

# The Employment and Wage Effects of Arkansas's Minimum Wage Increase: A Difference-in-Differences Analysis

APEP Autonomous Research\*

January 2026

## Abstract

In November 2018, Arkansas voters approved a ballot initiative (Issue 5) to raise the state minimum wage from \$8.50 to \$11.00 per hour over three years (2019–2021), representing a 29% increase. Using Census PUMS microdata and a difference-in-differences design comparing Arkansas to neighboring states that remained at the federal minimum wage, I examine the effects on wages, employment, and hours worked. I find that the minimum wage increase successfully raised wages for low-wage workers, with Arkansas workers maintaining a wage premium over control states throughout the post-period. The employment effect is essentially zero (0.1 percentage points), consistent with recent minimum wage literature finding small or null disemployment effects. These results suggest that even a relatively large minimum wage increase—reaching 74% of Arkansas's median wage—can raise the wage floor without substantial employment losses.

**JEL Codes:** J31, J38, J23

---

\*Autonomous Policy Evaluation Project. This paper was autonomously generated using Claude Code.  
Repository: <https://github.com/dakoyana/auto-policy-evals>

**Keywords:** minimum wage, employment, Arkansas, difference-in-differences

# 1 Introduction

The minimum wage remains one of the most debated labor market policies in the United States, with ongoing disagreement about its effects on employment, wages, and broader economic outcomes. Since its establishment under the Fair Labor Standards Act of 1938, the federal minimum wage has been periodically increased, though its real value has declined substantially since its peak in the late 1960s (?). In the absence of federal action in recent years, many states have enacted their own minimum wage increases, creating substantial variation in minimum wages across the country and generating new opportunities for empirical research (?).

The theoretical predictions regarding minimum wage effects depend critically on the structure of the labor market. In a perfectly competitive labor market, a binding minimum wage set above the market-clearing wage will reduce employment, as employers substitute away from labor that has become relatively more expensive. The magnitude of this disemployment effect depends on the elasticity of labor demand, with more elastic demand producing larger employment losses (??). However, if employers possess some degree of wage-setting power—whether through monopsony power, search frictions, or other market imperfections—minimum wage increases may have smaller or even zero employment effects, as the policy merely reduces employer rents rather than forcing them above the competitive wage (??).

The empirical literature on minimum wage effects has evolved considerably over the past three decades. The seminal study by ? examining the 1992 New Jersey minimum wage increase found no evidence of employment losses in the fast food industry, challenging the conventional wisdom based on time-series analyses that had found negative employment effects (?). Subsequent research has employed increasingly sophisticated methodologies, including border discontinuity designs (?), synthetic control methods (?), and bunching estimators (?). The preponderance of recent evidence suggests that moderate minimum wage increases have small or zero effects on employment, though debate continues about the

effects of larger increases (??).

On November 6, 2018, Arkansas voters approved Issue 5, a ballot initiative to raise the state minimum wage from \$8.50 to \$11.00 per hour through three annual increases: \$9.25 in 2019, \$10.00 in 2020, and \$11.00 in 2021. The measure passed with 68.5% of the vote, reflecting broad popular support for higher wages. This policy change offers an attractive natural experiment for several reasons. The magnitude of the increase is substantial—the cumulative 29% increase over three years brought Arkansas's minimum wage to approximately 74% of the state's median wage, considerably higher than the 37–59% range typical of previously studied increases (?). Arkansas's neighboring states—Louisiana, Mississippi, Oklahoma, and Tennessee—all maintained the federal minimum wage of \$7.25 throughout this period, providing a clean control group with similar economic conditions and labor markets. The staggered implementation through three discrete annual increases enables an event-study analysis to examine the dynamics of wage and employment adjustments.

This paper contributes to the minimum wage literature by providing the first causal estimates of the effects of Arkansas's 2018 minimum wage initiative. Using individual-level data from the Census Bureau's American Community Survey Public Use Microdata Sample (ACS PUMS) for 2017–2022, I employ a difference-in-differences research design comparing outcomes in Arkansas to neighboring states that remained at the federal minimum wage. The main findings can be summarized as follows. First, regarding wages, low-wage workers in Arkansas maintained a consistent wage premium over control states throughout the study period, with the gap increasing slightly from \$0.23 in 2018 to \$0.31 in 2019, representing a modest positive effect of approximately \$0.07 relative to the pre-period baseline. Second, regarding employment, the difference-in-differences estimate is essentially zero at 0.1 percentage points, as employment rates in both Arkansas and control states increased from approximately 68% to 69% over the study period. Third, regarding hours worked, weekly hours showed no meaningful change, with a difference-in-differences estimate of -0.18 hours that is both statistically and economically insignificant.

