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Changes in Federal and State Labor Laws
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Structured Conflict: Changes in Federal and State Labor Laws and Strike Activity, 1950 to 2017

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Abstract: Through looking at state adoption of right-to-work laws, state embrace of social equity between employees of different racial and ethnic groups, and federal adjudication and administration of the National Labor Relations Act, we seek to better understand how state and federal intervention in labor-management relations have contributed to income inequality across regions and overtime in the United States. As we will see, both state and federal support of employers' prerogatives and of racially biased institutions are associated with weaker worker power. For example, change in adjudication and administration of the National Labor Relations Board to the benefit of the employer starting in the 1980s is associated with around a 90 percent decrease in strike activity across states. And state embrace of Jim Crow in the midcentury and the New Jim Crow since the 1980s explains a significant portion of the variation in worker power, and thus wages between states.

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1. Introduction

Throughout the twentieth and twenty-first centuries significant inequalities have existed between regions in the United States. For example, in 1960, 38.8 and 30.7 percent of residents in the South and Southwest were officially under the poverty line. The poverty rates in these regions were 16.7 and 8.6 percentage points above the national average, and 25.2 and 17.1 percentage points higher than poverty rates in New England. While some of the difference in poverty rates stems from difference in price level, the South and Southwest clearly represented a more impoverished region of the country in mid-century. As the twentieth century progressed, poverty rates in the South and Southwest decreased converging on the national average. However, from 1960 until present, poverty rates in the South and Southwest remained above the national average and above that of every other region in the country (United States Census Bureau).³

Likewise, certain periods in the history of the United States have been characterized by rising national inequality. For example, since 1980, poverty rates for the nation as a whole have increased from 12.4 percent of residents in the United States in poverty to 14.9 percent in 2010 (United States Census Bureau).⁴ Likewise, since 1980, the income share of the bottom fifty percent of the population has decreased from 20.1 percent of national wage income in 1979 to 12.4 percent in 2014, and the income share of the top one percent has increased from 11.1 percent to 20.2 of national income over the same period (World Inequality Database).

How have state and federal intervention in labor-management relations contributed to the relative levels of inequality – whether measured in poverty across regions or income shares of different groups of the national population overtime? In this paper, we seek to address this question by looking at how states’ adoption of right-to-work laws and embrace of social equity between employees of different racial and ethnic groups and federal adjudication and administration of the National Labor Relations Act (NLRA) impacted intrafirm power dynamics – power dynamics between labor and management inside a given firm – and thus affected poverty and inequality across states and over time.

2. The Literature

³ <https://www.census.gov/library/visualizations/time-series/demo/census-poverty-tool.html>.

⁴ Ibid.

The most common explanation in economics for regional inequalities in income is that regional differences in productivity exist between the work force of the two areas. Under such an understanding, regional differences in productivity could stem from different levels of capital intensity, technology adoption, or average educational attainment. Likewise, the most common explanation for the increase in wage income inequality in the United States over the past four decades is skill-biased technical change (SBTC) – the idea that technological change has increased the productivity and thus demand for skilled workers. Meanwhile, the education system has failed to elevate many into the skilled ranks; as a result, there is a growing divide between the wage for skilled workers vis-à-vis unskilled workers. From such explanations, higher rates of poverty in a given region and changes in inequality overtime are the result of the proper functioning of the market – rewarding individuals for their higher productivity relative to other less-skilled, less-productive workers.

Setting aside the historical and political question of what sorts of labor have come to be classified as skilled, theories solely based on differences in productivity don't stand up to empirical data. For example, the increase in income inequality in the United States is hyperconcentrated, with the rise in the income share of elite subgroups, like the top 1.0 and 0.1 percent, inside the larger subset of skilled workers, driving the rise in inequality. Also, across developed countries, the increase in wage income inequality has been mainly limited to the U.S., Canada, and the U.K., with continental Europe and Japan not experiencing the same secular trend. If change in technology was driving the increase in inequality, benefits would be more evenly spread across skilled workers, not hyperconcentrated in a small subset of skilled workers, and all countries at the cusp of the technology frontier, not just the U.S., Canada, and the U.K., would see similar movements in inequality (Piketty, 2014).

The central assumption of SBTC and other theories that understand inequality as resulting from differences in productivity between workers is that wages equal the value of workers' marginal product. Indeed, if one assumes such, there is no other way to explain wage differences than through differences in productivity. While this assumption has been something of an unchallenged truth in much of the economics profession, recent research reveals that wage setting power, the ability of a firm to set the wage below the value of a worker's marginal product, is ubiquitous. For example, analyzing employer concentration by county and manufacturing industry from 1977 to 2009, Benmelech et al. (2018) find that labor market

concentration is increasing; the average county-manufacturing industry Herfindahl-Hirschman Index (HHI) went from 0.698 in 1977 through 1981 to 0.756 in 2002 through 2009. A common measure for concentration, HHI is the sum of the square of the market shares for all firms in a market. In this case, an HHI of one means that there is only one firm buying labor in that county for that industry – i.e. the firm is a pure monopsonist. An HHI of zero is the lowest level of concentration. Theoretically, zero HHI is needed to eliminate firms' control over wages; the condition necessary for the wage to equal to the value of a worker's marginal product. After controlling for labor productivity and other relevant factors, Benmelech et al. find that higher levels of concentration are associated with lower wages, and that employers' ability to push down wages has increased over time.

