The Unintended Consequences of Emancipation: The Abolition of Slavery and the Rise of Racist Narratives in Southern U.S. Newspapers (1800–1920)

Abstract

Does the abolition of racial hierarchy undermine or enhance racism? From the contact hypothesis to structural racism and racial threat theories, these frameworks provide distinct perspectives on the relation between the abolition of racial hierarchy and racism. To address this theoretical puzzle, we examine the impact of the abolition of slavery following the Civil War—a profound disruption to the racial hierarchy—on the development of racism in the American South. Using an original dataset covering 1403 southern counties over a span of 121 years, we find that the abolition of slavery increases the prevalence of racist narratives in Southern U.S. newspapers. This effect is primarily driven by economic competition between freed Black workers and White workers in the labor market. Furthermore, we explore the long-term effects of slavery abolition and demonstrate that even 150 years later, slavery continues to shape modern racial biases.

Keywords: The Abolition of Slavery, African Americans, Racial Relations, Economic Competition, Historical Newspaper Data

"Even after the death of slavery, elements of the proslavery argument retained their vitality, and traditional southern racial ideas became, in some cases, even more powerful and entrenched."

——*George C. Rable* (1983, pp. 138–139)

Introduction

Does the abolition of racial hierarchy undermine or enhance racism? On the one hand, the contact hypothesis suggests that, under certain conditions, interactions between in-group and out-group members can help ameliorate inter-group relations (Allport, 1954). When racial hierarchy is abolished and a more equitable system is established, potentially increasing interactions between racial groups and possibly resulting in a reduction in racism. On the other hand, structural racism theory argues that racial hierarchy causes those at the top to propagate racial views and engage in practices that maintain the existing racial order (Bonilla-Silva, 1997, 2015, 2023). The abolition of racial hierarchy may provoke an elite backlash, intensifying racist discourse and practices aimed at restoring the racial order. Particularly, studies on racial threat theory suggest that the abolition may expose the dominant racial group to political and economic competition threats from previously subordinate racial groups, which intensify intergroup hostility (Acharya et al., 2018; Blalock, 1967; Bonacich, 1972; Olzak, 1992; Watson, 2012; Wilson, 1996).

The abolition of slavery represents a profound disruption to the racial hierarchy. Slavery establishes a particular pattern of racialization in the United States, which creates a hierarchy placing Whites above Blacks in nearly all social, economic, and political spheres (Mandle, 1978; Melish, 1998; O'Connell et al., 2020; Tolnay, 2015). Under slavery, slave owners held absolute power over Black slaves, relegating them to the status of cattle or workhorses, regarded as valuable personal property (Acharya et al., 2018; Wilson, 1996). In 1865, after the

end of the Civil War, the *13th Amendment* was passed, marking the legal abolition of slavery and the formal liberation of Black slaves (Vorenberg, 2001). Afterward, Southern White elites and landowners face the threat of freed Blacks' voting rights and rising labor costs, while ordinary Whites confront economic competition with freed Blacks (Acharya et al., 2016, 2018; Wilson, 1996).

There is a rich body of research on the abolition of slavery and racial racism. Historians, sociologists have examined the formation of slavery and racist ideologies, as well as how slavery institutionalized the racial hierarchy (Fields, 1990; Hornsby, 2008; Wilson, 1996). Following abolition, scholars have documented the economic, political, and cultural consequences that emerged in its aftermath (Acharya et al., 2018; Alston & Ferrie, 1993; Bois, 1998; Ransom & Sutch, 2001). Although some studies suggest that the abolition of slavery may lead to an increase in racism, they do not provide compelling causal evidence (Acharya et al., 2018; Watson, 2012). Thus, whether the abolition of slavery undermines or intensifies racism remains ambiguous. Moreover, several studies seek to measure racism or racial hostility following abolition. Yet such measures typically draw on a limited set of subjectively chosen keywords and do not involve a systematic procedure for constructing and validating the keywords, thereby increasing the likelihood of measurement error (Esposito et al., 2023; Glaeser, 2005; Masera et al., 2022; Testa & Williams, 2023).

Our paper examines the abolition of slavery in the United States as a quasi-natural experiment to address this theoretical puzzle and to remedy the methodological limitations present in previous studies. Firstly, we construct an original dataset covering 1403 counties over 121 years (from 1800 to 1920), extracted from over 200 million historical newspaper texts on *Newspapers.com* and the U.S. Census. We focus on fourteen Southern slaveholding states, including the eleven Confederate states and three border states during the Civil War[1]. Secondly,

[1] The 14 Southern slaveholding states are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

we measure racist narratives in two ways. Following prior work, we rely on conceptually and historically informed keyword selection. For robustness, we also develop and validate a racism lexicon by combining computational filtering with human annotation, and use the validated lexicon as an alternative measure. Thirdly, we implement a quasi-natural experiment design that resembles a standard difference-in-differences (DID) strategy. Our strategy compares the prevalence of racist narratives between counties with a higher proportion of slaves and those with a lower proportion, before and after the abolition of slavery. Fourthly, we further examine changes in labor costs and labor market competition as potential mechanisms through which the abolition of slavery could have contributed to the rise in racist narratives. Additionally, we employ an instrumental variables strategy to investigate the long-term effects of the abolition of slavery, assessing whether slavery continues to influence contemporary racial attitudes despite its formal termination.

Specifically, our research design is based upon the following rationales. First, the decision to abolish slavery was led by the victorious Union, while Southern slave states were the ones to bear its imposition. For Southern slave states, the decision to abolish slavery was neither driven by the racial hierarchy nor motivated by existing or anticipated racism. Thus, the abolition provided a plausibly exogenous shift in the racial hierarchy in the South. Second, as a retrospective historical study, we can compare the process before and after the abolition of slavery and examine both the short-term and long-term effects of the abolition. Third, our study focuses on a period before the widespread adoption of radio and television and approximately before the large-scale migration of Blacks, eliminating many potential confounding factors (Craig, 2004; A. Harrison, 1991; Marks, 1983; Owen, 2009).

Our main findings are as follows: (i) our baseline model shows that the prevalence of racist narratives increases after the abolition of slavery. Specifically, counties with higher pre-abolition slave proportions exhibit a greater prevalence of racist narratives after abolition. (ii)

compared to counties with a lower proportion of slaves, those with a higher proportion exhibit significantly more intense labor market competition between Black and White workers after abolition. Moreover, labor market competition between Black and White workers is a potential channel through which the abolition of slavery contributes to the rise of racist narratives. (iii) For the long-term effects, we find that counties with a higher proportion of slaves have higher levels of negative implicit bias among Whites toward Blacks today, but there is no association with anti-Black hate crimes. These results suggest that, due to current laws and social norms, racial prejudice becomes more covert (Bonilla-Silva, 2021; Dovidio & Gaertner, 1996; McConahay, 1986; Quillian & Lee, 2023; Sears & Henry, 2005).

Our work makes the following contributions. First, the relation between racial hierarchy and racism is explored in the literature, with a particular focus on slavery (Acharya et al., 2018; Bonilla-Silva, 1997, 2001, 2015, 2023; Fields, 1990; Hornsby, 2008; Smith, 2008; Thomsett, 2020; Watson, 2012; Wilson, 1996). However, there is a debate from different theoretical perspectives regarding whether the abolition of racial hierarchy undermines or enhances racism (Allport, 1954; Blalock, 1967; Bonilla-Silva, 1997, 2015, 2023; Olzak, 1992). Our paper examines the abolition of slavery in the United States and provides credible causal evidence supporting the view that the abolition of racial hierarchy leads to an increase in racism.