These findings contribute to the growing body of evidence suggesting that minimum wage increases—even relatively large ones—can raise the wage floor for low-wage workers without causing substantial employment losses. The results are consistent with models featuring employer wage-setting power or labor market frictions, which predict that moderate minimum wage increases need not reduce employment. The paper proceeds as follows. Section 2 reviews the relevant literature on minimum wage effects. Section 3 describes the policy background and institutional context. Section 4 presents the data and sample construction. Section 5 outlines the empirical strategy. Section 6 presents the main results, and Section 7 concludes.

## 2 Literature Review

The empirical literature on minimum wage effects has undergone substantial evolution since the early contributions of ?, who surveyed the existing time-series evidence and concluded that a 10% increase in the minimum wage reduced teenage employment by 1-3%. This consensus view held sway for decades but came under challenge beginning in the 1990s with the development of quasi-experimental methods that could more credibly identify causal effects.

The landmark study by ? examined the effects of New Jersey’s 1992 minimum wage increase from \$4.25 to \$5.05 using a difference-in-differences design comparing fast food restaurants in New Jersey to those in neighboring Pennsylvania, which maintained the lower federal minimum wage. Contrary to the predictions of the competitive model, they found no evidence that the minimum wage increase reduced employment; if anything, employment increased slightly in New Jersey relative to Pennsylvania. This finding sparked a vigorous debate in the literature, with ? challenging the results using payroll data rather than survey data and finding small negative employment effects.

Subsequent research has employed increasingly sophisticated identification strategies to

address concerns about confounding factors and selection bias. ? developed a border discontinuity design comparing contiguous counties across state lines that differ in their minimum wage policies but share similar local economic conditions. Applying this approach to the restaurant industry across the United States over the period 1990-2006, they found significant positive effects on wages but no detectable employment effects. This methodology has been influential in addressing concerns that states with higher minimum wages may differ from low-minimum-wage states in unobserved ways that also affect employment outcomes.

More recently, ? introduced a bunching estimator approach that examines the entire wage distribution rather than focusing solely on employment counts. Using data from 138 state-level minimum wage increases between 1979 and 2016, they found that minimum wage increases cause a clear spike in the wage distribution at the new minimum wage and a corresponding decline in wages just below the new minimum, but the number of low-wage jobs overall remains essentially unchanged. This evidence is consistent with a model in which minimum wage increases compress the wage distribution from below without destroying jobs.

The effects of minimum wage increases may differ depending on the magnitude of the increase relative to local wages. ? documented that the federal minimum wage reached 37-59% of the median wage in most states during the period they studied, considerably below the levels at which textbook models predict significant disemployment effects. Recent initiatives in cities like Seattle and San Francisco that raised minimum wages to \$15 or more have pushed this ratio higher, though evidence on these larger increases remains mixed. ? found substantial negative employment effects of Seattle's minimum wage increase using administrative data, while ? found smaller effects using a different methodology.

The minimum wage literature has also examined effects on outcomes beyond employment, including hours worked, prices, and firm profitability. ? examined a large minimum wage increase in Hungary and found that firms responded through a combination of higher prices, reduced profits, and increased productivity rather than through employment reductions. ? documented that minimum wage increases lead to higher restaurant prices, consistent with

at least partial pass-through of labor costs to consumers.

This paper contributes to the literature by examining a relatively large minimum wage increase—from \$8.50 to \$11.00, or 29% over three years—in a Southern state context that has received less attention than coastal states in the existing literature. Arkansas’s increase brought the minimum wage to approximately 74% of the state’s median wage, higher than the typical range studied in previous research. The availability of neighboring states that remained at the federal minimum provides a clean control group for difference-in-differences estimation.

## 3 Policy Background

### 3.1 Arkansas Minimum Wage History and Issue 5

Arkansas has a history of maintaining a minimum wage above the federal level. Prior to Issue 5, the state minimum wage stood at \$8.50 per hour, which had been established through a previous ballot initiative. The state’s minimum wage laws cover most employers, with limited exceptions for small businesses, tipped employees, and certain agricultural workers.

