Did Racist Labor Policies Reverse Equality Gains for Everyone?

Erin L. Wolcott*
Middlebury College

December 2023

Abstract

Labor protection policies in the 1950s and 1960s helped many low- and middle-wage White workers in the United States achieve the American Dream. This coincided with historically low levels of inequality across income deciles. After the Civil Rights Act of 1964, policies that had previously helped build the White middle class reversed, especially in states with a larger Black population. Calibrating a labor search model to match unemployment benefits, minimum wages, and bargaining power before and after the Civil Rights Act, I find declining labor protections explain half of the rise in 90/10 wage inequality since the 1960s.

JEL: E24, J78, J64, J30

Keywords: Wage Inequality, Segregation, Labor Protections, Unemployment Insurance, Minimum Wage, Worker Bargaining Power, Unions.

*I am indebted to the late Bill Spriggs who generously discussed this paper at the Fall 2022 OIGI Research Conference. I also thank Amanda Michaud, Cynthia Doniger, Ayşegül Şahin, Guido Menzio, Stefania Albanesi, Philipp Kircher, Giuseppe Moscarini, David Lagakos, David Wiczer, Christopher Huckfeldt, Kyung Park, Susan Vroman, Paul Ko, Caitlin Myers, Lucie Schmidt, Peter Matthews, Kristina Sargent, Andrew Fieldhouse, Steve Abbott, Amanda Gregg, Erick Gong, Chris Spencer, and seminar participants from the 2022 NBER SI Macro Perspectives and Micro Data/Macro Models sessions, the 2022 Midwest Macro Conference, the 2022 Liberal Arts Labor/Public Conference, the Federal Reserve Bank of New York, the Federal Reserve Board of Governors, the University of New Hampshire, Haverford College, Clemson University, and Williams College for their helpful comments. Correspondence should be directed to `wolcott@middlebury.edu`.

1 Introduction

Income inequality in the United States has been rising since the 1960s. Typical explanations include technological change and competition from abroad (Acemoglu and Restrepo, 2021; Wolcott, 2021). What is puzzling, though, is that comparable countries with similar rates of technological change and competition from abroad have not experienced the same rise in inequality. While the top 10 percent income share in the United States has grown to nearly half, in France, top income shares have declined since the 1960s (Saez, 2021).[1]

One factor unique to the U.S. experience is the country was founded on the institutionalization of slavery. Violence, discrimination, and bias towards Black Americans has persisted long after emancipation and is pervasive throughout American society (Bertrand and Mullainathan, 2004; Cook, 2014; Kendi, 2016; Darity Jr and Mullen, 2022). In a compelling book, McGhee (2021) argues that following forced desegregation in the 1960s, policymakers chipped away at New Deal policies that helped build the White middle class. In other words, racism reduced protections for White and Black Americans alike, and this contributed to rising income inequality for all.[2]

One example of an explicitly racist policymaker opposed to a New Deal program was Senator Harry Byrd of Virginia who in 1937 wrote the following about Old Age Assistance for all Virginians.

> *[Under this proposed plan] negroes will be placed on the same basis as white people. The result will be that practically all negroes over sixty-five years will be pensioned, receiving from $30.00 to $40.00 per month, and all their children and grandchildren, cousins and aunts will live on them... it will simply mean that nearly all the colored population of the South will stop working.* (Sato, 1991)

Byrd vehemently resisted desegregation, and after *Brown v. Board of Education* advocated for closing public schools over integrating them (MacLean, 2018)—another example of racism harming more than the intended group.

This paper tests the hypothesis that racism reversed equality gains for everyone. It hones

[1] Guvenen et al. (2014) make a similar point about income inequality in the U.S. outpacing Europe and study the role of income tax policy.

[2] This paper asks whether racism has affected the income distribution for everyone, which is distinct but complementary to work on racial gaps. See for example, Boerma and Karabarbounis (2021), Brouillette et al. (2021), and Derenoncourt et al. (2022).

in on labor protection policies and uses a two-step approach. First, I examine whether policymakers eroded labor protections after (and because of) the Civil Rights Act. Second, I examine whether these observed policy changes can explain the rise in wage inequality since the 1960s.[3]

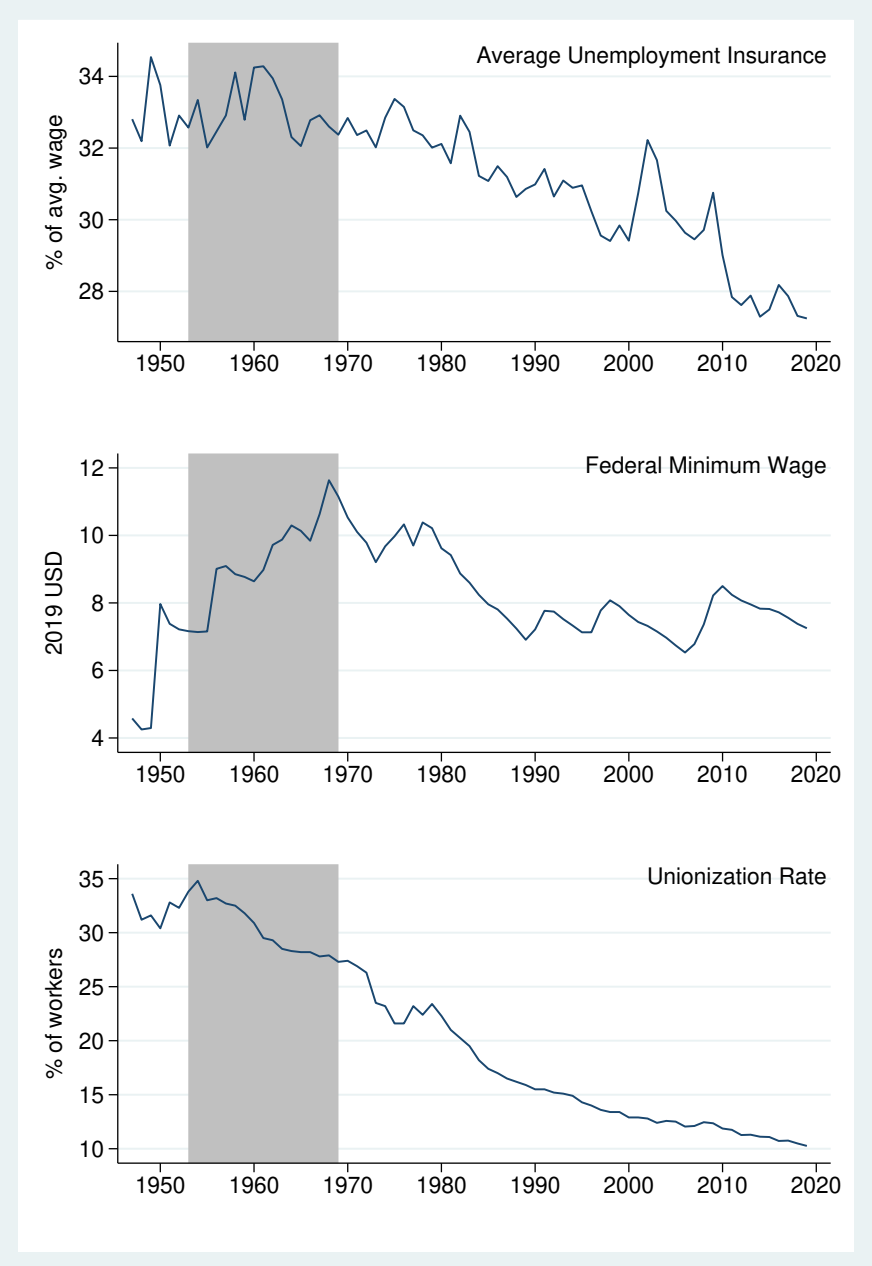
Figure 1 shows three prominent labor protections precipitously declined after the civil rights movement. The decline in average unemployment insurance and the federal minimum wage are policy changes. The 70 percent decline in the unionization rate is a policy outcome. Even though union protections increased in the early 20th century, enforcement waned in the 1970s and 1980s (Farber and Western, 2002; Godard, 2003; Brudney, 2004). What is more challenging to uncover is the motivation behind these policy changes. Was racism causing their decline? The timing certainly suggests so. New Deal policies initially excluded agriculture and most service workers from the federal minimum wage, unemployment benefits, and recognized labor unions precisely because these occupations were disproportionately Black (Katznelson, 2005; Rothstein, 2017; Spriggs, 2019). It was not until after the civil rights movement: (1) these occupations were covered (Derenoncourt and Montialoux, 2021; Price, 1985; Rothstein, 2017) and (2) Black workers had more access to other occupations (Wright, 2013).[4] Using state-level variation, I document states with a larger Black share of the population were more likely to cut labor protections after the Civil Rights Act of 1964. This empirical evidence is far from a smoking gun. However, together with qualitative evidence documenting policy changes for other public provisions such as closing public pools, parks, and schools instead of desegregating, it suggests racially motivated policy changes harming Americans of all races was commonplace following civil rights legislation.

The second part of the paper measures the extent to which declining labor protections contributed to rising wage inequality. I build and calibrate a search model in the spirit of Diamond (1982), Mortensen (1982), and Pissarides (1985) (DMP henceforth). I augment the model with heterogeneous workers and target the wage distribution, unemployment benefits, minimum wages, and labor shares before the Civil Rights Act to uncover the model's latent parameters. I then re-estimate the model with the observed changes in labor protections to uncover how the decline in unemployment benefits, minimum wages, and worker bargaining power altered the wage distribution. Together, I find they explain 49 percent of the rise in

[3]Income inequality is calculated from the Current Population Survey (CPS). Unlike Piketty et al. (2018) and Auten and Splinter (2023) who calculate pre- and post-tax annual earnings from tax records, I focus on pre-tax hourly earnings from survey data.

[4]Starting in 1964, The National Labor Relations Board refused to certify Whites-only unions (Rothstein, 2017, pp 161).

Figure 1: Declining Labor Protections



Notes: Author's calculations using data from the CPS, FRED, Department of Labor, and Mayer (2004). Civil rights movement (1954-1968) shaded in gray. Average unemployment insurance is the average weekly benefits for each state aggregated with population weights and divided by the BEA's national series for wage and salary accruals per full-time equivalent employee.

90/10 wage inequality, with bargaining power being the most important.

A large literature studies why U.S. wage inequality has been rising. Autor et al. (2008) categorize the literature into (1) traditionalist papers positing technological change along with the erosion of labor market institutions are to blame (Goldin and Margo, 1992; Katz and Autor, 1999; Goldin and Katz, 2001; Acemoglu, 2002) and (2) revisionist papers positing labor market institutions are to blame (Freeman, 1992; Blau and Kahn, 1996; Fortin and Lemieux, 1997; Card, 1998; Lee, 1999; Card and DiNardo, 2002; Card et al., 2003). Most papers either study a specific factor in isolation, ignore general equilibrium effects, or do not quantitatively disentangle the drivers.[5] To my knowledge, none of the literature connects policy changes to racism.