While Benmelech et al. (2018) only look at manufacturing, wage setting power seems to be everywhere. For example, Dube et al. (2018) find evidence of monopsony power on Amazon MTURK, an online platform where search frictions should be extremely low. At the same time, there is significant evidence that the largest employer in the United States, Wal-Mart, has tremendous monopsony power in labor markets for their retail and warehouse workforces. After controlling for differences in location and workers' productivity, Dube et al. (2007) find that Wal-Mart pays equivalent employees 17.5 percent less than large grocers, 17.4 percent less than other general merchandizing employers, large and small, and 25 percent less than large general mechanizing employers. These wage differences are almost certainly due to Wal-Mart's large wage setting power stemming from its size, strong antiunion orientation, and its influence over the political process through lobbying efforts to block pro-labor regulations. The downward pressure Wal-Mart exerts on wages is felt by competing firms. Controlling for selection bias from store location decisions, Dube et al. find that a new Wal-Mart lowers competing general merchandising and grocery store workers' wages in that county by 1.0 and 1.5 percent on average, respectively. Since its first store opened in 1962 in Rogers, Arkansas, Wal-Mart has expanded rapidly, reaching 4,177 locations across the nation by the end of 2018. As a result of the its increased presence, Dube et al. estimate that Wal-Mart has lowered national retail wages by \$4.5 billion in 2000.

Despite a public show of breaking-up large conglomerate enterprises during the 1980s, Kim Moody (2017) illustrates that the 1990s is characterized by a dramatic increase in concentration. This process has increased the scale and capital-intensity within manufacturing

and nonmanufacturing industries, particularly in the service industries like health care and hotels but also within transportation, telecommunications, as well as retail, as exemplified by Wal-Mart above. Online retailers such as Amazon, the nation's second largest employer, who have built up tremendous physical infrastructure in the form of warehouse hubs and logistics networks in addition to online infrastructure, have as a result been able to exert tremendous monopsony power within labor markets, overseeing a workforce dominated by piece rate pay, biometric monitoring, and temporary and at-will employment.

In a world where wage setting power is ubiquitous, many other factors can affect regional and national wage income inequality. For example, Stelzner and Paul (2018) construct a wage setting model where employers and employees make intertemporal, strategic decisions on the wage and strike activity, respectively. Employers have wage setting power, and state policies on labor-management relations affect the likelihood workers will win wage concessions from strike activity. Stelzner and Paul show that workers' collective action, in the context of monopsony power, reduces the degree to which firms can push workers' wages below the value of their marginal product. However, when government is hostile to labor, it is not maximizing for employees to engage in collective action, and as a result, employers are unencumbered in syphoning wages from workers. Thus, differences across states and over time in workers' wages can result, at least in part, from variation in the presence of pro-labor laws and institutions.

Some have already made such claims. For example, Stelzner (2017) analyzes changes in adjudication and administration of the National Labor Relations Act (NLRA) – the main federal labor law in the United States – and a change in the social context from the 1960s until present. For adjudication of the NLRA, he looks at decisions by the Supreme Court and the National Labor Relations Board (NLRB) – the body charged with administering the NLRA. For change in administration, he looks at the evolution in delays in processing contested cases by the NLRB in Washington, D.C., and for change in the social context, Stelzner looks at the transformation in the usage of permanent replacement workers during economic strikes. He finds evidence that changes in these laws and institutions affected intrafirm power dynamics and thus have contributed to the rise in income inequality from the 1980s to present. While this work is revealing, especially in documenting and coding changes in labor laws and institutions, the statistical results lack strength because all three of the series are national and thus do not have significant variation.

In terms of regional inequality since the mid-twentieth century, several studies have looked at the effect of right-to-work laws on intrafirm power dynamics. Right-to-work laws prohibit union security agreements – contract stipulations that employees must join the union, or at least pay some proportion of the union dues rate, in order to remain employed at the worksite. Because unions are obligated by law to extend contract benefits to all employees, whether they pay dues or not, right-to-work laws create the possibility for free riding. At the same time, such laws demonstrate that the state is antagonistic to collective action – potentially dampening workers’ willingness to support unions.

Despite these effects, some economists argue that right-to-work laws have no impact on union membership – and thus no influence on intrafirm power dynamics (Lumsden and Peterson, 1975; Moore and Newman, 1975; Wessels, 1981; Farber, 1983; Hunt and White, 1983; Moore et al., 1986; Koeller 1985, 1992, 1994). These findings pivot on the assumption that states only adopt right-to-work laws where anti-union sentiment among employers, employees, and the public in general is substantial. Through this assumption, these studies treat the right-to-work variable as endogenously determined by preferences often proxied by past levels of unionization. As a result, right-to-work laws are found to be statistically insignificant in the formation of unions across state and over time; the laws are just a political representation of antiunion sentiment which would have stymied unionization even in the absence of the law.

On their face value, these studies would seem to speak against the importance of laws and institutions in understanding differences in poverty across region and in wage income inequality overtime. However, these studies actually demonstrate the danger of econometrics without historical founding. Before the mid-1960s, the period when most right-to-work laws were passed, the political systems in southern states were highly undemocratic. The vast majority of black Americans and a substantial portion of white Americans were disenfranchised through poll taxes, literacy tests, and a vigilant county registrar. Union organizers faced a very credible threat of being lynched, regardless of their racial background, as was also infamously the case for black Americans who stepped outside the social norms of Jim Crow. Likewise, gerrymandering gave Black Belt regions in the South – the stronghold of the planter elites – overrepresentation in both state and federal legislatures. As a result, voter turnout in the U.S. South was incredibly low during this period (Farhand and Katznelson, 2005; Lichtenstein, 2013). As seen in Table 1, southern states represented more than half of the nineteen states with right-to-work laws in place

by the mid-1960s. Thus, in the majority of cases, the passage of right-to-work laws could not have represented general anti-union preferences of employees – many of whom were effectively disenfranchised.

