

Black Strikebreakers, Industrial Opportunity, and Racial Inequality*

Jessica LaVoice[†] Ethan Schmick[‡]

August 2026

Abstract

During the late-nineteenth and early-twentieth centuries, Black Americans faced many employment restrictions, including exclusion from industrial work, leading some to engage in the contentious act of strikebreaking. Although Black strikebreaking is well documented in history, its long-run economic effects remain poorly understood. This paper examines whether strikebreaking enabled Black workers to break industrial employment barriers and reduce racial inequality. Using data on the county, year, and industry of Black strikebreaker use, we find that strikebreaking increased the Black share of employment by about 2 percentage points in affected county-industry pairs — an effect that persisted for up to 40 years. We also find evidence that the Black–White wage gap in 1940 was roughly 8 log points smaller in affected pairs. We provide suggestive evidence that the lasting impact of Black strikebreakers on Black labor shares reflects persistent changes in employers’ hiring practices, while the narrowing of the wage gap reflects gains in Black unionization in affected industries.

*We are particularly grateful to Allison Shertzer, Randall Walsh, Warren Whatley, Lucie Schmidt, Austin Smith, and anonymous referees for their valuable feedback. Special thanks to Cassie Jackson for excellent research assistance. This paper also benefited from comments by seminar participants at Boise State University, University of Pittsburgh, and Yale University, as well as conference participants at the Maine Economics Conference, Southern Economic Association Conference, Liberal Arts College Labor and Public Conference, and Werner Troesken Memorial Conference.

[†]Department of Economics, Bowdoin College, jlavoce@bowdoin.edu. (Corresponding Author)

[‡]Department of Economics, Marquette University, ethan.schmick@marquette.edu.

1 Introduction

During the late nineteenth and early twentieth centuries, Black workers were regularly excluded from industrial work.¹ This exclusion stemmed from numerous factors including Black workers being denied union membership, employers' lack of information and experience with Black workers, unequal educational opportunities, and other factors rooted in systemic racism (Summers, 1946; Whatley, 1990; Carruthers and Wana-maker, 2017; Margo, 1990; Lang and Manove, 2011; Bayer, Charles and Derenoncourt, 2025; Wright, 1999). The exclusion of Black workers from these industries exacerbated Black-White inequality, as jobs in these industries were often unionized, well-paid, and provided opportunities for upward mobility. It is, therefore, possible that this lack of early representation in industrial production severely limited Black Americans' upward mobility just as the United States was emerging as the world's preeminent industrial power.

In this paper, we investigate this possibility by examining the historic use of Black workers as strikebreakers in the late nineteenth and early twentieth centuries, a context in which Black workers gained at least temporary employment in the industrial work they had been largely excluded from. Using this setting we answer two complementary questions. First, did the employment of Black strikebreakers permanently open up industrial opportunities for Black workers in the locations and industries in which they were used? And second, what impact did these Black strikebreakers have on Black-White inequality in the United States?

To answer these questions we collected data on the counties, years, and industries in which Black workers were used to break strikes. Whatley (1993) and Bonacich (1976) first constructed these data, which we verified and expanded through newspaper searches.

¹By 1900, only 5.5% of industrial workers were Black, while 11.5% of the U.S. population was Black. We define industrial workers as those having industry codes in IPUMS (IND1950) corresponding to the broad categories: "mining", "manufacturing", and "transportation, communication, and other utilities" (Ruggles et al., 2021).

We combine these updated strikebreaking data with complete count U.S. Census data documenting the racial composition of workers in each county-industry-year cell from 1870-1940. Finally, to examine racial inequality in industrial wages, we use individual-level wage data from the 1940 complete count U.S. Census ([Ruggles et al. \(2021\)](#)).

Using these data, we employ difference-in-differences and event-study analyses to examine the impact of Black strikebreaking on the racial composition of workers in county-industry pairs. We use a variety of approaches to account for the fact that the use of Black strikebreakers was not randomly determined; employers hired Black strikebreakers in specific locations, industries, and times for a reason. To address selection on where labor disputes occur, we first restrict our control group to only industries in counties that had a documented labor dispute. We further restrict our control group to industries in counties that had a labor dispute in which replacement workers (of any race) were used to address potential bias driven by differences across places which used strikebreakers from those that did not.

Beyond ensuring a comparable control group of only places that experienced labor disputes, we address the endogeneity of Black strikebreaking in numerous ways. First, we directly control for factors that influenced the use of Black strikebreakers. [Whatley \(1993\)](#) argues that Black strikebreakers were used more often in the North when there were low levels of (European) immigration and when an industry (e.g. steel-making) had a southern branch that employed Black workers. This pattern is consistent with [Collins \(1997\)](#) and [Collins and Wanamaker \(2014\)](#), who argue that the Great Migration was, at least partially, initiated when European immigration was shut-off around World War I (both because of the War itself and the subsequent Immigration Act of 1924). As such, we control for measures of immigration and the availability of Black workers already employed in an industry. Second, we include county-by-year fixed effects to account for any county-year specific factors influencing employers' decisions to hire Black workers. For example, low levels of immigration or large numbers of local labor disputes could

have resulted in employers across all industries within a county increasing their Black labor shares, regardless of whether Black strikebreakers were used. Finally, to address any remaining concerns that unobservable factors are driving our results, we generate a matched sample, where we match treated county-industry pairs to controls based on trends in the total number of workers and the number of Black workers prior to the strikebreaking incident (the ratio of which gives the Black labor share).

In all specifications, we find that Black strikebreaking increased Black labor shares. Our preferred estimate is that the use of Black strikebreakers in a county-industry pair increased the share of Black workers in that county-industry pair by 2 percentage points. While this effect might seem small, it actually represents a 38% increase in the Black worker share in treated county-industry pairs.² Using event-study analyses we find support for the parallel trends assumption and show that this effect persists for up to 40 years after the strikebreaking incident.

Why were the effects of Black strikebreaking so persistent? While data limitations on who employers actually hired limit our ability to fully answer this question, we propose two hypotheses. First, employers might have kept Black workers they hired to break strikes on for several years, but not changed subsequent hiring practices. Alternatively, employers may have been able to learn about Black workers and how to manage a racially integrated workforce by hiring Black workers to break strikes. This employer learning might have made employers less opposed to hiring Black workers moving forward. There is evidence for both hypotheses in the historical narrative and we test these competing views by examining the average age of Black workers. If employers kept Black strikebreakers on, but did not change their subsequent hiring practices, we would expect the average age of Black workers to increase over time. Instead, we find that the average age of Black workers in impacted county-industry pairs remains statistically unchanged or even decreases after a Black strikebreaking incident, suggesting employers

²The average county-industry pair that would go on to experience a Black strikebreaking event had a Black employment share of 5.2% in 1870 (our baseline year).

actively hired new Black workers. While far from conclusive, this provides suggestive evidence supporting Whatley’s (1990) argument that once Black workers got their “foot in the door”, employers learned how to effectively manage an integrated workforce and changed their subsequent hiring practices.

Given that Black strikebreaking led to a robust and persistent increase in Black employment shares, we next estimate the effect that Black strikebreaking had on Black-White wage inequality. Using individual-level data from the complete count 1940 U.S. Census, we perform a difference-in-differences style analysis to compare the labor market outcomes of Black and White workers across counties and industries in which Black strikebreaking incidents did and did not occur. Results suggest that Black strikebreaking increased the wage income of Black workers in impacted county-industry pairs by 1940 relative to White workers. Specifically, Black strikebreaking is associated with an 8 log point increase in weekly wage income in 1940. This result suggests that Black strikebreaking closed the Black-White wage gap by about 20% in counties and industries in which Black strikebreakers were employed.

To explain this result, we provide suggestive evidence that Black strikebreaking led to increases in Black unionization in impacted industries. In particular, we show that Black unionization rates were closer to White unionization rates in the industries in which Black strikebreakers were used. This, coupled with substantial evidence that the union wage premium is larger at the bottom of the income distribution and disproportionately benefits Black workers ([Ashenfelter, 1972](#); [Callaway and Collins, 2018](#); [Farber et al., 2021](#); [Collins and Niemesh, 2019](#)), suggests that Black strikebreaking might have opened the door for Black workers to enter unions in some industries. However, this is far from a universal effect; many industries in which Black strikebreakers were used continued to oppose Black unionization and we find much smaller effects on wages in these industries.

We conclude that the use of Black strikebreakers increased the share of Black workers

in locations and industries in which they were used and that Black workers in these locations and industries had higher wage income by 1940. The contribution of our paper is threefold. First, our paper contributes to the literature on Black-White inequality. While this literature is very large, much of the historical narrative in economics has focused on the Great Migration and the period after 1940 ([Bayer and Charles, 2018](#); [Collins and Wanamaker, 2014](#); [Collins, 2021](#); [Carruthers and Wanamaker, 2017](#)).

Second, this paper contributes to a vast literature about the American labor movement by documenting the impact that Black strikebreakers had on the labor market opportunities and outcomes of Black workers. [Whatley \(1993\)](#) and [Bonacich \(1976\)](#) both document the extent to which Black Americans were used as strikebreakers in the late nineteenth and early twentieth centuries. However, neither paper provides any empirical evidence about the impact of Black strikebreakers on Black Americans' economic outcomes and racial wage inequality. [Rosenbloom \(1998\)](#) focuses on strikebreaking more generally and shows that the use of strikebreakers was not correlated with the business cycle and did not vary appreciably by region or city size. To the best of our knowledge, this would be the first paper to explore the impact of Black strikebreaking on labor market inequalities.

Third, this paper provides suggestive evidence about the internal workings of labor markets in the late nineteenth and early twentieth century United States. [Whatley \(1990\)](#) argues that the introduction of Black workers into firms in Cincinnati during World War I resulted in employers learning how to manage integrated workforces, which changed future hiring decisions and resulted in greater Black employment. In line with this argument, we provide evidence that employers continued to hire new Black workers after they were used to break strikes and that Black worker unionization rates were closer to White worker unionization rates in some impacted industries. Both of these results point to the persistent effect Black strikebreakers might have had on U.S. labor markets.

2 Background Information

Prior to the Civil War, the vast majority of Black Americans were enslaved. After the war ended, many former slaves continued performing the same work they had done under slavery, but now as free laborers ([Whatley and Wright, 1994](#)). By 1870, approximately 90 percent of the Black population lived in the South, with most Southern Black men working in agriculture and only a small share working in personal service or manufacturing occupations. While originating from the conditions of slavery, this occupational divide reinforced a belief among employers that the traits required for different industries corresponded to natural differences across racial groups ([Whatley and Wright, 1994](#)).

In the Jim Crow era that followed Reconstruction, Black Americans faced severe restrictions on their social, political, and economic rights ([Wright, 2013](#)). While base wages within narrowly defined occupations appear to have been similar for Black and White workers, stark differences in the geographic, industrial, and occupational divide of Black and White workers meant that virtually no Black workers held high-paying jobs ([Higgs, 1977](#); [Foote, Whatley and Wright, 2003](#); [Sundstrom, 1994](#)). The racial wage gap was, therefore, primarily a gap in access to jobs rather than a gap in pay for identical work.³ Exclusion from certain industries disadvantaged Black workers by limiting their ability to acquire experience and develop labor market networks ([Whatley and Wright, 1994](#); [Sundstrom, 1994](#)). This path dependence meant that early patterns of industrial segregation became increasingly difficult to reverse.

Reinforcing this industrial divide were the practices of labor unions in the late nineteenth and early twentieth century United States. Membership in labor unions began to grow dramatically during the later part of the nineteenth century, a trend partially

³By the 1920s, an explicit racial wage gap had emerged within occupations, reflecting solidified expectations about the quality of Black workers ([Whatley and Wright, 1994](#)). A wide racial gap in years and quality of schooling contributed to this development, itself partly a product of deliberate underinvestment in Black education by farmers who were the largest employers of Black labor ([Smith, 1984](#); [Margo, 1990](#); [Anderson, 1988](#)).

due to the Second Industrial Revolution's large effects on labor markets.⁴ Most unions excluded Black workers, some by codifying the divide in their constitutions (Summers, 1946), but most by refusing to organize unskilled laborers, which disproportionately consisted of Black, Irish, and Italian immigrants. Ray Marshall writes that, "The general pattern seems to have been for local unions to exclude Negroes wherever they could" (Marshall, 1967, p. 43). Booker T. Washington stated that, "several attempts have been made by the members of labor unions...to secure the discharge of Negroes employed in their trades" (Washington, 1913, p. 757). Racial exclusion allowed unions to control the labor supply by creating an "out-group" to manipulate the price of labor (Moreno, 2010). Moreover, accepting African Americans would undermine the North's implicit and the South's explicit doctrine of White supremacy.⁵ As a result, most unionized workers in the late nineteenth and early twentieth centuries were White. One common mechanism through which these predominantly White unions gained negotiating power with industrialists was through strikes, and there were at least 12,000 strikes in the last two decades of the nineteenth century alone (Currie and Ferrie (2000)).

Excluding Black workers from unions added to the pool of replacement workers who could undermine strikes. In instances where immigration rates were low or there were many strikes to break, employers found themselves willing to hire Black workers to break strikes organized by White unions, and, as Booker T. Washington noted in 1913, Black laborers were "very willing strikebreakers" (Washington, 1913; Whatley, 1993).⁶ Given that roughly 90 percent of Black Americans in the early 1900s lived in the Jim Crow South, working in agriculture, domestic service, or as laborers, strikebreaking —

⁴The Second Industrial Revolution brought workers together in industrial centers, increasing the density of workers and the number of large factories.

⁵One of the most widely noted rules of the labor market during this time period was that Black workers were not to supervise White workers, a norm that operated powerfully in the North as well as the South (Sundstrom, 1994).

⁶During the 1870s, strikes shifted focus from basic workers' rights to collective bargaining, on which employers were less willing to compromise (Rosenbloom, 1998). At the same time, employers saw their strength grow with more efficient production, better transportation, and increasing demand with the rise of the middle class. Accordingly, strikebreaking became more common as businesses gained the will and means to resist workers' demands.

combined with the exclusiveness of unions — offered Black workers a rare opportunity to enter racially restricted northern industries such as steel, meat packing, and railroads (Wilson, 1989). Accordingly, employers started recruiting Black workers from the South as strikebreakers. Prior to the First World War, Black representation was negligible in the major industries of the Northeast and Midwest, and strikebreaking constituted one of the few avenues through which Black workers could establish a presence in northern industrial employment (Whatley and Wright, 1994). Many of the industries that used Black strikebreakers, including iron, steel, coal, railroads, and longshore work, had Southern branches that already employed Black workers, making recruitment feasible.

Black elites, such as clergymen, businessmen, politicians, and newspaper owners, thought of strikebreaking as a way for Black workers to improve their economic and social standing and were highly supportive of the practice. W.E.B. DuBois condemned unionism, believing that interracial cooperation on class matters was impossible and that Black workers would benefit more by proving their loyalty to their employers (Melcher, 2020). Black Americans interviewed by members of the Chicago Commission on Race Relations expressed distrust of unions and support for employers (Chicago Commission on Race Relations (1923)).⁷ Black workers believed that even if they earned less than the union rate, their new wages achieved through strikebreaking would be higher than their previous wages. This fact, the Commission concluded, tends to make them feel that they have more to gain through affiliation with employers than by taking chances on what the unions offer them.

Employers' choice of Black workers to break strikes channeled White strikers' anger onto Black "scabs" and further divided the workforce across racial lines. This divide generated negative stereotypes about Black laborers and perpetuated racist views. Newspapers and labor journals called Black Americans a "scab race" and derided Black workers as dumb, lazy, and violent (Noon, 2004). Even when strikebreaking forces were mixed

⁷The Chicago Commission on Race Relations was established in response to the 1919 race riot.

race, no other ethnicity carried such a strong stigma, and Black workers were often blamed for strike failures (Reed, 2014). As a result, violence defined the strikebreaking scene. Strikers attacked strikebreakers, and companies hired private guards to protect their property and specialized detective agencies, like the Pinkertons, to infiltrate labor organizations (Lewis, 2009). Coal mining strikes were especially charged, as strikebreakers were more likely to be brought in and more likely to be attacked. Although there were many instances of strikebreakers being driven out of mines and factories, strikers frequently attacked transports carrying strikebreakers before they arrived at company camps. Striking workers used primitive weapons, firearms, and even dynamite to deter replacement workers. This aggression provoked responses from the police, and if the situation spiraled into further violence, the National Guard. Strikebreakers were attacked more violently and faced more brutality when they were Black.