Separately, other papers connect racial animosity with less social insurance. Alesina et al. (2001) document a negative relationship between welfare generosity and the Black share of a state's population in 1990. Spriggs (2018) documents a positive relationship between passage of right-to-work laws and the Black share of a state's labor force. Williams et al. (2021) find that states with more Black lynchings, today have lower minimum wages. O'Leary et al. (2022) document stricter unemployment insurance rules in states with a larger Black population, and Skandalis et al. (2022) conclude the decentralized unemployment insurance system is inefficient and exacerbates racial gaps. I build on this literature by examining how racially motivated policy *changed* after the civil rights movement.

The paper advances our understanding of inequality by not only accounting for general equilibrium effects in a quantitative model, but by asking why labor policies changed in the first place, and it proceeds as follows. Section 2 estimates state-level regressions and details qualitative evidence for the motivations behind declining labor protections. Section 3 builds and estimates a structural model of the labor market to measure the impact of declining labor protections on inequality. Section 4 contextualizes the findings and Section 5 concludes.

2 Why Did Labor Protections Decline?

Labor protections, in real terms, have declined since the 1960s, but their decline has not been geographically uniform. Because minimum wage policy and unemployment insurance

[5]For example, DiNardo et al. (1996) use an Oaxaca decomposition and find unionization rates, worker composition, changes in supply and demand, and the minimum wage, explain inequality increases in the 1980s, but state that their "decompositions ignore general equilibrium effects."

are largely state-run programs, their levels vary across states.[6] In what follows, I show that states with a larger Black population have seen nominal unemployment benefits and minimum wages increase by less. This might reflect a causal relationship, but it might also reflect a third factor driving the reduced-from relationship. To understand the mechanism, I perform a series of empirical tests and augment the analysis with qualitative evidence. It was not uncommon for local governments, especially in the South, to provide fewer public provisions after court-ordered desegregation. By extension, it is highly plausible racism is behind declining labor protections.

2.1 Data

Unemployment Insurance. Data for weekly unemployment insurance benefits is from the 2021 Unemployment Insurance Financial Data Handbook published by the BLS. The average weekly amount is the benefits paid for total unemployment during the year divided by the number of weeks for which benefits were paid. I use annual data from 1950 through 2000.

Minimum Wages. State-level minimum wages for 1950 through 1980 are from Derenoncourt and Montialoux (2021). The authors build a minimum wage dataset from a 1981 report by the Minimum Wage Study Commission. State-level wages for 1981 through 2000 are from the Department of Labor.[7] Prior to 1991, some states differentiated minimum wage by gender. In the regression analysis, I use minimum wages for men but results are similar for women. Many states have a zero entry for their minimum wage or a minimum wage below the federally mandated minimum wage. In the baseline specification I use the state-specified minimum wage instead of the effective minimum wage because: (1) the federal minimum wage does not cover all industries, and (2) the state-specified minimum wage might reflect the government's desired policy. Nevertheless, I test robustness to using the federal minimum wage as a lower bound. The constructed dataset runs from 1950 through 2000 and is for January of each year.

Racial Composition. Data for the Black share of the U.S. population in 1960 is from a five percent sample of the Census via IPUMS-USA (Ruggles et al., 2021). Data exists for 50 states. Black is assigned to respondents categorized as "Black," "African American," or

[6] In 1938, the U.S. federal government instituted a federal minimum wage applicable to employees involved in interstate commerce. Changes have been made over the years, but aside from the coverage and level of the federal wage floor, state governments set their own minimum wage policy.

[7] `https://www.dol.gov/agencies/whd/state/minimum-wage/history`. Minimum wages in the later dataset only cover non-farm employment.

"Negro" in the U.S. Census.

2.2 State-Level Regressions

The 1963 March on Washington for Jobs and Freedom—ending with Dr. Martin Luther King Jr.'s "I Have a Dream" speech—broadcast demands for equal opportunities in the labor market and beyond. A year later, the Civil Rights Act of 1964 outlawed discrimination based on race in hiring, promoting, and firing. Economic historian Gavin Wright argues that, "[The] long-entrenched industry tradition changed abruptly following enactment of the Civil Rights Act of 1964." A stark example is the textile industry. In South Carolina in 1960, just four percent of textile workers were Black. That abruptly changed after 1964, and by the 1970s, 30 percent of textile workers were Black (Wright, 2013). After the Civil Rights Act, middle class occupations opened up to Black workers and occupational segregation declined (Butler et al., 1989; Spriggs and Williams, 1996; Rawlston and Spriggs, 2002). Because Black workers now had access to other opportunities, the share of Black agriculture and service workers fell steeply during the 1970s.[8]

The Civil Rights Act also prohibited discrimination for federally funded programs. Unemployment insurance, the federal minimum wage, and federally recognized labor unions excluded agriculture and most service workers at their inception in the 1930s because these occupations were disproportionately Black. Commonly referred to as a devil's bargain, southern congressional representatives opposed protections for Black workers and northern representatives opposed discriminating explicitly on the basis of race (Katznelson, 2005). In the decade after the Civil Rights Act, most of these New Deal programs were amended to cover agriculture and service workers (Price, 1985; Derenoncourt and Montialoux, 2021).

Another way southern policymakers fought for New Deal legislation not to disrupt the racial order in the South was under the guise of regional differences (Spriggs, 2019). The National Industrial Recovery Act of 1933 allowed states to administer their own unemployment insurance, and although, the Fair Labor Standards Act of 1938 ended up including a federal wage floor, its historically low levels prompted some states to adopt their own minimum wage. It is this variation I exploit to study the relationship between labor policy and Black population shares.

The year 1964 was a watershed (Wright, 2013). For this reason, I compare labor policies before and after 1964. Before 1964, many Black workers were excluded from middle class

[8] See Appendix A.

jobs and labor protections. After 1964, Black workers had more access to middle class jobs and labor protections. Although it took time for real unemployment benefits and minimum wages to fall, starting in the late 1970s, they did so irreversibly (as seen in Figure 1) and unevenly (as documented in the upcoming regressions).

Let $Y_{s,t}$ represent the nominal average weekly unemployment benefit or the nominal state minimum wage in state s at year t.[9] The empirical specification is then,

$$\begin{aligned} Y_{s,t} = \alpha + \beta \left(ShareBlack_{s,1960} \times \mathbb{1}\{Post1963\}_{s,t} \right) \\ + \gamma ShareBlack_{s,1960} + \delta \mathbb{1}\{Post1963\}_{s,t} + \zeta X_{s,t} + \epsilon_{s,t} \end{aligned} \tag{1}$$

where $ShareBlack_{s,1960}$ is the share of the population identifying as Black in state s and year 1960; $\mathbb{1}\{Post1963\}_{s,t}$ equals one if the year is after 1963; $X_{s,t}$ is the average annual income in state s and year t; and $\epsilon_{s,t}$ is the residual. The coefficient of interest β measures the association between a state's Black share and the change in labor policies after 1963. Standard errors are clustered at the state level.

Table 1 displays results for unemployment insurance. Column (1) includes the full pre- and post-1963 periods for which data exists for all states. A one percentage point larger Black share is associated with a 46 cent smaller weekly benefit after 1963. This is statistically significant and large. The sample mean before 1964 is only \$26 per week, meaning a one percentage point larger Black share is associated with a two percent smaller benefit after 1963. Moreover, the coefficient on *ShareBlack* indicates that before 1964, a one percentage point larger Black share is associated with only a 20 cent smaller benefit, meaning the relationship more than doubled after the Civil Rights Act.

One may worry that states with more Black workers have lower wages and therefore lower unemployment benefits. Column (2) includes average income to control for differences across states. Because income data from the Current Population Survey (CPS) is only available for all 50 states in 1963 and from 1977 onward, the pre-period is trimmed to 1963 and post-period to 1977–2000. The coefficient on average income is positive and significant, nevertheless the coefficient on the interaction term is still statistically significant and large. A one percentage point larger Black share is now associated with a 69 cent smaller weekly unemployment benefit after 1963, suggesting income differences across states are not driving the results.

[9] Unlike in Figure 1, I use nominal quantities here because there does not exist state-level price indices back to the 1960s.

Table 1: Unemployment Insurance and Black Population Share

VARIABLES	(1) UI Benefit	(2) UI Benefit	(3) UI Benefit	(4) UI Benefit
$ShareBlack \times Post1963$	-0.458***	-0.693***	-0.744**	-0.364**
	(0.124)	(0.141)	(0.239)	(0.157)
$ShareBlack$	-0.196***	-0.0743	0.0125	-0.203***
	(0.0353)	(0.0495)	(0.0446)	(0.0521)
$Post1963$	89.74***	28.90***	95.85***	89.22***
	(2.394)	(2.809)	(7.366)	(2.478)
$Avg.Income$		0.00634***		
		(0.000237)		
$Constant$	27.69***	11.41***	20.67***	27.73***
	(0.643)	(1.149)	(0.959)	(0.678)
Observations	2,550	1,250	561	2,448
R-squared	0.361	0.859	0.368	0.359
States	All	All	South	Excl. MS, SC
Pre-period	1950-1963	1963	1950-1963	1950-1963
Post-period	1964-2000	1977-2000	1964-2000	1964-2000

Table 2: Minimum Wage and Black Population Share

VARIABLES	(1) Min. Wage	(2) Min. Wage	(3) Min. Wage	(4) Binding MW
$ShareBlack \times Post1963$	-0.0472***	-0.0595***	-0.0519*	-0.00148***
	(0.0105)	(0.0133)	(0.0261)	(0.000460)
$ShareBlack$	-0.00864***	-0.0112**	-0.000873	-0.000308
	(0.00246)	(0.00479)	(0.00124)	(0.000285)
$Post1963$	2.352***	1.133***	2.286**	2.118***
	(0.118)	(0.213)	(0.881)	(0.0107)
$Avg.Income$		0.000132***		
		(9.67e-06)		
$Constant$	0.246***	-0.0562	0.0531	0.906***
	(0.0586)	(0.105)	(0.0460)	(0.00795)
Observations	2,550	1,250	561	2,550
R-squared	0.350	0.539	0.190	0.438
States	All	All	South	All
Pre-period	1950-1963	1963	1950-1963	1950-1963
Post-period	1964-2000	1977-2000	1964-2000	1964-2000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Another potential concern is southern states might drive the results. Could it be that the relationship in columns (1) and (2) is from the South simultaneously having a larger Black population and more libertarian political views unrelated to race? To test this, I exclude the 11 former Confederate states (synonymously referred to as the South) and the results do, in fact, disappear. However, as shown in column (3), if I only include the 11 former Confederate states, results are statistically significant and larger than the full-sample, suggesting the relationship is driven by what was happening *within* the South, not just because the South on average had more Black residents. The Civil Rights Act forced desegregation on the South. Federally mandated desegregation targeting the South and Jim Crow Laws is likely why southern states were the ones to chip away at labor policies.[10] Another reason results are driven by variation within the South is mechanical. In 1960 the Black population outside the South was small and there was little variation across states. For half of states outside the South, less than three percent of their population identified as Black, while for Texas (which had the smallest Black share), 12 percent identified as Black.

Column (4) in Table 1 tests whether the two states with the largest share of Black residents drive the results. Mississippi in 1960 was 42 percent Black and South Carolina was 35 percent Black. Excluding these two states from the full-sample reduces the magnitude of the coefficient but does not change the main takeaways.