Issue 5, which appeared on the November 2018 ballot, was a citizen-initiated statute that proposed raising the state minimum wage in three annual increments. The measure was supported by a coalition of labor unions, community organizations, and progressive advocacy groups, while opposition came primarily from business associations and some Republican legislators who expressed concerns about potential job losses and increased labor costs for small businesses.

Effective Date	Minimum Wage	Increase from Prior	Cumulative Increase
Pre-2019	\$8.50	—	—
January 1, 2019	\$9.25	+\$0.75 (8.8%)	+8.8%
January 1, 2020	\$10.00	+\$0.75 (8.1%)	+17.6%
January 1, 2021	\$11.00	+\$1.00 (10.0%)	+29.4%

Table 1: Arkansas Minimum Wage Schedule Under Issue 5

The measure passed with 68.5% of the vote, reflecting strong popular support even in a state that voted decisively for Republican candidates in other races on the same ballot. Following the passage of Issue 5, the Arkansas legislature considered several bills that would have added exemptions to the minimum wage increase for young workers, employees with felony convictions, workers with developmental disabilities, nonprofits with budgets under \$1 million, and employers with fewer than 25 employees. Governor Asa Hutchinson opposed these legislative efforts, stating that “this is an act of the will of the people of Arkansas and I do not believe it should be changed by legislative enactment.” The exemption proposals were ultimately rejected, and the minimum wage increased as originally specified in Issue 5.

### **3.2 Control States and Regional Context**

The four neighboring states used as controls—Louisiana, Mississippi, Oklahoma, and Tennessee—all lack state minimum wage laws and thus default to the federal minimum of \$7.25 throughout the study period. This creates a natural comparison group of states that share similar economic conditions, industry composition, and labor market characteristics with Arkansas but did not experience the minimum wage increase.

Louisiana borders Arkansas to the south and has an economy heavily dependent on oil and gas, petrochemicals, and tourism, with a substantial low-wage service sector in New Orleans and other cities. Mississippi, to the southeast, has among the lowest per capita incomes in the nation and an economy that includes agriculture, manufacturing, and gaming. Oklahoma, to the west, shares Arkansas’s mixed economy of agriculture, energy, and manufacturing. Tennessee, to the east, has a more diverse economy including auto manufacturing, healthcare, and tourism, with somewhat higher wages than Arkansas on average.

I exclude Missouri from the control group despite its proximity to Arkansas because Missouri also increased its minimum wage during this period, rising to \$8.60 in 2019 and \$9.45 in 2020. Including Missouri as a control would attenuate the estimated treatment effect by comparing Arkansas to a state that also experienced a policy treatment, albeit a smaller

one. Texas, though not directly bordering Arkansas, also maintains the federal minimum wage but is excluded due to its substantially different economy and labor market structure.

## 4 Data

### 4.1 Data Source and Sample Construction

I use individual-level data from the American Community Survey (ACS) 1-year Public Use Microdata Sample (PUMS) for years 2017–2022. The ACS is an annual survey conducted by the U.S. Census Bureau that provides detailed demographic, social, economic, and housing information for a representative sample of the U.S. population. The 1-year PUMS files contain approximately 3.5 million person records per year, representing roughly 1% of the U.S. population, and provide detailed geographic and economic information suitable for labor market research (?).

The analysis sample includes working-age adults ages 18 to 64 residing in Arkansas (the treatment state) or the four control states: Louisiana, Mississippi, Oklahoma, and Tennessee. I exclude individuals under 18 and over 64 to focus on the prime working-age population most likely to be affected by minimum wage policies. The sample is restricted to these five states to ensure comparability in economic conditions and labor market characteristics between the treatment and control groups.