The evidence from qualitative narratives about the impact of strikebreaking on Black labor market outcomes is mixed. On the one hand, strikebreaking appeared to provide new opportunities for Black men. The New Orleans Southwestern Christian Advocate concluded that “Those who have watched the strikes in this country for a decade or more have noted that the result of nearly everyone has been the opening of some new door for the Black laborer” (Arnesen, 2003). A Black leader in St. Louis wrote that “Members of my race had never been able to get jobs as locomotive engineers in the steel plants of St. Louis. Some years ago the locomotive engineers in one large plant went on strike. The company put Negroes in their place and has been running its engines with Negroes ever since.” (Spero and Harris, 1959, p. 128). In addition, there is some evidence, that Black strikebreakers resulted in employers learning about Black workers’ qualities. For example, Gottlieb (1987) writes of the Great Steel Strike of 1919 that “Mill supervisors...discovered during 1919 that black workers’ indifference to unions made them assets to steel companies...Employers grew more appreciative of the fact that southern blacks were native-born Americans who could speak English and understand

the orders shouted at them on the furnace platforms, shop floors, and in the mines” (Gottlieb, 1987, p. 161). Finally, Collins (1997) suggests that Black strikebreaking “may have facilitated subsequent migration by giving northern managers an incentive to learn how to effectively use black labor” (Collins, 1997, p. 616).

Other records suggest that despite successes made by Black strikebreakers in entering new industries, employers did not keep most on after the strike was resolved. Even if the previous White workers were not welcomed back to their jobs, many employers also turned-out Black workers, preferring instead to hire previously unemployed workers or recruiting Black laborers from the South (Reed, 2014). Spero and Harris (1959) write that “Negroes taken on in a strike have usually been let out as soon as the old workers returned” (Spero and Harris, 1959, p. 128).

Over the course of the twentieth century, the Black-White wage gap narrowed substantially. Improvements in Black schooling, migration out of the low-wage South, and declining labor market discrimination all contributed to this convergence (Margo, 1990; Carruthers and Wanamaker, 2017; Collins and Wanamaker, 2014; Collins, 2021; Bayer and Charles, 2018; Bayer, Charles and Derenoncourt, 2025). Yet for many of these forces to benefit Black workers, they first needed access to the industries and occupations in which the largest gains were possible. Our empirical analysis reveals whether strike-breaking provided this access and whether it contributed to the narrowing of the Black-White wage gap.

3 Data

In this paper, we use multiple data sources to explore the relationship between Black strikebreaking and labor market outcomes. Throughout the remainder of the paper, we differentiate between “counties”, “industries”, and “county-industry pairs.” When discussing counties we are referring to a geographic county and all industries in that

county (e.g. Allegheny County, PA). When discussing industries, we are referring to an industry, regardless of the county it is located in (e.g. the steel industry). Finally, a county-industry pair refers to a specific county and a specific industry within that county (e.g. the steel industry in Allegheny County, PA).

Our primary dataset documents incidents of Black strikebreaking from 1847 to 1934, identifying county-industry pairs that were impacted by these events. We have a similar dataset spanning from 1881 to 1894 documenting counties which experienced any strike, regardless of whether strikebreakers were used, and counties which experienced the use or replacement workers to help break the strike. These data facilitate comparisons across places that experienced labor disputes. To examine labor market outcomes, we use data from the 1870 to 1940 complete count U.S. Censuses to analyze how Black strikebreakers affected the racial composition of workers in impacted county-industry pairs. Finally, we turn to individual-level data from the 1940 complete count U.S. Census to compare labor market outcomes between Black and White workers in county-industry pairs with and without histories of Black strikebreaker use. We elaborate on each of these data sources in the subsections below.

3.1 Black Strikebreaker Data, 1847-1934

The information on when, where, and in which industries Black strikebreakers were used comes from two main sources: [Whatley \(1993\)](#) and [Bonacich \(1976\)](#). Whatley's (1993) study of strikes and strikebreakers examined Black laborers' use as strikebreakers from 1847 to 1929 across the country and provided a comprehensive look at Black strikebreaking in the United States. Using secondary sources and leads therein, Whatley compiled a table of strikes in which firms responded by hiring Black workers to break the strike. In his data, he included each strike's starting year, the industry targeted, and, when possible, he named the firms involved with replacement labor and the state and city where the strike took place. Bonacich's (1976) study included a table of 25 strikes in

which Black strikebreakers were used from 1916 to 1934, allowing us to confirm and extend Whatley’s sample through 1934. After eliminating overlap between the two sources, we were left with 138 unique instances of Black strikebreaking events.⁸

We reexamined the secondary sources cited in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#) to obtain more detailed locational information about given strikes wherever possible. We also utilized digitized newspaper archives to search for additional Black strikebreaking incidents that previous research could not identify from the search of secondary sources. 49 newly identified instances in which Black strikebreakers were used were discovered. Appendix Tables [A1](#), [A2](#), and [A3](#) document our complete set of 187 instances of Black strikebreaker use. Appendix Tables [A1](#) and [A2](#) list the 138 strikes identified in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#). Appendix Table [A3](#) displays the 49 newly identified Black strikebreaking events.

We matched each industry in which Black strikebreakers were used to 1950 industry codes from IPUMS (i.e. IND1950) to facilitate merging information about when and where Black strikebreakers were used with census data ([Ruggles et al., 2025](#)). For example, strikes reported in the “Iron/Steel” industry in the strikebreaking data were assigned to “Blast furnaces, steel works, and rolling mills” and “Other primary iron and steel industries” in the census data. A complete list of Black strikebreaking industries and the corresponding census industry codes is displayed in Panel A of Appendix Table [A4](#).⁹

We consider a county-industry pair to be treated anytime after the first use of Black strikebreaking between 1870 and 1940.¹⁰ Accordingly, our 187 unique instances of Black strikebreaker use collapse to 50 treated county-industry pairs. For example, the Iron/Steel industry in Allegheny County, PA experienced 12 separate incidents of Black

⁸See the Data Appendix for more details about our data updating process.

⁹Panel B of Appendix Table [A4](#) contains a list of industries with no history of Black strikebreaking. In a robustness check we assign each Black strikebreaking event to corresponding occupations rather than corresponding industries. The occupations assigned to various strikebreaking events are documented in Appendix Table [A5](#). We elaborate on this when presenting the robustness check.

¹⁰We begin in 1870 since most Black Americans were slaves in censuses before this.

strikebreaker use between 1870 and 1940 (see Appendix Tables [A1](#) and [A2](#)). Thus, we consider the Iron/Steel industry in Allegheny County, PA to be first treated in the 1880 census after the first use of Black strikebreakers, which was in the 1870s.¹¹

Panel A of Figure 1 shows the spatial and temporal distribution of Black strikebreaking events. Contemporaneous accounts claimed that strikebreaking by Black workers was relatively common, but scholars have since shown that these accounts overstated the incidence of Black strikebreaking ([Marshall, 1972](#); [Whatley, 1993](#)). Figure 1 confirms this narrative. The use of Black strikebreakers was concentrated in large metropolitan areas in the Rust Belt. Counties are classified by the year of their first Black strikebreaking event with lighter counties having earlier strikebreaking events.

[Whatley \(1993\)](#) argues that his counts of Black strikebreaking incidents are necessarily a lower bound, and we make the same claim of our Black strikebreaking incidents. We believe that this under-count will, if anything, bias our results toward zero. If Black workers were used as strikebreakers in a county-industry pair that we are not aware of, that county-industry pair will, necessarily, be in our control group and attenuate our results.

3.2 U.S. Commissioner of Labor Strike Data, 1881-1894

Although data on the locations and industries of every strike and the use of strikebreakers (of any race) is not available over our entire sample of Black strikebreaking incidents (i.e. 1847-1934), we do have fairly complete data on strikes and strikebreaking between 1881 and 1894. These data were initially compiled in reports by the U.S. Commissioner of Labor. The Bureau of Labor collected a list of strikes from newspaper articles and other publications and sent agents to interview representatives from both sides of the

¹¹The source [Whatley \(1993\)](#) cites for Black strikebreaker use in Pittsburgh in 1870 is [Gottlieb \(1987\)](#) who simply writes “Some black men had first entered Pittsburgh mills as strikebreakers in the 1870s and 1880s.” ([Gottlieb, 1987](#), p. 90) Thus, it appears Black strikebreakers were definitely used in the steel industry in Allegheny County, PA in the 1870s, but likely after the 1870 census.

conflict to investigate and gather information about the strike (Rosenbloom, 1998). Currie and Ferrie (2000), Naidu and Yuchtman (2018), and Friedman (1988), among others, digitized the information from these reports. In the end, we use information on 8,159 strikes that occurred between 1881 and 1894.¹² The strikes identified in this dataset are, again, a lower-bound; Bailey (1991) finds that in Terre Haute, Indiana, only about half of the strikes between 1881 and 1894 that are mentioned in local newspapers were contained in the Commissioner of Labor’s reports.

We use these data to identify a set of counties that experienced strikes and strike-breaking incidents (regardless of the race of the strikebreakers). Industries within counties that experienced a strike or used non-Black strikebreakers are then used as controls for industries in counties that used Black strikebreakers. Panel B of Figure 1 highlights counties that have confirmed strikes between 1881 and 1894. Similar to Panel A, counties with strikes are concentrated in the Midwest and Northeast regions of the country. The lack of comprehensive data on strikes does not pose a problem for our analysis since it simply results in our use of a *subsample* of all counties experiencing a strike as our control group as opposed to the *entire set* of striking counties.

3.3 Census Data

We combine our information about county-industry labor disputes and strikebreaking events with two different datasets constructed from the U.S. complete count Censuses.

3.3.1 County-Industry Data, 1870-1940

We use the U.S. complete count censuses to construct the number of Black and White workers in each county-industry pair from 1870-1940 (Ruggles et al., 2021, 2025).¹³ We

¹²We are grateful to Suresh Naidu for sharing these data with us.

¹³We harmonized county boundaries to match the 1940 county delineation using the crosswalks provided by Ferrara et al. (2021). We do not use data from 1850 and 1860 as 95% of the Black population during this time period was enslaved; any free Black individuals living in the North are unrepresentative of the Black population as a whole.

used industry codes from the 1950 Census to classify industries. For each industry in each county, we document the share of workers that were Black; this variable serves as our primary measure of Black access to industries. As the composition of industries changes substantially across time, and Black and White workers vary in their tendencies to work in certain industries, we begin by dropping all county-industry pairs that are not present over the entire sample period (i.e. 1870-1940). Focusing on a balanced panel of county-industry pairs ensures our results are not being driven by the development of new industries in certain locations that would have had a higher share of Black workers due to segregated labor markets regardless of whether or not Black strikebreakers were used.

Summary statistics and a preview of our empirical results are presented in Table 1. Panel A shows the average Black share of workers in county-industry pairs that did and did not experience a Black strikebreaking incident. In this table, “Pre” represents data from 1870, before a vast majority of Black strikebreaking events occurred, and “Post” represents data from 1940.¹⁴ Panel A utilizes the full set of county-industry pairs in our sample. In this sample, we see that untreated county-industry pairs initially had higher Black shares and experienced a small decrease in Black-share between the “pre” and “post” treatment periods; treated county-industry pairs, however, experienced over a 100% increase in the Black share of workers from the pre to the post period. Comparing the change in the Black share of workers between 1870 and 1940 across Black strikebreaking and non-Black strikebreaking county-industry pairs suggests that Black strikebreaking is associated with an increase in the Black share of workers in “treated” county-industry pairs. Specifically, the Black share of workers in treated county-industry pairs increased by 7.6 percentage points relative to the Black share in untreated county-industry pairs.

Panel B limits our sample to county-industry pairs that experienced a Black strike-

¹⁴Out of 187 strikebreaking events, there was only one prior to 1850 and four prior to 1860.

breaking event or were in a county that experienced a verified strike from the US Commissioner of Labor data, and Panel C limits our sample even further by utilizing only counties that experienced a strike involving the use of replacement workers (of any race). While both sets of county-industry pairs experienced increases in the share of Black workers, the increase in treated county-industry pairs is significantly larger than the increase in untreated pairs. These summary statistics imply that Black strikebreaking county-industry pairs experienced a 6 percentage point increase in the share of Black workers compared to the trend in untreated county-industry pairs. It is important to note that this analysis is completely unconditional on any other factors and the magnitudes might change when we formalize this analysis and condition on confounding factors.

3.3.2 Individual Level Data, 1940

In addition to the racial composition of county-industry pairs between 1870 and 1940, we also use individual level data from the 1940 full count Census ([Ruggles et al., 2021, 2025](#)). For each individual in the 1940 Census, we know their county of residence and the industry in which they worked. Using this information, we can identify which individuals worked in a county-industry pair that previously experienced a Black strikebreaking event. We also have information on individuals' race, age, marital status, employment status, educational attainment, annual wage income, and weeks worked. We restrict the full count sample to men between the ages of 25 and 70 who were employed, wage workers, and worked more than 40 weeks in the prior year (1939).¹⁵ We further restrict to only men who were working in an industry that used Black strikebreakers at least once over the period 1847-1934 (regardless of whether the county they lived in used

¹⁵Self employed workers (i.e. non-wage workers) did not report annual income in the 1940 Census, which is why we focus on wage workers. This restriction is not hugely important in our setting since we are primarily interested in industrial workers who worked for wages. Restricting the sample to men who worked more than 40 weeks in the prior year ensures that the individuals in our sample are not loosely attached to the labor force.

Black strikebreakers).¹⁶ Using this sample, we compute weekly wages, which we define as annual wage income divided by weeks worked.

Summary statistics for our individual-level sample are shown in Table 2, broken down by race and Black strikebreaking status. Black workers employed in Black strikebreaking county-industry pairs earned about 63% of the income of their White counterparts whereas Black workers in counties that did not experience a Black strikebreaking event earned only 54% of White workers' income. Weeks worked averaged about 51 across Black and White workers, highlighting that annual income differences are due to differences in wages as opposed to differences in the number of weeks worked. These results provide suggestive evidence that Black workers in Black strikebreaking counties were potentially made better off as a result of Black strikebreakers. We formalize this analysis below.

4 Empirical Specification

In this section, we outline the empirical strategy we use to explore the effect of Black strikebreakers on labor market outcomes of Black workers. In the first subsection, we discuss a difference-in-differences framework which uses our county-by-industry data to explore the impact of Black strikebreakers on the share of Black workers in county-industry pairs across time. The second subsection documents the empirical methods we use to explore the long-run effects of Black strikebreaking on individual workers using the 1940 Census.

4.1 County-by-Industry Specification

We use an empirical framework that exploits variation in both the use and timing of Black strikebreakers to document how the share of Black workers in a given county-

¹⁶We show robustness to using workers from all industries, whether or not the industry used Black strikebreakers.

industry pair changes in response to the hiring of Black strikebreakers. Our difference-in-differences specification is:

$$y_{kct} = \kappa_{kc} + \lambda_{ct} + \beta bsb_{kct} + \epsilon_{kct} \quad (1)$$

where k indexes industries, c indexes counties, and t indexes census years. Thus, y_{kct} is the share of workers in industry k in county c in census year t that are Black. bsb_{kct} is a binary variable indicating if industry k in county c had made use of Black strikebreakers by year t . κ_{kc} is a set of county-by-industry fixed effects and λ_{ct} is a set of county-by-census year fixed effects.¹⁷ Standard errors are clustered at the county-level.

As the share of Black workers could change as the result of a change in either the number of Black workers (the numerator) or the total number of workers (the denominator), we also estimate Equation 1 using both the number of Black workers and the total number of workers as the dependent variable. Given that these variables are counts, and many observations for the number of Black workers take on a value of zero, we utilize a Poisson pseudo-maximum likelihood (PPML) approach to estimate Equation (1) when using these count variables as the dependent variable.