Table 1: Passage and Repeal of Right-to-Work Laws

State	Constitutional Amendment	Statute	Repeal	State	Constitutional Amendment	Statute	Repeal
Alabama		1953		Missouri		2017	2018
Arizona	1946	1947		Nebraska	1946	1947	
Arkansas	1944	1947		Nevada		1952	
Delaware		1947	1949	New Hampshire		1947	1949
Florida	1944			North Carolina		1947	
Georgia		1947		North Dakota		1948	
Hawaii		1945	1959	Oklahoma		2001	
Idaho		1985		South Carolina		1954	
Indiana		1957 2012	1965	South Dakota	1947	1947	
Iowa		1947		Tennessee		1947	
Kansas	1958			Texas		1947	
Kentucky		2017		Utah		1955	
Louisiana		1954, 1976	1956	Virginia		1947	
Maine		1947	1949	West Virginia		2016	
Michigan		2013		Wisconsin		2015	
Mississippi	1960	1954		Wyoming		1963	

Source: authors.

Also, in many Western states, right-to-work laws were narrowly enacted, often quickly through state legislatures, before dynamic local labor movements could mount credible opposition, as demonstrated by the case of Arizona (Shermer, 2013). And even in Michigan, Indiana, and Wisconsin where right-to-work laws were passed in 2012, 2012, and 2015, respectively, legislators sought to stifle public opinion through extraordinary steps like locking citizens out of the capitol building and dramatically curtailing debate while these bills were under consideration. Consequently, in these three states, voters' preferences on right-to-work

laws, as revealed through public polls, differed starkly from voting by state legislatures (Lafer, 2017).

When the passage of right-to-work laws are not assumed to represent employee preferences, they are found to have an economically and statistically significant effect on intrafirm power dynamics (Carroll, 1983; Ellwood and Fine, 1987; Davis and Huston, 1993; Garofalo and Malhotra, 1992; Gould and Shierholz, 2011). For example, Ellwood and Fine (1987) find that a decade after a right-to-work law is passed in a state unionization is five percent lower than if the law had not been passed. After controlling for forty-two demographic, economic, geographic, and policy factors, Gould and Shierholz (2011) find that workers in right-to-work states earned 3.2 percent less on average. Black, Latino, and female workers were more adversely affected, with wage penalties of 4.8, 4.4, and 4.4 percent, respectively. In addition, workers in right-to-work states were 2.6 and 4.8 percent less likely to have employer-covered health insurance and pensions.

State governments have also varied in their support for equal and fair treatment of people of color, women, and other historically disadvantaged groups within the workplace and society. For example, until the mid-1960s, many states embraced laws which created separate spheres of social engagement and work for black and white Americans. Indeed, in the mid-twentieth century, even the federal government, through the Federal Housing Authority and the Veterans Agency, engaged in policy that disadvantaged black Americans in home ownership and contributed to the segregated neighborhoods, in both the North and South, that we still have today (Rothstein, 2017). While the government began to confront these problems in the 1960s and early 1970s, since the late 1970s, the United States has moved in a different direction (Alexander, 2012). As a result, between 1979 and 2015, the wage gap between black and white male, full-time equivalent workers increased by five percentage points (Daly, Hobijn, and Pedtke, 2017).

This increase in wage inequality between workers of different racial groups could come from differences in state laws. Indeed, many labor historians have noted that if the environment is hostile to employment equity, employers can use existing animosity, or encourage new divisions, between racial, ethnic, gender, or other visibly distinct groups to divide and conquer worker opposition to the benefit of management's prerogatives (Montgomery, 1972; Lazonick and Brush, 1985; Greenhouse, 2009; Lichtenstein, 2013; Moody, 2017). Indeed, Farhang and

Katznelson (2005) explain that the South's racial order under Jim Crow made such strategies potent for defeating union drives.

In this paper, we want to bring together data on changes in adjudication and administration of the NLRA, state right-to-work, and proxies on state-level commitment to fair employment to analyze the extent to which laws and institutions affect power dynamics between employers and employees. While we have already presented evidence that these different laws and institutions affect intrafirm power dynamics and thus the distribution of gains from economic activity, there are short-comings to many of these studies. For example, Stelzner's indices (2017) lack significant variation, and thus he is unable to present strong statistical evidence that change in adjudication and administration of the NLRA was an important driver in the current rise in wage income inequality. In contrast, Gould and Shierhoz (2011) have much stronger statistical evidence that right-to-work laws affect wages. However, they only analyze the influence of right-to-work laws on wages in 2009. Thus, from their study, the effect of right-to-work laws on labor in the mid-twentieth century is not clear. To build the robustness of these studies, we will simultaneously analyze all these changes in laws and institutions and do so from the 1940s through present. In section three, we specify the model and look at the data used. This includes making a case for strikes as a proxy for intrafirm power dynamics and for lynching and minority state prison population as a proxy for states' commitment to fair employment during Jim Crow period and at present. In section four, we statistically test the effect of the above-mentioned laws and institutions on distribution, and in the final section, we conclude.

3. Theoretical Model and the Data

As highlighted above, the theoretical idea guiding the following empirical tests is that laws and institutions are central in understanding wage differences across regions and overtime. Imagine a spectrum of potential wages with the worker's fallback positions at one extreme and the value of a worker's marginal product at the other. Where the worker falls in this spectrum is a product of the employer's monopsony power, government support for workers, worker solidarity, etc. Labor legislation affects potential wage outcomes in several different ways. It can raise worker's fallback position directly. It can decrease monopsony power through increasing labor demand or through legislatively circumscribing monopsony power. Labor

legislation can also create a counter force to employers' monopsony power by supporting workers' collective activity. This relationship can be expressed mathematically as followed:

$$w^* = f(\alpha, \theta)$$

w^* is the equilibrium wage. α is a measure of workers productivity. Higher values of α signify greater productivity. Thus, the equilibrium wage is positively related to α – i.e. $\frac{\partial w^*}{\partial \alpha} > 0$. θ is a measure of government's support for workers. Higher values of θ signify more government support for workers. Thus, if our hypothesis is correct, the equilibrium wage is positively related to θ – i.e. $\frac{\partial w^*}{\partial \theta} > 0$.