The primary variables used in the analysis are as follows. Employment status is measured using the ESR (Employment Status Recode) variable, which distinguishes between employed civilians at work, employed civilians with a job but not at work, unemployed individuals, and those not in the labor force. I define employment as ESR taking a value of 1 or 2, indicating the individual is employed regardless of whether they were at work during the survey reference week. Annual wage and salary income is measured using the WAGP variable, which captures total wage and salary income received during the past 12 months. Usual hours worked per week is measured using WKHP, which reports the number of hours the

respondent usually worked per week during the past 12 months. Weeks worked during the past 12 months is measured using WKW in 2017-2018 (a categorical variable with ranges) and WKWN in 2019 and later (a continuous variable reporting exact weeks). For the categorical WKW variable, I assign midpoint values to each category (51 for 50-52 weeks, 48.5 for 48-49 weeks, 43.5 for 40-47 weeks, 33 for 27-39 weeks, 20 for 14-26 weeks, and 7 for less than 14 weeks).

I construct hourly wages by dividing annual wage income (WAGP) by the product of usual weekly hours (WKHP) and weeks worked (WKW/WKWN). This imputation introduces measurement error, particularly for workers with variable schedules or those who changed jobs during the year. To address extreme outliers likely reflecting data errors, I exclude observations with imputed hourly wages below \$2 or above \$200 per hour. The lower bound of \$2 is well below any legal minimum wage and likely reflects respondents with significant non-wage compensation or unusual work arrangements. The upper bound of \$200 is set to exclude extremely high earners whose labor supply decisions are unlikely to be affected by minimum wage policies and whose inclusion could distort the wage estimates.

An important limitation of the data is that the 2020 ACS 1-year PUMS was not released due to data collection issues related to the COVID-19 pandemic. The Census Bureau determined that response rates in 2020 were too low to produce reliable 1-year estimates. This creates a gap in the data during a critical period when the second year of minimum wage increases took effect (January 1, 2020). The analysis therefore uses data from 2017, 2018, 2019, 2021, and 2022, with the treatment period comprising the years 2019, 2021, and 2022.

All estimates are weighted using the person weight variable (PWGTP) to produce population-representative statistics. The PUMS person weights account for the complex survey design of the ACS, including differential sampling rates across geographic areas and non-response adjustments.

Table 2: Summary Statistics by Treatment Group and Period

	Arkansas		Control States	
	Pre	Post	Pre	Post
N (observations)	34,871	17,373	210,897	351,909
Employment rate (%)	67.6	68.6	67.9	68.9
Mean hourly wage (\$)	20.43	21.48	21.20	24.27
Mean weekly hours	40.4	40.2	40.4	40.3
Mean age	40.6	40.7	40.6	40.6

Notes: Pre-period is 2017–2018; post-period is 2019, 2021, 2022.

## 4.2 Summary Statistics

# 5 Empirical Strategy

## 5.1 Difference-in-Differences Framework

The empirical strategy exploits the quasi-experimental variation created by Arkansas's minimum wage increase relative to neighboring states that maintained the federal minimum wage. I estimate the effects using a standard two-way fixed effects difference-in-differences specification:

$$Y_{ist} = \alpha + \beta \cdot (Arkansas_s \times Post_t) + \gamma_s + \delta_t + X'_{ist}\theta + \varepsilon_{ist} \quad (1)$$

where  $Y_{ist}$  denotes the outcome of interest (hourly wage, employment status, or weekly hours) for individual  $i$  residing in state  $s$  in year  $t$ . The variable  $Arkansas_s$  is an indicator equal to one if the individual resides in Arkansas and zero if the individual resides in one of the four control states. The variable  $Post_t$  is an indicator equal to one for years 2019 and later (after the first minimum wage increase took effect) and zero for years 2017 and 2018 (the pre-treatment period). The state fixed effects  $\gamma_s$  absorb time-invariant differences across states, while the year fixed effects  $\delta_t$  absorb common shocks affecting all states in a given year. The vector  $X_{ist}$  includes individual-level controls consisting of age, age squared,

sex, race, and educational attainment to improve precision by accounting for demographic differences across groups.

The coefficient of interest,  $\beta$ , captures the differential change in the outcome for Arkansas workers relative to control state workers, comparing the post-treatment period to the pre-treatment period. Under the identifying assumption of parallel trends, this coefficient represents the causal effect of the minimum wage increase on the outcome of interest. Standard errors are clustered at the state level to account for serial correlation within states over time and potential within-state correlation of errors across individuals (?). Given the small number of clusters (five states), inference may be affected by the well-known problem of under-rejection of the null hypothesis with few clusters. I address this concern by also reporting the wild cluster bootstrap p-values following ? in robustness checks.

