar increase in the minimum wage is associated with a reduction of 0.7 to 2 percentage points below median monthly rents, suggesting that wage increases may actually improve affordability in some markets. All of this taken together, the literature suggests that rent responses are heavily context-dependent, the magnitude, direction, and persistence of the effect vary across geographies, housing market segments, and time horizons.

This Paper's Contribution

This paper attempts to combine the methodological approach of the modern minimum wage employment literature to the housing cost question raised by the emerging rent literature. It builds directly on the TWFE DiD design of Dube, Lester, and Reich (2010), extending it from employment outcomes to county-level rents. The NC/VA comparison provides two neighboring states with the same regional economy, the same federal wage baseline through 2020, and divergent minimum wage paths after 2021. The fifteen-year panel allows us to directly test that the states experienced parallel trends before the policy divergence. Virginia's three-step increases in minimum wage support gives a study that allows us to trace the rent response year by year as well as analyzing a before and after estimate.

III. Data

A. Sample and Panel Structure

The dataset covers all 233 counties, 100 in North Carolina and 133 in Virginia, from 2010 through 2024. Each county has one observation per year, giving 3,495 total data points. The dataset is built by combining four separate data sources: HUD rent estimates, FRED

minimum wage records, Census income data, and Census population estimates. All dollar values are kept in nominal terms.

B. Data Sources

Rental Housing Costs — U.S. Department of Housing and Urban Development (HUD)

The main outcome being measured is the two-bedroom Fair Market Rent (FMR), which HUD publishes each year for every county. HUD calculates this as the estimated cost of a two-bedroom apartment at roughly the 40th percentile of local rental prices. This would be about what a typical lower-to-middle-range apartment costs. The two-bedroom is HUD's standard benchmark for a small household. Every county in the sample has complete data for all 15 years.

One important limitation to flag upfront: HUD FMRs are not pulled directly from rental listings or lease contracts. They are administrative estimates built partly from survey data that can run one to two years behind actual market conditions. This means that if minimum wage increases do cause rents to move, the FMR might not pick that up right away.

State Minimum Wage — Federal Reserve Bank of St. Louis (FRED)

Minimum wage data come from the Federal Reserve's FRED database, which records the effective minimum wage in each state by year. North Carolina stayed at \$7.25 the entire time from 2010 to 2024. Virginia also held at \$7.25 through 2020, then increased to \$9.50 in 2021, \$11.00 in 2022, and \$12.00 in both 2023 and 2024 a total raise of \$4.75 per hour, which is about 66 percent above the federal floor.

Median Household Income — Census Bureau SAIPE

County-level median household income comes from the Census Bureau's SAIPE program (Small Area Income and Poverty Estimates). Median income is included in the regression as a control variable, it accounts for the fact that richer counties tend to have higher rents, and income levels were changing over this period for many possible reasons unrelated to minimum wage policy.

County Population — Census Bureau Population Estimates Program (PEP)

Annual county population estimates come from the Census Bureau's Population Estimates Program (PEP). Population is included as a control because larger counties have more housing demand by default, and population growth can drive rent increases that have nothing to do with minimum wage policy.

Table 1. Descriptive Statistics

	N	Mean	SD	Min	Max
2-Bed. Fair Market Rent (\$)	3495	877	284	541	2045
Minimum Wage (\$/hr)	3495	7.84	1.45	7.25	12
VA x Post-2021	3495	0.152	0.359	0	1
Median HH Income (\$)	3495	55146	19793	29550	177457
Population	3495	80230	144093	2190	1232444

Note: 233 counties (100 NC, 133 VA), 2010-2024. N = 3,495 county-year observations. 2-Bed. FMR is the HUD-estimated 40th-percentile two-bedroom rent in nominal dollars. VA x Post-2021 is the DiD treatment indicator equal to 1 for Virginia counties after 2020.

Table 1 shows that Two-bedroom Fair Market Rents in the sample average \$877 per month, ranging from \$541 in the lowest-cost county to \$2,045 in the highest. The minimum wage variable averages \$7.84/hour, reflecting that the federal floor of \$7.25 holds for all 2,295 North Carolina county-years and for Virginia through 2020, with Virginia rising to \$12.00 by 2023. Median household income averages \$55,146 across the panel; the \$177,457 maximum belongs to Loudoun County, Virginia (2024), a high-income suburb of Washington, D.C., and the wealthiest county in the United States. County populations span from roughly 2,200 in the smallest rural counties to over 1.2 million in Fairfax County, Virginia.