Optimally, we would use wage data as the outcome variable and data on labor laws and institutions and worker productivity as independent variables to calculate the effect the former has on wages – i.e. to calculate $\frac{\partial w^*}{\partial \theta}$. Because we want to analyze this relationship from the 1940s through present across states, data limitations deeply frustrate the possibility of using wage data. As a result, we use state strikes data as a proxy for intrafirm power dynamics. Stelzner and Paul (2019) show that wage outcomes are positively related to workers' utility maximizing level of collective action, and that strike activity is positively related to government support for workers. Strikes and other forms of collective action impose psychological, monetary, and potentially even physical costs on workers while gains from strike activity are uncertain and only realized in the future. Thus, workers only engage in collective action if the marginal benefit from future increase in wages is greater than the marginal cost from engaging in collective action. Because the level of government support for workers affects the likelihood that strikes are successful, workers engage in more collective action when laws and institutions support them. Since strike activity disrupts production, employers will increase the wage for a given increase in collective action, all else equal.

This relationship can be expressed mathematically as followed:

$$w^* = f(\alpha, \varphi^*(\theta))$$

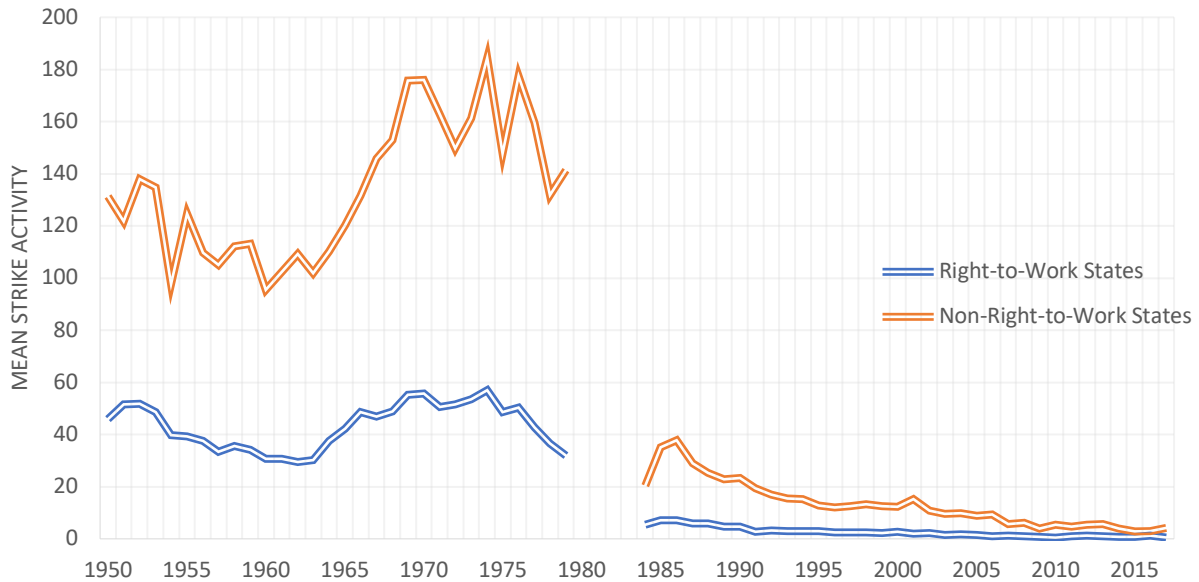
$\varphi^*(\theta)$ is the utility maximizing level of collective action for workers and is a function of labor laws and institutions, θ . Increased strike activity is positively related to the equilibrium wage, i.e. $\frac{\partial w^*}{\partial \varphi^*} > 0$. Thus, we can analyze the effect labor laws and institutions have on wages and thus better understand different levels of poverty and inequality across region and over time by empirically analyzing the relationship between labor laws and institutions and strike activity across states and over time. If we find that increased government support for workers increases strike activity, we can then infer that these laws also explain at least some of the differences in wages across region and overtime.

In Figure 1, we present data on average work stoppages idling more than one thousand workers in right-to-work and non-right-to-work states between 1950 and 2017. Data on strike activity by state for 1950 through 1980 comes from the yearly Statistical Abstract of the United States. For 1984 through 2017, data comes from the Federal Mediation and Conciliation Service.⁵ As we can see, strike activity in right-to-work states is significantly lower throughout the twentieth and twenty-first centuries, and strike activity in both right-to-work and non-right-to-work states decreases starting in the early 1980s and has bottomed out near zero at present. Thus, like expected, trends in strike activity across states and overtime positively mimic trends in poverty and inequality.

For changes in federal labor laws and institutions, we use the NLRA index created by Stelzner (2017) and replicated in Figure 2. The slope for each year is the sum of scores for all decisions highlighted by the NLRB in its annual reports and decisions by the Supreme Court and NLRB highlighted in the press. Any judgement by the Board or the Supreme Court that reinterpreted the law or applied the law to a new area with the result of increasing workers' rights received a score of one; any judgement that did not change existing interpretation of the law received a score of zero, and any decision that adjudicated law such to circumscribe workers' rights received a score of negative one. As we can see from Figure 2, adjudication of the NLRA was favorable to workers from the 1960s through the early 1970s. However, starting in the early 1980s, the NLRB and the Supreme Court began to dramatically reinterpret the law to the benefit of employers.