Table 2 displays results for the minimum wage. Column (1) includes the full pre- and post-1963 periods for which data exists for all states. A one percentage point larger Black share is associated with a five cent smaller state minimum wage after 1963. This is statistically significant and large. The sample mean before 1964 is only \$0.17 per hour, meaning a one percentage point larger Black share is associated with a 30 percent lower minimum wage after 1963. Moreover, the coefficient on *ShareBlack* indicates that before 1964, a one percentage point larger Black share was associated with only a one cent center smaller minimum wage, meaning the relationship strengthened by five fold after the Civil Rights Act.

Column (2) includes average income to control for differences across states. With this control variable and restricted sample because of data availability, the coefficient on the interaction term is statistically significant and larger than Column (1). A one percentage point larger Black share is now associated with a 6 cent lower minimum wage after 1963.

[10]Derenoncourt (2022) documents that northern backlash from the influx of Black residents during the Great Migration resulted in more targeted policy changes such as shifts away from infrastructure and education spending towards police spending.

Column (3) restricts the sample to the 11 former Confederate states. The coefficient of interest is the same magnitude as in column (1) and still statistically significant at the 10 percent level, indicating results are again driven by variation within the South. Like Table 1, results are robust to excluding Mississippi and South Carolina (not shown), the two states with the largest Black population shares.

Columns (1) through (3) in Table 2 use state minimum wages that in many cases are below the binding federal minimum wage. One may worry that a minimum wage below the federal minimum wage does not reflect a state's desired policy, but rather, a lack of incentive to update the state policy when the federal minimum wage is the desired policy. Column (4) uses the federal minimum wage in instances where the state minimum wage is non-binding. The coefficient of interest is still negative and statistically significant but smaller. A one percentage point increase in the Black share is associated with a tenth of a cent lower minimum wage. Appendix C plots state minimum wages against the federal minimum wage for the 11 former Confederate states ordered by the Black share of their population. While half of the states increased their minimum wage at a slower pace than the federal minimum wage, the other half chose not to adopt a minimum wage at all. This latter half is concentrated among states with a larger Black population. In other words, states with a larger Black share experienced a relative decline in their minimum wage (whether state or federal) after 1963 because they chose to have the lowest possible minimum wage.

Table 1 and Table 2 compare policy before and after 1963. Although 1963 was a watershed moment for the civil rights movement, the movement began a decade earlier. Moreover, the post-Civil Rights Act period (1964–2000) is long and other forces, aside from racial animus, could drive the negative relationship between racial composition and labor policy. For instance, starting in the 1990s, the Republican party typically won most elections in the South (Kuziemko and Washington, 2018) Appendix B displays the relationship between Black population shares in 1960 and policy changes in the South by decade. Before 1964, the relationship between Black shares and unemployment insurance or minimum wage is weak. After 1963, the relationship is large and in most instances statistically significant.[11]

The third labor protection is unions, and unfortunately, data on state unionization rates from the CPS only begins in 1983. This does not provide a pre-1964 period to implement

[11]Because unemployment benefits and minimum wages are in nominal terms, it looks like the relationship grows stronger over time. However, if you scale the coefficients of interest by the post-period average unemployment benefit and minimum wage (last row in each table) in Appendix B, the relationship is stable after 1963.

equation (1). Nevertheless, I can examine the conditional correlation between the Black population share and unionization rate in state s and year t. Appendix D shows that states with a one percentage point larger Black share are associated with a 20 basis point lower unionization rate. Unlike results for unemployment insurance and minimum wages, when I restrict the sample to the 11 former Confederate states, the relationship is smaller and no longer statistically significant.

It was not uncommon in the 1950s and 1960s for local governments to close public facilities after desegregation. McGhee (2021) describes city governments throughout the country filling in public swimming pools—a once favored pastime among White Americans—because of desegregation. Wright (2013) writes about city governments closing public parks after court-ordered desegregation. MacLean (2018) details a nearly successful campaign in Virginia to close public schools rather than integrate after *Brown v. Board of Education*. Even though the Virginia campaign was unsuccessful, some counties went without public education for a decade. Given these examples of policymakers forgoing public provisions in response to Black Americans having access, it is plausible a similar response, either consciously or unconsciously, permeated labor policy.

As a corollary, policy changes in the opposite direction reduced the Black-White gap. Derenoncourt and Montialoux (2021) and Wursten and Reich (2021) find increases in the minimum wage disproportionately *helped* Black workers.

3 Structural Model of Wage Inequality

The goal of this section is to build a tractable model of the labor market capturing the conditions workers face when choosing whether or not to work and the conditions firms face when choosing whether or not to hire. For simplicity, the model only includes two labor force statuses, employment (e) and unemployment (u) but includes multiple types $M > 1$ of workers. To capture the empirical observation that job openings and job seekers simultaneously exist, I build a DMP model where a friction in the labor market prevents job openings and job seekers from perfectly matching up. For the application at hand, it is important to use a model where unemployment exists in equilibrium so I can test how changes in unemployment insurance affect the labor market. I augment the standard model with heterogeneous workers so the model generates measures of income inequality comparable to the data.

Table 3: Black Share of the Wage Distribution

	Hourly Earnings Percentile										
Years	(0,10]	(10,20]	(20,30]	(30,40]	(40,50]	(50,60]	(60,70]	(70,80]	(80,90]	(90,100]	Total
1962–1963	.25	.14	.11	.09	.06	.05	.05	.03	.02	.002	.08
2005–2006	.15	.15	.15	.15	.12	.12	.10	.09	.07	.05	.12

Notes: Author's calculations using data from IPUMS-CPS. Income deciles are calculated for individuals who worked full-time and at least 48 weeks in the calendar year. Salary and wage income is then divided by 50 weeks and 40 hours per week. Black workers are respondents identifying as "Black/Negro".

3.1 Racial Composition of the Wage Distribution

The structural model is intended to represent the entire U.S. labor market. The estimated parameters for job separations, productivity, unemployment benefits, minimum wages, bargaining power represent those for the aggregate economy. In other words, the model does not explicitly model race. One might wonder: without accounting for race, could the increase in U.S. inequality be driven by compositional changes instead of policy changes? For instance, what if the growing share of Black Americans—who are disproportionately disadvantaged and discriminated against—is the reason behind increasingly unequal incomes?

Table 3 shows that even though Black Americans make up a larger share of the workforce today, they are less concentrated at the bottom of the wage distribution.[12] Black workers went from occupying 25 percent of the first decile in the 1960s to only 15 percent in the 2000s. Black workers also went from occupying just 0.2 percent of the top decile in the 1960s to 5 percent in the 2000s. Table 3 looks similar when computing non-White shares, and it displays the inverse when computing White shares. Notably, White workers make up a larger share of the bottom decile in the 2000s than in the 1960s. Assuming Black workers are disadvantaged relative to White workers, racial composition cannot explain the rise of inequality across wage deciles. Because of this, and to only include the necessary components for the question at hand, I do not explicitly model race. Instead, the model tests whether policy changes (plausibly motivated by racism) reversed equality gains for everyone.

Before turning to the mechanics of the model, I will highlight that if labor protections disproportionately help the very bottom of the wage distribution, then their currently low levels hurt White workers just as much as—if not more than—Black workers because of the large

[12]The CPS top codes survey respondents so Table 3 is unable to accurately capture the top of the wage distribution.

share of White workers at the bottom. Simultaneously, declining labor protections helped workers at the top of the wage distribution. As unions, minimum wage, and unemployment benefits declined, (predominately White) capital owners paid less in wages and unemployment tax.

3.2 Model Environment

Time is discrete and indexed by $t \in \{0, 1, 2, ..., \infty\}$.

Workers. Workers are heterogeneous in their endowed productivity. I consider an economy populated by M types of workers indexed by $x_m \in \{x_1 < x_2 < ... < x_M\} > 0$. Endowed productivity is permanent and perfectly observable to employers.[13] I ex-ante sort workers into submarkets based on their endowment. Therefore, the aggregate labor market is organized into M submarkets indexed by worker endowment x. In each submarket there is a measure $M(x)$ of infinitely lived workers of type x (with $\sum_x M(x) = 1$) who are either employed $e(x) \in [0, 1]$ or unemployed $u(x) \in [0, 1]$. The total population is then $\sum_x \big(e(x) + u(x)\big)M(x) = 1$. Since there are as many submarkets as there are endowed productivity levels, there is no crowding out between workers with different endowments. This choice simplifies the model so that a firm's expected value of meeting a worker does not depend on who is in the unemployment pool, which is a plausible assumption if the job application process effectively screens candidates.

Each worker is endowed with one unit of labor. For simplicity, on-the-job search is ruled out. Workers have risk-neutral preferences and discount future payoffs at rate $\beta \in (0, 1)$.

Firms. The economy is populated by an infinite mass of identical and infinitely lived employers who either produce output $y(x)$, or post job vacancies $v(x)$ aimed at a specific worker type x. Employers have risk-neutral preferences and also discount the future by β. I assume directed search following Moen (1997) and Menzio and Shi (2010), such that firms target a specific submarket x to post a vacancy and only post in one submarket at a time.

Production Technology. The production technology has two inputs: (1) a worker's endowed productivity and (2) aggregate labor productivity. Think of endowment x as a measure of a worker's background. Where did they grow up? What was the quality of their education? Did their family income or wealth allow for unpaid apprenticeships, extra cur-

[13] When calibrating the model in Section 3.5, I focus on deciles such that $M = 9$ types of workers seperate 10 deciles.

ricular activities, and network opportunities that enhanced their productivity? Were they able to make riskier career moves because they did not have school debt to pay off? Think of aggregate labor productivity as human capital investment and technological advancement that impact all workers. Output per employed worker at time t for submarket x is then:

$$y_t(x) = Ax, \tag{2}$$

where aggregate labor productivity is $A \geq 1$.

Matching Technology. Markets are frictional. In each submarket x, there exists a constant returns to scale matching technology:

$$m_t(x) = \phi\big(u_t(x)\big)^{\alpha}\big(v_t(x)\big)^{1-\alpha}, \tag{3}$$

where the elasticity parameter is $\alpha \in (0,1)$ and the matching efficiency is ϕ. Let $\theta_t = \frac{v_t(x)}{u_t(x)}$ denote market tightness. For the theoretical framework, each submarket x has its own tightness; however, for the calibration exercise, each submarket targets the same tightness based on the data. To simplify notation, I define the job finding rate as $f_t(\theta) \equiv \frac{m_t(x)}{u_t(x)} = \phi\theta_t^{1-\alpha}$ and the job filling rate as $q_t(\theta) \equiv \frac{m_t(x)}{v_t(x)} = \phi\theta_t^{-\alpha}$.

Timing. Employers post job vacancies and unemployed workers search for jobs given the model parameters next period. Unemployed workers meet firms at time t and if profitable, produce output at $t+1$.

Firm's Problem. Let $V_t(x)$ be the value to a firm of posting a vacancy for a worker with endowment x.

$$V_t(x) = -\kappa + \beta\Big[q_t(\theta)J_{t+1}(x)\Big], \tag{4}$$

where κ is the cost of posting a vacancy. $J_{t+1}(x)$ is a firm's surplus next period from matching with a worker in submarket x. Firm surplus this period equals:

$$J_t(x) = y_t(x) - \omega_t(x) + \beta\Big[(1-\delta)J_{t+1}(x)\Big], \tag{5}$$

where δ is the exogenous separation rate. Here, all workers separate from their job at rate δ. The separation rate is exogenous because "endogenizing" it with a stochastic process would unnecessarily complicate the model.