IV. Hypothesis

My hypothesis is that Virginia's minimum wage increases should have pushed rents up relative to North Carolina. Higher wages should give workers more money to spend on housing, which increases demand. Landlords, seeing that tenants can pay more, respond by raising rents. Holding income levels, population, and other local factors constant, Virginia counties should show faster rent growth than North Carolina counties starting in 2021.

V. Empirical Strategy

The strategy in this paper treats Virginia's minimum wage increases as a natural experiment. North Carolina is the comparison group. It sits right next to Virginia, has a similar economy, and kept its minimum wage at \$7.25 the entire period. The core assumption is that if Virginia had never raised its minimum wage, rent growth in Virginia and North Carolina would have followed the same path. Any gap that opens after 2021 can therefore be attributed to Virginia's wage policy. The years before 2021 are used to check whether that assumption holds.

A. Econometric Model

Model 1 asks whether higher minimum wages are generally associated with higher rents, using the minimum wage as a straight dollar amount:

$$Rent_{it} = \beta_0 + \beta_1(\text{MinWage}_{it}) + \beta_2(\text{MedIncome}_{it}) + \beta_3(\text{Population}_{it}) + \alpha_i + \lambda_t + \varepsilon_{it}$$

Model 2 asks did Virginia's post-2021 minimum wage increases raise rents on average? Instead of using the dollar amount of the wage, I use a binary indicator. This directly compares how much Virginia and North Carolina rents changed relative to the pre-2021 baseline:

$$Rent_{it} = \beta_0 + \beta_1(VA \times Post_{2021it}) + \beta_2(\text{MedIncome}_{it}) + \beta_3(\text{Population}_{it}) + \alpha_i + \lambda_t + \varepsilon_{it}$$

Model 3 breaks the comparison into individual years rather than averaging across the entire post-2021 period. Instead of one overall estimate, it produces a separate estimate for 2021, 2022, 2023, and 2024. It uses 2020 as the reference year. This also allows a check on the years before 2021: if pre-2021 estimates are close to zero, it means the two states were indeed on parallel rent paths before the policy changed:

$$Rent_{it} = \beta_0 + \sum_t (\delta_t \cdot \text{Virginia}_i) + \beta_2(\text{MedIncome}_{it}) + \beta_3(\text{Population}_{it}) + \alpha_i + \lambda_t + \varepsilon_{it} \quad (t \neq 2020)$$

In these equations, i refers to a specific county and t refers to a specific year. $Rent_{it}$ is the two-bedroom FMR for county i in year t . MinWage_{it} is the state minimum wage. MedIncome_{it} is median household income and Population_{it} is total county population. α_i represents county fixed effects, a separate control for every individual county in the data, so the model is comparing each county to itself over time, not to other counties. λ_t represents year fixed effects, a separate control for every year, which absorbs anything that affected all counties equally.

The coefficient of interest is β_1 , the estimated effect of the minimum wage (or the Virginia post-2021 indicator) on rent. Based on the hypothesis, we expect β_1 to be positive: higher minimum wage should mean higher rents. If the result comes back zero or negative, it could mean the local housing market has enough supply to handle the extra demand, that landlords in this region do not raise rents in response to wage increases, or that the HUD rent measure, which tracks the 40th percentile of the market, does not respond the same way as market-rate rents. The controls β_2 (income) and β_3 (population) should both be positive, since richer and more populous counties tend to have higher rents.

Parameter	Predicted Sign
β_1 (Minimum Wage)	Positive (+)
β_2 (Median HH Income)	Positive (+)
β_3 (Population)	Positive (+)

VI. Results

Table 2 shows results from all three models. Standard errors are clustered at the county level. The outcome variable is the two-bedroom HUD Fair Market Rent in nominal dollars. The full sample covers 3,495 county-year observations.