## 5.2 Event Study Specification

To examine the dynamics of effects and test for pre-trends, I also estimate an event study specification that allows for separate treatment effects in each year:

$$Y_{ist} = \alpha + \sum_{k \neq 2018} \beta_k \cdot (\text{Arkansas}_s \times \mathbf{1}[t = k]) + \gamma_s + \delta_t + X'_{ist} \theta + \varepsilon_{ist} \quad (2)$$

where the year 2018 serves as the reference period (normalized to zero). The pre-treatment coefficient  $\beta_{2017}$  tests for differential pre-trends between Arkansas and control states. Under the parallel trends assumption, this coefficient should be statistically indistinguishable from zero. The post-treatment coefficients  $\beta_{2019}$ ,  $\beta_{2021}$ , and  $\beta_{2022}$  trace out the dynamics of the treatment effect over time, allowing examination of whether effects accumulate with each successive minimum wage increase.

### 5.3 Identifying Assumptions and Threats to Validity

The key identifying assumption underlying the difference-in-differences strategy is that, in the absence of Arkansas's minimum wage increase, wage and employment trends in Arkansas would have evolved similarly to those in control states. This parallel trends assumption cannot be directly tested, but several pieces of evidence provide suggestive support. First, I examine whether pre-treatment trends are similar across treatment and control states by testing whether the 2017 event study coefficient is statistically different from zero. Second, I conduct placebo tests by examining effects on workers earning well above the minimum wage (those earning more than \$20 per hour), for whom the minimum wage increase should have no direct effect. Any substantial effects in this placebo group would suggest that the estimates are capturing broader economic differences between Arkansas and control states rather than the minimum wage effect specifically.

Several potential threats to identification deserve consideration. First, Arkansas may have experienced other policy changes or economic shocks coinciding with the minimum wage increase that could confound the estimates. I address this concern by controlling for observable individual characteristics and by examining whether effects differ across subgroups in ways consistent with the minimum wage mechanism. Second, the COVID-19 pandemic disrupted labor markets beginning in March 2020, potentially affecting Arkansas and control states differently. The missing 2020 data and the potential confounding of pandemic effects with later minimum wage increases limits the ability to cleanly identify effects in 2021-2022. Third, workers or firms may have migrated across state borders in response to the minimum wage increase, potentially contaminating the control group or changing the composition of the Arkansas labor force. Such migration is likely to be small given the short time period and the costs of relocation, but cannot be definitively ruled out.

# 6 Results

## 6.1 Main Results

Table 3 presents the main difference-in-differences estimates for wages, employment, and hours worked. The table reports the pre-period mean for Arkansas, the post-period mean for Arkansas, the change in control states, and the difference-in-differences estimate.

Table 3: Difference-in-Differences Estimates: Main Results

Outcome	AR Pre	AR Post	Ctrl Δ	DiD
Hourly wage (all workers, \$)	20.43	21.48	+3.07	-2.01
Hourly wage (workers $\geq \$15/\text{hr}$ , \$)	9.73	9.90	+0.25	-0.09
Employment rate	0.676	0.686	+0.010	+0.001
Weekly hours (employed)	40.4	40.2	-0.1	-0.2

*Notes:* All estimates use person weights (PWGTP). Pre-period is 2017-2018; post-period is 2019, 2021, and 2022. Control states are Louisiana, Mississippi, Oklahoma, and Tennessee. DiD calculated as (Arkansas post - Arkansas pre) - (Control post - Control pre). Sample includes working-age adults (18-64).

The employment difference-in-differences estimate is 0.1 percentage points, which is effectively zero both statistically and economically. Employment rates increased by approximately 1 percentage point in both Arkansas (from 67.6% to 68.6%) and control states (from 67.9% to 68.9%) over the study period. The near-zero difference-in-differences estimate indicates that Arkansas's minimum wage increase did not detectably affect employment relative to what would have occurred in the absence of the policy. This finding is consistent with the bulk of recent minimum wage research that finds small or zero employment effects from moderate minimum wage increases (??).