Second, our work contributes to the literature on measuring concepts through newspaper data, particularly in the measurement of racism. Digitized archives of historical newspapers have become an important research resource, increasingly employed by scholars to investigate a broad spectrum of issues (Ang, 2023; Beach & Hanlon, 2023; Calderon et al., 2023; Esposito et al., 2023; Ferrara & Fishback, 2024; Rhode, 2021). We constructed a racism lexicon to measure racist narratives, which can serve as a reference for future research.

Third, our paper further contributes to the literature on the drivers of racial hostility and conflict by highlighting labor market competition as a key factor. Previous studies emphasize

factors such as political dynamics (Glaeser, 2005; Logan, 2023; Soule, 1992), historical and cultural influences (Acharya et al., 2016; Payne et al., 2019; Voigtländer & Voth, 2012, 2015), and media narratives (Ang, 2023; Esposito et al., 2023; Nyseth Nzitatira et al., 2024). Fourth, we also examine the impact of slavery on contemporary racial attitudes, contributing to the extensive literature on the legacy of slavery (O'Connell et al., 2020; Reece, 2019).

The rest of the paper proceeds as follows. In the next section, we present background information about slavery and its abolition. In Section II, we present data and variable measurement. In Section III, we present suggestive evidence, which primarily involves a description of the spatiotemporal distribution of key variables. We formalize our empirical strategy in Section IV and demonstrate the baseline results. In Section V, we discuss the possible mechanisms and their implications. Section VI, discusses the long-term effects of abolition, and Section VII concludes.

I. Historical background

A. Slavery

The labor demand for crop production led to the establishment of slavery in the United States (Kolchin, 2003; Wilson, 1996). The land in the American South is highly suitable for cultivating crops such as tobacco and cotton. Initially, Native Americans were forced into labor, but due to cultural differences, disease, and conflict, Native American slavery came to an end (Kolchin, 2003; Morgan, 2001). To continue meeting the demand for cheap labor, the system of indentured servitude emerges. Landowners pay for immigrants' passage in exchange for a period of temporary servitude. Later, due to the harsh conditions of servitude, indentured servants escaped in large numbers (Fogleman, 1998; Kolchin, 2003). This makes many landowners willing to obtain permanent cheap labor. With the rise of the Atlantic slave trade, an increasing number of African Blacks entered the United States. The system of slavery based

on the forced labor of African Blacks became more widespread, particularly in the American South (Fogleman, 1998; Kolchin, 2003; Morgan, 2001).

Slavery played a crucial role in the plantation economy, generating vast wealth for the South (Fogel, 1994; Wright, 2013). The forced labor of Black slaves drives the growth of the plantation economy, accumulating vast wealth for the slave owners (Fogel & Engerman, 1995). Before the Civil War began, the South produced 75% of the world's cotton and created more millionaires per capita in the Mississippi River Valley than anywhere else in the nation (Wright, 2013).

B. Abolition of slavery

Influenced by the Enlightenment and the American Revolution, Northern states abolished slavery, and the African slave trade was outlawed by legislation. Under the influence of the Revolutionary War and ideals of liberty and equality, Northern states granted slaves their freedom through either immediate or gradual emancipation (Kolchin, 2003; Menschel, 2001). In 1807, the U.S. Congress passed the *Act Prohibiting Importation of Slaves*, which President Thomas Jefferson signed into law. This legislation officially bans the importation of slaves from Africa and takes effect on January 1, 1808 (Hummel, 1996; Mason, 2000). Although the law bans the importation of slaves, slavery continues to thrive in the South (Kolchin, 2003).

After the Civil War, slavery was formally abolished in the South, and nearly 4 million slaves were emancipated. On November 6, 1860, Abraham Lincoln, an advocate for the abolition of slavery, was elected as the 16th president of the United States (Anderson, 2019). The eleven Southern states, fearing that their right to own slaves would be threatened, seceded from the Union and formed the Confederate States. On April 12, 1861, Confederate forces attacked Fort Sumter, marking the official start of the American Civil War (Anderson, 2019; Hummel, 1996; McPherson, 2003). As the war continued, the Union faced immense pressure

to shift the war's focus toward the abolition of slavery, leading to the signing of the Emancipation Proclamation on January 1, 1863 (Kolchin, 2003). This proclamation does not apply to slaves within the Union, but it plays a crucial role in undermining the Confederacy, contributing to the Union's victory. In 1865, after the Civil War, the passage of the *Thirteenth Amendment* marked the official abolition of slavery, and a large number of Black slaves gained their freedom (Vorenberg, 2001).

After the abolition of slavery, the economic and social status of Blacks improves. In addition to the *Thirteenth Amendment* which abolishes slavery, the *Fourteenth* and *Fifteenth Amendments* further advance the rights of Blacks. The *Fourteenth Amendment*, passed in 1868, grants citizenship to all persons born or naturalized in the United States and ensures equal protection under the law (Lash, 2014; Stampp, 1967). The *Fifteenth Amendment*, effective in 1870, grants voting rights to all U.S. citizens, regardless of race, color, or previous condition of servitude (Mathews, 2001). With the expansion and protection of rights, freed Blacks enter the labor market, earn wages, receive education, and participate in politics (R. Harrison, 2011; Higgs, 2008; Kolchin, 2003; Ransom & Sutch, 2001; Swint, 1967).

II. Data and Variable Measurement

We construct an original county-level panel dataset from several historical sources spanning the 1800–1920 period. To construct a panel dataset, fixed boundaries are required, and the original data must be mapped to these fixed boundaries (Lu et al., 2024). Our dataset uses the county boundaries from the 1920 U.S. Census as the baseline analysis, covering 1403 counties in 14 southern states. Sample sizes for some variables of interest vary due to differences in data coverage. The following section describes the measurement methods and data sources for our variables of interest. Further details on variables used in this paper, including their basic descriptive statistics, are provided in Table 1.

Table 1. Summary statistics for the county-level variables

Variables	Observations	Mean	Std. dev.
Outcome			
The prevalence of racist narratives	23472	1.214	2.832
Treatment			
The proportion of slaves	1036	29.826	21.883
Controls			
Geography			
Water access. 1860	1051	0.352	0.478
Rail access, 1860	1051	0.257	0.437
Demographics			
The total population, 1860	1034	10682.750	10796.065
The proportion of free Blacks, 1860	1034	1.028	2.328
Economy			
Per capita manufacturing output, 1860	865	15.703	20.229
Per capita wealth, 1860	1025	366.286	202.516
Per capita farm value, 1860	1020	193.989	125.578
The proportion of farms over 50 acres, 1860	1020	0.553	0.212
Supplements			
Cotton bales produced (400 lbs each), 1859	1020	5192.263	10955.151
Black-White labor market competition	8510	0.461	0.883
Anti-Black hate crimes per 100k, 2000-2018	1098	0.415	0.715
Average racial implicit bias, 2002-2016	427	0.403	0.036

A. Racist narratives

Our primary dependent variable is the racist narratives in each county and year. We construct this measure as follows. First, we measure racist narratives by conducting a word count exercise, a method commonly used in many similar studies (Esposito et al., 2023; Gentzkow & Shapiro, 2010; Ottinger & Winkler, 2022). We use data from the *Newspapers.com* platform, which archives over 108 million pages from approximately 19,814 newspapers spanning the years 1800 to 1920. We developed automated scripts to calculate the number of newspaper pages mentioning "white supremacy" in each newspaper and year, please refer to Figure A1 in Appendix A for additional details. The selection of the "white supremacy" keyword to measure racism is inspired by the concept of racism itself, which claims that a particular race is superior and inherently dominant (Benedict, 1945; Schaefer, 2018). Moreover,

Esposito et al. (2023) employ "supremacism" as a variable to measure racial discrimination in the U.S. labor market. To control for changes in newspaper circulation, we calculate the total number of pages in each newspaper and year.