Column 1, The continuous wage model:

The first model finds that each \$1 increase in the minimum wage is associated with a \$2.89 decrease in monthly rent (SE = 3.91, $p = 0.460$). This is not statistically significant, and the direction is the opposite of the hypothesis. Rents appear to go down as the wage increases. Unfortunately, the uncertainty is too large to draw a directional conclusion.

Column 2, Binary DiD:

The binary DiD model gives the most direct test of the main question. On average, after 2021, Virginia counties had rents that were \$12.20 per month lower than North Carolina counties relative to the pre-2021 baseline (SE = 15.45, $p = 0.431$). This is not statistically significant. The confidence interval spans roughly $-\$42$ to $+\$18$, which means the data are consistent with Virginia rents being higher or lower or unchanged relative to North Carolina. No directional conclusion can be drawn.

Column 3, The event study:

This breaks this down year by year. No post-treatment coefficient is statistically significant: 2021 shows $-\$3.91$ (SE = 26.34), 2022 shows $-\$29.82$ (SE = 27.11), 2023 shows $-\$12.91$ (SE = 28.40), and 2024 shows $+\$1.09$ (SE = 33.54). Importantly, no pre-treatment year coefficient is significant either, which is consistent with parallel pre-trends between Virginia and North Carolina before the 2021 policy change. R-squared values above 0.94 across all models confirm that county and year fixed effects explain nearly all variation in rent levels.

Table 2. Effect of Virginia Minimum Wage Increases on 2-Bedroom Fair Market Rents

	(1) Cont. MW	(2) Binary DiD	(3) Event Study
Minimum wage (\$)	-2.894 (3.906)		
VA x Post-2021		-12.200 (15.454)	
VA x 2021			-3.911 (26.340)
VA x 2022			-29.824 (27.109)
VA x 2023			-12.905 (28.404)
VA x 2024			1.088 (33.540)
Median HH income (per \$1,000)	7.433*** (1.301)	7.439*** (1.300)	7.401*** (1.168)
Population (per 100,000)	13.455* (5.222)	13.406* (5.214)	13.612** (4.823)
Num. Obs.	3,495	3,495	3,495
R²	0.945	0.945	0.946
FE: County	X	X	X
FE: Year	X	X	X
SE Cluster	County	County	County

*Statistical significance indicated by Asterix: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses, clustered at the county level. All models estimated by OLS. Outcome variable is HUD 2-bedroom Fair Market Rent in nominal dollars. Event study reference year is 2020. Pre-treatment event study coefficients (2010-2019) omitted; none are statistically significant.*

VII. Robustness Check

Table 3 presents two sets of robustness checks. Columns (1) and (2) address a potential issue: Wake County (Raleigh) and Mecklenburg County (Charlotte) experienced pretty big post-2021 rent increases driven by Sun Belt migration unrelated to minimum wage policy. Dropping these counties moves the binary DiD estimate from -\$12.20 to -\$9.94 (SE = 15.68) and the continuous MW estimate from -\$2.89 to -\$2.29 (SE = 3.97). Both shrink slightly toward zero but remain insignificant, suggesting the migration confound is a partial but not complete explanation for the negative point estimates.

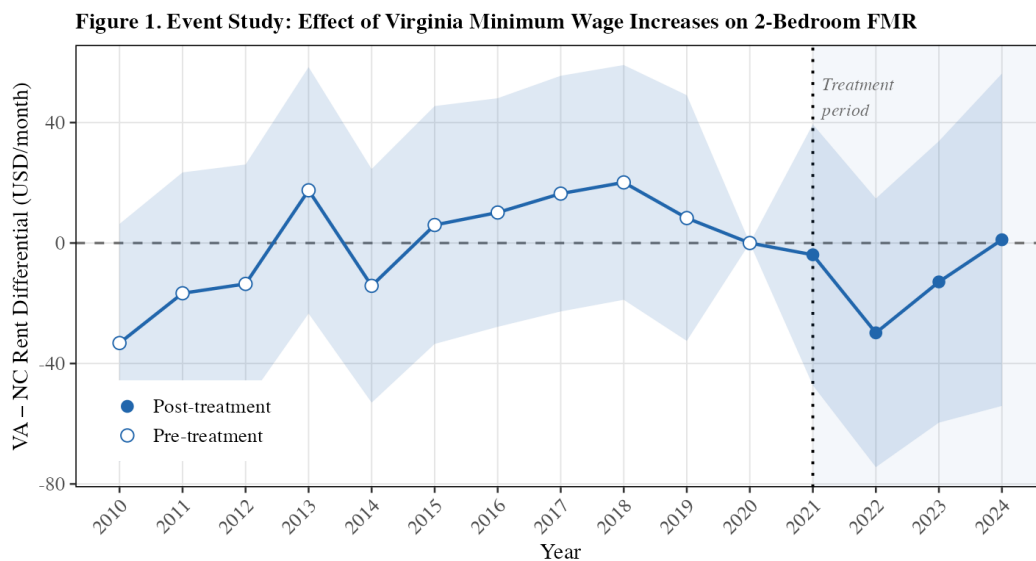
Columns (5) and (6) address the HUD FMR administrative lag. Because FMRs are estimated from survey data that can be one to two years old, a wage change in 2021 may not appear in the