The difference-in-differences framework assumes that untreated units are a valid counterfactual for treated units in the post-treatment period and that there are no anticipation effects. Accordingly, we also estimate an event study to explore the pre-trends assumption and potential dynamic treatment effects:

$$y_{kct} = \kappa_{kc} + \lambda_{ct} + \sum_{j=-6}^{-2} \beta_j bsb_{kc} 1(t - t_{kc}^* = j) + \sum_{j=0}^6 \beta_j bsb_{kc} 1(t - t_{kc}^* = j) + \epsilon_{kct} \quad (2)$$

This specification is similar to Equation 1 except we now allow the effect of Black strikebreaking to vary across time. In this specification, bsb_{kc} is an indicator if county-industry

¹⁷Note that census year fixed effects and county fixed effects are not needed because they are co-linear with the county-by-census year fixed effects (λ_{ct}).

pair kc ever experienced a Black strikebreaking event. $1(t - t_{kc}^* = j)$ are event-year dummy variables which equal one when the year of observation, t , is j decades from the first use of Black strikebreakers in that county-industry pair, t_{kc}^* .¹⁸ We estimate Equation 2 with the full set of event-year dummy variables ranging from -6 to 6, but only report on the coefficients from -3 to 3, as these event-time dummies are estimated for *most* county-industry pairs and still provide a look at pre- and post-trends for 30 years prior to and after the treatment. We, again, cluster standard errors at the county-level.

One potential concern with this analysis is that counties that experience strikes or strikebreaking incidents are fundamentally different from those that do not. As such, we explore the robustness of our results to various subsamples of the data. First, we limit our set of control county-industry pairs to only those counties that experienced a strike in the U.S. Commissioner of Labor Strike data. Next, we limit the set of control county-industry pairs further by only including counties from the U.S. Commissioner of Labor Strike data that both experienced a strike and used strikebreakers (regardless of the race of the strikebreakers). This restriction controls for any time-invariant differences that make counties more or less susceptible to strikes and using strikebreakers. In addition, we control for two main factors that influenced the use of Black strikebreakers: (1) the level of immigration and (2) the availability of Black workers in the industry outside of the striking area. Specifically, we add controls for the baseline (1870) measures of the share of immigrants in each county-industry pair and the share of Black workers in the industry in *all other counties*, each interacted with year fixed effects.

To further address concerns that unobservable factors are driving changes in Black labor shares, we generate a matched sample, where we match treated county-industry pairs to controls based on trends in the total number of workers and the number of Black workers prior to the strikebreaking incident. In particular, for each treated county-

¹⁸To be more precise, we define the event-time dummy variables to be $1(\text{floor}(\frac{t-t_{kc}^*}{10}) = j)$. For example, if a county-industry pair experiences its first Black strikebreaking event in 1905, the 1900 Census observation will be event-year -1, the 1910 Census observation will be event-year 0, the 1920 Census observation will be event-year 1, etc.

industry pair we match it to neighbors based on trends in Black and total workers from two censuses before the Black strikebreaking event (i.e. event time -2) to one census before the Black strikebreaking event (i.e. event time -1) using Mahalanobis distance matching with three nearest neighbors. This matching explicitly controls for pre-trends in both the number of Black workers and number of total workers (from which Black employment share is computed) in a county-industry pair prior to the Black strikebreaking event.

Another potential concern with our analysis is that fixed effect frameworks with staggered treatment timing are subject to bias that results from using already treated units as a control group for not yet treated units ([Goodman-Bacon, 2021](#)). In particular, dynamic treatment effects invalidate the use of already treated units as a counterfactual for not yet treated units ([Goodman-Bacon, 2021](#)). As such, we provide robustness checks that utilize the estimator proposed by [Sun and Abraham \(2021\)](#), which obtains estimates from comparisons of treated units with not yet and never treated units.¹⁹

We perform numerous additional robustness checks, including using only Black strikebreaking events that overlap with the US Commissioner of Labor Strikes data (1881-1894), focusing only on the post-1910 period as industry was imputed from occupation in censuses prior to 1910, and adding controls to account for any changes in the share of Black workers due to changes in urbanization. These and other robustness checks are discussed in Section 5.1.

4.2 Individual Specification

After establishing that Black strikebreaking changed Black representation in various industries, we then use individual-level data from the 1940 Census to explore how Black strikebreaking impacted the labor market outcomes of Black workers in 1940. We fo-

¹⁹The [Sun and Abraham \(2021\)](#) estimator has the added benefit of allowing for complex fixed effects structures such as ours.

cus our analysis on individuals' weekly wage income, but also explore changes in both annual income (the numerator of weekly wages) and the number of weeks worked (the denominator of weekly wages). Our primary sample is individuals (Black or White) working in an industry that used Black strikebreakers (regardless of whether the county-industry pair they are employed in used Black strikebreakers).²⁰ We estimate the following regression equation, which evaluates differences in the labor market outcomes of White and Black workers employed in county-industry pairs that experienced Black strikebreaking versus those employed in county-industry pairs that did not experience Black strikebreaking:

$$y_{ikc} = \beta_1 bsb_{kc} + \beta_2 Black_{ikc} + \beta_3 bsb_{kc} \cdot Black_{ikc} + X_i \zeta' + Black_{ikc} \cdot X_i \eta' + \gamma_{kc} + \epsilon_{ikc} \quad (3)$$

In this equation, i indexes an individual, k indexes an industry, and c indexes a county. Thus, y_{ikc} is an outcome for individual i who works in industry k in county c , bsb_{kc} is a binary variable indicating if industry k in county c had any incidents of Black strikebreaking by 1940, and $Black_{ikc}$ is a binary variable indicating if individual i is Black. X_i is a vector of individual characteristics which includes a full set of fixed effects for: age, years of schooling, and marital status. These controls are all interacted with the Black indicator. Each specification includes either a control for being employed in a county-industry pair that experienced a Black strikebreaking event (i.e. bsb_{kc}) or a full-set of county-by-industry employment fixed effects (i.e. γ_{kc}). Standard errors are clustered at the county level. Our coefficient of interest is β_3 which identifies the effect of being a Black worker in a county-industry pair that previously experienced a Black strikebreaking event.

The estimates from Equation 3 measure, to some extent, persistence since some

²⁰All results are quantitatively and qualitatively similar if we use the full sample of industries as opposed to only workers in industries that employed Black strikebreakers.

county-industry pairs experienced a Black strikebreaking event several decades prior to us observing weekly wages in 1940. To better understand if the results from Equation 3 are driven by earlier or later Black strikebreaking events, we modify Equation 3 to include a set of dummy variables that indicate whether a county-industry pair experienced a Black strikebreaking incident during a certain time period. We then interact these indicators with the Black worker indicator. In particular, we estimate:

$$\begin{aligned}
y_{ikc} = & \beta_1 bsb_{kc}^{<1881} + \beta_2 bsb_{kc}^{1881-1900} + \beta_3 bsb_{kc}^{1901-1920} + \beta_4 bsb_{kc}^{>1920} + \beta_5 Black_{ikc} + \\
& \beta_6 bsb_{kc}^{<1881} \cdot Black_{ikc} + \beta_7 bsb_{kc}^{1881-1900} \cdot Black_{ikc} + \beta_8 bsb_{kc}^{1901-1920} \cdot Black_{ikc} \quad (4) \\
& + \beta_9 bsb_{kc}^{>1920} \cdot Black_{ikc} + X_i \zeta' + Black_{ikc} \cdot X_i \eta' + \gamma_{kc} + \epsilon_{ikc}
\end{aligned}$$

In this equation, bsb_{kc}^t indicates whether a Black strikebreaking event took place in county-industry pair kc between the years defined by t . To ensure enough Black strikebreaking events in each time period, we use the following time groupings in the analysis: 1880 or earlier, 1881-1900, 1901-1920, 1921 or later. The coefficients of interest are β_6 , β_7 , β_8 , and β_9 which document the labor market effects of being a Black worker in a county-industry pair that experienced a Black strikebreaking event in time period t . All controls remain the same and we, again, cluster standard errors at the county-level.

5 Results

In this section, we document and discuss the results of our analysis. Section 5.1 focuses on the results from our county-by-industry specifications, documenting a change in the racial composition of workers in county-industry cells in which Black strikebreakers were used. Section 5.2 documents the effect that Black strikebreaking had on Black-White wage inequality in 1940.

5.1 County-by-Industry Results

5.1.1 Main Results

Table 3 presents our main results and shows that the share of Black workers in county-industry pairs increases after the use of Black strikebreakers. Each column shows the result from estimating Equation 1. Column (1) uses the full set of county-industry pairs outlined in Section 3. Column (2) uses only county-industry pairs in counties that experienced a strike between 1881 and 1894. Column (3) uses county-industry pairs in counties that experienced the use of *any* strikebreakers (regardless of race) as our counterfactual for county-industry pairs that experienced *Black* strikebreaking events and is our preferred specification. Column (4) directly controls for Whatley’s (1993) argument that Black strikebreakers were used when immigration from Europe was low and when the industry employed Black workers in another geographic area (e.g. the industry had a Southern branch). As described in the empirical specification section, this column controls for two baseline measures (1870) interacted with year fixed effects: the baseline share of immigrants in a county-industry pair and the baseline share of Black workers in the industry in *all other counties*. Finally, column (5) uses a matched sample as the control group, where we match on both the trend in Black workers and the trend in total workers in a county-industry pair *prior* to the strikebreaking event.

The estimates across all columns are similar and our preferred estimates (column (3)) implies that there was a 2 percentage point increase in the share of Black workers in a county-industry pair after the use of Black strikebreakers. This effect is quite large, as the average county-industry pair that would go on to experience a Black strikebreaking event consisted of only about 5.2% Black workers (see Table 1). Thus, our estimates imply that Black strikebreaking increased Black employment in impacted county-industry pairs by 38%.²¹

Since changes in the share of Black workers could be driven by changes in either the

²¹Calculation: $\frac{2}{5.2} = 0.384$.

number of Black workers (the numerator) or the total number of workers (the denominator), Appendix Tables B1 and B2 replicate the specifications in Table 3 using the number of Black workers and total number of workers as the dependent variables. These analyses use a Poisson pseudo-maximum likelihood (PPML) estimation approach to account for the count nature of the dependent variables. The results suggest that county-industry pairs that experienced Black strikebreaking events saw increases in both the total number of workers and the number of Black workers. When taken together with the findings in Table 3, we conclude that the number of Black workers grew disproportionately as the result of Black strikebreaking when compared to the growth in the total number of workers.

Table 4 shows that our main empirical results in Table 3 are robust to a variety of different estimating techniques, time period restrictions, and controls. Except where noted we perform these robustness checks on our preferred specification, which is column (3) of Table 3. To address concerns about potential bias in difference-in-differences estimators with staggered treatment timing and heterogeneous treatment effects, Column (1) of Table 4 reports the estimated coefficients from the Sun and Abraham estimation procedure (Sun and Abraham, 2021). In Column (2), we add state-linear time trends to address any potential concerns that state-level trends are driving our results. To address any concerns about labor disputes being fundamentally different across our relatively large sample period, in Column (3) we only use Black strikebreaking events that occurred between 1881 and 1894. In other words, we drop any county-industry pairs that experienced a Black strikebreaking event outside of the 1881-1894 window, since our data from the Commissioner of Labor on other strikebreaking events covers only 1881 through 1894. In Column (4), we expand our analysis to include 1850 and 1860, years we initially dropped as the majority of the Black population was enslaved during these years. In Column (5) we limit our sample to only census years from 1910-1940 to alleviate any concerns stemming from census industries being imputed from occupations in

all censuses prior to 1910. In Column (6), we drop the requirement of a balanced panel; county-industry pairs can enter or exit the sample if a new industry is started or an existing industry disappears in a county. In Column (7), we control for the percent of each county-industry pair that is urban to verify that the increase in Black worker share is not driven by Black workers disproportionately moving into large urban areas. As some of our Black strikebreaking events, such as longshoring and truck driving, align more closely with occupations than industries, in Column (8) we replicate our analysis using occupation codes from the 1950 Census as opposed to industry codes. Our unit of observation for this specification is county-occupation pairs (rather than county-industry pairs) and treatment is defined based on assigning information on Black strikebreaking events to 1950 occupation codes.²² Across all specifications, we estimate positive results that are roughly similar to those presented in Table 3.²³

We document the dynamic effects of treatment on Black worker shares using an event study framework as outlined in Equation (2); these results are presented in Figure 2. We plot the coefficients from multiple regression specifications, including results derived using the estimation technique outlined in Sun and Abraham (2021) to address any bias associated with two-way fixed effects estimators. In all specifications, there are no differences in pre-trends across county-industry pairs that would eventually experience a strike broken by Black strikebreakers and those that would not. The event studies reveal that Black strikebreaking led to sustained increases in Black labor shares, with effects visible in the census immediately following the Black strikebreaking event. The effect decreases slightly in subsequent censuses, but there appears to still be an effect up to the fourth census (i.e. 31-40 years) after the strikebreaking event.

Panels A and B of Appendix Figure B1 replicate Figure 2 using the number of Black

²²See Appendix Table A5 for information on how occupations codes were assigned to each Black strike-breaking event.

²³Only Columns (5) and (8) lose statistical significance, likely due to the sample size being reduced by approximately 43% (from 38,493 to 21,996) in Column (5) and increases in measurement error associated with assigning strikes to occupation codes in Column (8).

workers and total number of workers as dependent variables. These figures show increases in both the number of Black workers and the total number of workers after a Black strikebreaking event. However, the increase in the number of Black workers is usually statistically significant and large, while the increase in the total number of workers (of which Black workers are a part) is smaller and not statistically significant.²⁴

Finally, we explore if these results are being driven by only a few industries, or if the effect is widespread across many industries that experienced a Black strikebreaking event. Figure 3 plots coefficient estimates from a set of regressions that focus on a single industry at a time.²⁵ In other words, we estimate Equation (1) separately for each industry in which Black strikebreakers were used.²⁶ The dotted vertical line represents the average effect across industries that experienced a Black strikebreaking event. Each industry, with the exception of the coal industry, has a positive relationship between Black strikebreaking and the share of Black workers employed, with many of the estimates being statistically significant. The lack of a racial change in the composition of workers in the coal-mining industry in counties that experienced Black strikebreaking is particularly interesting, as these strikes were notorious for being some of the most violent labor disputes. The largest effects seem to be in longshoring and the textile industry.

Taken together, these results suggest that Black strikebreaking increased access for Black workers in the county-industry pairs in which they were used. Our most conservative specification suggests that county-industry pairs that experienced Black strikebreaking events saw an increase in the share of Black workers by approximately 2 percentage points, implying a 38% increase in Black labor share from the 1870 pre-Black strikebreaker level of 5.2% (see Table 1).

²⁴We use the inverse hyperbolic sine of the number of workers in these figures since the [Sun and Abraham \(2021\)](#) estimator cannot be used with PPML.

²⁵Appendix Figure B2 shows the analogous figure using the number of Black workers as the dependent variable.

²⁶We only include county and census year fixed effects in the specification since the estimation is being done one industry at a time; see the note to Figure 3 for the exact specification.

5.1.2 Mechanisms

Why did Black strikebreaking serve as a catalyst for Black employment in the associated county-industry pairs for decades after each incident? It is plausible to expect an uptick in the share of Black workers in treated county-industry pairs in the immediate aftermath of Black strikebreaker use. Figure 2 demonstrates this clearly with coefficient on event time “0”. But why did this effect continue, perhaps a bit diminished, for the next 10 to 40 years (coefficient on event times 1-3)?

One potential explanation for this persistence is that employers simply retained Black strikebreakers after strikes had ended. However, as mentioned in the historical background section, there is evidence that most employers did not keep Black strikebreakers on after strikes concluded (Reed, 2014). In many cases, Black strikebreakers were transported to new locations to break subsequent strikes rather than being absorbed into the permanent workforce.

A more compelling explanation is that strikebreaking altered the future hiring practices of employers. Prior to the First World War, Black representation was negligible in the major industries of the Northeast and Midwest (Whatley and Wright, 1994). Strikebreaking not only exposed Black workers to northern industrial employment but it also exposed White employers to Black workers. Such exposure could have altered future hiring decisions through several non-mutually exclusive channels.