Second, we use automated scripts to download the metadata of each newspaper from 1800 to 1920, which includes information such as the newspaper name, place of publication, and the latitude and longitude of the publication location. Third, we establish links between the obtained number of pages mentioning "white supremacy", the total number of pages in each newspaper and year, and the newspaper metadata. Using the newspaper metadata, we match each newspaper to a unique U.S. state-county pair, based on the 1920 administrative boundaries. Subsequently, we calculate the average values of the number of pages mentioning "white supremacy" and the total number of pages at the county level in each year. We compute our measure of racist narratives as:

$$Racist\ Narrative_{ict} = \frac{Pages_{ict}}{Totalpages_{ct}} \times 100 \quad (1)$$

Where i represents the keyword "white supremacy" and $Pages_{ict}$ stands for the number of newspaper pages where i appears and $Totalpages_{ct}$ refers to the total number of newspaper pages in county c and year t. In our sample, the value of $Totalpages_{ct}$ is at least 1.

To test the robustness of our measurement, we additionally employed a dictionary-of-words approach. The robustness check comprises four sets of keywords that respectively capture white superiority, white inferiority, Black superiority, and Black inferiority. We summarize the main steps for constructing the lexicon and selecting these four sets of keywords below. Appendix B displays the details.

Step 1: Obtain the seed words. We collect the target words from prior research on racial stereotypes and racism (Gilbert, 1951; Karlins et al., 1969; Katz & Braly, 1933; Lee et al., 2024; Zou & Cheryan, 2017). We asked external judges to evaluate and validate the semantic relevance of these words to the corresponding racial rhetoric (i.e., expressions of racial

superiority or inferiority). After the evaluation, we obtained two validated word lists, consisting of 32 inferiority words and 22 superiority words, respectively. We refer to these validated words as our seed words.

Step 2: Expand the seed word lists. We obtained more than 60 million newspaper articles from the Chronicling America dataset, covering the period 1800–1910. Based on these texts, we trained a word embedding model. For each seed word, we identified the 20 words/bigrams that are most semantically similar to it in the embedding space.

Step 3: External judges inspected the expanded seed word lists. We asked the external judges to evaluate whether words in the expanded lists expressed racial superiority or inferiority. Based on the aggregated judgments, we classified the expanded words into superiority and inferiority categories. Thereafter, we obtained a racism lexicon consisting of 295 superiority words and 118 inferiority words.

Step 4: Identifying the superiority and inferiority words most closely associated with Black and white groups. According to historical scholarship, we divide 1800–1920 into four distinct periods[2] and train separate word embedding models for each period. Based on the total weighted cosine similarity scores, we selected the top 20 superiority and inferiority words most closely associated with the Black/white groups in each period, see Table B3 of Appendix B4. Finally, we merged the results across all periods to construct the sets of white superiority, white inferiority, Black superiority, and Black inferiority keywords used in our analysis, see Table B4 of Appendix B4.

Using the constructed white superiority, white inferiority, Black superiority, and Black inferiority keyword lists, we collected data from *Newspapers.com*. For a given county-year, a newspaper page is counted as 1 if it contains any Black/white-group label together with any keyword from the corresponding superiority/inferiority list. Examples are shown in Figure A2

[2] The Slavery period (year ≤ 1860), the Civil War period (1861–1865), the Reconstruction period (1866–1877), and the Jim Crow period (year ≥ 1878) (Hussey, 2015; Rael, 2015; Rhodes, 2012; Stampp, 1967)

of Appendix A. Following the definition of racism—a doctrine of racial supremacy, the belief that one race is superior while another is inferior (Benedict, 1945; Schaefer, 2018). We constructed our robustness measure of racist narratives as follows:

$$Robust\ Racist\ Narrative_{ct} = \frac{(W_{sct} + B_{fct}) - (W_{fct} + B_{sct})}{G_{ct}} \times 100 \quad (2)$$

Where W_{sct} denotes the number of pages referring to white superiority in county c and year t. W_{fct} stands for the number of newspaper pages referring to white inferiority. B_{sct} refers to the number of newspaper pages mentioning Black superiority, while B_{fct} denotes the number of pages referring to Black inferiority. G_{ct} represents the total number of pages that mention either Black or white group terms, with a minimum value of one.

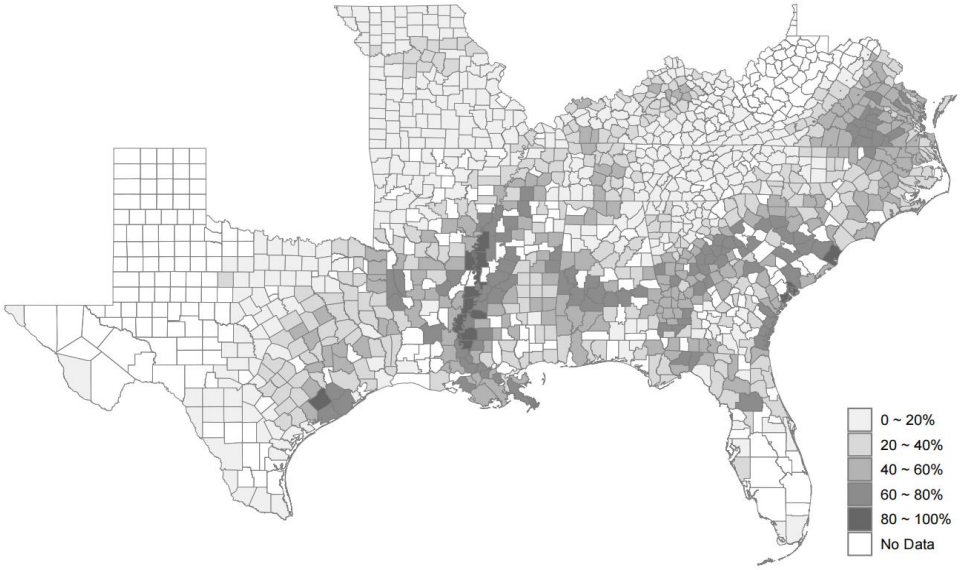

Figure 1. The geographical distribution of slave proportions by county in the South in 1860

Note. The figure depicts the slave proportions in counties in 1860 across the fourteen Southern states, which is the sample region for our study.