FMR until 2023. Lagging the minimum wage variable by two years tests whether the rent effect is simply delayed. The 2-year lag estimates remain negative and insignificant: -\$4.22 (SE = 5.51) for continuous MW and -\$11.61 (SE = 16.20) for the binary DiD. The lag does not change the conclusion.

Table 3. Robustness Checks: NC Metro Exclusion and 2-Year Lag

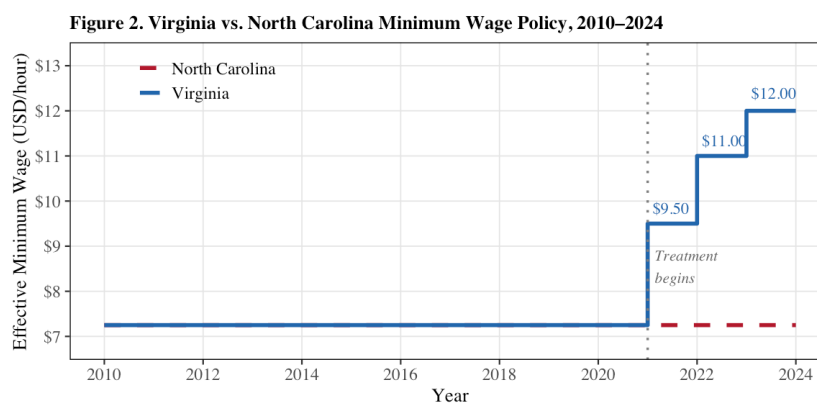
	(1) Binary DiD	(2) Binary DiD, Excl. Metros	(3) Cont. MW	(4) Cont. MW, Excl. Metros	(5) Continuous MW, 2yr Lag	(6) Binary DiD, 2yr Lag
VA x Post- 2021	-12.200 (15.454)	-9.941 (15.681)				
Minimum wage (\$)			-2.894 (3.906)	-2.289 (3.969)		
Min. wage, 2yr lag (\$)					-4.223 (5.513)	
VA x Post- 2021, 2yr lag						-11.609 (16.202)
Median HH income (per \$1,000)	7.439*** (1.300)	7.392*** (1.332)	7.433*** (1.301)	7.385*** (1.332)	7.489*** (1.408)	7.477*** (1.411)
Population (per 100,000)	13.406* (5.214)	8.228 (29.004)	13.455* (5.222)	8.356 (29.050)	13.866** (5.143)	14.009** (5.146)
Num. Obs.	3,495	3,450	3,495	3,450	3,063	3,063
R²	0.945	0.946	0.945	0.946	0.945	0.945
FE: County	X	X	X	X	X	X
FE: Year	X	X	X	X	X	X
SE Cluster	County	County	County	County	County	County

Statistical significance indicated by Asterix: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses, clustered at the county level. Columns (2) and (4) exclude Wake County (Raleigh) and Mecklenburg County (Charlotte) from the NC control group. Columns (5)-(6) lag the minimum wage and VA post indicator by two years to account for the HUD FMR administrative lag.