Worker's Problem. On the worker side, the value of being matched with a job is the

discounted value of retaining that match or entering the unemployment pool next period,

$$W_t(x) = \omega_t(x) + \beta\Big[(1-\delta)W_{t+1}(x) + \delta U_{t+1}(x)\Big], \tag{6}$$

The value of being unemployed $U_t(x)$ is defined by the following condition:

$$U_t(x) = b + \beta\Big[f_t(\theta)W_{t+1}(x) + (1-f_t(\theta))U_{t+1}(x)\Big], \tag{7}$$

where b is the flow value of unemployment benefits. In the U.S. unemployment benefits depend on a claimer's previous wage. However, because the weekly amount is capped, 30 percent of unemployed claimers receive the maximum allocated amount instead of a replacement rate proportional to their previous wage. The remaining claimers receive a replacement rate around 70 percent of their previous wage, depending on the state (Doniger and Toohey, 2022). This means, among the unemployed and employed, the threat value of benefits is relatively constant across income levels. This is the mechanism through which changes in unemployment benefits have distributional consequences. A decline in the weekly benefit of a flat amount hurts workers at the bottom of the income distribution more because their outside option as a share of their wage fell by more than workers at the top of the income distribution.

An alternative way to model unemployment benefits would be as a function of wages up to a cap. However, unlike average benefits, replacement rates and caps do not capture changes in eligibility and therefore have not declined relative to wages the same way average benefits have, as illustrated in Figure 1. Therefore, I calibrate a fixed b to the average benefit.

Minimum Wage. In this economy, there is a wage floor. Let $\underline{\omega}$ be the minimum hourly wage any firm pays a worker. The observed wage, after the minimum wage has taken effect, is then $\tilde{\omega}(x) = \max\{\omega(x), \underline{\omega}\}$.

Nash Bargaining. Because markets are frictional, a surplus exists from a firm-worker match. I assume workers take home a share $\pi(x) \in (0,1)$ of that surplus. Total match surplus is calculated by adding up firm value $J_t(x)$ and worker value $W_t(x)$ minus values of the outside options $V_t(x)$ and $U_t(x)$. Let $S_t(x) = \max\{J_t(x) + W_t(x) - V_t(x) - U_t(x), 0\}$ denote total match surplus in submarket x. Workers receive $\pi(x)S_t(x)$ from a match and firms receive $(1-\pi(x))S_t(x)$. The worker and firm will agree to continue the match if $S_t(x) > 0$, otherwise they will separate, in which case $S_t(x) = 0$.

Free Entry. I assume an infinite number of firms are free to enter each submarket and post vacancies, thereby pushing down the value of posting a vacancy to zero. Free entry implies $V_t(x) = 0$, $\forall t, x$.

3.3 Steady State Equilibrium

Here, I highlight two steady-state equilibrium expressions employed in the calibration, namely, the wage equation and labor share. To simplify notation, let any steady state variable $Z_t = Z_{t+1} = Z$ for the remainder of the paper.

Under Nash bargaining and free entry, equations (3)-(7) endogenously determine steady state wages:

$$\begin{aligned} \omega(x) &= \Big(1 - \pi(x)\Big)b + \pi(x)\Big(y(x) + \kappa\theta\Big) \\ \tilde{\omega}(x) &= \max\{\omega(x), \underline{\omega}\}. \end{aligned} \tag{8}$$

Workers benefit from a tight labor market and are rewarded for helping firms save on hiring costs. They enjoy a share of the output, and their outside option pushes up wages.[14] Realized wages $\tilde{\omega}(x)$ must be at least as great as the minimum wage $\underline{\omega}$.

A useful concept for the calibration exercise is labor share. I define the share of total output allocated to wages in submarket x as:

$$L(x) \equiv \frac{\tilde{\omega}(x)}{y(x)}. \tag{9}$$

3.4 Comparative Statics

It is relatively straightforward to intuit how a change in the minimum wage affects the income distribution. It is less straightforward to intuit how a change in unemployment benefits or bargaining power affects the income distribution. In what follows, three propositions highlight the mechanisms and how declining minimum wages and unemployment benefits and changes in bargaining power increase inequality.

Proposition 1. *Wage ratio* $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$*, where* $L, H \in \{1, 2, ..., 9\}$ *and* $L < H$*, is decreasing in minimum wage* $\underline{\omega}$*,* $\forall \underline{\omega}$ *satisfying* $\omega(x_L) \leq \underline{\omega} < \omega(x_H)$*.*

[14] See Pissarides (2000) for a derivation of steady state wages.

Proof. The derivative of $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$ with respect to $\underline{\omega}$ is less than zero. Because of the defined range of $\underline{\omega}$, $\frac{\partial\tilde{\omega}(x_H)}{\partial\underline{\omega}} = 0$, while $\frac{\partial\tilde{\omega}(x_L)}{\partial\underline{\omega}} = 1$. Therefore, by the quotient rule,

$$\begin{aligned}\frac{\partial}{\partial\underline{\omega}}\left(\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}\right) &= \frac{\tilde{\omega}(x_L)\times 0 - \tilde{\omega}(x_H)\times 1}{\big(\tilde{\omega}(x_L)\big)^2} \\ &= \frac{-\tilde{\omega}(x_H)}{\underline{\omega}^2} < 0\end{aligned}$$

□

Proposition 1 shows that wage decile ratios greater than one—for example the 90/10 percentile ratio—are decreasing in minimum wage if the minimum is binding for submarket x_L but not for x_H. When the minimum wage increases, realized wages for x_L also increase but wages for x_H are unaffected, thereby reducing income inequality. When the reverse happens and a binding minimum wage *decreases*, income inequality increases.

Proposition 2. *Wage ratio* $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$*, where* $L, H \in \{1, 2, ..., 9\}$ *and* $L < H$*, is decreasing in unemployment benefits* b*,* $\forall b$ *satisfying* $\frac{1-\pi(x_H)}{1-\pi(x_L)} < \frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$*.*

Proof. The derivative of $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$ with respect to b is less than zero for the specified range of values. Note that $\frac{\partial\tilde{\omega}(x_H)}{\partial b} = 1 - \pi(x_H)$ and $\frac{\partial\tilde{\omega}(x_L)}{\partial b} = 1 - \pi(x_L)$. Therefore, by the quotient rule,

$$\begin{aligned}\frac{\partial}{\partial b}\left(\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}\right) = \frac{\tilde{\omega}(x_L)(1-\pi(x_H)) - \tilde{\omega}(x_H)(1-\pi(x_L))}{\big(\tilde{\omega}(x_L)\big)^2} &< 0 \\ \frac{1-\pi(x_H)}{1-\pi(x_L)} &< \frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}\end{aligned}$$

□

Proposition 2 shows that wage ratios greater than one are decreasing in unemployment benefits if the ratio of firm bargaining power is less than the wage ratio. Recall, $\big(1 - \pi(x)\big)$ is the share of surplus going to the firm. For intuition, suppose $\pi(x_H) = 1$. This means the ratio between firm bargaining power is zero and Proposition 2 would imply that wage inequality is always decreasing in unemployment benefits. When the reverse happens and unemployment benefits *decrease*, income inequality increases.

Proposition 3. *Wage ratio* $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$*, where* $L, H \in \{1, 2, ..., 9\}$ *and* $L < H$ *is decreasing in low-wage bargaining power* $\pi(x_L)$*,* $\forall \pi(x_L)$ *satisfying* $Ax_L + \kappa\theta > b$

Proof. The derivative of $\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}$ with respect to $\pi(x_L)$ is less than zero for the specified range of values. Note that $\frac{\partial \tilde{\omega}(x_H)}{\partial \pi(x_L)} = 0$ and $\frac{\partial \tilde{\omega}(x_L)}{\partial \pi(x_L)} = Ax_L + \kappa\theta - b$. Therefore, by the quotient rule,

$$\frac{\partial}{\partial \pi}\left(\frac{\tilde{\omega}(x_H)}{\tilde{\omega}(x_L)}\right) = \frac{\tilde{\omega}(x_L) \times 0 - \tilde{\omega}(x_H)(Ax_L + \kappa\theta - b)}{\left(\tilde{\omega}(x_L)\right)^2} < 0$$

$$Ax_L + \kappa\theta > b$$

□

Proposition 3 shows that wage ratios greater than one are decreasing in low-wage bargaining power for a set of parameters. As long as output and firm search costs are greater than unemployment benefits, inequality is decreasing in low-wage bargaining power. When the reverse happens and the bargaining power *decreases*, income inequality increases.

3.5 Calibration

The goal of this section is to calibrate the structural model to match the U.S. wage distribution at its historical low, right before the Civil Rights Act. In doing so, I recover a set of unknown parameters. I then use the policy changes from Figure 1 and a subset of the recovered parameters to predict the post-civil rights era wage distribution. The difference between the predicted and actual wage distribution sheds light on the extent to which policy changes increased inequality.

I choose two periods to calibrate the model: (1) 1962–1963 because it is before the Civil Rights Act and CPS data starts in 1962, and (2) 2005–2006 because it is many decades after the Civil Rights Act, to allow time for policy changes, and it is in a similar part of the business cycle. Notably, both periods averaged a 6 percent unemployment rate and 6 percent annual growth rate.

Table 4 lists parameter estimates I supply to the model. The top panel contains parameters from the literature I assume do not change over time. Labor market tightness is from Wolcott (2021) which calculates the ratio of vacancies to unemployed workers for the 1970s and 2000s for different skill levels. Estimates hover around 2.5. I choose a time-invariant tightness ratio

Table 4: Parameter Estimates for 1962–63 and 2005–06 Steady States

Parameter	Explanation	Value	Source
θ	labor market tightness	2.5	Wolcott (2021)
M	number of submarkets	9	splits 10 deciles
κ	vacancy posting cost	0.4	Pissarides (2009)
$\frac{b_{t=62}}{\hat{\omega}_{t=62}}$	UI as share of average wage	0.34	Figure 1
$\frac{b_{t=05}}{\hat{\omega}_{t=05}}$	UI as share of average wage	0.30	Figure 1
$\underline{\omega}_{t=62}$	minimum wage 2019 USD	9.80	Figure 1
$\underline{\omega}_{t=05}$	minimum wage 2019 USD	6.64	Figure 1
$L_{t=62}(9)$	labor share 9$^{\text{th}}$ decile	0.70	BLS
$L_{t=62}(5)$	labor share 5$^{\text{th}}$ decile	0.64	BLS
$L_{t=05}(9)$	labor share 9$^{\text{th}}$ decile	0.70	BLS
$L_{t=05}(5)$	labor share 5$^{\text{th}}$ decile	0.59	BLS
$\pi_{t=62}(x)$	bargaining power	[.25 .36 .43 .48 .52 .55 .57 .61 .64]	calibrated
$\pi_{t=05}(x)$	bargaining power	[.08 .23 .33 .40 .46 .50 .55 .59 .64]	calibrated
$A_{t=62}$	aggregate productivity	1	normalized
$A_{t=05}$	aggregate productivity	1.19	calibrated

Notes: The top panel lists parameters from the literature that are assumed not to change over time. The middle and bottom panels list parameters whose values change over time. Subscript $t = 62$ indicates data averaged over 1962–1963 and subscript $t = 05$ indicates data averaged over 2005–2006. Parameter $\hat{\omega}$ is the national average wage provided by the BEA.

because as noted by Martellini and Menzio (2020), there has been a remarkable lack of secular change in the Beveridge curve over the last century. Parameter M designates the number of endowed productivity types (i.e. submarkets). I choose $M = 9$ such that they split the population into 10 deciles. The vacancy posting cost κ is a standard choice from Pissarides (2009), and results are not sensitive to its value.