B. Treatment intensity

We construct the county-level proportion of slaves in 1860 as a measure of treatment intensity. Our county-level data on the slaves and total population in 1860 come from *Historical, Demographic, Economic, and Social Data: The United States, 1790-2002* (M. R. Haines, 2010). In our data, approximately 4 million slaves, constitute 32% of the Southern population (Acharya et al., 2016). Although records of the slaves existed before 1860, we use data from 1860 because it represents the last large-scale count before slavery was abolished in 1865. We map the proportion of slaves in each county in 1860 to the 1920 county boundaries. Figure 1 depicts the distribution of the proportion of slaves across Southern counties.

C. Control variables

We include the following control variables to address concerns about omitted variable bias. Data for all control variables come from *Historical, Demographic, Economic, and Social Data: The United States, 1790-2002* (M. R. Haines, 2010).

Geography. We include two geographical control variables in our analysis. The first variable is whether a county had a railroad passing through it in 1860. In our data, 25.7% of counties have a railroad. The second variable is whether a county had a water transportation through it in 1860. According to our data, 35.2% of counties have water transportation.

Demography. We include two demographic control variables in our analysis. The first demographic control variable is the total population at the county level in 1860. In our data, the average county has a total population of approximately 10,682. The second variable is the proportion of free Blacks at the county level in 1860. Free Blacks may pose an economic threat to Whites, potentially eliciting hostility and exclusion from Whites (Bonacich, 1975; Ruef, 2022). The average proportion of free Blacks in a county in 1860 was 1%.

Economy. Wealthier counties may have either more or fewer slaves (Acharya et al., 2016),

so we control a set of economic variables from 1860. First, manufacturing output per capita in the county, averages $15.703 in our data. Second, wealth per capita in the county, averages $366.286 in our data. Third, farm value per capita in the county, averages $193.989 in our data. Fourth, the proportion of farms in the county that are larger than 50 acres. On average, 55.3% of farms in a county exceed 50 acres in size.

D. Other variables

In examining the mechanisms and long-term effects, we incorporate the following variables.

The variables introduced to explore the mechanisms are as follows. First, the number of bales of ginned cotton produced in 1859, from *the United States Agriculture Data, 1840–2012* (M. Haines et al., 2018). Second, the Black-White labor market competition index from 1850 to 1920. The index is calculated following the method used in previous studies (Bonacich, 1975; Christian, 2017; Horton et al., 2000), based on the ratio of Black males to White males aged 16 and over entering the labor market. Data on individuals' age, race, and labor market participation are derived from the full count U.S. Census from 1850 to 1920 (Ruggles et al., 2024).

The variables introduced to explore the long-term effects are as follows. First, the average number of anti-Black hate crimes per 100,000 people in the county from 2000 to 2018. The original data on anti-Black hate crimes comes from the FBI Uniform Crime Reports, while our study uses the 2000–2018 data cleaned and compiled by Ang (2023). Second, the average racial implicit bias from 2002 to 2016. We use data from Project Implicit, which collects information from millions of users based on the Implicit Association Test (IAT) (Xu et al., 2014). The IAT measures people's associations between the racial categories "Black" and "White" and the evaluations "good" and "bad". Higher scores indicate greater pro-White/anti-Black bias (Payne

et al., 2019; Vuletich et al., 2024; Xu et al., 2014). We select White respondents' test results from 2002 to 2016. To ensure stable county-level measures of implicit bias, we average the IAT scores across White respondents in counties with at least 100 observations.

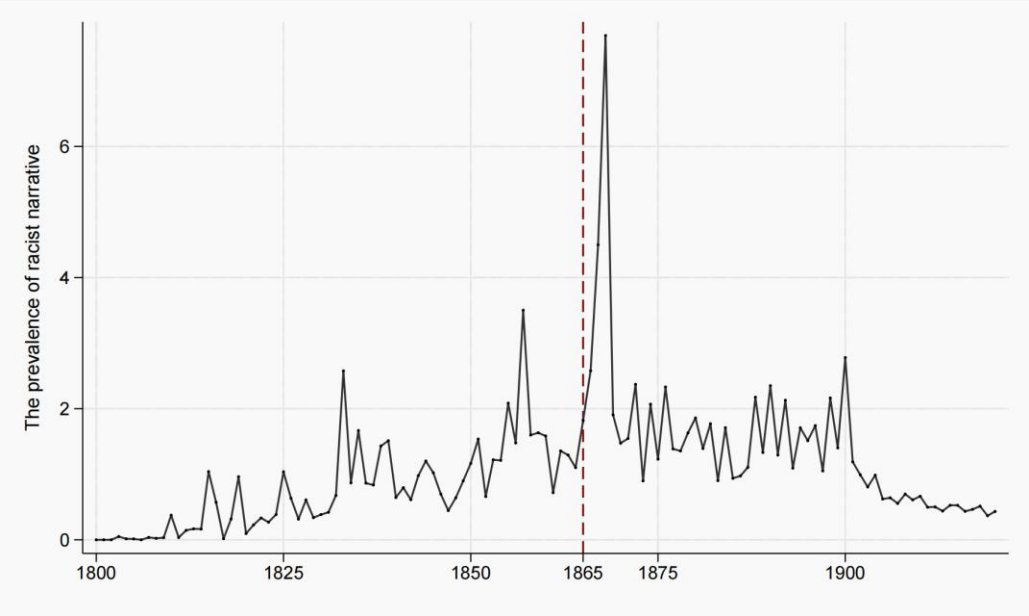

Figure 2. The prevalence of racist narratives over time

Note. The figure depicts the yearly prevalence of racist narratives recorded in our data. The vertical line represents the year in which slavery was abolished.

III. Suggestive Evidence

Before proceeding to the formal analysis, we provide some descriptive evidence to help understand our subsequent findings. First, Figure 2 illustrates the trend of racist narratives over time. It shows that after the abolition of slavery, racist narratives generally increased and did not decline significantly until after 1900. Notably, in the five years following the abolition of slavery, racist narratives peaked at their highest level in over a century. Second, the spatial distribution of racist narratives reveals its potential relation with the abolition of slavery. The upper panel of Figure 3 shows the distribution of racist narratives in the pre-abolition period, while the lower panel shows the distribution in the post-abolition period. The color intensity represents the prevalence of racist narratives. Before the abolition of slavery, racist narratives

are sparsely distributed, with low prevalence in most counties. Afterwards, the total number of racist narratives increases, and their distributions become more widespread. This evidence of both temporal and spatial distribution suggests that the abolition of slavery may have contributed to the overall increase in racist narratives in the South, especially during the five years following the abolition.