First, strikebreaking may have provided employers with the opportunity to learn how to manage interracial workforces, including how to manage both Black workers and the reactions of White supervisors and coworkers. Such employer learning has been documented in other historical contexts involving early Black industrial employment (Whatley, 1990; Collins, 2001). Second, if employers held incorrect prior beliefs that Black workers were inexperienced or incapable of performing industrial work, direct exposure through strikebreaking could have updated those beliefs. In other words, strikebreaking could have functioned as a costly but informative signal about Black worker productivity,

reducing statistical discrimination in subsequent hiring decisions. Third, it is possible that some employers held relatively accurate beliefs about the productive capabilities of Black workers and would have preferred to hire them, particularly if they could do so at lower market wages, but were constrained by prevailing social norms against employing Black workers in industrial settings. In this case, the necessity of combating a strike may have provided employers with a socially acceptable justification for violating racial hiring norms, effectively tipping a local equilibrium toward Black employment (Wright, 1999; Heckman and Payner, 1989). Once such norms were breached, the social costs of continuing to hire Black workers may have diminished, making the transition self-reinforcing.

That these channels were, at least, partly in play is supported by historical evidence as cited in the historical background section. While decomposing the relative contribution of each narrowly defined channel is beyond the scope of this paper, all three channels suggest employers continued to hire Black workers after the initial strikebreaking event. We provide further evidence of this in Figure 4, which re-estimates Equation 2 using the average age of Black workers in a county-industry-year cell as the dependent variable. If the increase in Black labor shares after a Black strikebreaking incident is simply a story about Black strikebreakers being kept on, we would expect average age in treated county-industry pairs to increase over time. However, we find the exact opposite. The average age of Black workers in treated county-industry pairs actually remains the same or even decreases after the Black strikebreaking event.

Thus, both the historical narrative and Figure 4 suggest that at least some employers continued to hire Black workers after a Black strikebreaking event. In this way, strikebreaking appears to have opened a door that remained open for subsequent cohorts of Black workers, consistent with employer learning, belief updating, and the erosion of exclusionary norms.

5.2 Individual Level Results

5.2.1 Main Results

We now turn to an analysis of individual-level outcomes in 1940. We explore differences in the wages of Black and White workers across county-industry pairs that experienced Black strikebreaking events and those that did not. In this section, our main counterfactual is workers in industries that experienced Black strikebreaking events, but working in a county that did not experience such an event. Our main results are presented in Table 5, which provides estimates of Equation (3).

The dependent variable in Columns (1)-(3) is the log of an individual's annual income. The dependent variable in Columns (4)-(6) is the number of weeks worked. Lastly, the dependent variable in Columns (7)-(9) combines the previous two measures to document the log of weekly wages. Columns (1), (4), and (7) in this table control for an indicator if a given county-industry pair experienced a Black strikebreaking event, while columns (2), (5), and (8) use a full set of county-by-industry fixed effects. Columns (3), (6), and (9) add a set of occupation-by-race fixed effects where occupation is based on OCC1950 from IPUMS (Ruggles et al., 2021). Columns (2), (5), and (8) are our preferred specifications. The main coefficients of interest are those associated with the *Black*Black Strikebreaker County-Industry* which document the effect of being a Black worker in a county-industry pair that experienced a Black strikebreaking event between 1847 and 1934.

Columns (1)-(3) suggest that Black workers in Black strikebreaking county-industry pairs had incomes that were approximately 6.2-9.6 log points higher than their Black counterparts in non-Black strikebreaking county-industry pairs in 1940. The estimated Black-White income gap in our sample is 0.387 log points, meaning that the Black-White income gap for Black workers in county-industry pairs where Black strikebreakers were used was about 16%-25% smaller.²⁷

²⁷The Black-White wage gap in our sample was estimated by running a regression of log annual income

Columns (4)-(6) show that this result is not driven by a change in the number of weeks worked by Black workers. If anything, these workers were able to earn higher annual wages by working fewer weeks, although the latter results are not statistically significant. Columns (7)-(9) show that Black strikebreaking is associated with a 6.2-10.3 log point increase in the weekly wages of Black individuals working in county-industry pairs in which Black strikebreakers were used. This, again, translates into a 16%-26% reduction in the Black-White wage gap. It is worth noting that this reduction in the Black-White wage gap is not driven by decreases in White wages, but rather increases in Black wages. In fact, columns (1) and (7) of Table 5 show that White wages actually increase by about 17% in Black strikebreaking county-industry pairs. Thus, it appears all workers in these counties earn higher wages, but Black workers earn significantly more than their Black counterparts in non-Black strikebreaking county-industry pairs. It is also worth noting that the effect on White workers is differenced out in columns that control for county-by-industry fixed effects, meaning that our result for Black workers is not simply the result of high growth counties/labor markets.

This analysis necessarily limits our sample to individuals observed in the 1940 Census, as this was the first census that collected information on wage income. As our data on Black strikebreaking events spans between 1847 and 1934, the previous results are estimating the combined effect of Black strikebreaking events that occurred between 5 and 92 years prior. Breaking these results down further by exploring heterogeneity based on when the Black strikebreaking event occurred provides insights into how persistent these effects are across time. Figure 5 shows the results from estimating Equation (4) on our preferred specification (i.e. column (8) of Table 5), which allows the labor market effects of being a Black worker in a county-industry pair that experienced Black strikebreaking to vary based on when the strikebreaking event took place.²⁸ These results

on the Black indicator, age fixed effects, marital status fixed effects, years of education fixed effects, and county-by-industry fixed effects.

²⁸The associated regression results are presented in Appendix Table B3.

suggest that more recent Black strikebreaking events (i.e. post-1900) had the largest and most significant effects on Black wages in 1940.

We believe it is reasonable to restrict our sample of men to only those working in industries that experienced a Black strikebreaking event sometime during our study period. However, in Appendix Tables [B4](#) and [B5](#) we demonstrate the robustness of our results to using all men between the ages of 25 and 70 who were employed, wage workers, and worked more than 40 weeks in the prior year (1939). This larger sample provides results that are both qualitatively and quantitatively similar to the results presented in Table [5](#) and Appendix Table [B3](#).

5.2.2 Mechanisms

How did Black strikebreaking reduce racial wage inequality in associated county-industry pairs? As we have shown, Black strikebreakers facilitated access to northern industrial employment for subsequent cohorts of Black workers, even if the original strikebreakers themselves did not typically remain in these jobs. These northern, industrial jobs were, often, more heavily unionized than the Southern, non-industrial jobs the majority of Black Americans worked in. A substantial literature demonstrates that the union wage premium is larger at the bottom of the income distribution and disproportionately benefits Black workers, effectively narrowing wage inequality ([Ashenfelter, 1972](#); [Callaway and Collins, 2018](#); [Farber et al., 2021](#); [Collins and Niemesh, 2019](#)). It is, therefore, possible that Black strikebreaking opened the door to not only industrial work, but also to higher levels of union representation for Black workers.

This is not to claim that unions in the early twentieth century did not exclude Black workers; many did. However, some unions were open to Black unionization and we present several pieces of evidence here as to which unions provided opportunities for Black workers. We note from the outset that all of this evidence is suggestive and not causal. Detailed county-industry-year-race union membership data, to our knowledge,

does not exist for this time period. What does exist is data on both Black and total union membership around 1930 from [Reid \(1930\)](#) and [Wolman \(1936\)](#), respectively.²⁹

Appendix Figure [B3](#) plots Black union membership by union from [Reid \(1930\)](#). Unions in industries where Black strikebreakers were used, generally, have more Black members than unions in industries where Black strikebreakers weren't used. The four unions with the highest Black membership were all in industries that used Black strikebreakers.

More convincingly, Figure [6](#) provides a comparison between White and Black unionization rates across various industries. The figure plots the ratio of the Black unionization rate to White unionization rate with Black strikebreaking industries represented by red bars.³⁰ A ratio of one would indicate that the Black unionization rate was exactly equal to the White unionization rate in that industry; a ratio less than one means that Black unionization was less than White unionization. All industries, except for maritime/longshoring, have lower Black unionization rates than White unionization rates, reflecting the racial discrimination and exclusionary practices so prevalent in unions at this time. However, three of the four industries with the highest level of Black relative to White unionization were industries in which Black strikebreakers were used (the exception is education/government work). Furthermore, the average ratio of Black to White unionization in industries in which Black strikebreakers were used is 0.31, while it is 0.17 in industries that did not use Black strikebreakers.

Finally, we use the three Black strikebreaking industries in which Black unionization rates were higher than or closest to White unionization rates to re-examine wage inequality: iron/steel, maritime (longshore), and railroads. If unions are driving the reduction

²⁹This data is summarized in Appendix Table [A6](#). We assign each union an industry that it primarily operated in, which is also reported in the table. Panel B of Appendix Table [A4](#) reports the IND1950 codes that we assigned to industries that had Black union members, but never experienced a Black strikebreaking event.

³⁰An industry unionization rate is defined as the number of union members in that industry divided by the total number of workers in that industry. For example, the Black unionization rate in the railroad industry is computed as the number of Black members of railroad unions divided by the total number of Black workers on railroads. The Black and White unionization rates are plotted separately in Appendix Figure [B4](#), with Panel A presenting rates for Black strikebreaking industries and Panel B presenting the rates for industries that did not use Black strikebreakers.

in inequality shown in Table 5 then we would expect the results to be concentrated in industries where Black workers are unionized at rates closer to White workers. Table 6 demonstrates this point; much of the reduction in inequality is occurring in the three industries where Black workers were used as strikebreakers and had unionization rates closer to White workers. There is still an effect in industries with lower Black-to-White unionization rates, but it is smaller than our baseline effect.

Are the magnitudes of the coefficients in Table 5 plausible for union wage premiums? We find that all workers in Black strikebreaking county-industry pairs have wages that are about 17 log points higher (column (7)), while Black workers gain an additional 6-10 log points for a total effect of 23 to 27 log points. Freeman and Medoff (1984) report overall union wage premiums of around 20 to 30 percent in the 1970s. They specifically cite a *nonwhite* union wage premium of 25%, which is almost identical to our finding. Similarly, Callaway and Collins (2018) find union wage premiums circa 1950 of around 20 log points for those at the bottom of the income distribution. Black workers at the bottom of the income distribution received union wage premiums of around 26.5 log points, which is, again, almost identical to our estimate. Thus, while our estimates might appear large, they very much align with the previous literature on the union wage premium for Black workers.

These three pieces of evidence, taken together, suggest that Black strikebreaking might have opened the door to higher rates of unionization in some industries and, therefore, reduced inequality in those industries. The great irony of this result is that one reason Black workers chose to become strikebreakers in the first place was because of the racial policies of unions. If these results are taken seriously, they imply that Black strikebreaking might have actually opened the door to future Black unionization in some unions.

All of the union data presented in this section is from around 1930, but we note that the passage of the National Labor Relations Act (the Wagner Act) in 1935 might have

further strengthened these unions and the relationships displayed here. The Wagner Act compelled employers to recognize and bargain with unions, extending collectively bargained wage floors and standardized pay scales to all workers within unionized firms, including the Black workers whose presence in these industries had been facilitated by earlier strikebreaking episodes.

6 Conclusion

Even before taking controversial roles as strikebreakers, Black workers faced persistent discrimination. Black workers were paid less than White workers, and exclusionary unions limited the labor market options of Black workers by denying them entry or suppressing their role and power within institutions and industries. Strikebreaking provided an opportunity to gain access to such industries and was not restricted by class or other social barriers. It provided an opportunity to achieve upward mobility for working-class individuals. While strikebreaking allowed Black workers to enter industries they were previously excluded from, it also exposed them to violence and sometimes threatened their lives.

In this paper, we empirically explore the extent to which Black strikebreakers improved the labor market opportunities of Black workers. To do so, we combined data on Black strikebreaking events with complete count census data from 1870-1940. We find that Black strikebreaking increased access to the strikebreaking industry in counties where the strike occurred. Results are robust to a comparison that includes only county-industry pairs that had a confirmed strike or strikebreaking incident and to various additional robustness checks. Furthermore, we find decreases in the Black-White wage gap in county-industry pairs that experienced Black strikebreaking.

Finally, we present speculative evidence on the labor market mechanisms driving our results. In particular, we show that Black strikebreaking likely led to changes in

employer's subsequent hiring decisions. We also show that Black strikebreaking might have led to some labor unions (not all) opening their doors to Black workers, which resulted in reduced inequality. This result implies that unions could have been an important institution for reducing Black-White wage inequality in the late nineteenth and early twentieth centuries had they been less exclusionary.

References

- Anderson, James D.** 1988. *The Education of Blacks in the South, 1860–1935*. Chapel Hill:University of North Carolina Press.
- Arnesen, Eric.** 2003. "Specter of the Black Strikebreaker: Race, Employment, and Labor Activism in the Industrial Era." *Labor History*, 44(3): 319–335.
- Ashenfelter, Orley.** 1972. "Racial discrimination and trade unionism." *Journal of Political Economy*, 80(3, Part 1): 435–464.
- Bailey, Gary L.** 1991. "The commissioner of labor's strikes & lockouts: A cautionary note." *Labor History*, 32(3): 432–440.
- Bayer, Patrick, and Kerwin Kofi Charles.** 2018. "Divergent paths: A new perspective on earnings differences between black and white men since 1940." *The Quarterly Journal of Economics*, 133(3): 1459–1501.
- Bayer, Patrick, Kerwin Kofi Charles, and Ellora Derenoncourt.** 2025. "Racial inequality in the labor market." National Bureau of Economic Research.
- Bonacich, Edna.** 1976. "Advanced Capitalism and Black/White Race Relations in the United States: A Split Labor Market Interpretation." *American Sociological Review*, 41: 34–51.
- Callaway, Brantly, and William J Collins.** 2018. "Unions, workers, and wages at the peak of the American labor movement." *Explorations in Economic History*, 68: 95–118.
- Carruthers, Celeste K, and Marianne H Wanamaker.** 2017. "Separate and unequal in the labor market: human capital and the jim crow wage gap." *Journal of Labor Economics*, 35(3): 655–696.
- Chicago Commission on Race Relations.** 1923. *The Negro in Chicago: A study of race relations and a race riot*. University of Chicago Press.

- Collins, William J.** 1997. "When the tide turned: Immigration and the delay of the great black migration." *The Journal of Economic History*, 57(3): 607–632.
- Collins, William J.** 2001. "Race, Roosevelt, and Wartime Production: Fair Employment in World War II Labor Markets." *American Economic Review*, 91(1): 272–286.
- Collins, William J.** 2021. "The Great Migration of Black Americans from the US South: A guide and interpretation." *Explorations in Economic History*, 80: 101382.
- Collins, William J, and Gregory 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(2): 691–715.
- Collins, William J, and Marianne H Wanamaker.** 2014. "Selection and economic gains in the great migration of African Americans: new evidence from linked census data." *American Economic Journal: Applied Economics*, 6(1): 220–252.
- Currie, Janet, and Joseph Ferrie.** 2000. "The law and labor strife in the United States, 1881-1894." *The Journal of Economic History*, 60(1): 42–66.
- Farber, Henry S, Daniel Herbst, Ilyana Kuziemko, and Suresh Naidu.** 2021. "Unions and inequality over the twentieth century: New evidence from survey data." *The Quarterly Journal of Economics*, 136(3): 1325–1385.
- Ferrara, Andreas, Patrick A Testa, Liyang Zhou, et al.** 2021. "New area-and population-based geographic crosswalks for US counties and congressional districts, 1790-2020." *Competitive Advantage in the Global Economy (CAGE)*.
- Foote, Christopher L., Warren C. Whatley, and Gavin Wright.** 2003. "Arbitraging a Discriminatory Labor Market: Black Workers at the Ford Motor Company, 1918–1947." *Journal of Labor Economics*, 21(3): 493–532.

- Freeman, Richard B, and James L Medoff.** 1984. "What do unions do." *Indus. & Lab. Rel. Rev.*, 38: 244.
- Friedman, Gerald.** 1988. "Strike success and union ideology: The United States and France, 1880-1914." *The Journal of Economic History*, 48(1): 1-25.
- Goodman-Bacon, Andrew.** 2021. "Difference-in-differences with variation in treatment timing." *Journal of Econometrics*, 225(2): 254-277.
- Gottlieb, Peter.** 1987. *Making Their Own Way: Southern Blacks' Migration to Pittsburgh, 1916-30*. Vol. 82, University of Illinois Press.
- Heckman, James J., and Brook S. Payner.** 1989. "Determining the Impact of Federal Antidiscrimination Policy on the Economic Status of Blacks: A Study of South Carolina." *American Economic Review*, 79(1): 138-177.
- Higgs, Robert.** 1977. *Competition and Coercion: Blacks in the American Economy, 1865-1914*. Cambridge:Cambridge University Press.
- Lang, Kevin, and Michael Manove.** 2011. "Education and labor market discrimination." *American Economic Review*, 101(4): 1467-1496.
- Lewis, Ronald L.** 2009. *Welsh Americans: A history of assimilation in the coalfields*. Univ of North Carolina Press.
- Margo, Robert A.** 1990. *Race and schooling in the South, 1880-1950: An economic history*. University of Chicago Press.
- Marshall, F Ray.** 1967. *Labor in the South*. Vol. 124, Harvard University Press.
- Marshall, Ray.** 1972. "Black workers and the unions." *Dissent*, 19: 295-302.