The middle panel of Table 4 contains parameters I assume change between steady states. Unemployment benefits equaled 34 percent of average wages in the 1960s and 30 percent in the 2000s. Because real wages increased, this equates to an hourly unemployment benefit of \$7.13 in the 1960s and \$8.62 in the 2000s (both are in 2019 USD).[15] If unemployment benefits remained 34 percent of average wages, they would have equaled an hourly rate of \$9.73. Therefore, relative to the counterfactual, unemployment benefits fell by over a dollar to \$8.62.

The minimum wage in Table 4 is the federal minimum wage in 2019 U.S. dollars. If the federal minimum wage of \$9.80 covered all workers in the 1960s, it would have affected the first decile who made \$8.45 an hour or less. Not all workers, however were covered. The federal minimum wage excluded agriculture and most service workers, who made up about 10 percent of the bottom decile.[16] I assume \$8.45 was the prevailing wage in the absence of a minimum wage. Although it is difficult to know what wages would have been in the absence of a minimum wage, after excluding farmers and non-retail trade occupations, wages at the first decile rise above the minimum wage, and wages at the other deciles hardly change. In contrast, the real minimum wage of \$6.64 in the 2000s was not binding for workers at the first decile who made \$10.15 per hour.[17]

The BLS provides time series of the aggregate labor share since 1947 and labor shares by two-digit sector since 1997. To recover worker bargaining power for each submarket, ideally I would know the labor share of each wage decile. Unfortunately, individual worker output is unmeasurable, so to circumvent, I make two assumptions: (1) the top decile labor

[15] I convert weekly estimates to hourly by assuming full-time employment and dividing weekly benefits by 40 hours.

[16] The federal minimum wage in 1962–63 covered "employees engaged in interstate commerce or in the production of goods for interstate commerce... [and] employees in large retail and service enterprises as well as to local transit, construction, and gasoline service station employees." (`https://www.dol.gov/agencies/whd/minimum-wage/history/chart`.

[17] Clemens and Strain (2022) find state and local minimum wage increases in the 2000s did effect minimum wage workers, but most of the their wage gains were driven by career progression and increases in labor demand. Since I group all workers in the first decile together, the federal minimum wage, on average, is not binding for this group.

share equals that of the professional and business service sector and has not changed over time, and (2) labor share has a linear relationship with where a worker is in the wage distribution. The professional and business service sector encompass jobs requiring a high degree of expertise and includes establishments that undertake a strategic decision making role of other companies. According to the CPS, the professional and business service sector employed more workers in the 90^{th} percentile in 2005–2006 than any other sector, and for the years with data, its labor share has remained stable.[18] I take a conservative stance and assume the labor share in both 1962–1963 and 2005–2006 equaled 0.70 for the top decile $L(9)$. Relying on the second assumption, I calibrate the average labor share (which here equals the median) to match the aggregate labor share. In 1962–1963, the labor share was 64 percent and in 2005–2006 it fell to 59 percent.

The bottom panel of Table 4 lists parameters internally recovered from the calibration procedure. I recover the first vector of worker bargaining power [.25, .36 .43, .48, .52, .55, .57, .61, .64] from targeting labor shares in 1962–1963 and the second vector [.08, .23, .33, .40, .46, .50, .55, .59, .64] from targeting labor shares in 2005–2006. The parameters within each vector are ordered by endowed productivities. Similar to Bloesch et al. (2022), I find heterogeneous bargaining power. Comparing the two vectors, I find bargaining power remained constant at 64 percent for the most endowed. For every other submarket, bargaining power declined mirroring the decline in unionization (Abowd and Lemieux, 1993). Unions mostly benefit less educated workers and historically have helped close the wage gap (Freeman, 1980; Blau and Kahn, 1996; Card et al., 2003). The dramatic decline in unionization rates reopened that gap, and even though union membership declined across education groups, the decline was greatest for the less educated workers (Mayer, 2004). My estimates of bargaining power are inline with Cahuc et al. (2006) who find for the late 1990s that bargaining power for "unskilled" workers, with no managerial tasks, ranged from 20 to 40 percent while bargaining power for "skilled" workers ranged from 40 to 60 percent.[19]

The first step of the calibration procedure is to uncover the model's endowed productivity parameters x and worker bargaining power $\pi(x)$ by calibrating the model to match wages in 1962–63. Equations (8) and (9) are two equations from which I recover the two unknowns for each submarket. The result is Figure 2 Panel A. Real hourly earnings are plotted by

[18] `https://www.bls.gov/opub/mlr/2017/article/estimating-the-us-labor-share.htm`

[19] Estimates from Cahuc et al. (2006) are from their model without on-the-job search. Their Table IV displays a range of estimates depending on industry and skill. After dropping outliers, bargaining power estimates for Labor Categories 2-4 are between 20 to 40 percent and those for Labor Category 1 are between 40 and 60 percent.

percentiles of the wage distribution, and by construction, the model-generated wages exactly match the data.

The second step of the calibration procedure is to use the recovered endowed productivity parameters x from step one to predict the wage distribution in 2005–06. To do this, I recalibrate the model, swapping endowed productivities as the set of parameters I know for moments on the wage distribution I pretend not to know. Thereby, I still have two equations—(8) and (9)—and two unknowns—$\pi(x)$ and $\omega(x)$—for each submarket. I then recover the vector of bargaining powers $\pi(x)$ and the vector of predicted wages $\omega(x)$. The new set of labor policies for 2005–2006 are incorporated in the optimization problem, and they are why the wage distribution changes between steady states.

Lastly, I target the median wage in 2005–2006 to recover model-consistent aggregate productivity growth A. I find aggregate productivity increased 19 percent between 1962–63 and 2005–2006. The Department of Labor estimates labor productivity increased by 2.5 fold, however, if I supplied the model with this outside estimate, it would severely overshoot observed wages across the distribution.

3.6 Results

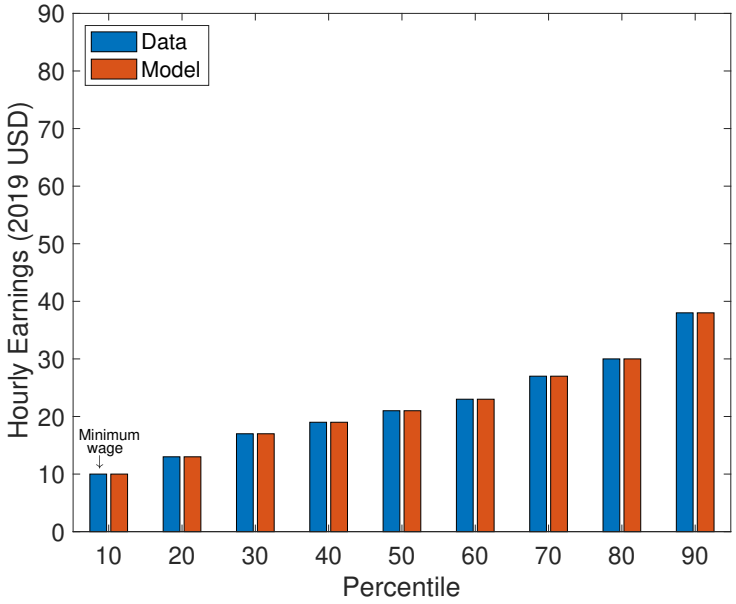
Figure 2 Panel B is the main result. It plots the observed wage distribution (in blue) and model-generated wage distribution (in orange) for the post-civil rights period. Unlike Panel A, only the 50^{th} percentile is targeted. Nevertheless, the model captures the rise in inequality remarkably well. Comparing Panels A and B, the reader might note that the ratio between the top and bottom of each wage distribution increased between 1962–1963 and 2005–2006. While real hourly earnings in Panel A linearly increase with percentile, real hourly earnings in Panel B exponentially increase, suggesting policy changes increased inequality.

Table 5 highlights a popular measure of inequality: the 90^{th} percentile to 10^{th} percentile wage ratio (i.e. the 90/10 ratio). The first column shows that the ratio, as calculated from the data, increased from 3.77 to 5.37. Because some occupations were excluded from the minimum wage, wages at the 10^{th} percentile drop below the federal minimum wage in the 1960s. In order to isolate the effect of a change in the minimum wage from a change in its coverage, I use the federal minimum wage in 1962–63 as the benchmark for the 10^{th} percentile in Table 5.

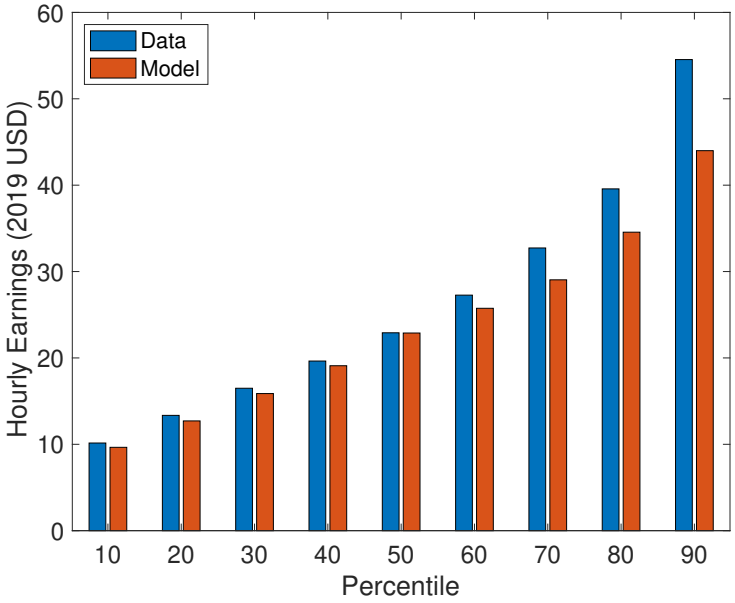
The second column of Table 5 shows that the full model, with all of its channels turned on,

Figure 2: Wage Distribution Before and After the Civil Rights Act

Panel A: 1962–1963



Panel B: 2005–2006



Notes: Author's calculations using data from IPUMS-CPS and FRED. Hourly earnings for the 10th percentile in 1962–63 is the minimum wage. All other hourly earnings are calculated from ASEC wage and salary income for full-time workers divided by 50 weeks and 40 hours per week and converted into 2019 USD. Active military are excluded. Data for 1962–63 is targeted by the model. Except for the 50th percentile, data for 2005–06 is untargeted and should be used to evaluate the model's success.