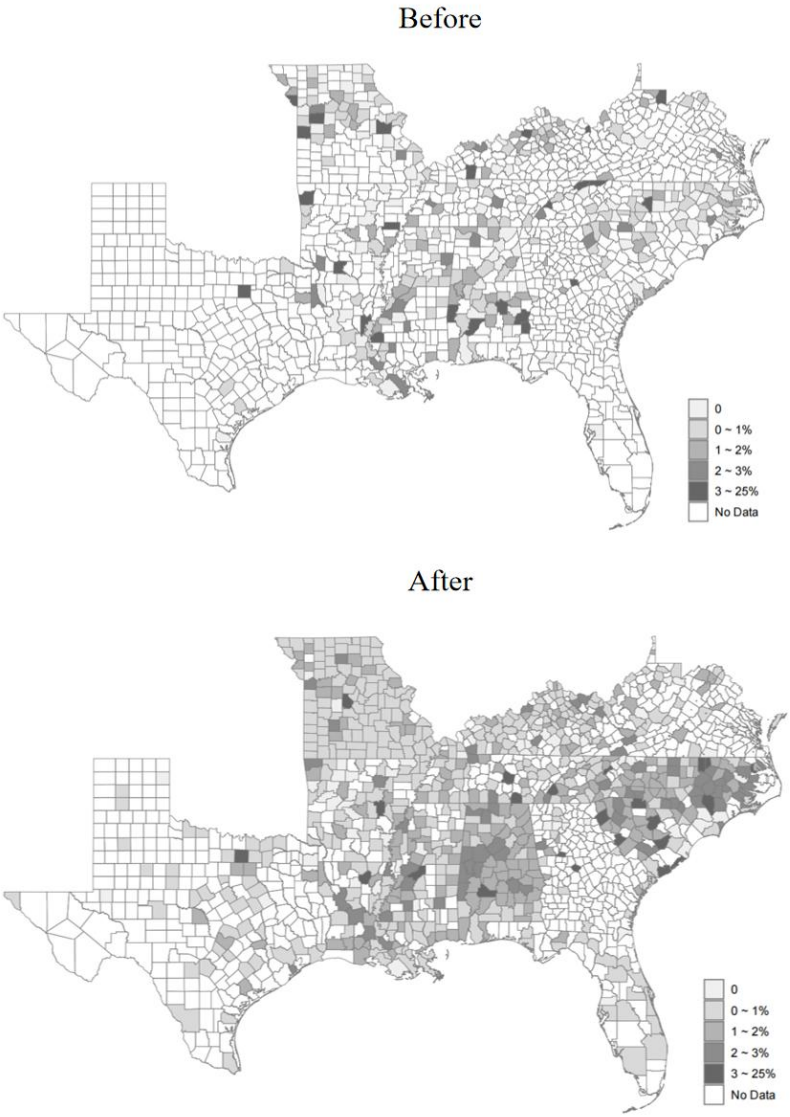

Figure 3. The spatial distribution of racist narratives before and after the abolition (1865)

IV. Empirical Strategy and Results

In this section, we estimate the impact of slavery abolition on racist narratives. Section A

characterizes our DID strategy and validates the identification assumptions. Section B presents our baseline estimate results.

A. Empirical strategy

Our main estimation strategy follows the same logic as a standard DID strategy. We compare the relative change in racist narratives from the pre-abolition to the post-abolition period between counties with a higher proportion of slaves and those with fewer. The difference between our estimation strategy and the standard DID strategy is that we use proportions of slaves, which is a continuous measure of treatment intensity. Our estimation strategy captures more variation in the data. With the end of the American Civil War and the passage of the *Thirteenth Amendment*, slavery was officially abolished in 1865. Therefore, in our estimates, we use 1865 as the cutoff year, defining the period before 1865 as the pre-abolition period and the period after 1865 as the post-abolition period. Our estimation model is specified as follows:

$$Y_{ct} = \beta \ln Slavery\ Intensity_c \times Post_t + \alpha_c + \gamma_t + \mu_{ct} + \varepsilon_{ct} \quad (3)$$

Where c indexes counties and t indexes years. $\ln Slavery\ Intensity_c$ represents the natural log of the proportion of slaves in a county. $Post_t$ is a dummy variable that equals one for the years after the abolition. Equation (3) also includes county and year fixed effects, denoted as α_c and γ_t, respectively. μ_{ct} denotes county-specific characteristics that interacted with year fixed effects, and a set of geographic, demographic, and economic control variables. These control variables are described when they are introduced in the analysis. The coefficient of β represents the estimated impact of the slavery abolition on racist narratives. Specifically, a positive coefficient β indicates that counties with a higher proportion of slaves experience a greater increase in racist narratives than those with a lower proportion after the abolition.

Our estimation strategy has all of the advantages and potential pitfalls of standard DID estimators. County fixed effects control for all time invariant factors that differ between

counties. Year fixed effects control for any secular patterns of racist narratives that similarly affect all regions. We include pretreatment racist narratives times year interactions fixed effects to account for the possibility that counties prone to disruptions may have differential reactions to common events. In addition, we include state times year fixed effects to account for state-level variations over time. Our estimation strategy relies on the assumption that there are no other events beyond those we have controlled for that also occurred around the abolition date and affected racist narratives. We should not take this assumption for granted because many events that impacted racial relations occurred in the United States during the 19th century. We will discuss this issue in future work.

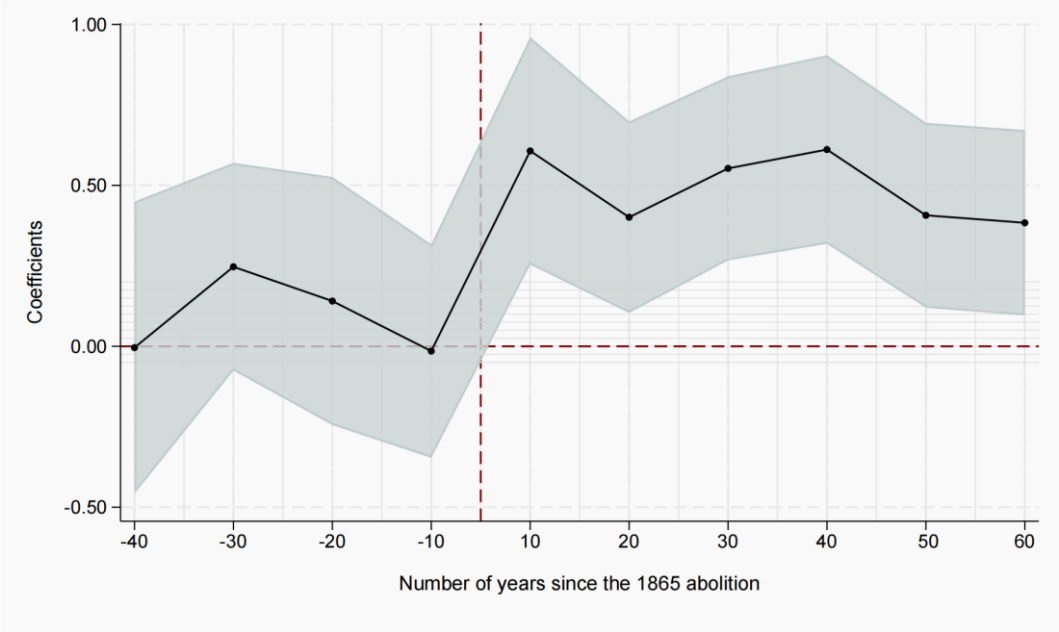

Figure 4. The abolition of slavery and racist narratives: event study

Note. The figure depicts the differences in the prevalence of racist narratives between counties with different slave proportions before and after the 1865 abolition. The markers and capped spikes represent the ordinary least squares estimators and 95 percent confidence intervals based on standard errors clustered at the county level. The dependent variable is the county-level prevalence of racist narratives. The dashed vertical line represents the 1865 treatment date, and the periods are grouped every ten years relative to 1865. The reference groups are the years more than 40 years before 1865. The regression considers county fixed effects, year fixed effects, and pretreatment racist narratives × year fixed effects. Additionally, we control for the

total population, the proportion of free Blacks in 1860, water access, rail access, the proportion of farms over 50 acres, per capita manufacturing output, and per capita farm value.