- Melcher, Cody R.** 2020. "First as Tragedy, Then as Farce: WEB Du Bois, Left-Wing Radicalism, and the Problem of Interracial Labor Unionism." *Critical Sociology*, 46(7-8): 1041–1055.
- Moreno, Paul.** 2010. "Unions and discrimination." *Cato J.*, 30: 67.
- Naidu, Suresh, and Noam Yuchtman.** 2018. "Labor Market Institutions in the Gilded Age of American Economic History." *The Oxford Handbook of American Economic History*, vol. 1, 329.
- Noon, Mark.** 2004. "' It ain't your color, it's your scabbing': Literary Depictions of African American Strikebreakers." *African American Review*, 38(3): 429–439.
- Reed, Christopher Robert.** 2014. *Knock at the door of opportunity: Black migration to Chicago, 1900-1919*. SIU Press.
- Reid, Ira De Augustine.** 1930. *Negro Membership in American Labor Unions*. Alexander Press.
- Rosenbloom, Joshua L.** 1998. "Strikebreaking and the Labor Market in the United States, 1881-1894." *The Journal of Economic History*, 58(1): 183–205.
- Ruggles, Steven, Catherine A. Fitch, Ronald Goeken, J. David Hacker, Matt A. Nelson, Evan Roberts, Megan Schouweiler, and Matthew Sobek.** 2021. "IPUMS Ancestry Full Count Data: Version 3.0 [dataset]." IPUMS.
- Ruggles, Steven, Sarah Flood, Matthew Sobek, Daniel Backman, Grace Cooper, Julia A. Rivera Drew, Stephanie Richards, Renae Rodgers, Jonathan Schroeder, and Kari C.W. Williams.** 2025. "IPUMS USA: Version 16.0 [dataset]." IPUMS.
- Smith, James P.** 1984. "Race and Human Capital." *American Economic Review*, 74(2): 685–698.

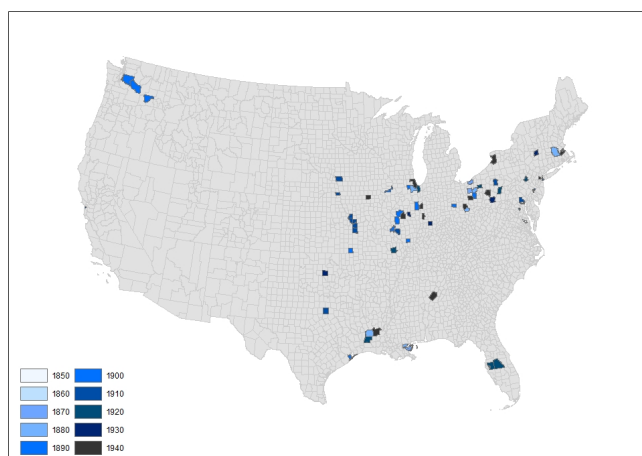
- Spero, Sterling D, and Abram L Harris.** 1959. *The black worker*. Columbia University Press.
- Summers, Clyde W.** 1946. "Admission policies of labor unions." *The quarterly journal of economics*, 61(1): 66–107.
- Sundstrom, William A.** 1994. "The Color Line: Racial Norms and Discrimination in Urban Labor Markets, 1910–1950." *Journal of Economic History*, 54(2): 382–396.
- Sun, Liyang, and Sarah Abraham.** 2021. "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects." *Journal of Econometrics*, 225(2): 175–199.
- Washington, Booker T.** 1913. "The Negro and the labor unions." *The Atlantic Monthly*, 111: 756–767.
- Whatley, Warren.** 1993. "African-American Strikebreaking from the Civil War to the New Deal." *Social Science History*, 17(4): 525–558.
- Whatley, Warren C.** 1990. "Getting a Foot in the Door: "Learning," State Dependence, and the Racial Integration of Firms." *Journal of Economic History*, 50(1): 43–66.
- Whatley, Warren C., and Gavin Wright.** 1994. "Race, Human Capital, and Labour Markets in American History." In *Labour Market Evolution: The Economic History of Market Integration, Wage Flexibility, and the Employment Relation*, ed. George Grantham and Mary MacKinnon. London:Routledge.
- Wilson, Francille Rusan.** 1989. "Black workers ambivalence toward Unions." *International Journal of Politics, Culture, and Society*, 2(3): 378–381.
- Wolman, Leo.** 1936. *Ebb and Flow in Trade Unionism*. NBER.
- Wright, Gavin.** 1999. "The Civil Rights Revolution as Economic History." *Journal of Economic History*, 59(2): 267–289.

Wright, Gavin. 2013. *Sharing the Prize: The Economics of the Civil Rights Revolution in the American South*. Cambridge, MA:Harvard University Press.

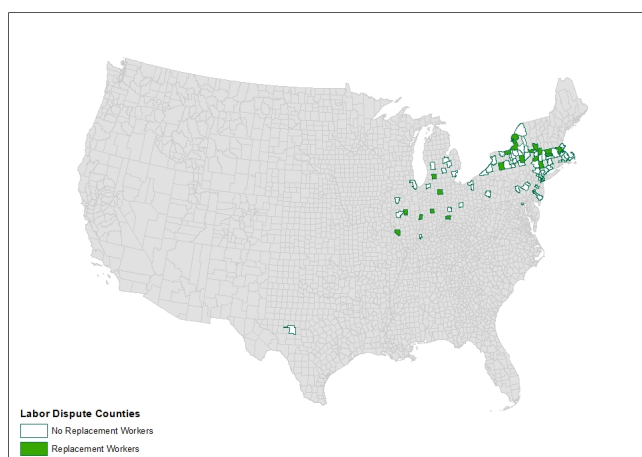
Figures and Tables

Figure 1: The Geography of Labor Disputes with and without Black Strikebreakers

(a) Occurrences of Black Strikebreaking (1847-1934)

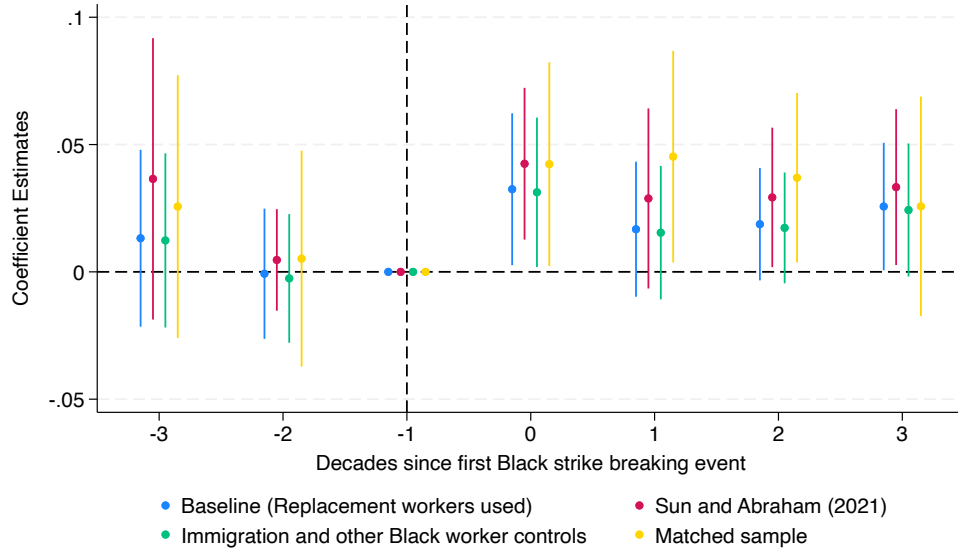


(b) Occurrences of Other Labor Disputes (1881-1894)



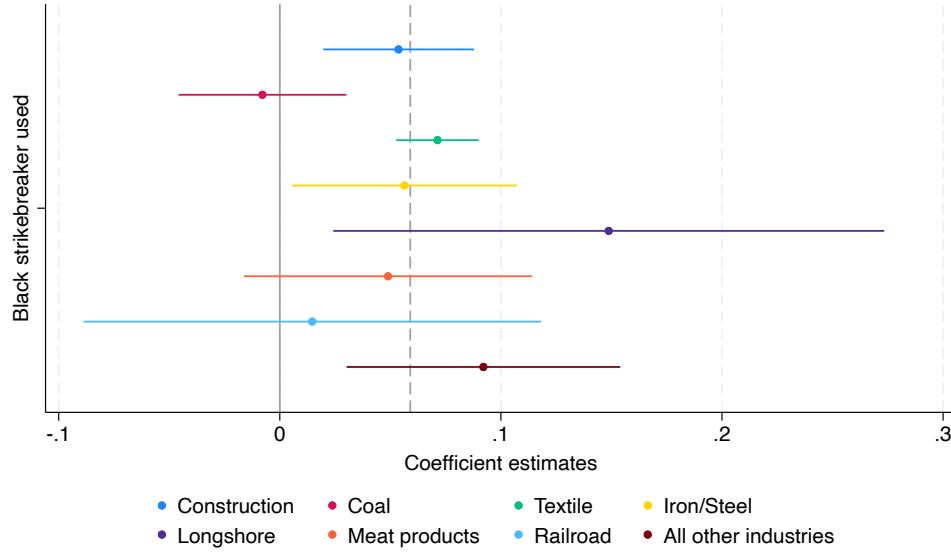
Notes: Panel A identifies counties where at least one industry experienced a strike in which Black strikebreakers were employed, with darker shaded counties experiencing these events later in the sample period. The data was obtained from Whatley (1993) and Bonacich (1976) and was verified and expanded upon as outlined in the Data Appendix. See Tables A1, A2, and A3 in the Data Appendix for our list of Black strikebreaking incidents. Panel B illustrates labor disputes between 1881 and 1894 documented by the U.S. Commissioner of Labor. Outlined counties experienced a strike in which no replacement workers were hired whereas shaded counties experienced a strike in which replacement workers were hired.

Figure 2: Event Studies of Black Strikebreaking and Black Industry Shares



Notes: This figure plots the coefficients and 95% confidence intervals of the estimated β 's from Equation (2). All regressions include county-by-census year fixed effects and county-by-industry fixed effects. Standard errors are clustered at the county-level. The unit of observation is a county-industry-year cell and data ranges from 1870-1930. Included are results from our baseline specification that uses only county-industry pairs located in counties where a labor dispute occurred and replacement workers were used as a control group for county-industry pairs that experienced Black strikebreaking, along with results from specifications which add additional controls, utilize a matched sample as our control group, and use the estimation procedure outlined in [Sun and Abraham \(2021\)](#).

Figure 3: Black Strikebreaking and Black Worker Share by Industry

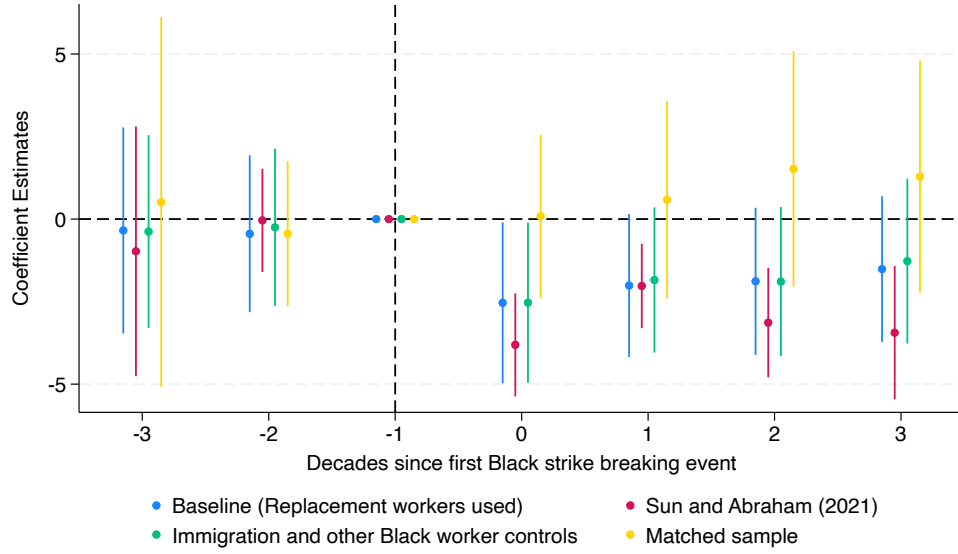


Notes: This figure plots coefficients and 95% confidence intervals associated with the β coefficient from the following equation, which is estimated separately for each industry that frequently employed Black strikebreakers:

$$y_{ct} = \kappa_c + \zeta_t + \beta sb_{ct} + \epsilon_{ct}$$

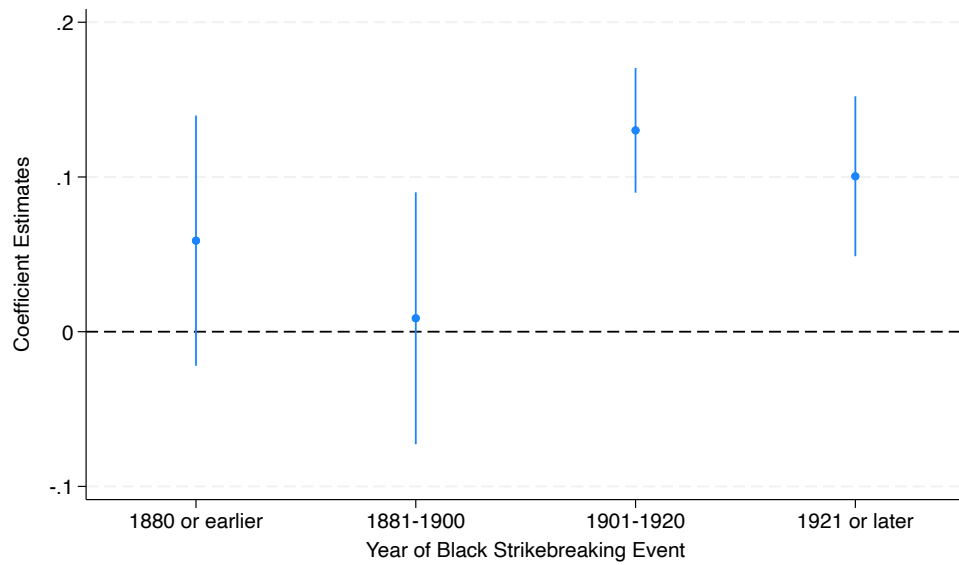
where all variables are defined as in Equation (1), but κ_c are county fixed effects, ζ_t are census year fixed effects, and the subscript k (for industry) is dropped since the equation is estimated separately for each industry. The unit of observation is a county-industry-year cell and data ranges from 1870-1930. The dependent variable is the share of Black workers in a county-industry-year cell. Standard errors are clustered at the county-level.