Figure 1. *Event Study: Effect of Virginia Minimum Wage Increases on 2-Bedroom Fair Market Rents*

Note: Each point shows the estimated VA vs. NC rent gap relative to 2020, with 90% confidence intervals. SEs clustered at county level. Reference year 2020 = 0. Source: HUD Fair Market Rents.

Figure 1 plots the event study results. Each dot represents one year, showing how much Virginia's rent differed from North Carolina's compared to 2020. Dots before 2021 should be close to zero if the two states were on parallel rent paths before the policy, which is the key assumption for this approach to work. Pre-2021 dots are close to zero and none are statistically significant with county-clustered standard errors, consistent with parallel pre-trends before the treatment. After 2021, the estimates go negative confirming that Virginia rents grew more slowly than NC rents, which is the opposite of what the hypothesis predicted.

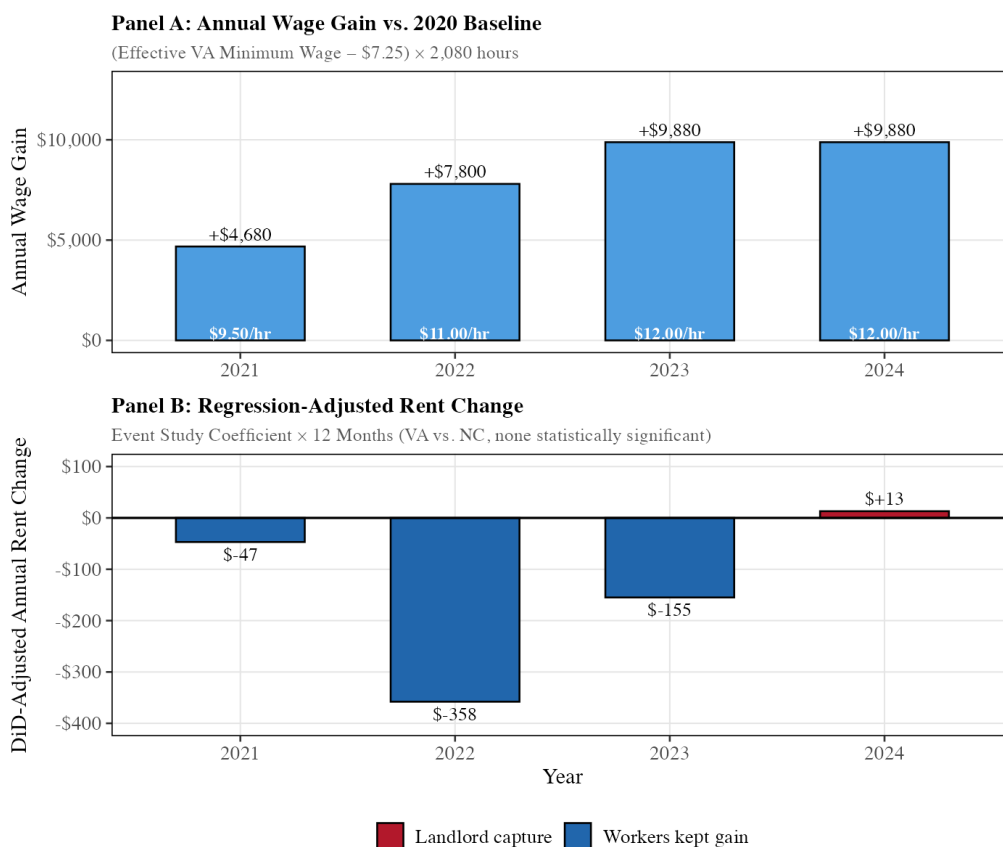
Figure 2. *Virginia vs. North Carolina Minimum Wage Policy (2010–2024)*

Source: FRED State Minimum Wage Series (STTMINWGVA, STTMINWGN).

Figure 2 shows the minimum wage history for both states. Both states were at \$7.25 from 2010 through 2020. Starting in 2021, Virginia raised its wage in three steps: \$9.50, \$11.00, then \$12.00. North Carolina stayed flat for the entire 15-year period. This chart makes clear how sharp the policy difference was and why 2021 is the treatment start year in the regressions.