Next, we estimate a fully flexible decade-by-decade model to compare changes before and after the abolition of slavery. First, to check whether counties with different proportions of slaves exhibit similar trends in racist narratives before the abolition of slavery. In short, to check the pre-trend effect. Second, to check whether the choice of treatment date is consistent with the patterns observed in our data. The specification of the fully flexible decade-by-decade model is:

$$Y_{ct} = \sum_{T=-40}^{60} \beta_T \ln Slavery\ Intensity_c \times Decade_t^T + \alpha_c + \gamma_t + \mu_{ct} + \varepsilon_{ct} \quad (4)$$

The only difference from equation (3) is that in equation (4), rather than interacting $\ln Slavery\ Intensity_c$ with a post-abolition indicator variable, we interact the treatment variable with each decade relative to 1865. We treat the period more than 40 years before 1865 as the reference group. The estimated coefficient of β_T reveals the variation in differences over each decade among counties with varying proportions of slaves relative to the reference group.

Figure 4 presents the estimated results of equation (4). First, the β_T coefficients are not significant and show little variation before 1865, indicating that no significantly different trends in racist narratives are identified in different counties. Second, after 1865, the β_T coefficients are statistically significant and show a marked change relative to before 1865. This indicates that trends in racist narratives vary significantly after the abolition of slavery. Third, we observe that racist narratives increase rapidly during the first decade (1865-1875) and decline in the second decade (1876-1886). This rise and fall roughly align with the beginning and end of the Reconstruction era (1865-1877) (Stroud & Schomp, 2007). Fourth, the clear patterns shown in Figure 4 validate the appropriateness of choosing 1865 as the treatment date.

The estimated results of equation (4) indicate that there were no significant trend

differences between counties before 1865 in decade groups. The parallel trends before the abolition are a key prerequisite for our DID identification strategy. We formally test this assumption on a yearly basis by restricting our sample to the period before the abolition. The model used to test the parallel trends assumption is as follows:

$$Y_{ct} = \beta \ln Slavery\ Intensity_c \times year_t + \alpha_c + \gamma_t + \mu_{ct} + \varepsilon_{ct} \quad (5)$$

In this model, the coefficient β of the interaction term $\ln Slavery\ Intensity_c \times year_t$ captures the differences in time trends among counties with varying proportions of slaves before the abolition. Table 2 shows the estimated results of equation (5). In each column, we progressively add different controls. The results indicate that with different sets of controls, the differences are minimal and statistically nonsignificant. Therefore, there are no different time trends among counties before the abolition. The parallel trends assumption is supported in our data.

Table 2. The abolition of slavery and racist narratives: pretreatment trends

	Racist narratives		
	(1)	(2)	(3)
ln*Slavery Intensity* × year	0.0042	-0.0033	-0.0029
	(0.0066)	(0.0053)	(0.0057)
Constant	-25.4536	22.2102	19.2802
	(41.6334)	(33.3948)	(36.3891)
County fixed effects (FE)	√	√	√
Year FE	√	√	√
Pre-abolition racist narratives × year FE		√	√
State × year FE			√
Number of counties	243	243	243
Observations	3,523	3,523	3,366
R-squared	0.130	0.337	0.418

Note. The sample period is from 1800 to 1865. The dependent variable is the prevalence of racist narratives at the county level. ln*Slavery Intensity* is a continuous variable, representing the natural log of the county-level slave proportions in 1860. Standard errors in parentheses are clustered at the county level. *** p<0.01, ** p<0.05, * p<0.1.

In addition, we applied equation (5) to the robust measure of racist narratives. The results, reported in Table C1 in Appendix C, show that across different sets of controls, the coefficient on ln*Slavery Intensity* × year is not statistically significant at the 0.1 level. Therefore, the parallel trends assumption is also supported for the robust racist narratives measure.

B. Baseline estimates

Table 3 presents our baseline estimates of equation (3). To more closely examine the effect of the abolition of slavery and control for the influence of other events that occurred over a long period on the DID results, we divide the baseline estimation sample into two parts: the 10-year span sample (the five years before and after the abolition, 1860-1870) and the total sample (1800-1920). The 10-year span sample and the total sample each include three columns of estimates with different sets of controls, as shown in Table 3. For columns 1 and 4, we control for county and year fixed effects. This specification allows us to remove time-invariant county features and year factors that unanimously affect all regions. For columns 2 and 5, we include the pretreatment of racist narratives interacted with year dummies. The pretreatment of racist narratives refers to the average prevalence of racist narratives in a county before the abolition of slavery. This specification allows common shocks to have differential effects in counties that were already more prone to disruptions in the first period. For columns 3 and 6, we include the set of control variables. We allow these control variables to have differential effects in the pre- and post-abolition periods by interacting each of them with the post-abolition indicator. For each column, we report the standard errors in parentheses, clustered at the county level.

The results we observe, both in the 10-year span sample and the total sample, are positive and significant, suggesting that in counties with higher proportions of slaves, racist narratives are more prevalent after the abolition. First, in the 10-year span sample, after adding the sets

of controls, the point estimate presented in column 3 is 0.7567, suggesting that a one-unit increase in the natural log of the slave proportion is associated with a 0.7567 increase in the prevalence of racist narratives. Given that the total sample mean of racist narratives is 1.214, this effect represents a 62.3% increase relative to the mean.

Table 3. The abolition of slavery and racist narratives: baseline estimates

	Racist narratives					
	1860 - 1870			1800 - 1920		
	(1)	(2)	(3)	(4)	(5)	(6)
ln*Slavery Intensity* × *Post*	0.7844***	0.8150***	0.7567**	0.2175**	0.4247***	0.4811***
	(0.2120)	(0.2269)	(0.3343)	(0.1011)	(0.0887)	(0.1124)
Constant	1.2746***	1.2249***	2.1253	0.7170***	0.2315	-1.8985
	(0.3453)	(0.3696)	(3.3163)	(0.2370)	(0.2079)	(1.3603)
County fix effects (FE)	√	√	√	√	√	√
Year FE	√	√	√	√	√	√
Pre-abolition racist narratives × year FE		√	√		√	√
Controls × *Post*			√			√
Observations	1,483	1,483	1,415	20,932	20,932	19,119
Number of counties	234	234	220	618	618	544
R-squared	0.391	0.405	0.412	0.158	0.257	0.264

Note. The 1860 - 1870 sample refers to the five-year period before and after the abolition of slavery. The 1800 - 1920 sample is our total sample. The dependent variable is the prevalence of racist narratives at the county level. ln*Slavery Intensity* is a continuous variable, representing the natural log of the county-level slave proportions in 1860. *Post* is an indicator that equals one in and after 1865. The control variables include total population, the proportion of free Blacks, water access, rail access, the proportion of farms over 50 acres, per capita manufacturing output, and per capita farm value. Standard errors in parentheses are clustered at the county level. *** p<0.01, ** p<0.05, * p<0.1.