Figure 4: Event Studies of Black Strikebreaking and Average Age of Black Workers



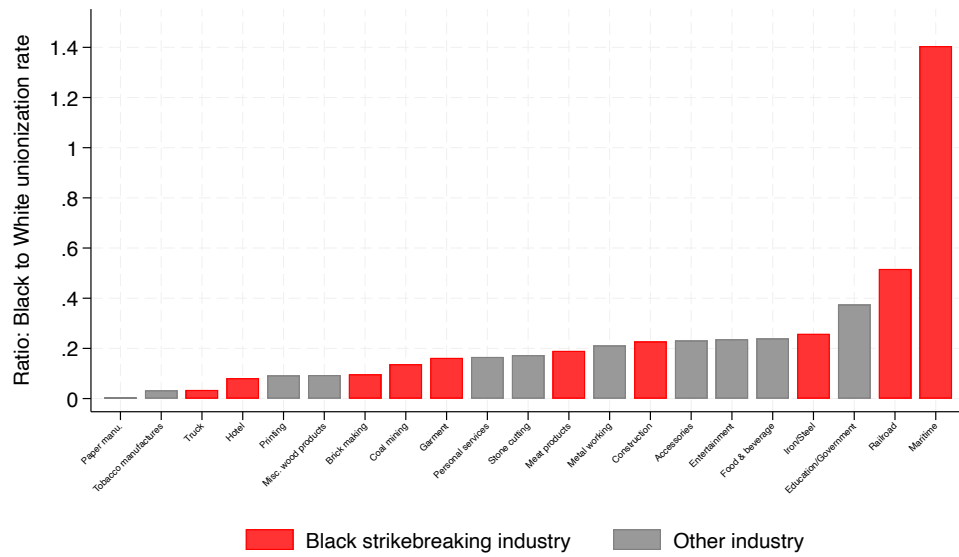
Notes: This figure plots the coefficients and 95% confidence intervals of the estimated β 's from Equation (2) with the average age of Black workers as the dependent variable. All regressions include county-by-census year fixed effects and county-by-industry fixed effects. Standard errors are clustered at the county-level. The unit of observation is a county-industry-year cell and data ranges from 1870-1930. Included are results from our baseline specification that uses only county-industry pairs located in counties where a labor dispute occurred and replacement workers were used as a control group for county-industry pairs that experienced Black strikebreaking, along with results from specifications which add additional controls, utilize a matched sample as our control group, and use the estimation procedure outlined in [Sun and Abraham \(2021\)](#).

Figure 5: Impact of Black Strikebreaking on Black Wages in 1940



Notes: This figure plots the coefficients and 95% confidence intervals associated with $\beta_6, \beta_7, \beta_8$, and β_9 in Equation (4). The dependent variable is logged weekly wages. All regressions include controls for age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black), as well as county-by-industry fixed effects. The estimation sample includes men between the ages of 25 and 70 from the full count 1940 Census. Standard errors are clustered at the county-level.

Figure 6: Ratio of Black to White Unionization Rates (c. 1930)



Notes: This figure plots the ratio of the Black unionization rate to the White unionization rate in major industries circa 1930. Industries using Black strikebreakers are represented by red bars and industries not using Black strikebreakers are represented by gray bars. Black and total union membership numbers circa 1930 are taken from [Reid \(1930\)](#) and [Wolman \(1936\)](#). See Appendix Table A6 for the complete list of unions, industry assignments, and Black and total membership, which were used to construct this figure. These data were combined with data from the 1930 complete count U.S. Census [Ruggles et al. \(2021\)](#) to construct industry-specific unionization rates.

Table 1: Black Share Before and After the use of Black Strikebreakers

	Pre (1870)	Post (1940)	Difference
Panel A: All county-industry pairs			
No Black strikebreaking (N=77943)	0.086	0.081	0.005*** (0.001)
Black strikebreaking (N=50)	0.052	0.123	-0.071** (0.027)
Difference	0.034 (0.029)	-0.042* (0.024)	0.076*** (0.000)
Panel B: County-industry pairs in counties with strikes			
No Black strikebreaking (N=6320)	0.016	0.026	-0.011*** (0.001)
Black strikebreaking (N=50)	0.052	0.123	-0.071** (0.027)
Difference	-0.036*** (0.008)	-0.097*** (0.008)	0.061*** (0.000)
Panel C: County-industry pairs in counties using replacement workers			
No Black strikebreaking (N=5537)	0.015	0.027	-0.011*** (0.001)
Black strikebreaking (N=50)	0.052	0.123	-0.071** (0.027)
Difference	-0.037*** (0.008)	-0.096*** (0.008)	0.060*** (0.000)

Notes: This table displays the average share of Black workers for treated and untreated observations across the pre and post-treatment period. Our unit of observation is a county-industry-year cell. The “Pre” column presents data from 1870, before most counties experienced a Black strikebreaking event. The “Post” column presents data from 1940, the last year in our sample. The third column presents the differences between the pre and post-treatment periods. Each panel presents data separately for “treated” and “untreated” county-industry pairs, as well as the differences by treatment status within a given year. The difference of these differences is also presented along with the results from a difference in means test (t-test). Panel A uses all non-treated county-industry pairs as a control group, Panel B uses only non-treated county-industry pairs in counties that experienced a strike between 1881 and 1894 as a control group, and Panel C uses only non-treated county-industry pairs in counties that experienced a strike that resulted in the use of (not Black) replacement workers between 1881 and 1894 as a control group.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table 2: Individual level summary statistics - 1940 complete count Census

	Black strikebreaking county-industry			Non-Black strikebreaking county-industry		
	Black (1)	White (2)	Difference (1)-(2)	Black (3)	White (4)	Difference (3)-(4)
Annual income (1939)	965.11	1538.61	-573.50***	729.29	1361.32	-632.03***
Weeks worked (1939)	50.60	50.77	-0.17***	50.66	50.56	0.10***
Weekly wage	19.07	30.29	-11.22***	14.41	26.86	-12.45***
Observations	43755	317148		318718	3186597	

Notes: This table displays summary statistics for our main dependent variables in our 1940 individual-level analysis. The sample includes men between the ages of 25 and 70 from the full count 1940 Census. Only men in an industry in which Black strikebreakers were used are included. Results are presented separately for White and Black men across “treated” and “untreated” county-industry pairs, as well as the difference across these subsets. The stars next to the differences represent the results from a difference in means test (t-test).

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table 3: Black Strikebreaking and Black Industry Shares

	(1)	(2)	(3)	(4)	(5)
Black Strikebreaker	0.024** (0.012)	0.019*** (0.006)	0.020*** (0.006)	0.019*** (0.006)	0.035*** (0.009)
Observations	545475	44632	38493	38493	973
Mean of dep. var.	.094	.024	.023	.023	.065
Median of dep. var.	0	.002	.002	.002	.015
All county-industry pairs	X				
Counties with strikes (1881-1894)		X			
Counties using replacement workers (1881-1894)			X	X	X
Immigration and other Black worker controls				X	
Matched Sample					X

Notes: This table presents the estimated β coefficients and associated standard errors from Equation (1). The unit of observation is a county-industry-year cell. The outcome variable is the share of workers in a given industry, county, census year that are Black. Years range from 1870-1940. All columns include county-by-census year fixed effects and county-by-industry fixed effects. Standard errors are clustered at the county-level. Column (4) includes controls for baseline (1870) immigrant share in county-industry cell interacted with year fixed effects and the baseline (1870) share of Black workers working in the industry in *all other* counties interacted with year fixed effects. Column (5) uses a matched sample as the control group. For each treated county-industry pair we match it to neighbors based on trends in Black and total workers from two censuses before the Black strikebreaking event (i.e. event time -2) to one census before the Black strikebreaking event (i.e. event time -1) using Mahalanobis matching with three nearest neighbors.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table 4: Black Strikebreaking and Black Industry Shares - Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black Strikebreaker	0.011** (0.005)	0.020*** (0.006)	0.011*** (0.000)	0.021*** (0.007)	0.013 (0.014)	0.020*** (0.006)	0.020*** (0.006)	0.019 (0.014)
Observations	38449	38493	38339	30772	21996	59775	38493	67522
Mean of dep. var.	0.024	0.023	0.023	0.022	0.029	0.022	0.023	.027
	Sun & Abraham (2021)	State linear TT	Occurring between 1881-1894	1850-1940	1910-1940	Unbalanced panel	Percent urban	Occupation codes

Notes: This table presents the estimated β coefficients and associated standard errors for various robustness checks to Equation (1). In Columns (1)-(7) each observation represents a county-industry-year cell; in Column (8), each observation represents a county-occupation-year cell. The outcome variable is the share of workers in a given industry, county, and census year who are Black; in Column (8), it is the share of workers in a given occupation, county, and census year who are Black. Years range from 1870-1940. All columns include county-by-census year fixed effects and county-by-industry fixed effects. Standard errors are clustered at the county-level. Each robustness check is outlined in detail in Section 5.1.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table 5: Income, weeks worked, and wages

	Log(Annual Income)			Weeks worked			Log(Weekly Wage)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Black * Black Strikebreaker County-Industry	0.096*** (0.031)	0.082*** (0.023)	0.062*** (0.018)	-0.320 (0.244)	-0.028 (0.123)	-0.014 (0.085)	0.103*** (0.033)	0.083*** (0.024)	0.062*** (0.018)
Black Strikebreaker County-Industry	0.174*** (0.016)			0.200 (0.140)			0.170*** (0.017)		
Observations	3866218	3866218	3866218	3866218	3866218	3866218	3866218	3866218	3866218
County-industry FE		X	X		X	X		X	X
Occupation-by-race FE			X			X			X

Notes: This table presents the β coefficients and associated standard errors from Equation (3). The sample includes men between the ages of 25 and 70 from the 1940 full count Census. Only men working in an industry that employed Black strikebreakers (e.g. men in the railroad industry) are included in the sample. The outcome variable is logged annual income in Columns (1)-(3), the number of weeks worked in Columns (4)-(6), and the log of weekly wage income in Columns (7)-(9). Columns (1), (4), and (7) control for whether or not the county-industry pair an individual is employed in previously experienced a Black strikebreaking event. Columns (2), (5), and (8) control for county-by-industry fixed effects. Columns (3), (6), and (9) control for county-by-industry fixed effects as well as occupation code fixed effects (using IPUMS OCC1950 variable; [Ruggles et al. \(2021\)](#)) and its interaction with Black. All regressions include controls for age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black). Standard errors are clustered at the county level.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table 6: Weekly wages, by industry unionization intensity

	Log(Weekly Wages)	
	(1)	(2)
Black * Black Strikebreaker	0.130***	0.052**
County-Industry	(0.038)	(0.025)
Observations	1458927	2407291
Sample:	High	Low
	Black	Black
	Unionization	Unionization
County-industry FE	X	X

Notes: This table presents the β coefficients and associated standard errors from Equation 3. The sample includes men between the ages of 25 and 70 from the 1940 full count Census, restricted to those working in an industry that employed Black strikebreakers. The outcome variable is the log of weekly wage income. Column (1) uses men employed in industries with high Black-to-White unionization rates (iron/steel, maritime, and railroads); Columns (2) restrict the sample to men employed in industries with low Black-to-White unionization rates. Within each sample, odd columns control for whether the county-industry pair previously experienced a Black strikebreaking event, whereas even columns control for a full set of county-by-industry fixed effects. All regressions include county-by-industry fixed effects, age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black). Standard errors are clustered at the county level.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

A Data Appendix

Data on Black Strikebreakers

To construct our baseline data on when, where, and in which industries Black strikebreakers were being used, we began with incidents reported in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#). Table 1 of [Whatley \(1993\)](#)'s paper contains 136 entries, while [Bonacich \(1976\)](#)'s Table 5 contains 25 entries. Twenty-three of the incidents listed by Bonacich also appear in Whatley, leaving 138 distinct incidents across the two papers. We note, however, that many of these incidents span across more than one county, hence impacting the number of county-industry pairs. We returned to the underlying source material cited in the published tables whenever possible to verify the incidents and to standardize their years, industries, locations, and citations.

After vetting the existing lists of Black strikebreaker usage, we searched for additional strikes not included in the original data to create the most comprehensive collection of Black strikebreaking possible. Within the sources cited by Whatley and Bonacich we discovered 21 more instances of Black strikebreaking that they had omitted. Many of these strikes were concurrent and may have been omitted under the impression that they were all part of one larger movement, but because we are concerned with location, all strikes that occurred in the same year and industry but in different cities were returned to the data set.

After examining these articles, we searched a variety of online archives for additional strikes that had not fallen under the purview of Whatley and Bonacich's sources. These included both historical newspapers and peer-reviewed studies. While we used several books in our search, none of them contained information on new strikes and so were discarded. Using the search term "strikebreaker" paired with each of the terms "Black," "negro," and "colored" generated the most relevant articles. The term "replacement worker" was not included because it may refer to a broader set of workers than just

strikebreakers and because it was less commonly used. We searched a variety of online archives and databases, focusing on contemporary newspapers from 1850 to 1930. Our search included America's Historical Newspapers, JSTORE, ProQuest Historical Newspapers, and Access World News. These searches generated 28 additional incidents from sources not cited in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#). Relevant newspaper articles were typically one or two paragraphs long, detailing strikebreakers who were victims of crime or who committed crimes, as well as where and for whom they worked.

These additional data were incorporated to create a final data set composed of 138 verified strikes from Whatley and Bonacich's data, together with the 21 strikes discovered in the original sources and the 28 found in additional searches of archives. These 187 distinct and verified strikes form the basis of our examination of Black strikebreakers from 1847 to 1934.

Table A1: Strikes in Which Black Workers Were Used as Strikebreakers, 1847-1899

Year	Industry	Location	Year	Industry	Location
1847	Iron/Steel	Richmond	1886	Meat Packing	Chicago
1853	Railroad	-	1886	Metal Trades	Springfield
1855	Longshore	New York	1886	Railroad Shop	St. Louis
1856	Longshore	New York	1886	Railroad	Western Arkansas
1862	Railroad	-	1887	Hotel	Chicago
1863	Longshore	New York	1887	Longshore	New York
1863	Longshore	Albany	1888	Coal/Iron	Pittsburgh
1863	Longshore	Boston	1888	Coal	Roslyn
1863	Longshore	Buffalo	1889	Coal/Iron	Pittsburgh
1863	Longshore	Chicago	1889	Coal	Punxsutawney
1863	Longshore	Cleveland	1891	Coal	Newcastle/Franklin
1863	Longshore	Detroit	1891	Coal	Mystic
1865	Building	New Orleans	1892	Iron/Steel	Homestead
1866	Ship Caulking	Boston	1892	Coal	-
1870	Steel	Pittsburgh	1893	Railroad	Birmingham
1874	Coal	Hocking Valley	1893	Coal	Weir City
1874	Coal	Brazil	1894	Coal	-
1874	Coal	Freeburg	1894	Railroad	Chicago
1874	Coal	Clay County	1894	Meat Packing	Chicago
1874	Coal	Massilon	1895	Coal	-
1875	Coal	-	1895	Coal	Southern West Virginia
1875	Iron/Steel	Pittsburgh	1895	Longshore	New York
1875	Iron/Steel	Pittsburgh	1895	-	Chicago
1877	Coal	Braidwood	1895	Railroad	Birmingham
1878	Iron/Steel	Pittsburgh	1896	Coal	-
1878	Iron/Steel	Sharpsburg	1896	Machine Works	Cleveland
1878	Coal	Coal Creek	1896	Coal	Weir City
1880	Coal	Ohio Tuscaras Valley	1898	Iron/Steel	Chicago
1880	Coal	Monroe County	1898	Coal	Pana
1880	Coal	Rapid City	1898	Coal	Virden
1880	Coal	Springfield	1898	Coal	Cartersville
1884	Coal	Hocking Valley	1899	Coal	Cartersville
1886	Coal	Grape Creek	1899	Coal	Weir City
1886	Coal	Joliet	1899	Iron/Steel	Birmingham
1886	Coal	Lemon	1899	Longshore	New York
1886	Coal	Coshocton	1899	Iron/Steel	Sharpsburg

Notes: This table reproduces the information about Black strikebreaking incidents between 1847 and 1899 as given in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#).