Table 5: 90/10 Wage Inequality Ratio

	Data	Full Model	Min Wage Off	UI Off	Bargaining Off
1962–63	3.77	3.77	3.77	3.77	3.77
2005–06	5.37	4.56	4.48	4.16	3.75
Difference	1.60pp	0.79pp	0.72pp	0.39pp	-0.02pp
Accounts for	100%	49%	45%	24%	-1%

Notes: Top panel is the ratio between the 90$^{\text{th}}$ percentile and 10$^{\text{th}}$ percentile of income earners, in terms of hourly wage. Data is from IPUMS-CPS. Full model has all channels turned on. The last three columns are the model with individual channels turned off. The "Difference" row is the percentage point change in the 90/10 ratio from 1962–63 to 2005–06. The "Accounts for" row is the share of the observed change in the 90/10 ratio accounted for by the model. Wage data for the 10$^{\text{th}}$ percentile in 1962–63 is the federal minimum wage.

predicts the 90/10 ratio increased from 3.77 to 4.56 and accounts for 0.79 percentage points or 49 percent of the observed increased. The counterfactual exercises in the last three columns reveal what would have happened to the 90/10 ratio if each policy lever was individually turned off. Because of the model's non-linearity, there are interesting interactions between the channels.

Had the minimum wage remained at $9.80 an hour, instead of dropping to $6.64, and everything else stayed the same, the model would account for 45 percent of the rise in the 90/10 ratio.[20] This is because the counterfactual minimum wage is slightly binding for the model-generated 10$^{\text{th}}$ percentile who were predicted to earn $9.65 in the 2000s. The counterfactual minimum wage affects only some parts of the distribution and only some measures of inequality. For instance, it has large implications for the first percentile (not shown) and is irrelevant for the 50$^{\text{th}}$ percentile and the 90/50 ratio (see Appendix F). Autor et al. (2008) and Autor et al. (2016) similarly conclude that although the minimum wage affects the bottom of the distribution, it is a poor explanation for inequality by itself because the 90/50 ratio, which is unaffected by the minimum wage, also increased.

Had unemployment benefits as a share of wages remained at its 1960s value, the model would account for 24 percent of the rise in the 90/10 ratio, implying unemployment insurance policy was an important driver of wage inequality. This is likely an upper bound for two reasons. First, in reality not all workers are eligible for the program and so unlike in the model, not

[20]For the counterfactual exercises, I assume aggregate productivity growth recovered from the baseline specification stays at 19 percent.

all workers use it to bargain over wages.[21] Second, I assume a constant level of benefits matter for equilibrium wages across the distribution. However, workers at the bottom of the distribution sometimes receive a benefit proportional to their past wage. For empirical reasons discussed in Section 3.2, this detail was not incorporated, however, one can imagine it dampening the unemployment insurance channel.

Lastly, had worker bargaining power remained between 24 to 64 percent—depending on where a worker is on the wage distribution—the 90/10 ratio would have fallen, not increased. What happened is a different story. Bargaining power for workers at the bottom fell to a mere 8 percent, and dispersion increased. Of the mechanisms considered, I find bargaining power is the largest contributor to wage inequality.

4 Discussion

Throughout the paper, I motivate the decline in worker bargaining power with the decline in unionization because unions typically have more sway than individuals when negotiating with employers. A vast empirical literature documents causal ties between union membership and higher wages for low- and middle-wage workers (Callaway and Collins, 2018; Collins and Niemesh, 2019; Farber et al., 2021). When the opposite occurred at the aggregate level and unionization declined in the 1970s and 1980s, it follows that less unionization likely contributed to wage stagnation. Moreover, a recent paper by Stansbury and Summers (2020) concludes the decline in worker power originating from unionization, or the threat of unions, contributed to wage inequality.

I focus on long-term policy changes spanning the second half of the 20th century of which unionization is an outcome. Enforcement of collective bargaining agreements waned in the 1970s and the decline accelerated after President Reagan fired more than 11,000 striking air traffic controllers in 1981. The Reagan strike break spurred a series of other strike breaks and a culture where employers were tougher on unions and workers were more hesitant to strike (McCartin, 2011). Using more recent data, Fortin, Lemieux, and Lloyd (2023) find state right-to-work laws weakened collective bargaining and lowered unionization rates and wages.[22] The impact was particularly large for high unionization industries such as

[21] Michaud (2022) finds that a third of ineligible workers are younger than 25 and older than 65. I check robustness by recalculating wages for this restricted sample and the main takeaways from the calibration results hold.

[22] Right-to-work laws weaken unions by forbidding them from requiring dues from all workers benefiting from a collective bargaining agreement.

educational services, public administration, and construction which are concentrated in the bottom half of the wage distribution. Weakening policies and a changing regulatory culture reduced unionization and bargaining power for workers in the bottom half of the distribution.

I model technological change and worker bargaining power as two competing forces, but in reality they are intertwined. As robots replace labor, workers performing routine tasks have less bargaining power (Cordoba et al., 2023). Similarly, as the economy globalizes, workers competing with labor abroad have less bargaining power (Dumont et al., 2012; Charles et al., 2021). I find labor policy explains half of the rise in wage inequality and that exogenous factors—such as technological change and competition from abroad—explains the other half. Yet, technological change and competition likely affect worker bargaining power just as anti-union busting legislation, right-to-work laws, and antitrust policy do. Separately identifying the determinants of bargaining power are outside the scope of this paper and is a promising area for future research.

The finding that worker bargaining power is an important driver of wage inequality relates to a blooming literature on monopsony power. Although I model the labor market as perfectly competitive, I include a friction which generates surplus from a worker-firm match. The fact that firms take home a larger share of surplus in the latter period is a reduced form way of capturing rising firm power, whether from a concentrated labor market or declining unionization. Azar, Marinescu, and Steinbaum (2020) and Yeh, Macaluso, Hershbein et al. (2022) use detailed vacancy and plant-level data to document that U.S. labor markets are concentrated. Deb, Eeckhout, Patel, and Warren (2022) and Berger, Herkenhoff, Kostøl, and Mongey (2023) use structural inference and find monopsony power has contributed to inequality. Stansbury and Summers (2020) distinguish between monopsony power and worker power and—in line with the assumptions of this paper—conclude that worker power is a more compelling explanation for the evolution of the U.S. economy.

Outside the scope of this paper but possibly a burning question for some readers: Why would the White majority vote for policymakers who weaken their protections? More than two thirds of Black Americans were excluded by the Social Security Act, yet they only accounted for a quarter of agriculture and service workers (Spriggs, 2019). William E. Spriggs writes in his 2019 congressional testimony, "The odd issue here is that more Whites had to suffer a loss of Social Security benefits to achieve the elimination of African Americans from the program." The same can be said for filling in public pools and closing public parks—in terms of sheer numbers, it likely hurt more White than Black Americans. A more recent

example is the refusal of some states to expand Medicaid—at no cost to themselves—as part of the Affordable Care Act (Spriggs, 2018). Racial animosity, hierarchy, and ideology evades rationality (Kuziemko and Washington, 2018; de Souza, 2022).

5 Conclusion

In the 1950s and 1960s, wage inequality was at historic lows, but the moment was short-lived. After the Civil Rights Act, policymakers began chipping away at New Deal programs that had previously benefited the White middle class.

First, I ask *why* labor policy changed. This question has received little attention in economics. I show that states with a larger Black population disproportionately chipped away at their minimum wage and unemployment benefits, and they had lower unionization rates. Second, I ask *how* labor policy contributed to inequality, which has been studied before but not with a labor search model. The advantage of a search model is it accounts for general equilibrium effects and includes an avenue for both unemployment benefits and bargaining power to influence wages.

I find policy changes plausibly driven by racism and the desire to exclude Black workers had widespread effects. Declines in the minimum wage, unemployment benefits, and worker bargaining power explain half of the rise in wage inequality since the 1960s. Together, both parts illuminate not only the impact of policy but why it changed so that if the United States wants to, it can reverse course.

References

Abowd, J. A. and T. Lemieux (1993): "The effects of product market competition on collective bargaining agreements: The case of foreign competition in Canada," *The Quarterly Journal of Economics*, 108, 983–1014.

Acemoglu, D. (2002): "Technical change, inequality, and the labor market," *Journal of Economic Literature*, 40, 7–72.

Acemoglu, D. and P. Restrepo (2021): "Tasks, Automation, and the Rise in US Wage Inequality," Tech. rep., National Bureau of Economic Research.

Alesina, A., E. Glaeser, and B. Sacerdote (2001): "Why doesn't the United States have a European-style welfare state?" *Brookings Papers on Economic Activity*, 187–278.

Auten, G. and D. Splinter (2023): "Income inequality in the United States: Using tax data to measure long-term trends," *Journal of Political Economy, forthcoming*.

Autor, D. H., L. F. Katz, and M. S. Kearney (2008): "Trends in US wage inequality: Revising the revisionists," *The Review of Economics and Statistics*, 90, 300–323.

Autor, D. H., A. Manning, and C. L. Smith (2016): "The contribution of the minimum wage to US wage inequality over three decades: a reassessment," *American Economic Journal: Applied Economics*, 8, 58–99.

Azar, J., I. Marinescu, and M. Steinbaum (2020): "Labor market concentration," *Journal of Human Resources*, 1218–9914R1.

Berger, D. W., K. F. Herkenhoff, A. R. Kostøl, and S. Mongey (2023): "An Anatomy of Monopsony: Search Frictions, Amenities and Bargaining in Concentrated Markets," Tech. rep., National Bureau of Economic Research.

Bertrand, M. and S. Mullainathan (2004): "Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination," *American Economic Review*, 94, 991–1013.

Blau, F. D. and L. M. Kahn (1996): "International differences in male wage inequality: institutions versus market forces," *Journal of Political Economy*, 104, 791–837.

Bloesch, J., B. Larsen, and B. Taska (2022): "Which Workers Earn More at Productive Firms? Position Specific Skills and Individual Worker Hold-up Power," *Working Paper*.

Boerma, J. and L. Karabarbounis (2021): "Reparations and persistent racial wealth gaps," Tech. rep., National Bureau of Economic Research.

Brouillette, J.-F., C. I. Jones, and P. J. Klenow (2021): "Race and economic well-being in the United States," Tech. rep., National Bureau of Economic Research.

Brudney, J. J. (2004): "Isolated and Politicized: The NLRB's Uncertain Future," *Comp. Lab. L. & Pol'y. J.*, 26, 221.

Butler, R. J., J. J. Heckman, and B. Payner (1989): "The impact of the economy and the state on the economic status of blacks: A study of South Carolina," *Markets in history: Economic studies of the past*, 231–346.

Cahuc, P., F. Postel-Vinay, and J.-M. Robin (2006): "Wage bargaining with on-the-job search: Theory and evidence," *Econometrica*, 74, 323–364.

Callaway, B. and W. J. Collins (2018): "Unions, workers, and wages at the peak of the American labor movement," *Explorations in Economic History*, 68, 95–118.

Card, D. (1998): "Falling union membership and rising wage inequality: What's the connection?" Tech. rep., National Bureau of Economic Research.

Card, D. and J. E. DiNardo (2002): "Skill-biased technological change and rising wage inequality: Some problems and puzzles," *Journal of Labor Economics*, 20, 733–783.

Card, D., T. Lemieux, and W. C. Riddell (2003): "Unionization and wage inequality: a comparative study of the US, the UK, and Canada," .

Charles, K. K., M. S. Johnson, and N. Tadjfar (2021): "Trade Competition and the Decline in Union Organizing: Evidence from Certification Elections," Tech. rep., National Bureau of Economic Research.

Clemens, J. and M. R. Strain (2022): "How Important are Minimum Wage Increases in Increasing the Wages of Minimum Wage Workers?" Tech. rep., National Bureau of Economic Research.