⁵ <https://www.fmcs.gov/resources/documents-and-data/>.

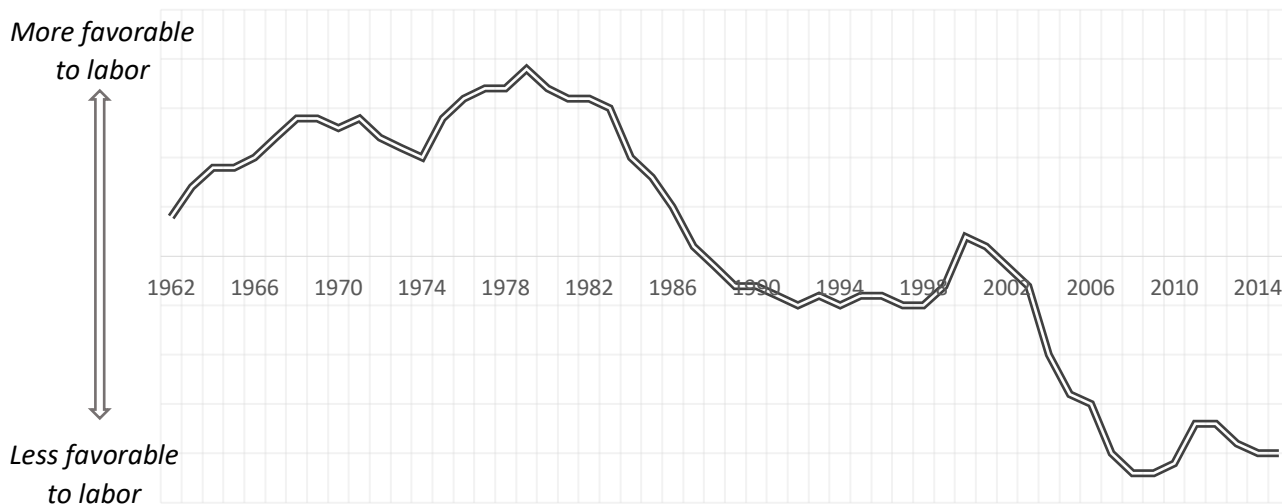
Figure 1: Work Stoppages in Right-to-Work and Non-Right-to-Work States



Source: Statistical Abstract of the United States and the Federal Mediation and Conciliation Service.

In terms of state labor laws, we use both data on state passage of right-to-work statutes and constitutional amendments, displayed above in Table 1, and data on state’s commitment to equal treatment of individuals of different racial and ethnic groups. For the latter, we construct one proxy for the period from 1950 to 1964 and one for the period from 1979 to present because of the discontinuity in institutions over the entire period. For the Jim Crow period, we use the total number of lynching in a state between 1882 and 1940 as a percentage of the state’s population in 1940 as a proxy for a states’ commitment to equal treatment of individuals of different racial or ethnic groups. Racial inequality was legally enshrined in many states through laws that limited the freedoms of black Americans at work, like through false pretense and vagrancy laws, and in political and social settings, like through literacy tests for voting and exclusion from public places deemed “white”. While these laws were enforced through local and state authorities and many times sanctioned by the federal government, extrajudicial violence, with lynching the most extreme example, was important in creating and maintaining Jim Crow laws.

Figure 2: Adjudication of the NLRA by the NLRB and the Supreme Court



Source: Stelzner (2017).

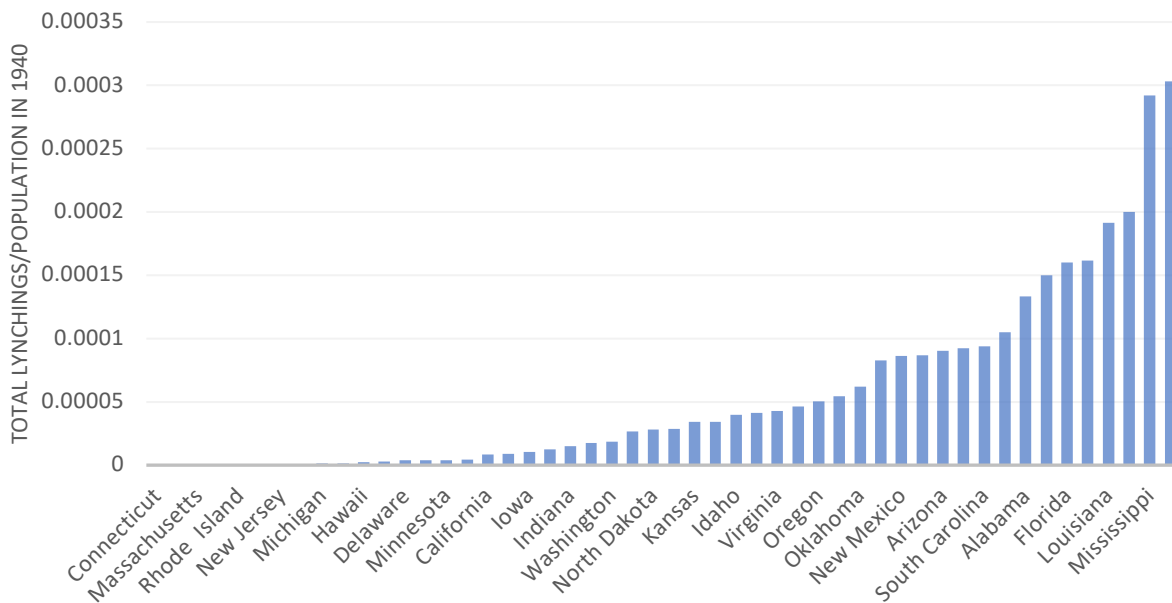
Using data on the prevalence of lynching is also more encompassing than some type of dummy on the existence of Jim Crow laws. The application of racial segregation laws varied between states that adopted them; tactics like lynching were central to more intensely create a society that treated individuals of different racial groups differently. Thus, this proxy is likely to show better variation between those states that formally adopted Jim Crow laws. At the same time, many states that didn't adopt Jim Crow laws had other formal or informal institutions that reduced social equality. Likewise, activities like lynching were important to establish and maintain unequal treatment in non-Jim Crow states. Indeed, lynching activity, although less intense, was prevalent outside the South. For example, California had 113 lynchings between 1865 and 1940 – 42 were for individuals listed as a “Mexican” or “Mexican American,” ten were listed as “Indian,” nine as “Chinese,” and four as “black.” Thus, this proxy is likely to better show differences in commitment to fair treatment across Jim Crow and non-Jim Crow states.