Table A2: Strikes in Which Black Workers Were Used as Strikebreakers, 1900-1934

Year	Industry	Location	Year	Industry	Location
1900	Building	Chicago	1918	Hotel	Chicago
1900	Longshore	Baltimore	1919	Food	Argo
1900	Iron/Steel	Philadelphia	1919	-	Detroit
1901	Longshore	San Francisco	1919	Longshore	Tampa
1901	Steel	Pittsburgh	1919	Longshore	San Francisco
1902	Coal	-	1919	Meat Packing	Chicago
1903	Longshore	New Orleans	1919	Phosphate	-
1904	Meat Packing	Chicago	1919	Steel	widespread
1904	Meat Packing	St. Joseph	1919	Railroad	-
1904	Meat Packing	Sioux City	1919	Building	New York
1904	Meat Packing	Omaha	1919	Corn Refining	Chicago
1904	Meat Packing	Kansas City	1920	Garment	Chicago
1904	Meat Packing	Fort Worth	1920	Restaurant	Chicago
1904	Coal	Birmingham	1921	Meat Packing	Chicago
1905	Trucking	Chicago	1921	Garment	Philadelphia
1906	Longshore	Brooklyn	1921	Meat Packing	Chicago
1907	Longshore	New Orleans	1921	Metal Trades	Detroit
1907	Longshore	New York	1921	Meat Packing	widespread
1907	Steel	Connellsville	1922	Coal	Pennsylvania
1909	Railroad	-	1922	Railroad	widespread
1909	Steel	McKees Rocks	1922	Railroad Shop	Chicago
1910	Trucking	New York	1923	Brick Making	Newark
1911	Building	Washington	1923	Longshore	New Orleans
1911	Lumber	-	1924	Coal	-
1911	Railroad	widespread	1925	Coal	N. West Virginia
1912	Lumber	Merryville	1925-1930	Paper Box/Fur/ Garment Laundry	New York
1916	Railroad	Chicago	1926	Fig/Date Packing	Chicago
1916	Garment	Chicago	1927	Coal	Western PA
1916	Longshore	Baltimore	1927	Coal	-
1916	Meat Packing	E. St. Louis	1928	Coal	Ohio
1917	Aluminum	E. St. Louis	1929	Longshore	Boston
1917	Garment	Chicago	1934	Coal	Birmingham
1917	Sugar Refining	Philadelphia			
1918	Garment	Chicago			

Notes: This table reproduces the information about Black strikebreaking incidents between 1900 and 1934 as given in [Whatley \(1993\)](#) and [Bonacich \(1976\)](#).

Table A3: Newly Identified Strikes in Which Blacks Were Used as Strikebreakers, 1847-1934

Year	Industry	Location	Year	Industry	Location
1875	Coal		1916	Paper Makers	Nyack
1878	Railroad		1916	Steel	Youngstown
1880	Coal	Pittsburgh	1916		New York City
1890	Coal	Dana	1916	Longshore	Seattle
1892	Coal	North W.V.	1916	Longshore	San Francisco
1894	Railroad	widespread	1917	Railroad	Tulsa
1895		New York City	1919	Steel	Homestead
1898	Longshore	Galveston	1919	Steel	Buffalo
1899	Coal	Ardmore	1919	Steel	Youngstown
1899	Coal		1919	Steel	Chicago
1901	Steel	Chicago	1919	Steel	Pittsburgh
1902	Longshore	New Orleans	1919	Steel	Gary
1904		New York City	1919	Steel	Donora
1904	Meat Packing	Kansas City	1919	Steel	Johnstown
1904	Stablemen	San Francisco	1920		San Francisco
1908	Coal	Birmingham	1920	Longshore	Philadelphia
1910	Coal	Latrobe	1920	Longshore	Philadelphia
1910		New York City	1921	Railroad	
1911		New York City	1922	Packing	Fort Worth
1911	Phosphate	Charleston	1922	Meat Packing	Oklahoma City
1912	Railroad	New Orleans	1922	Coal	
1912	Waiters	New York City	1923	Screwman	New Orleans
1912	Coal	Paint Creek and Cabin Creek	1925	Coal	Pittsburgh
1912	Firemen	Florida East Coast	1927	Longshore	New York
1913	Coal	Denver			

Notes: This table documents the newly identified Black strikebreaking incidents not previously documented by [Whatley \(1993\)](#) or [Bonacich \(1976\)](#). The data collection process is discussed in the Data Appendix.

Table A4: Industry Code Assignments

	1950 Industry Code (IND1950)	1950 Industry Description
<i>Panel A: Industries with Black Strikebreaking Events</i>		
Brick making	318	Structural clay products
Coal mining	216	Coal mining
	477	Miscellaneous petroleum and coal products
Construction	246	Construction
Corn Refining	409	Grain-mill products
	419	Miscellaneous food preparations and kindred products
Garment	436	Knitting mills
	437	Dyeing and finishing textiles, except knit goods
	438	Carpets, rugs, and other floor coverings
	439	Yarn, thread, and fabric mills
	446	Miscellaneous textile mill products
	448	Apparel and accessories
	449	Miscellaneous fabricated textile products
Hotel	836	Hotels and lodging places
Iron/Steel	336	Blast furnaces, steel works, and rolling mills
	337	Other primary iron and steel industries
Longshore/Maritime	546	Water transportation
Lumber	306	Logging
	307	Sawmills, planing mills, and mill work
	308	Miscellaneous wood products
Meat products	406	Meat products
Railroad	506	Railroads and railway express service
Truck	526	Trucking service
<i>Panel B: Industries with no Black Strikebreaking Events</i>		
Accessories	448	Apparel and accessories
	488	Footwear, except rubber
	656	Apparel and accessories stores, except shoe
	696	Jewelry stores
	848	Shoe repair shops
Education/Government	888	Educational services
	906	Postal service
	916	Federal public administration
	926	State public administration
	936	Local public administration
Entertainment	856	Radio broadcasting and television
	857	Theaters and motion pictures
	859	Miscellaneous entertainment and recreation services
Food and beverage	416	Bakery products
	417	Confectionary and related products
	418	Beverage industries
Metal working	338	Primary nonferrous industries
	347	Fabricated nonferrous metal products
	348	Not specified metal industries
Miscellaneous wood products	308	Miscellaneous wood products
	309	Furniture and fixtures
	817	Miscellaneous repair services
Paper manufacturing	456	Pulp, paper, and paper-board mills
	458	Miscellaneous paper and pulp products
Personal services	846	Laundering, cleaning, and dyeing
	849	Miscellaneous personal services
Printing	459	Printing, publishing, and allied industries
Stone cutting	236	Nonmetallic mining and quarrying, except fuel
	326	Miscellaneous nonmetallic mineral and stone products
Tobacco manufactures	429	Tobacco manufactures

Notes: This table documents the authors' assignment of industries to 1950 industry codes (i.e. IND1950) from IPUMS (Ruggles et al., 2021). Panel A lists the industries that had Black strikebreaking events; Panel B lists other industries that were unionized, but did not have Black strikebreaking events.

Table A5: Occupation Codes assigned to Strikebreaking Industries

Striking Industry	1950 Occupation Code (OCC1950)	1950 Occupation Description
Coal	650	Mine operatives and laborers
Construction	510	Carpenters
	511	Cement and concrete finishers
	513	Cranemen, derrickmen, and hoistmen
Garment	675	Spinners, textile
	684	Weavers, textile
Iron/Steel	641	Furnacemen, smeltermen and pourers
	642	Heaters, metal
Longshore	940	Longshoremen and stevedores
Lumber	674	Sawyers
	950	Lumbermen, raftsmen, and woodchoppers
Railroad	203	Conductors, railroad
	541	Locomotive engineers
	542	Locomotive firemen
	553	Mechanics and repairmen, railroad and car shop
	624	Brakemen, railroad
	681	Switchmen, railroad
Truck	683	Truck and tractor drivers

Notes: This table documents the authors' assignment of strikebreaking industries to 1950 occupation codes (i.e. OCC1950) from IPUMS ([Ruggles et al., 2021](#)).

Table A6: Black and Total Union Membership (c. 1930)

Union	Industry	Black Strike- breaking Industry	Black Members (1926–28)	Total Members (1927)
Source:			Reid (1930)	Wolman (1936)
Boot and Shoe Workers	Accessories	0	50	35,000
Cloth, Hat, Cap and Millinery Workers	Accessories	0	300	10,400
Fur Workers	Accessories	0	11	7,200
Glove Workers	Accessories	0	2	600
Jewelry Workers	Accessories	0	50	600
Leather Workers, U.I.U.	Accessories	0	8	1,000
Brick and Clay Workers	Brick making	1	100	5,000
Mine Workers, United	Coal mining	1	5,000	387,700
Bricklayers, Masons and Plasterers	Construction	1	1,917	83,700
Bridge and Structural Iron Workers	Construction	1	2	21,300
Carpenters and Joiners	Construction	1	1,572	322,000
Compressed Air Foundation Workers	Construction	1	700	—
Electric Workers	Construction	0	1	142,000
Elevator Constructors	Construction	1	10	10,200
Engineers, Operating	Construction	0	1,200	32,000
Hod Carriers, Building and Common Laborers	Construction	1	10,131	77,000
Lathers, Wood, Wire and Metal	Construction	1	223	13,100
Painters, Decorators and Paper Hangers	Construction	1	718	112,900
Plasterers (Operative)	Construction	1	782	39,000
Roofers, Damp and Waterproof	Construction	1	19	4,000
Steam Shovel and Dredgemen	Construction	0	15	7,000
Tunnel and Subway Workers	Construction	1	600	4,000
Building Service Employees	Educ./Government	0	70	6,200
Clerks, Post Office	Educ./Government	0	356	71,000
Federal Employees	Educ./Government	0	2,008	20,000
Fire Fighters	Educ./Government	0	18	16,000
Letter Carriers	Educ./Government	0	1,376	40,000
Mail Association, Railway	Educ./Government	0	6	19,400
Teachers	Educ./Government	0	31	3,500
Actors and Artists	Entertainment	0	12	10,300
Moving Picture Machine Operators	Entertainment	0	100	23,100
Musicians	Entertainment	0	3,000	80,000
Bakery and Confectionery Workers	Food and beverage	0	190	21,500
Brewery, Flour and Cereal Workers	Food and beverage	0	—	16,500
Clothing Workers, Amalgamated	Garment	1	—	129,000
Garment Workers	Garment	1	130	47,500
Garment Workers, International Ladies	Garment	1	519	53,300
Tailors, Journeymen	Garment	1	17	7,100
Textile Workers	Garment	1	4	30,000
Hotel and Restaurant Employees	Hotel	1	1,000	39,800

Continued on next page

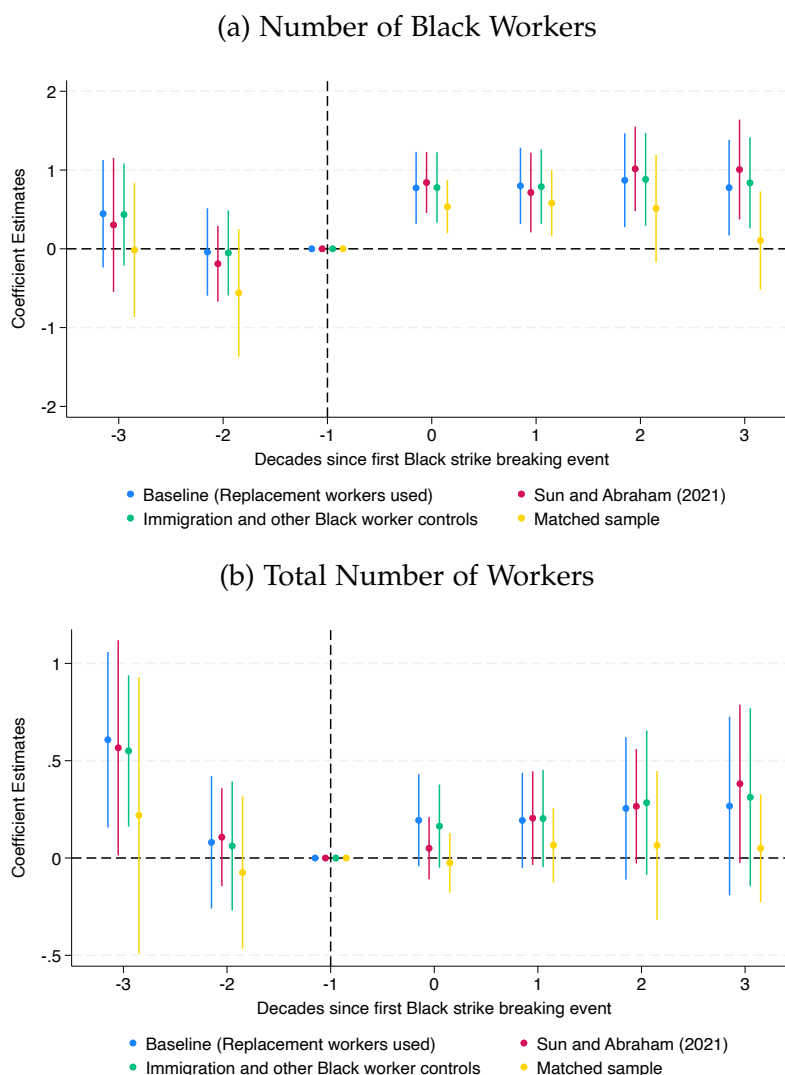
Table A6 continued

Union	Industry	Black Strike-breaking Industry	Black Members (1926–28)	Total Members (1927)
Source:			Reid (1930)	Wolman (1936)
Iron, Steel and Tin Workers	Iron/Steel	1	300	9,900
Longshoremen	Maritime	1	12,381	34,700
Seamen	Maritime	1	8	15,000
Meat Cutters and Butcher Workmen	Meat products	1	301	11,700
Foundry Employees	Metal working	0	150	3,500
Metal Workers, Sheet	Metal working	0	7	25,000
Molders	Metal working	0	12	29,100
Mine, Mill and Smelter Workers	Metal mining	0	500	5,000
Broom and Whisk Makers	Misc. wood products	0	50	500
Carvers, Wood	Misc. wood products	0	—	1,200
Coopers	Misc. wood products	0	—	1,000
Furniture Workers	Misc. wood products	0	4	—
Piano and Organ Workers	Misc. wood products	0	—	500
Upholsterers	Misc. wood products	0	4	10,200
Paper Makers	Paper manufacturing	0	—	4,100
Pulp, Sulphite and Paper Mill Workers	Paper manufacturing	0	1	5,000
Barbers	Personal services	0	239	54,500
Cleaners, Dyers and Pressers	Personal services	0	1,500	—
Laundry Workers	Personal services	0	111	5,500
Sign Writers	Personal services	0	10	—
Engravers, Photo	Printing	0	2	8,200
Lithographers	Printing	0	1	6,100
Printing Pressmen and Assistants	Printing	0	43	40,000
Stereotypers and Electrotypes	Printing	0	12	7,200
Typographical Union	Printing	0	128	74,800
Blacksmiths, Drop Forgers and Helpers	Railroad	1	—	5,000
Carmen, Railway	Railroad	1	500	51,400
Firemen and Oilers	Railroad	1	150	9,000
Maintenance of Way Employees	Railroad	1	10,000	28,200
Railway Employees, Street and Electric	Railroad	1	16	101,200
Signalmen, Railway	Railroad	1	2	9,300
Granite Cutters	Stone cutting	0	2	8,500
Paving Cutters	Stone cutting	0	310	2,400
Stone Cutters	Stone cutting	0	2	5,100
Cigar Makers	Tobacco manufactures	0	110	18,800
Tobacco Workers	Tobacco manufactures	0	100	1,500
Teamsters and Chauffeurs	Truck	1	313	86,500
Automobile, Aircraft and Vehicle Workers	Vehicle/airplane mfg.	0	50	—

Notes: This table reports information on labor union name, industry, Black membership, and total membership circa 1930. The union name and Black membership data come from Reid (1930), Table X. “Black Strikebreaking Industry” indicates whether the union’s industry is one of the 12 Black strikebreaking industries in Appendix Table A4 (1 = yes, 0 = no). Black membership figures are from the 1926–28 National Urban League survey. Total membership figures (United States and Canada) are from Wolman (1936), Appendix Table I, for the year 1927. A dash (—) indicates no figure was reported in the source. “Clerks, Post Office” combines the two competing post-office clerks’ unions (National Federation of Post Office Clerks, 35,000 members; United National Association of Post Office Clerks, 36,000 members). Union industries were assigned by the authors and correspond to the IND1950 codes reported in Appendix Table A4.