Figure 3. Annual Wage Gain vs. DiD-Adjusted Rent Change (2021–2024)

Figure 3. Welfare Analysis: Annual Wage Gain vs. Rent Change, 2021–2024



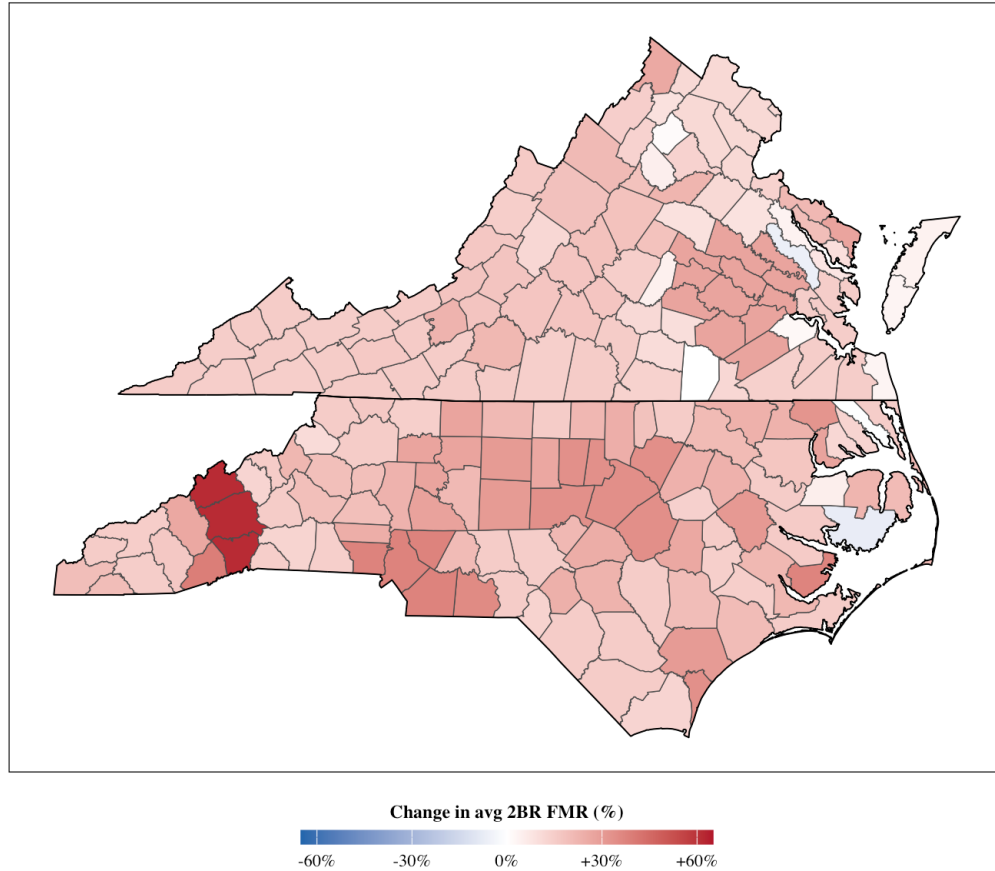
Note: Panel A assumes full-time employment (2,080 hrs/yr). Panel B = event study DiD coefficient × 12 months. SEs clustered at county level; no post-treatment rent estimate is statistically significant. Source: FRED MW Series; HUD FMR.

Figure 3 asks the welfare question directly: how much of the extra wages did workers keep, once rent changes are factored in? A full-time Virginia worker at the 2021 minimum wage of \$9.50 gained approximately \$4,680 per year relative to the 2020 baseline. Even the largest post-treatment rent point estimate (-\$29.82/month in 2022, or approximately -\$358/year) is less than 5 percent of the corresponding annual wage gain of \$7,800. The evidence is consistent with workers retaining most of their earnings gains, or at least the *landlords* did not take them.

Figure 4. *Change in 2-Bedroom Fair Market Rent: Pre- vs. Post-Treatment*

Figure 4. Change in 2-Bedroom Fair Market Rent: Pre- vs. Post-Treatment

Average 2015–2020 vs. average 2021–2024 — Virginia and North Carolina



Note: Blue = rent declined relative to pre-treatment average; Red = rent increased.
Treatment = Virginia minimum wage increases beginning 2021. Source: HUD Fair Market Rents.