In Figure 3, we show data on the total number of lynching between 1882 and 1940 by state as a percentage of state population in 1940. Data comes from the NAACP Lynching Database at Tuskegee University.⁶ As we can see, the region that more fully embraced Jim Crow, the South, engaging in more lynching activity per resident.

⁶ Hines, E., & Steelwater, E. (2006). Project Hal: Historical American Lynching Data Collection Project. University of North Carolina, <http://people.uncw.edu/hinese/HAL/HAL%20Web%20Page.htm>.

However, there is still significant variation within in the South and between regions that didn't pass Jim Crow laws. For example, in this index, Oregon is ranked higher than Virginia. Indeed, many individuals listed as “Chinese” were lynched in Oregon during this period. This result potentially shows anti-Chinese sentiment in Oregon, and in other western and mountain states, which culminated in federal immigration law that explicitly excluded Chinese from immigration to the United States in the end of the nineteenth century (Lee, 2006).

Figure 3: Total Lynching between 1882 and 1940 by State as a Percentage of Population in 1940

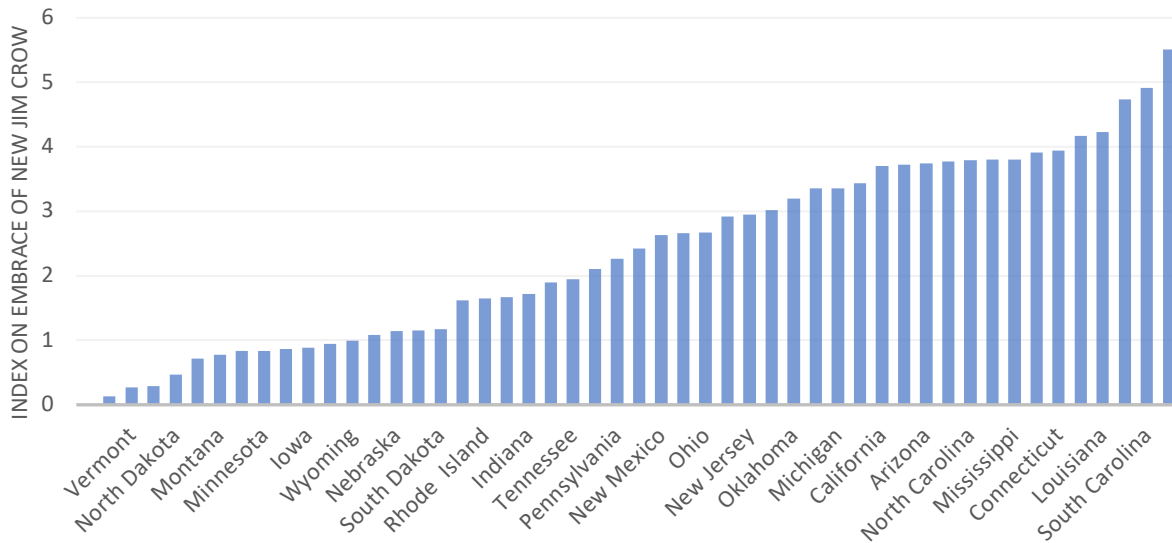


Source: NAACP Lynching Database.

Many tell the story of the Civil Rights Movement as the era when the United States eliminated racial and ethnic inequality embedded in its laws (for example see, Acemoglu and Robinson (2013)). While steps towards social equality were made during the 1960s and early 1970s, the United States has largely regressed since. Indeed, from the beginning of the Civil Rights movement, groups that stood to lose from expanding social and economic equality moved to prevent change. For example, Weaver (2007) argues that the political focus on crime and punishment, which emerged in the early 1960s and gained strength, thereafter, was used to stand in for disapproval of change in

racial and social relations. Indeed, a number of political opinion surveys in the 1970s and 1980s show that individuals that wanted to “get tough on crime” also strongly disapproved of the social change brought by the Civil Rights Movement (for example, see Furstenberg (1971), Stinchcombe et al. (1980), Corbett (1981)).

Figure 4: State’s Embrace of the New Jim Crow



Source: Authors calculations using Census of State Adult Correctional Facilities (1979, 1984, 1990, 1995, 2000, 2005).

In the 1980s, this reaction coalesced in a new system – the New Jim Crow, as named by Alexander (2012) – which centers around locking up black and brown Americans on newly criminalized drug charges. Since the 1980s, the prison population in the United States has exploded reaching per capita levels dramatically higher than any other country in the world, and black and brown Americans represent the majority of those incarcerated for drug crimes – even though white Americans use and sell drugs at similar rates. To encapsulate this systemic change, we use the sum of the minority prison population as a percentage of the total state population for 1979, 1984, 1989, 1994, 1999, and 2004. This index is depicted in Figure 4 below. A more positive value signifies that a state has cumulatively locked up more non-white citizens as a percent of their population; a lower value means that a state has less intensely embraced the new system of locking up black and brown Americans. As we can see, there is significant variation in

between states in their embrace of the New Jim Crow. However, like expected, there seems to be a strong correlation between the old and new Jim Crow.