Collins, W. J. and G. T. Niemesh (2019): "Unions and the Great Compression of wage inequality in the US at mid-century: evidence from local labour markets," *The Economic History Review*, 72, 691–715.

Cook, L. D. (2014): "Violence and economic activity: evidence from African American patents, 1870–1940," *Journal of Economic Growth*, 19, 221–257.

Cordoba, J. C., A. T. Isojärvi, and H. Li (2023): "Endogenous Bargaining Power and Declining Labor Compensation Share," .

Darity Jr, W. A. and A. K. Mullen (2022): *From Here to Equality: Reparations for Black Americans in the Twenty-first Century*, UNC Press Books.

de Souza, G. (2022): "On the Political and Economic Determinants of Redistribution: Economic Gains, Ideological Gains, or Institutions?" .

Deb, S., J. Eeckhout, A. Patel, and L. Warren (2022): "What drives wage stagnation: Monopsony or Monopoly?" *Journal of the European Economic Association*, 20, 2181–2225.

Derenoncourt, E. (2022): "Can you move to opportunity? Evidence from the Great Migration," *American Economic Review*, 112, 369–408.

Derenoncourt, E., C. H. Kim, M. Kuhn, and M. Schularick (2022): "Wealth of two nations: The US racial wealth gap, 1860-2020," Tech. rep., National Bureau of Economic Research.

Derenoncourt, E. and C. Montialoux (2021): "Minimum wages and racial inequality," *The Quarterly Journal of Economics*, 136, 169–228.

Diamond, P. A. (1982): "Aggregate demand management in search equilibrium," *Journal of Political Economy*, 90, 881–894.

DiNardo, J., N. M. Fortin, and T. Lemieux (1996): "Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach," *Econometrica*, 64, 1001–1044.

Doniger, C. and D. Toohey (2022): "These Caps Spilleth Over: Equilibrium Effects of Unemployment Insurance." .

Dumont, M., G. Rayp, and P. Willemé (2012): "The bargaining position of low-skilled and high-skilled workers in a globalising world," *Labour Economics*, 19, 312–319.

Farber, H. S., D. Herbst, I. Kuziemko, and S. Naidu (2021): "Unions and inequality over the twentieth century: New evidence from survey data," *The Quarterly Journal of Economics*, 136, 1325–1385.

Farber, H. S. and B. Western (2002): "Ronald Reagan and the politics of declining union organization," *British Journal of Industrial Relations*, 40, 385–401.

Fortin, N. M. and T. Lemieux (1997): "Institutional changes and rising wage inequality: Is there a linkage?" *Journal of Economic Perspectives*, 11, 75–96.

Fortin, N. M., T. Lemieux, and N. Lloyd (2023): "Right-to-work laws, unionization, and wage setting," in *50th Celebratory Volume*, Emerald Publishing Limited, vol. 50, 285–325.

Freeman, R. (1992): "How Much Has De-Unionisation Contributed to the Rise in Male Earnings Inequality?" *Uneven Tides*.

Freeman, R. B. (1980): "Unionism and the Dispersion of Wages," *ILR Review*, 34, 3–23.

Godard, J. (2003): "Do labor laws matter? The density decline and convergence thesis revisited," *Industrial Relations: A Journal of Economy and Society*, 42, 458–492.

Goldin, C. and L. F. Katz (2001): "Decreasing (and then increasing) inequality in America: a tale of two half-centuries," *The Causes and Consequences of Increasing Inequality*, 37–82.

Goldin, C. and R. A. Margo (1992): "The great compression: The wage structure in the United States at mid-century," *The Quarterly Journal of Economics*, 107, 1–34.

Guvenen, F., B. Kuruscu, and S. Ozkan (2014): "Taxation of human capital and wage inequality: A cross-country analysis," *Review of Economic Studies*, 81, 818–850.

Katz, L. F. and D. Autor (1999): "Changes in the wage structure and earnings inequality," in *Handbook of Labor Economics*, Elsevier, vol. 3, 1463–1555.

Katznelson, I. (2005): *When Affirmative Action was White: An Untold History of Racial Inequality in Twentieth-century America*, WW Norton & Company.

Kendi, I. X. (2016): *Stamped from the Beginning: The Definitive History of Racist Ideas in America*, Hachette UK.

Kuziemko, I. and E. Washington (2018): "Why did the Democrats lose the South? Bringing new data to an old debate," *American Economic Review*, 108, 2830–2867.

Lee, D. S. (1999): "Wage inequality in the United States during the 1980s: Rising dispersion or falling minimum wage?" *The Quarterly Journal of Economics*, 114, 977–1023.

MacLean, N. (2018): *Democracy in Chains: The Deep History of the Radical Right's Stealth Plan for America*, Penguin.

Martellini, P. and G. Menzio (2020): "Declining search frictions, unemployment, and growth," *Journal of Political Economy*, 128, 4387–4437.

Mayer, G. (2004): "Union membership trends in the United States," .

McCartin, J. A. (2011): *Collision Course: Ronald Reagan, the Air Traffic Controllers, and the Strike that Changed America*, Oxford University Press.

McGhee, H. (2021): *The sum of Us: What Racism Costs Everyone and How We Can Prosper Together*, One World.

Menzio, G. and S. Shi (2010): "Block recursive equilibria for stochastic models of search on the job," *Journal of Economic Theory*, 145, 1453–1494.

Michaud, A. M. (2022): "Expanding Unemployment Insurance Coverage," .

Moen, E. R. (1997): "Competitive search equilibrium," *Journal of Political Economy*, 105, 385–411.

Mortensen, D. T. (1982): "Property rights and efficiency in mating, racing, and related games," *The American Economic Review*, 72, 968–979.

O'Leary, C. J., W. E. Spriggs, and S. A. Wandner (2022): "Equity in Unemployment Insurance Benefit Access," in *AEA Papers and Proceedings*, vol. 112, 91–96.

Piketty, T., E. Saez, and G. Zucman (2018): "Distributional national accounts: methods and estimates for the United States," *The Quarterly Journal of Economics*, 133, 553–609.

Pissarides, C. A. (1985): "Short-run equilibrium dynamics of unemployment, vacancies, and real wages," *The American Economic Review*, 75, 676–690.

——— (2000): *Equilibrium Unemployment Theory*, MIT press.

——— (2009): "The unemployment volatility puzzle: Is wage stickiness the answer?" *Econometrica*, 77, 1339–1369.

Price, D. N. (1985): "Unemployment insurance, then and now, 1935-85," *Soc. Sec. Bull.*, 48, 22.

Rawlston, V. and W. E. Spriggs (2002): "A logit decomposition analysis of occupational segregation: an update for the 1990s of Spriggs and Williams," *The Review of Black Political Economy*, 29, 91–96.

Rothstein, R. (2017): *The Color of Law: A Forgotten History of How our Government Segregated America*, Liveright Publishing.

Ruggles, S., S. Flood, S. Foster, R. Goeken, J. Pacas, M. Schouweiler, and M. Sobek (2021): "IPUMS USA: Version 11.0 [dataset]. Minneapolis, MN: IPUMS," *https://doi.org/10.18128/D010.V11.0*.

Saez, E. (2021): "Public Economics and Inequality: Uncovering Our Social Nature," in *AEA Papers and Proceedings*, vol. 111, 1–26.

Sato, C. (1991): "Senator Harry F Byrd and the New Deal Reform Policy in Virginia, 1933-1938," *Dissertations, Theses, and Masters Projects*, William & Mary, Paper 1539625690, 58.

Skandalis, D., I. Marinescu, and M. N. Massenkoff (2022): "Racial inequality in the US unemployment insurance system," Tech. rep., National Bureau of Economic Research.

Spriggs, W. E. (2018): "A Look at Inequality, Workers' Rights, and Race," *Law & Ineq.*, 36, 231.

——— (2019): "The Recurring Stuggle of the Minimum Wage," Testimony prepared for the U.S. House of Representatives Education and Labor Committee, 116th Congress, First Session.

Spriggs, W. E. and R. M. Williams (1996): "A logit decomposition analysis of occupational segregation: Results for the 1970s and 1980s," *The Review of Economics and Statistics*, 348–355.

Stansbury, A. and L. H. Summers (2020): "The declining worker power hypothesis: An explanation for the recent evolution of the American economy," .

United States. Minimum Wage Study Commission (1981): *Report of the Minimum Wage Study Commission: Exemptions from the Fair Labor Standards Act*, vol. 4, The Commission.

U.S. Department of Labor (2021): "Unemployment Insurance Financial Data Handbook 394," *https://oui.doleta.gov/unemploy/DataDownloads.asp*.

Williams, J. A., T. D. Logan, and B. L. Hardy (2021): "The persistence of historical racial violence and political suppression: Implications for contemporary regional

inequality," *The ANNALS of the American Academy of Political and Social Science*, 694, 92–107.

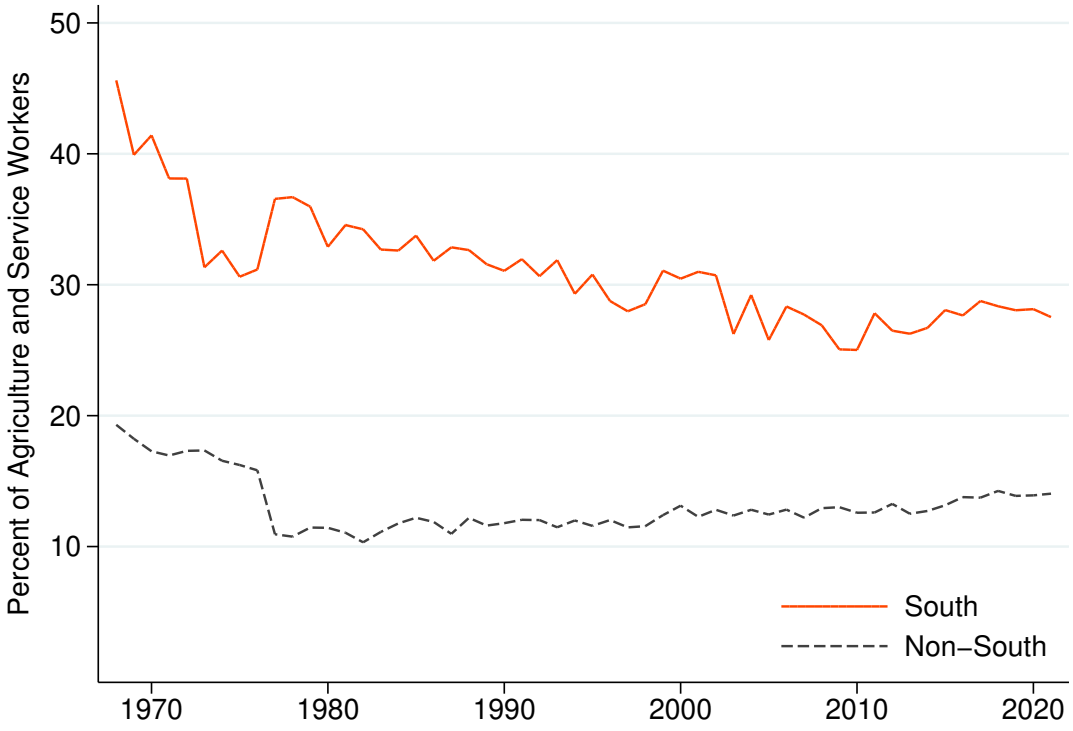
Wolcott, E. L. (2021): "Employment inequality: Why do the low-skilled work less now?" *Journal of Monetary Economics*, 118, 161–177.