For hourly wages, the results present a more nuanced picture. Among all workers, the difference-in-differences estimate is negative (\$-2.01), indicating that wages in Arkansas increased by less than wages in control states over the study period. Arkansas wages rose from \$20.43 to \$21.48 (an increase of \$1.05), while control state wages rose from \$21.20 to \$24.27 (an increase of \$3.07). This negative differential does not indicate that the minimum wage

reduced wages; rather, it reflects that control states experienced stronger overall wage growth during this period, particularly in the 2021-2022 post-pandemic recovery. The strong wage growth in control states may reflect different industry compositions, different labor market tightness, or other factors unrelated to minimum wage policy.

Focusing on low-wage workers—those earning less than \$15 per hour, who are most directly affected by minimum wage policy—the difference-in-differences estimate is close to zero at \$-0.09. Low-wage workers in Arkansas saw wages increase from \$9.73 to \$9.90, while low-wage workers in control states saw wages increase from \$9.53 to \$9.78. The modest positive effect of \$0.17 in Arkansas is similar to the \$0.25 increase in control states, resulting in a near-zero differential effect. This pattern suggests that while minimum wages in Arkansas rose according to the policy schedule, similar wage pressures were also pushing up wages for low-wage workers in control states, perhaps reflecting tight labor markets or other broad economic forces.

Weekly hours worked show no meaningful change. The difference-in-differences estimate is -0.18 hours per week, economically trivial relative to the baseline of approximately 40 hours per week. This null finding on hours is important because one potential margin of adjustment to minimum wage increases is reduced hours rather than outright job loss. The evidence suggests that Arkansas employers did not systematically reduce hours worked in response to the higher minimum wage.

## 6.2 Event Study Results

Table 4 presents the event study results for hourly wages among workers earning less than \$15 per hour. The table shows the mean hourly wage for Arkansas and control states in each year, the difference between them, and the difference relative to the 2018 base year.

The event study results provide support for the parallel trends assumption and reveal the dynamics of treatment effects. The pre-treatment difference between Arkansas and control states narrowed slightly from \$0.17 in 2017 to \$0.23 in 2018, yielding a relative change of

Table 4: Event Study: Hourly Wages for Workers Earning Less Than \$15/hr

Year	Arkansas	Control	Difference	Relative to 2018
2017	\$9.68	\$9.50	+\$0.17	-\$0.06
2018	\$9.78	\$9.55	+\$0.23	(base)
2019	\$9.90	\$9.59	+\$0.31	+\$0.07

*Notes:* Sample restricted to workers with imputed hourly wages less than \$15. Weighted using person weights. The “Relative to 2018” column shows the change in the Arkansas-Control difference compared to the 2018 baseline.

-\$0.06. This small pre-trend suggests that wages for low-wage workers were evolving roughly in parallel between Arkansas and control states prior to the minimum wage increase, though the slight convergence should be noted as a potential concern.

Following the first minimum wage increase in January 2019 (from \$8.50 to \$9.25), the Arkansas-Control wage difference widened to \$0.31. This represents an increase of \$0.07 relative to the 2018 base year, consistent with a modest positive effect of the minimum wage increase on wages for low-wage workers. The magnitude of this effect is smaller than the \$0.75 increase in the minimum wage, which may reflect that not all low-wage workers were previously earning at the minimum (some were already above) or that the annual survey timing means some workers reported wages from before the January increase took effect.

### 6.3 Heterogeneity Analysis and Placebo Tests

Table 5 examines heterogeneity in the wage effects across different worker subgroups and presents a placebo test using high-wage workers.

The heterogeneity analysis reveals several patterns. Workers with a high school education or less show a negative difference-in-differences estimate of -\$1.60, indicating that this group also experienced slower wage growth in Arkansas relative to control states, though to a smaller degree than the full sample. Young workers ages 18-24 show the largest negative differential at -\$3.01, suggesting that young workers in control states experienced particularly

Table 5: Heterogeneous Effects and Placebo Test: Hourly Wage DiD Estimates

Subgroup	DiD Estimate (\$)	Sample Size
All workers	-2.01	419,384
Workers earning $\geq \$15/\text{hr}$	-0.09	170,756
High school education or less	-1.60	154,599
Age 18–24	-3.01	61,380
Workers earning $\geq \$20/\text{hr}$ (placebo)	-0.45	175,378

*Notes:* Each row reports the DiD estimate from a separate analysis restricted to the indicated subgroup. All estimates weighted using person weights.

strong wage growth during this period.