4. Statistical Testing

In order to test the relationship between laws and institutions and power dynamics between employers and employees, we construct the following regression:

$$\theta_{st} = a_s + \beta_1 R2W_{st} + \beta_2 NLRA_t + \beta_3 SW_{st} + \beta_4 FLS_{st} + controls + u_{st} \quad (1)$$

θ_{st} stands for intrafirm power dynamics and is proxied using the natural log of state strike activity. a_s is the state specific intercept and catches any state specific, time invariant characteristics not picked up in the other variables. $R2W_{st}$ stands for right-to-work laws and is zero if the state doesn't have a right to work law in place in that year and one if it does – no matter if in statute or constitutional amendment form. $NLRA_t$ stands for the natural log of a re-centered NLRA index. SW_{st} signifies state strike wave and captures the often-noted effect of strikes coming in bursts inspired by greater than normal labor activity (Tilly, 1978; Friedman, 1998; and Stelzner, 2018). To capture this effect, the strike wave variable is zero if strike activity is less than the mean of the previous five years in that state and one if it is greater. FLS_{st} is the two indices explained above that proxy for a state's commitment to equal treatment of individuals of different racial and ethnic groups on the job. As for controls, we also include year fixed effects, the natural log of the state unemployment rate, and the natural log of the number of manufacturing employees in the state.

In Table 2, we display result of OLS regressions using variations of equation (1) for the period between 1962 and 2009. We use this truncated period for these regressions because the NLRA index only spans from 1962 to 2009. As we can see throughout the four specifications, the existence of a right-to-work laws has statistically significant negative effect on the log of state level strike activity. Indeed, on average over the entire period, states with right-to-work laws had around 35 percent less strikes – even when controlling for other labor laws, state and year fixed effects, and other state level variables. Likewise, we find that adjudication of the NLRA in favor of employers (i.e. a reduction in the NLRA index) leads to a reduction in strike activity across states. For example, according to regression IV, the dramatic reinterpretation of

the NRLA between 1981 and 1988 is associated with a 12.16 decrease in strike activity across states.

Table 2: State and Intrafirm Power Dynamics, 1962 – 2009

	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>
<i>Right-to-Work Law</i>	-0.34*** (0.08)	-0.31*** (0.07)	-0.30*** (0.06)	-0.30*** (0.06)
<i>NLRA Adjudication</i>	0.99*** (0.03)	0.93*** (0.03)	0.81*** (0.03)	0.76*** (0.04)
<i>State Strike Wave</i>	--	0.53*** (0.02)	0.54*** (0.02)	0.53*** (0.02)
<i>New Jim Crow Index</i>	--	--	-0.04*** (0.01)	-0.04*** (0.01)
<i>Unemployment</i>	--	--	--	-0.33*** (0.07)
<i>Manufacturing Employment</i>	--	--	--	0.00 (0.04)
<i>State Fixed Effects</i>	Yes	Yes	Yes	Yes
<i>Year Fixed Effects</i>	Yes	Yes	Yes	Yes
<i>R² (N)</i>	0.91 (2350)	0.95 (1945)	0.95 (1945)	0.95 (1945)

Source: Authors calculations using data from sources listed above. Robust standard errors in brackets where *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

The NRLA index likely picks up other changes that took place over the last forty years like the decrease in the real federal minimum wage, change in administration of the NLRB, and the change in the norm of using permanent replacement workers. In terms of change in administration, between 1963 and the late 1970s, the time it took the NLRB to decide contested unfair labor practice cases was between 100 and 150 days. However, in the 1980s, delays in deciding contested unfair labor practice contested cases almost

doubled, and between 1998 and 2008, on average, the NLRB took almost 500 days on average to decide unfair labor practice contested cases (Stelzner, 2017). The evolution of delays at the NLRB is highly correlated with the change in interpretation of the NLRA.

Likewise, from 1948 through 1979, only 0.1 percent of employers faced with an economic strike – a strike that is not wholly or partially motivated or prolonged by the employer committing an unfair labor practice – hired permanent replacements. In 1938, the Supreme Court ruled, in *Mackay Radio and Telegraph Co.*, that it is legal for a company to hire permanent replacement workers during an economic strike.⁷ However, social norms seem to have prevented employers from engaging in this strategy. In the early 1980s, this changed. Between 1980 and 1981, the percent of employers that used permanent replacements jumped to 0.3 percent. And in 1982, after Reagan had fired and permanently replaced all striking air traffic controllers during the PATCO strike, the percent of employers using permanent replacement increased to 1.3 percent in 1983 (Stelzner, 2017). Like with change in administration of the NLRB, the change in norm around using permanent replacements is also highly correlated with adjudication of the NLRA. Because of the lack of variation between these variables, change in adjudication of the NLRA in the regression above most likely picks up the effects of parallel changes in labor laws and institutions at the federal level.

These results also show that more intense embrace of the current racial system, the New Jim Crow, is associated with a decrease in strike activity. For example, moving from Pennsylvania, which represents something close to the median for embrace of the current system, to Louisiana, which has the third highest value for our index, is associated with a 11.3 percent decrease in strike activity. In general in those states that have more aggressively locked up minorities, employers are better able to engage in divide and conquer strategies and break down worker power, as proxied by strike activity.