Second, in the total sample, after controlling for the interaction term between the pretreatment of racist narratives and year dummies, the estimated coefficient in column 5 nearly doubles compared to column 4. The result suggests that the interaction between the pretreatment racist narratives and year significantly influences the prevalence of racist narratives. Moreover, after adding the sets of controls, the point estimate presented in column

6 is 0.4811, suggesting that a one-unit increase in the natural log of slave proportion is associated with a 0.4811 increase in the prevalence of racist narratives. This effect represents a 39.6% increase relative to the mean. Third, the estimated coefficients in the total sample are generally smaller than those in the 10-year span sample, suggesting that the effect of the abolition of slavery on racist narratives is stronger in periods closer to the abolition date.

Additionally, to assess the robustness of our results, we re-estimate the baseline specification of equation (3) using the robust racist narratives measure as the dependent variable. As shown in Table D1 in Appendix D, the results are consistent with those obtained using the "white supremacy" measure. First, in both the 10-year span sample and the total sample, the coefficient of ln*Slavery Intensity* × *Post* is positive and statistically significant at least at the 0.1 level. This further indicates that counties with higher slavery intensity experienced a greater prevalence of racist narratives after abolition compared to counties with lower slavery intensity. Second, the coefficient of ln*Slavery Intensity* × *Post* in the total sample is smaller than that in the 10-year span sample, which again suggests that the effect is stronger in periods closer to the abolition of slavery.

To further illustrate our baseline estimation results, we use a more flexible specification to estimate a separate coefficient for each slave proportion group. The specification is as follows:

$$Y_{ct} = \sum_{S=0}^{S} \beta_S \ln Slavery\ IntensityGroup_c^S \times Post_t + \alpha_c + \gamma_t + \mu_{ct} + \varepsilon_{ct} \quad (6)$$

The difference between equation (6) and the baseline estimation in equation (3) is that our treatment variable changes from a continuous variable ($\ln Slavery\ Intensity_c$) to a group variable ($\ln Slavery\ IntensityGroup_c$) based on the slave proportions in counties. In the estimation of equation (6), we group by intervals of 10% slave proportion. The reference group consists of counties with slave proportions below 15%. We expect the estimated coefficients

β_S to increase with higher slave proportion groups.

Figure E1 of Appendix E presents the estimated results from equation (6). As expected, we find that the estimated coefficients increase with higher slave proportions. Overall, the estimated results from equation (6) are consistent with the baseline findings. They suggest that counties with higher slave proportions experienced a greater increase in the prevalence of racist narratives after the abolition of slavery.

V. Discussion of Mechanisms

The previous sections present credible causal evidence that the abolition of slavery led to an increase in the prevalence of racist narratives in the American South. This section examines the potential mechanisms through which the abolition of slavery impeded racist narratives. We consider two possible explanations: labor costs and economic competition between Black and White workers. We use various methods to test these two potential mechanisms and find that economic competition between Black and White workers is an important channel.

A. Labor costs

One potential channel through which the abolition of slavery contributes to the prevalence of racist narratives is the increase in labor costs caused by emancipating slaves. The emancipation of slaves is a major shock to the Southern economy. Black workers require wages closer to market rates, while they can choose to work less than under slavery (Higgs, 2008; Ransom & Sutch, 2001). These changes increased labor costs in counties that once relied on slave labor, threatening agricultural economies (Alston & Ferrie, 1993; Bois, 1998). The economic threat drives the White landowners to regain control of Blacks and suppress Black wages by encouraging violence, racism, and policies that oppress Blacks (Alston & Ferrie, 1993; Blackmon, 2009; Lichtenstein, 1996).

The ideal approach to evaluating the labor costs mechanism is to examine whether labor

costs increased after the abolition of slavery and if this increase contributed to the prevalence of racist narratives. However, we lack county-level labor cost data that spans the abolition date and changes over time. We adopt an indirect approach to explore the potential role of labor costs. If the abolition of slavery influences racist narratives by increasing labor costs, we expect this effect to be more pronounced in counties whose economies are more dependent on slave labor.

The American South economy is primarily based on plantation agriculture and relies on slave labor (Fogel, 1994; Genovese, 1962; Phillips, 2022; Wright, 2013). Specifically, cotton production, the South's key commodity, heavily relied on slave labor (Fogel & Engerman, 1977; Wright, 1979). Based on this context, we use two measures to assess the dependence of county economies on slave labor. The first measure is the proportion of plantations larger than 50 acres in 1860. The second measure is the natural log of per capita cotton production in 1859. Our estimation specification is as follows:

$$\begin{aligned} Y_{ct} = \ln Slavery\ Intensity_c \times Post_t \\ + Labor\ Dependence_c \times Post_t + \ln Slavery\ Intensity_c \\ \times Labor\ Dependence_c \times Post_t + \alpha_c + \gamma_t + \mu_{ct} + \varepsilon_{ct} \end{aligned} \quad (7)$$

In equation (7), $Labor\ Dependence_c$ represents two measures: the proportion of plantations larger than 50 acres (*Plantations)* and the natural log of per capita cotton production (*Cotton)*. We interact our treatment intensity variable, $\ln Slavery\ Intensity_c$, with each of these measures to investigate whether the effects are particularly intensified in counties whose economies were more dependent on slave labor before the abolition.

The results are reported in Table H1 of Appendix H. First, columns 1 to 4 present the results of the measurement using the proportion of plantations larger than 50 acres. As we gradually add controls, the coefficients of *Plantations* × *Post* remain insignificant, indicating that the proportion of large plantations has no effect on the prevalence of racist narratives after the abolition. Furthermore, the coefficients of the triple interaction terms remain insignificant,

indicating no evidence that the abolition of slavery makes racist narratives more prevalent in counties with a higher proportion of large plantations.

Second, columns 5 to 8 present the results of the measurement using the natural log of per capita cotton production in the county. Similarly, *Cotton* × *Post* remains insignificant, indicating that cotton production has no effect on the prevalence of racist narratives after the abolition. Moreover, the coefficients of the triple interaction terms also remain insignificant under the 5% significance threshold, suggesting no evidence that the abolition of slavery makes racist narratives more prevalent in counties with higher cotton production. Taken together, these estimation results suggest that labor costs may play a limited role in the increase of racist narratives after the abolition. Our current data does not support the labor costs mechanism.

B. Black-White labor competition

Our preferred interpretation of how the abolition of slavery influenced racist narratives is that it significantly intensified economic competition between Black and White workers in the labor market. After the abolition, nearly 4 million Black slaves gained freedom, accounting for almost one-fourth of the total population in the South at that time (Acharya et al., 2018). A large number of freed Blacks enter the labor market, aided by government institutions such as the Freedmen's Bureau (Chyn et al., 2024; Ransom & Sutch, 2001). The sudden influx of freed Black workers causes intense competition with White workers, threatening the economic interests of Whites (Wilson, 1996).

We test the Black-White labor competition mechanism in two steps. Step 1, we examine whether competition between Black and White workers intensified after the abolition of slavery. We measure the level of competition between Black and White workers using the Black-White labor market competition index, the calculation method and data sources of which are detailed in Section II. We employ the baseline specification defined in equation (3) for this estimation.

The racist narratives of Y_{ct} are replaced by the Black-White labor market competition index.

The results of step 1 estimation are reported in columns 1 to 2 of Table 4. We consider that policies from different historical periods could have influenced the labor market, and therefore control for period fixed effects. Specifically, we divide the timeline of our total sample into four periods: the Slavery period (year ≤ 1860), the Civil War period (1861–1865), the Reconstruction period (1866–1877), and the Jim Crow period (year ≥ 1878). In column 2, we add county fixed effects as controls. The ln*Slavery Intensity* × *Post* coefficients in columns 1 and 2 are positive and statistically significant under the 5% significance threshold, indicating that competition between Black and White workers in the labor market intensified after the abolition of slavery.