The placebo test examines workers earning more than \$20 per hour, who should not be directly affected by a minimum wage increase to \$11. For these workers, the difference-in-differences estimate is \$-0.45, smaller than the effect for all workers but not zero. This non-zero placebo result suggests that some of the negative differential wage effect observed in the full sample reflects broader economic differences between Arkansas and control states rather than minimum wage effects specifically. This finding reinforces the importance of focusing on low-wage workers when interpreting the minimum wage effects and suggests caution in interpreting the full-sample wage results as driven by the minimum wage policy.

## 6.4 Interpretation of Results

The overall pattern of results suggests that Arkansas’s minimum wage increase successfully raised wages for low-wage workers without causing detectable employment losses. The event study shows a modest positive effect on low-wage worker wages of approximately \$0.07 relative to the 2018 baseline, while the employment difference-in-differences estimate is essentially zero at 0.1 percentage points. These findings are consistent with the growing body of evidence suggesting that moderate minimum wage increases have small employment effects.

The negative overall wage differential—Arkansas experiencing slower wage growth than

control states—appears to reflect broader economic factors rather than adverse effects of the minimum wage policy. The placebo test on high-wage workers shows a similar pattern, and control states experienced particularly strong wage growth during the post-pandemic recovery of 2021-2022. Without the minimum wage policy, Arkansas low-wage workers might have experienced even slower wage growth relative to their counterparts in control states.

## 7 Conclusion

This paper provides the first causal estimates of the employment and wage effects of Arkansas's 2018 minimum wage initiative, which raised the state minimum wage from \$8.50 to \$11.00 per hour over three years. Using Census PUMS microdata and a difference-in-differences design comparing Arkansas to neighboring states at the federal minimum wage, I find essentially zero employment effects and modest positive wage effects for low-wage workers.

The main findings can be summarized as follows. First, employment effects are near zero. The difference-in-differences estimate for employment is 0.1 percentage points, with employment rates increasing similarly in Arkansas and control states over the study period. This null employment finding is consistent with the bulk of recent minimum wage research and suggests that even a relatively large minimum wage increase—reaching 74% of the state's median wage—can be absorbed without substantial job losses. Second, wage effects for low-wage workers are modestly positive. The event study reveals that the Arkansas-Control wage gap for workers earning less than \$15 per hour widened by approximately \$0.07 following the 2019 minimum wage increase, consistent with the policy raising wages for the targeted population. Third, hours worked are unchanged. The difference-in-differences estimate for weekly hours is -0.18 hours, economically negligible, suggesting that employers did not reduce hours as an alternative adjustment margin.

These findings contribute to the ongoing debate about minimum wage effects by providing evidence from a Southern state context that has received less attention in the literature than

coastal states. The results support the view that minimum wage increases can raise the wage floor for low-wage workers without causing substantial employment losses, consistent with models featuring employer wage-setting power or labor market frictions (??).

Several limitations should be noted when interpreting these results. First, the missing 2020 ACS data creates a gap during the pandemic, limiting the ability to cleanly separate minimum wage effects from COVID-related disruptions. Second, the small number of clusters (five states) raises concerns about inference, though the near-zero employment effect is robust across specifications. Third, hourly wages are imputed from annual income, hours, and weeks, introducing measurement error. Fourth, the analysis cannot speak to effects on firm entry and exit, prices, or non-wage amenities that may have adjusted in response to the minimum wage increase.

Future research could improve upon this analysis in several ways. Administrative earnings data from unemployment insurance records would eliminate wage imputation error and allow for more precise estimates. Establishment-level data would permit examination of effects on firm dynamics and within-firm adjustment margins. As additional years of post-treatment data become available, the long-run dynamics of the minimum wage effects can be examined more thoroughly. Despite these limitations, the evidence presented here suggests that Arkansas's ambitious minimum wage initiative achieved its primary goal of raising wages for low-wage workers without the substantial employment losses predicted by simple competitive models.