Figure 4 maps the percentage change in average two-bedroom Fair Market Rent from the pre-treatment period (2015–2020) to the post-treatment period (2021–2024). Counties shaded in red experienced rent increases relative to the pre-treatment average, while blue indicates a decline. Rent increases are widespread across both states, consistent with the post-covid surge in housing costs.

VIII. Limitations

Several limitations affect how confidently the results can be interpreted. The most consequential limitation is the rent measure itself. HUD Fair Market Rents are administrative estimates, not direct market observations, which creates three problems. First, FMRs carry a lag

of approximately one to two years due to reliance on survey data that lags actual market conditions. Even the 2-year lag specification in the robustness checks may be insufficient to fully capture this delay. Second, HUD frequently sets FMRs at the metropolitan area level, meaning adjacent counties within the same metro share identical rent values and do not provide independent information. Third, the FMR targets the 40th percentile of the rental distribution. Minimum wage workers typically rent below this threshold; demand pressure from wage increases may be concentrated below the FMR cutoff and therefore undetectable in this study.

The identification strategy rests on the parallel trends assumption. The event study pre-treatment coefficients are all statistically insignificant with county-clustered standard errors, which is reassuring. However, the large standard errors also mean that moderate pre-trend violations cannot be ruled out.

A related limitation is the composition of the comparison group. Even after excluding Wake (Raleigh) and Mecklenburg (Charlotte) counties in the robustness check, other high-growth NC counties remain in the sample, meaning the downward bias on the DiD estimate is only partially corrected.

Finally, standard errors are clustered at the county level (216 clusters), which accounts for serial correlation within counties over time. However, because the treatment variable varies at the state level rather than the county level, county clustering does not fully account for cross-county correlation within the same state. Inference should be interpreted conservatively; the true standard errors are likely somewhat larger than reported.

The annual county population estimates from the Census Bureau were not yet available for 2024. The 2023 estimates were used in their place for all 2024 observations, introducing a small degree of measurement error in the final year of the panel.

IX. Conclusion

This paper asks whether Virginia's aggressive minimum wage increases between 2021 and 2024 caused rents to rise faster than in neighboring North Carolina, which held the federal floor of \$7.25 throughout. Using a two-way fixed effects difference-in-differences design across 233 counties and 15 years, the answer is: we cannot reject the null. Across all specifications, continuous minimum wage, binary DiD, event study, 2-year lag, and NC sample excluding the

Raleigh and Charlotte metros, the estimated effect of the minimum wage on two-bedroom Fair Market Rents is negative in sign but statistically insignificant.

A null result is informative, and the absence of a large detectable effect is valuable. If the minimum wage does not cause rents to rise, then low-wage workers in Virginia appear to have retained the majority of their wage gains rather than losing them to landlords. A full-time worker at Virginia's 2023 minimum wage of \$12.00 earned roughly \$9,880 more per year than at the 2020 federal baseline. Even the largest estimate suggests rent changed by less than 5 percent of the wage gain in any given year. This result could also suggest that the cost of living in both states is high enough that individuals wouldn't respond to minimum wage changes of this scale at all. The floor for paying rent is far above what someone could manage even earning Virginia's 2024 minimum wage of \$12 an hour.

Two explanations for the negative point estimates are worth noting, even if neither is definitive. First, Raleigh and Charlotte saw substantial in-migration and rent increases after 2021 unrelated to minimum wage policy. This inflated the NC control group, making Virginia look relatively cheaper by comparison. The robustness check excluding Wake and Mecklenburg counties shrinks but does not eliminate the negative estimate. Second, the HUD FMR measure only tracks the 40th percentile of rents and carries an administrative lag. This prevents a detection of a concentrated effect in the lower end of the rental distribution, where we would most likely see the effects of minimum wage changes.

Future research could address these limitations with higher-frequency market-rate rent data or a broader control group including Maryland counties to better isolate the Virginia treatment. For now, the evidence from this natural experiment suggests that minimum wage increases in Virginia did not meaningfully raise housing costs. If this study holds up to further scrutiny, the welfare case for minimum wage policy would be strengthened.

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