In Table 3, we display result of OLS regressions using variations of equation (1) for the period between 1950 and 2018. For these regressions, we use a dummy variable for the current labor system which is one after 1980 and zero in 1980 and before. As we can see, the results in Table 3 replicate the results from Table 2. Right-to-work laws and the current labor system are both associated with significantly less strikes. Indeed, the effect of right-to-work laws on strike

⁷*NLRB v. Mackay Radio & Telegraph Co.* 304 U.S. 333 (1938).

activity is very comparable between specifications – -0.30 in regression IV and -0.24 in regression VII. Likewise, the average effect of the current national labor regime is similar. In regression VII, adoption of the current labor regime is associated with a 94.3 percent decrease in strike activity across states; similar results are achieved under regression IV specifications by moving from the NLRA index value in 1981 to that during the end of the George W. Bush presidency.

Table 3: State and Intrafirm Power Dynamics, 1950 – 2018

	<i>V</i>	<i>VI</i>	<i>VII</i>
<i>Right-to-Work Law</i>	-0.27*** (0.06)	-0.24*** (0.06)	-0.24*** (0.06)
<i>Current Labor System</i>	-3.40*** (0.11)	-3.15*** (0.12)	-2.87*** (0.12)
<i>State Strike Wave</i>	--	0.49*** (0.02)	0.50*** (0.02)
<i>Jim Crow Index</i>	--	--	-3171.07*** (407.51)
<i>Civil Rights Era</i>	--	--	0.27*** (0.07)
<i>New Jim Crow Index</i>	--	--	-0.03*** (0.00)
<i>Unemployment</i>	-0.51*** (0.06)	-0.40*** (0.05)	-0.31*** (0.06)
<i>Manufacturing Employment</i>	0.24*** (0.03)	0.24*** (0.03)	0.22*** (0.03)
<i>State Fixed Effects</i>	Yes	Yes	Yes
<i>Year Fixed Effects</i>	Yes	Yes	Yes
<i>R</i> ²	0.92	0.91	0.95
<i>(N)</i>	(3279)	(2871)	(2871)

Source: Authors calculations using data from sources listed above. Robust standard errors in brackets where *, **, and *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

In Table 3, we also see more evidence that laws and institutions which treat individuals from different racial or ethnic groups differently can give employers social space to engage in divide and conquer strategies and weaken worker power. Because of the longer period in Table 3 regressions, we can look at the effect of Jim Crow and the Civil Rights Era. The latter we proxy via a dummy variable which is one in 1964 through 1970 and zero otherwise. As we can see, both the coefficients for Jim Crow and the Civil Rights Era are statistically significant and their sign support the dynamic outlined above. adoption of the current labor regime is associated with a 94.3 percent decrease in strike activity across states; similar results are achieved under regression IV specifications by moving from the NLRA index value in 1981 to that during the end of the George W. Bush presidency.

Conclusions

Thus, we find robust evidence that labor laws and institutions which support workers are positively related to strike activity. Likewise, labor laws and institutions antagonistic to workers and racial systems that give employers social cover or justification to engage in divide and conquer strategies lead to less strike activity. Thus, we can finally come back to the questions that motivated this paper. Because more strike activity represents greater worker power and more worker power leads to higher wages (Stelzner and Paul, 2019), we can infer that adoption of right-to-work laws and embrace of Jim Crow explains a significant portion of the difference in poverty between the South and the rest of the country during the mid-century. As can be seen in Table 1 and Figure 3, the South most intensely embraced both right-to-work laws and Jim Crow.

That right-to-work laws affect intrafirm power dynamics to the detriment of workers should not be surprising. Indeed, one of the primary motivations of the Taft Hartley Act of 1947, which allowed states to pass right-to-work laws, was to maintain the undemocratic system of labor relations in place in the South.⁸ As a result of New Deal legislation like the NLRA which was enacted in 1935, the pro-labor stance of the federal government, and the extreme labor shortages during World War II, unions made dramatic gains in the South – even surpassing that of other regions during war. Some unions, especially those affiliated with the Congress of

⁸ Some states passed these laws even before 1947, however, the legal of these state laws was in question until passage of the Taft Hartley Act which explicitly empowered states on the question of closed shop provisions in contract negotiations.

Industrial Organizations challenged the South's racial system – creating integrated unions and supporting voter enfranchisement in some cases. H. F. Douty, the chief labor economist of the Department of Labor during this period, explained that “successful unionization of such industries [as tobacco, lumber, iron, and steel in the South] require the organization of colored workers...[multiracial unions are] evidence to the effect that workers among both races are beginning to realize that economic cooperation is not only possible, but desirable.” As a result of these changes, southern Democrats broke with the national Democratic Party leadership to side with Republicans to curb union growth in the South and maintain their racially segregated, low wage system (Farhang and Katznelson, 2005; Dixon, 2007).

Likewise, we can infer that a significant portion of the increase in poverty nationally or the increase in income inequality nationally since the early 1980s is a result of change in national labor laws. Indeed, as a country, labor relations over the last forty years has gone the way of the South. This can be seen by the dramatic reduction in strike activity associated with our current labor system, proxied by a decrease in the NRLA index in Table 2 and the switching on of the new labor system dummy variable in Table 3. Also, this reorientation can be seen in Figure 1 with the average strike activity in non-right-to-work states converging with that of right-to-work states near zero.

Thus, if we want to reduce current poverty and income inequality, the results from this paper would infer that we need to change labor laws to support workers. This needs to be done both in terms of legislation that directly regulates the employer-employee relationship, like through recreating the NLRA to better support workers and eliminating right-to-work legislation, and in terms of curbing state and federal support for laws that allow employers to play off racial and ethnic animosities, like through eliminating the New Jim Crow prison system. While this might seem like a difficult task, the long period covered in this paper also elucidates that it is possible. We were making progress in both spheres of laws in the 1960s. We just need the political will to move back in that direction.

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