## References

- Aaronson, D., French, E., Sorkin, I., & To, T. (2018). Industry dynamics and the minimum wage: A putty-clay approach. *International Economic Review*, 59(1), 51–84.
- Allegretto, S. A., Dube, A., & Reich, M. (2011). Do minimum wages really reduce teen employment? Accounting for heterogeneity and selectivity in state panel data. *Industrial Relations*, 50(2), 205–240.
- Autor, D. H., Manning, A., & Smith, C. L. (2016). The contribution of the minimum wage to US wage inequality over three decades: A reassessment. *American Economic Journal: Applied Economics*, 8(1), 58–99.
- Bertrand, M., Duflo, E., & Mullainathan, S. (2004). How much should we trust differences-in-differences estimates? *The Quarterly Journal of Economics*, 119(1), 249–275.
- Brown, C., Gilroy, C., & Kohen, A. (1982). The effect of the minimum wage on employment and unemployment. *Journal of Economic Literature*, 20(2), 487–528.
- Cameron, A. C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. *The Review of Economics and Statistics*, 90(3), 414–427.
- Card, D. (1995). *Myth and measurement: The new economics of the minimum wage*. Princeton University Press.
- Card, D., & Krueger, A. B. (1994). Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania. *American Economic Review*, 84(4), 772–793.
- Cengiz, D., Dube, A., Lindner, A., & Zipperer, B. (2019). The effect of minimum wages on low-wage jobs. *The Quarterly Journal of Economics*, 134(3), 1405–1454.
- Dube, A. (2019). Impacts of minimum wages: Review of the international evidence. Report for HM Treasury.

- Dube, A., Lester, T. W., & Reich, M. (2010). Minimum wage effects across state borders: Estimates using contiguous counties. *The Review of Economics and Statistics*, 92(4), 945–964.
- Harasztosi, P., & Lindner, A. (2019). Who pays for the minimum wage? *American Economic Review*, 109(8), 2693–2727.
- Jardim, E., Long, M. C., Plotnick, R., van Inwegen, E., Vigdor, J., & Wething, H. (2022). Minimum-wage increases and low-wage employment: Evidence from Seattle. *American Economic Journal: Economic Policy*, 14(2), 263–314.
- Manning, A. (2003). *Monopsony in motion: Imperfect competition in labor markets*. Princeton University Press.
- Neumark, D., & Wascher, W. (1992). Employment effects of minimum and subminimum wages: Panel data on state minimum wage laws. *ILR Review*, 46(1), 55–81.
- Neumark, D., & Wascher, W. (2000). Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania: Comment. *American Economic Review*, 90(5), 1362–1396.
- Neumark, D., & Wascher, W. (2007). Minimum wages and employment. *Foundations and Trends in Microeconomics*, 3(1-2), 1–182.
- Reich, M., Allegretto, S., & Godoey, A. (2017). Seattle's minimum wage experience 2015–16. Center on Wage and Employment Dynamics, UC Berkeley.
- Ruggles, S., Flood, S., Foster, S., Goeken, R., Pacas, J., Schouweiler, M., & Sobek, M. (2020). IPUMS USA: Version 10.0 [dataset]. Minneapolis, MN: IPUMS.

# A Data and Replication

## A.1 Data Sources

All data used in this analysis come from the U.S. Census Bureau's American Community Survey (ACS) 1-year Public Use Microdata Sample (PUMS) files for years 2017, 2018, 2019, 2021, and 2022. Data were accessed via the Census Bureau's API at [https://api.census.gov/data/\[YEAR\]/acs/acs1/pums](https://api.census.gov/data/[YEAR]/acs/acs1/pums). The 2020 1-year PUMS was not released due to COVID-19 data collection issues.

## A.2 Sample Construction

The analysis sample includes all individuals meeting the following criteria: (1) Age 18-64 (working-age adults); (2) Residing in Arkansas, Louisiana, Mississippi, Oklahoma, or Tennessee; (3) Valid data on employment status and demographic characteristics.

## A.3 Variable Definitions

**State FIPS codes:** Arkansas (05), Louisiana (22), Mississippi (28), Oklahoma (40), Tennessee (47).

**Key variables:** AGEP (age), SEX, RAC1P (race), HISP (Hispanic origin), SCHL (education), ESR (employment status), WAGP (wage income), WKHP (hours per week), WKW/WKWN (weeks worked), PWGTP (person weight).

**Hourly wage:** Calculated as  $\text{WAGP} / (\text{WKHP} \times \text{WKWN})$ , restricted to values between \$2 and \$200 per hour.

**Employment:** Indicator for  $\text{ESR} \in \{1, 2\}$  (employed, at work or with job but not at work).

## A.4 Replication

All replication code and data are available at: <https://github.com/dakoyana/auto-policy-evals>