Wright, G. (2013): *Sharing the Prize*, Harvard University Press.

Wursten, J. and M. Reich (2021): "Racial inequality and minimum wages in frictional labor markets," .

Yeh, C., C. Macaluso, B. J. Hershbein, et al. (2022): "Monopsony in the US Labor Market," Tech. rep.

A Black Agriculture and Service Workers



Notes: Author's calculations using data from ASEC via IPUMS-CPS. Agriculture occupations are Farmers and Farm Laborers using the 1950 Census Bureau occupational classification system. Service occupations are Service Workers, both private household and not household, using the 1950 Census Bureau occupational classification system.

B State-Level Regressions by Decade

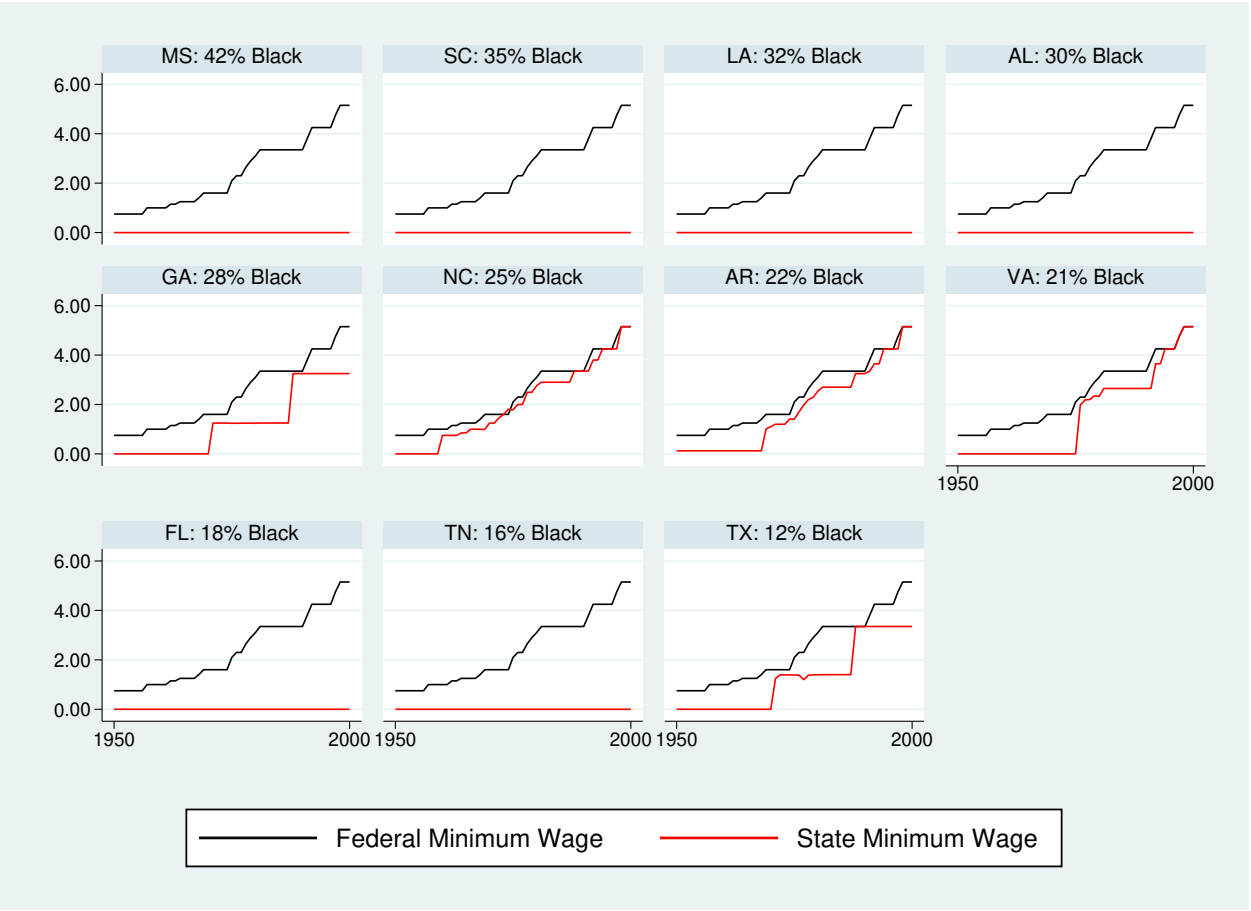
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	UI Benefit	UI Benefit	UI Benefit	UI Benefit	UI Benefit	UI Benefit
($ShareBlack_{1960}$	-0.0245	-0.0496	-0.0768**	-0.103	-0.831	-1.643***
$\times PostPeriod$)	(0.0537)	(0.0583)	(0.0317)	(0.169)	(0.507)	(0.473)
$ShareBlack_{1960}$	0.0317	0.0317	0.0317	0.0317	0.0317	0.0317
	(0.0726)	(0.0732)	(0.0726)	(0.0721)	(0.0721)	(0.0721)
$PostPeriod$	5.692***	10.69***	17.01***	43.48***	114.5***	184.2***
	(1.414)	(1.817)	(0.843)	(4.224)	(14.46)	(13.15)
$Constant$	14.96***	14.96***	14.96***	14.96***	14.96***	14.96***
	(1.576)	(1.589)	(1.576)	(1.564)	(1.564)	(1.564)
Observations	77	55	77	121	121	121
R-squared	0.372	0.707	0.670	0.445	0.634	0.794
States	South	South	South	South	South	South
Pre-period	1950	1950	1950	1950	1950	1950
Post-period	1954–1959	1960–1963	1964-1969	1970–1979	1980–1980	1990–1999
Post-period avg.	$20.84	$25.19	$30.82	$56.63	$108.99	$157.98

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Min. Wage	Min. Wage	Min. Wage	Min. Wage	Min. Wage	Min. Wage
($ShareBlack_{1960}$	0	-0.000941	-0.00190	-0.0309*	-0.0568*	-0.0937*
$\times PostPeriod$)	(1.02e-09)	(0.00272)	(0.00384)	(0.0161)	(0.0294)	(0.0475)
$ShareBlack_{1960}$	-0.000604	-0.000604	-0.000604	-0.000604	-0.000604	-0.000604
	(0.000739)	(0.000745)	(0.000739)	(0.000734)	(0.000734)	(0.000734)
$PostPeriod$	-0	0.0921	0.148	1.377**	2.514**	4.104**
	(2.72e-08)	(0.116)	(0.154)	(0.542)	(1.007)	(1.588)
$Constant$	0.0268	0.0268	0.0268	0.0268	0.0268	0.0268
	(0.0295)	(0.0298)	(0.0295)	(0.0293)	(0.0293)	(0.0293)
Observations	77	55	77	121	121	121
R-squared	0.020	0.023	0.021	0.152	0.194	0.225
States	South	South	South	South	South	South
Pre-period	1950	1950	1950	1950	1950	1950
Post-period	1954–1959	1960–1963	1964-1969	1970–1979	1980–1980	1990–1999
Post-period avg.	$0.01	$0.08	$0.11	$0.60	$1.08	$1.72

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

C Minimum Wages in the American South



Notes: Author's calculations using data from Derenoncourt and Montialoux (2021) and the U.S. Department of Labor. Minimum wages are in units of nominal U.S. Dollars. States are displayed in descending ordered by the percent of their population that is Black in the 1960 Census.

D Unionization Rate and Black Population Share

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Union Rate	Union Rate	Union Rate	Union Rate	Union Rate
$ShareBlack_{1960}$	-0.198***	-0.0779			
	(0.0517)	(0.0861)			
$ShareBlack_{1980}$			-0.133**		
			(0.0496)		
$ShareBlack_{1990}$				-0.156**	
				(0.0740)	
$ShareBlack_{2000}$					-0.155***
					(0.0524)
$Avg.Income$	0.00124***	-0.000353	0.00241***	0.00110***	0.000830***
	(0.000227)	(0.000269)	(0.000394)	(0.000273)	(0.000165)
Constant	-6.796	18.86**	-9.593*	-2.291	-8.473*
	(4.433)	(6.460)	(4.928)	(4.895)	(4.496)
Observations	51	11	51	51	51
R-squared	0.405	0.073	0.348	0.272	0.336
States	All	South	All	All	All
Sample	1983–2000	1983–2000	1983	1990	2000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

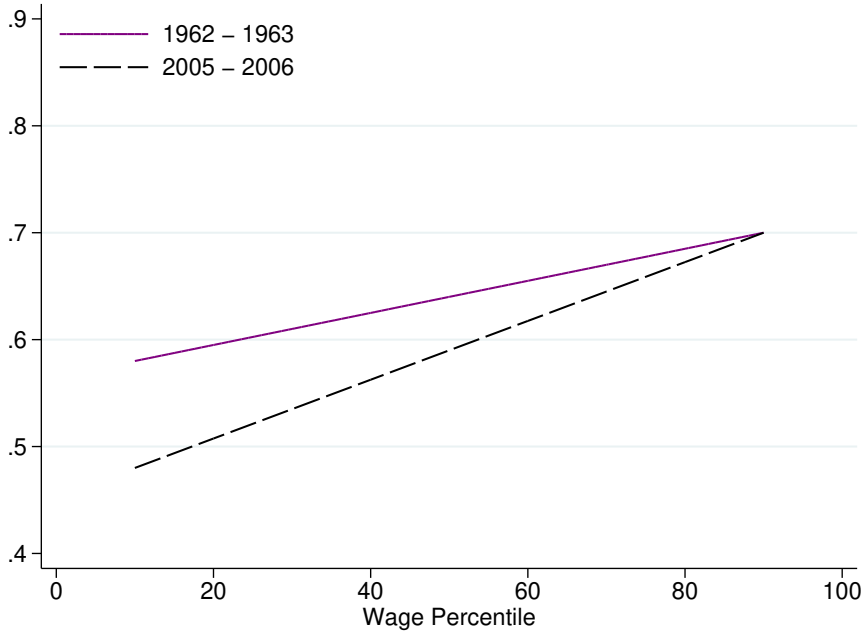
Notes: Author's calculations using data from the CPS. Union Rate is the share of a state's population covered by a labor union; this includes both union members and non-members.

E Labor Share

Data for Labor Share

Notes: Data from the BLS.

Model Assumptions for Labor Share



F 90/50 Wage Inequality Ratio

	Data	Full Model	Min Wage Off	UI Off	Bargaining Off
1962–63	1.77	1.77	1.77	1.77	1.77
2005–06	2.38	1.92	1.92	1.89	1.77
Difference	0.61pp	0.15pp	0.15pp	0.12pp	0pp
Accounts for	100%	25%	25%	19%	0%

Notes: Top panel is the ratio between the 90^{th} percentile and 50^{th} percentile of income earners, in terms of hourly wage. Data is from IPUMS-CPS. Full model has all channels turned on. The last three columns are the model with individual channels turned off. The "Difference" row is the percentage point change in the 90/10 ratio from 1962–63 to 2005–06. The "Accounts for" row is the share of the observed change in the 90/10 ratio accounted for by the model.