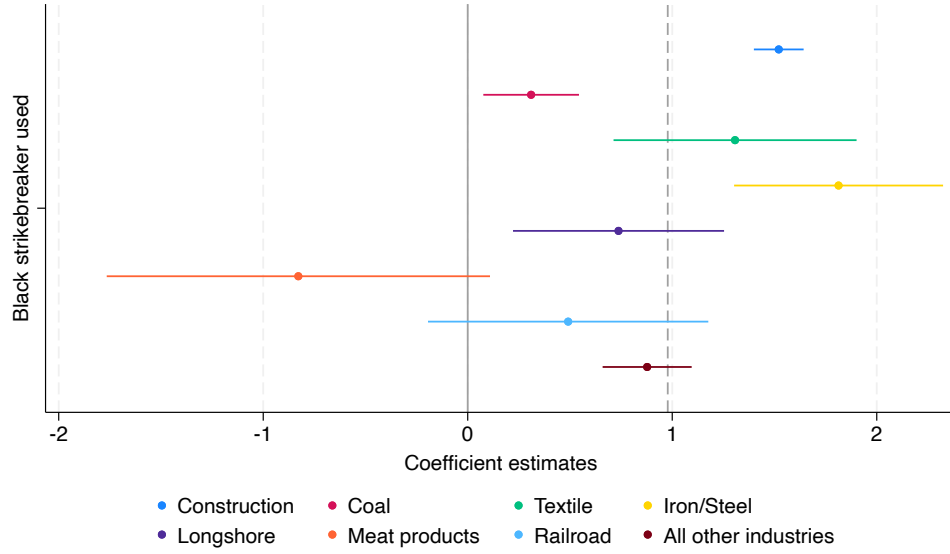
B Empirical Appendix

Figure B1: Event Studies of Black Strikebreaking, Total Number of Workers, and Number of Black Workers



Notes: This figure plots the coefficients and 95% confidence intervals of the estimated β 's from Equation (2), where the dependent variable is the number of Black workers in Panel (a) and the total number of workers in a county-industry pair in Panel (b). All regressions include county-by-census year fixed effects and county-by-industry fixed effects. Standard errors are clustered at the county-level. Each unit of observation is a county-industry pair and data ranges from 1870-1940. Included are the same specifications as outlined in Figure 2. The inverse hyperbolic sine of the number of workers is used for estimation.

Figure B2: Black Strikebreaking and the Number of Black Workers by Industry

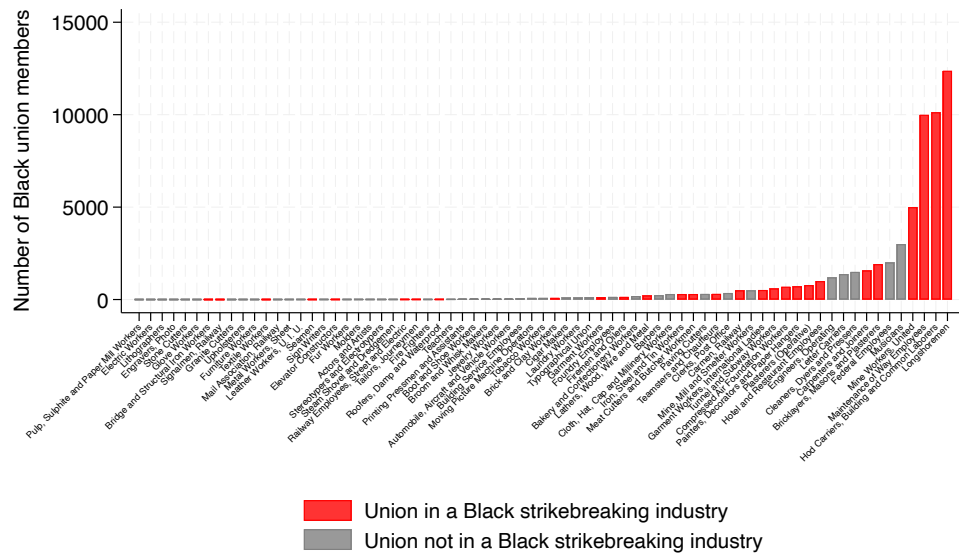


Notes: This figure plots coefficients and 95% confidence intervals associated with the β coefficient from the following equation, which is estimated separately for each industry:

$$y_{ct} = \kappa_c + \zeta_t + \beta sb_{ct} + \epsilon_{ct}$$

where all variables are defined as in Equation (1), but κ_c are county fixed effects, ζ_t are census year fixed effects, and the subscript k (for industry) is dropped since the equation is estimated separately for each industry. The unit of observation is a county-industry-year cell and data ranges from 1870-1930. The dependent variable is the number of Black workers in a county-industry-year cell and PPML is used for the estimation. Standard errors are clustered at the county-level.

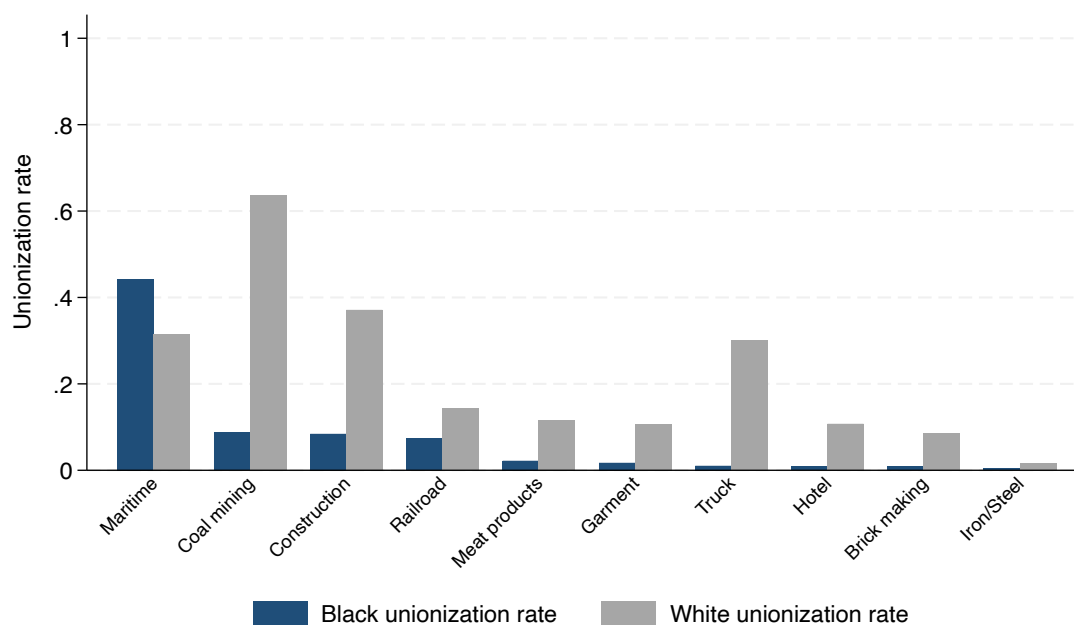
Figure B3: Black Membership in Labor Unions (c. 1930)



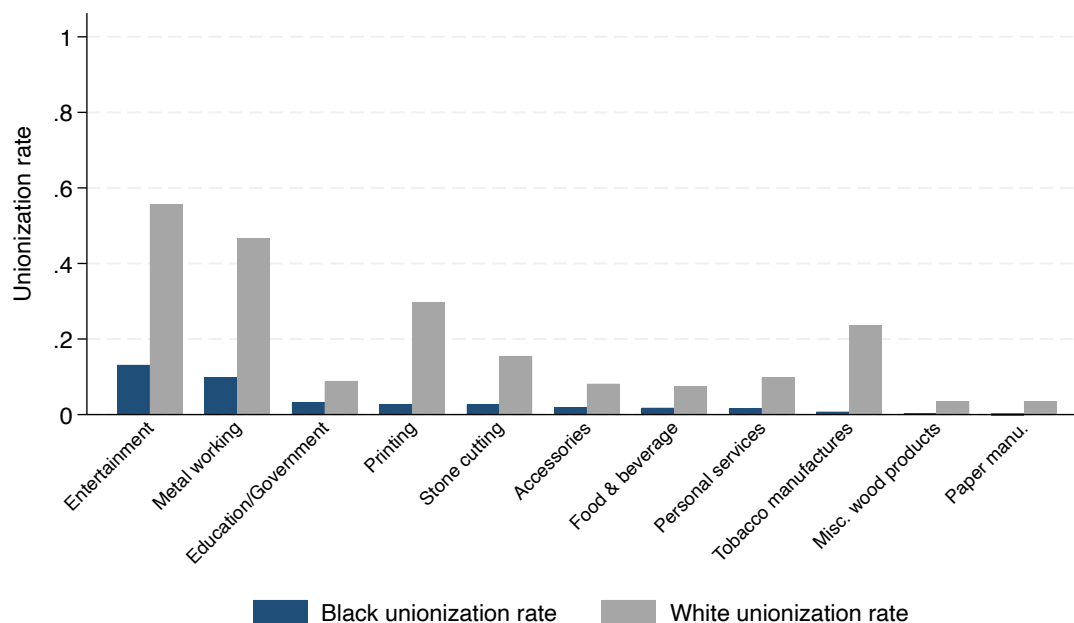
Notes: This figure plots the number of Black union members by industry circa 1930 with Black strike-breaking industries represented by red bars and industries in which Black strikebreakers were not used represented by gray bars. This data was first published in Reid (1930) and is reproduced in table form in Table A6.

Figure B4: Black and White Unionization Rates by Industry (c. 1930)

(a) Unionization Rates in Black Strikebreaking Industries



(b) Unionization Rates in Other Industries



Notes: Panel A plots the Black and White unionization rate circa 1930 for industries in which Black strikebreakers were employed, and Panel B plots the Black and White unionization rate circa 1930 for industries in which Black strikebreakers were not used. Black and total union membership numbers circa 1930 are taken from [Reid \(1930\)](#) and [Wolman \(1936\)](#), respectively, and 1930 complete count Census data was used to determine industry specific unionization rates. See Appendix Table [A6](#) for the complete list of unions, industry assignments, and Black and total membership, which were used to construct this figure.

Table B1: Black Strikebreaking and the Number of Black Workers

	(1)	(2)	(3)	(4)	(5)
Black Strikebreaker	0.609*** (0.096)	0.548*** (0.047)	0.560*** (0.047)	0.353*** (0.072)	0.225 (0.243)
Observations	392928	38724	33600	33600	881
Mean of dep. var.	152.144	143.526	158.305	158.305	.072
Median of dep. var.	1	1	1.022	1.022	.02
All county-industry pairs	X				
Counties with strikes (1881-1894)		X			
Counties using replacement workers (1881-1894)			X	X	X
Immigration and other Black worker controls				X	
Matched Sample					X

Notes: This table presents the estimated β coefficients and associated standard errors from Equation (1). The unit of observation is a county-industry-year cell. The outcome variable is the number of Black workers in a given industry, county, census year cell. Years range from 1870-1940. All columns include county-by-census year fixed effects and county-by-industry fixed effects. PPML is used for the estimation. Standard errors are clustered at the county-level. Column (4) includes controls for baseline (1870) immigrant share in county-industry cell interacted with year fixed effects and the baseline (1870) share of Black workers working in the industry in *all other* counties interacted with year fixed effects. Column (5) uses a matched sample as the control group. For each treated county-industry pair we match it to neighbors based on trends in Black and total workers from two censuses before the Black strikebreaking event (i.e. event time -2) to one census before the Black strikebreaking event (i.e. event time -1) using Mahalanobis matching with three nearest neighbors.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table B2: Black Strikebreaking and the Total Number of Workers

	(1)	(2)	(3)	(4)	(5)
Black Strikebreaker	0.314*** (0.078)	0.222*** (0.061)	0.226*** (0.061)	0.078 (0.083)	0.149 (0.222)
Observations	545475	44597	38458	38458	973
Mean of dep. var.	845.419	2977.334	3299.746	3299.746	12816.521
Median of dep. var.	29	154	174	174	627
All county-industry pairs	X				
Counties with strikes (1881-1894)		X			
Counties using replacement workers (1881-1894)			X	X	X
Immigration and other Black worker controls				X	
Matched Sample					X

Notes: This table presents the estimated β coefficients and associated standard errors from Equation (1). The unit of observation is a county-industry-year cell. The outcome variable is the total number of workers in a given industry, county, census year cell. Years range from 1870-1940. All columns include county-by-census year fixed effects and county-by-industry fixed effects. PPML is used for the estimation. Standard errors are clustered at the county-level. Column (4) includes controls for baseline (1870) immigrant share in county-industry cell interacted with year fixed effects and the baseline (1870) share of Black workers working in the industry in *all other* counties interacted with year fixed effects. Column (5) uses a matched sample as the control group. For each treated county-industry pair we match it to neighbors based on trends in Black and total workers from two censuses before the Black strikebreaking event (i.e. event time -2) to one census before the Black strikebreaking event (i.e. event time -1) using Mahalanobis matching with three nearest neighbors.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table B3: Incomes, weeks worked, and wages - by decade of strikebreaking event

	Log(Annual Income) (1)	Weeks worked (2)	Log(Weekly Wage) (3)
Black * Black Strikebreaker 1880 or earlier	0.058 (0.041)	-0.033 (0.075)	0.059 (0.041)
Black * Black Strikebreaker 1881-1900	0.016 (0.041)	0.329*** (0.101)	0.009 (0.042)
Black * Black Strikebreaker 1901-1920	0.135*** (0.019)	0.213** (0.095)	0.130*** (0.021)
Black * Black Strikebreaker used 1921 or later	0.101*** (0.024)	0.012 (0.234)	0.100*** (0.026)
Observations	3866218	3866218	3866218
County-industry FE	X	X	X

Notes: This table presents the β coefficients and associated standard errors from Equation (4). The sample includes men between the ages of 25 and 70 from the 1940 full count Census. Only men working in an industry that employed Black strikebreakers (e.g. men in the railroad industry) are included in the sample. The outcome variable is logged annual income in Column (1), the number of weeks worked in Columns (2), and the log of weekly wage income in Column (3). All columns include controls for county-by-industry fixed effects, age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black). Standard errors are clustered at the county level.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table B4: Income, weeks worked, and wages; all industries

	Log(Annual Income)			Weeks worked			Log(Weekly Wage)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Black * Black Strikebreaker County-Industry	0.190*** (0.037)	0.065*** (0.025)	0.060*** (0.019)	-0.232 (0.238)	-0.071 (0.117)	-0.059 (0.086)	0.195*** (0.040)	0.067*** (0.026)	0.061*** (0.020)
Black Strikebreaker County-Industry	0.164*** (0.020)			-0.254* (0.134)			0.170*** (0.021)		
Observations	13059037	13059037	13059037	13059037	13059037	13059037	13059037	13059037	13059037
County-industry FE		X	X		X	X		X	X
Occupation-by-race FE			X			X			X

Notes: This table presents the β coefficients and associated standard errors from Equation (3). The sample includes men between the ages of 25 and 70 from the 1940 full count Census. The outcome variable is logged annual income in Columns (1)-(3), the number of weeks worked in Columns (4)-(6), and the log of weekly wage income in Columns (7)-(9). Columns (1), (4), and (7) control for whether or not the county-industry pair an individual is employed in previously experienced a Black strikebreaking event. Columns (2), (5), and (8) control for county-by-industry fixed effects. Columns (3), (6), and (9) control for county-by-industry fixed effects as well as occupation code fixed effects (using IPUMS OCC1950 variable; [Ruggles et al. \(2021\)](#)) and its interaction with Black. All regressions include controls for age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black). Standard errors are clustered at the county level.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$

Table B5: Incomes, weeks worked, and wages - by decade of strikebreaking event; All industries

	Log(Annual Income) (1)	Weeks worked (2)	Log(Weekly Wage) (3)
Black * Black Strikebreaker 1880 or earlier	0.055 (0.046)	-0.050 (0.078)	0.056 (0.046)
Black * Black Strikebreaker 1881-1900	0.011 (0.043)	0.327*** (0.101)	0.004 (0.043)
Black * Black Strikebreaker 1901-1920	0.111*** (0.028)	0.170** (0.086)	0.107*** (0.029)
Black * Black Strikebreaker used 1921 or later	0.104*** (0.026)	0.013 (0.231)	0.103*** (0.029)
Observations	13059037	13059037	13059037
County-industry FE	X	X	X

Notes: This table presents the β coefficients and associated standard errors from Equation (4). The sample includes men between the ages of 25 and 70 from the 1940 full count Census. The outcome variable is logged annual income in Column (1), the number of weeks worked in Columns (2), and the log of weekly wage income in Column (3). All columns include controls for county-by-industry fixed effects, age fixed effects (and its interaction with Black), years of schooling fixed effects (and its interaction with Black), marital status fixed effects (and its interaction with Black). Standard errors are clustered at the county level.

* = $p < 0.10$

** = $p < 0.05$

*** = $p < 0.01$