Table 4. The abolition of slavery and racist narratives: Black-White labor competition channel

	Dependent Variable					
	Labor competition		**Racist narratives (individual-year)**		**Racist narratives (five-year averaged)**	
	(1)	(2)	(3)	(4)	(5)	(6)
ln*Slavery Intensity* × *Post*	0.3841***	0.6957***				
	(0.0652)	(0.1118)				
Labor Competition			0.2089***	0.3447**	0.1906***	0.2340**
			(0.0798)	(0.1556)	(0.0589)	(0.1132)
Constant	-0.3740**	-1.1317***	1.2537***	1.2150***	1.1173***	1.1282***
	(0.1596)	(0.2753)	(0.0791)	(0.0903)	(0.0491)	(0.0645)
Period FE	√	√	√	√	√	√
County FE		√		√		√
Observations	1,835	1,731	1,835	1,731	2,651	2,532
R-squared	0.291	0.878	0.004	0.287	0.061	0.286

Note. Racist narratives (individual-year) sample refers to data on racist narratives recorded for each individual year, without averaging across multiple years. Racist narratives (five-year averaged) refer to the average value of racist narratives over a five-year period, centered around U.S. Census years (including two years before and two years after). *Labor Competition* refers to the ratio of Black workers to White workers at the county level. ln*Slavery Intensity* is a continuous variable, representing the natural log of the county-level slave proportions in 1860. *Post* is an indicator that equals one in and after 1865. Standard errors in

parentheses are clustered at the county level. *** p<0.01, ** p<0.05, * p<0.1.

Step 2, we examine the relation between Black-White labor market competition and racist narratives. We use a two-way fixed effects estimation approach, as shown in the following specification.

$$Y_{ct} = \beta Labor\ competition_{ct} + \alpha_c + \gamma_p + \mu_{ct} + \varepsilon_{ct} \quad (8)$$

In equation (8), the dependent variable Y_{ct} represents the prevalence of racist narratives in the county and year. The key independent variable $Labor\ competition_{ct}$ denotes the Black-White labor market competition index in the county and year. We control for period and county fixed effects, γ_p and α_c. Since our Black-White labor market competition index is calculated using decennial U.S. Census data, we conduct our estimation using two samples to enhance robustness. The first is an individual-year sample, without any averaging. The second is a five-year averaged sample, where the racist narratives are averaged over a five-year window, including two years before and after each census year.

The results of step 2 estimation are reported in columns 3 to 6 of Table 4. Columns 3 and 4 report the estimates based on an individual-year sample, while columns 5 and 6 show the estimates using the five-year averaged sample. The *Labor Competition* coefficients for all columns in both samples are positive and statistically significant under the 5% significance threshold. The results suggest that the more intense the labor market competition between Black and White workers, the higher the prevalence of racist narratives in the county.

To sum up, our data analysis supports the story that after the abolition of slavery, the large influx of Black workers into the labor market intensified competition between Black and White workers, leading to an increase in the prevalence of racist narratives.

VI. Discussion of Long-term Effects

In previous sections, we examine the increase in the prevalence of racist narratives following the abolition of slavery, with economic competition between Black and White workers serving as an important channel. In this section, we examine the long-term effects of slavery abolition—specifically, whether slavery continues to shape current racial relations more than a century later. We use data on the racial implicit bias of Whites and anti-Black hate crimes in the county to assess the long-term effects of abolition.

A. Racial implicit bias

Implicit bias refers to mental associations triggered automatically on thinking about social groups (Fazio & Olson, 2003). The expression of implicit bias is difficult to conceal or manipulate because it is measured using performance on cognitive tests, not based on self-report (Payne et al., 2019). We construct a measure of racial implicit bias to assess the average level of negative bias against Blacks among Whites in counties in the American South from 2002 to 2016. The measurement methodology and data sources for the racial implicit bias variable are detailed in Section II. We try to examine the relation between the proportion of slaves in 1860 and current racial implicit bias. Given that both the proportion of slaves and racial implicit bias are cross-sectional data, our empirical analysis naturally begins with a common ordinary least squares (OLS) regression approach:

$$Implicit\ bias_c = \beta Slavery\ Intensity_c + u_c' + \varepsilon_c \quad (9)$$

Equation (9) uses county as the unit of observation, where $Slavery\ Intensity_c$ represents the proportion of slaves in the county in 1860. The outcome variable of $Implicit\ bias_c$ indicates the average level of racial implicit bias in the county from 2002 to 2016. u_c' is a vector of control variables. Standard errors are clustered at the county level, which corresponds to the aggregation level of the treatment $Slavery\ Intensity_c$.

In equation (9), the main estimation challenge is the possibility that the treatment of $Slavery\ Intensity_c$ is endogenous. While the inclusion of control variables mitigates this endogeneity issue, it is not possible to control for all observable confounders, and there are also time-varying unobservable confounders. Since we cannot rule out the influence of confounding factors, our estimates may be biased.

To better approximate causality, we attempt to instrument the treatment in a two-stage least squares (2SLS) version of equation (9). Inspired by Acharya et al. (2016), we use cotton suitability as an instrument. Our 2SLS estimation specification is given by the following equations:

$$Slavery\ Intensity_c = \beta Cotton\ Suitability_c + u_c' + \varepsilon_c \quad (10)$$
$$Implicit\ bias_c = \beta \widehat{Slavery\ Intensity}_c + u_c' + \varepsilon_c \quad (11)$$

$Cotton\ Suitability_c$ is an index measuring the suitability of land for cotton cultivation at the county level, with raw data sourced from the Food and Agriculture Organization (FAO) of the United Nations. Equation (10) represents the first-stage estimation of the 2SLS, where the instrumental variable $Cotton\ Suitability_c$ is used to predict the endogenous variable $Slavery\ Intensity_c$. Then, equation (11) employs the predicted $\widehat{Slavery\ Intensity}_c$ in the second-stage regression to mitigate endogeneity bias. Standard errors are clustered by county.

For the IV strategy to yield valid causal estimates of the effect of slave proportion on racial implicit bias, cotton suitability must satisfy both relevance and exogeneity conditions. First, many studies highlight that cotton cultivation and harvesting, as forms of collective labor, rely heavily on slave labor (Fogel & Engerman, 1977; Kolchin, 2003; Morgan, 2001; Wright, 1979). Second, the exogeneity of cotton suitability implies that it affects racial implicit bias solely through the proportion of slaves, without operating through other channels. Following the approach of Acharya et al. (2016) and Nunn & Wantchekon (2011), we use a falsification test to assess the exogeneity of cotton suitability. Specifically, we

estimate the relation between cotton suitability and racial implicit bias both within and outside of the South (primarily the North). The legal absence of slavery in the North means that cotton suitability cannot affect racial implicit bias through the proportion of slaves. Therefore, if cotton suitability and racial implicit bias are correlated in the North, it suggests that cotton suitability does not satisfy the exogeneity condition required for an instrumental variable. In Table G1 of Appendix G, the results of our falsification test in columns 1 to 2 indicate that there is no correlation between cotton suitability and racial implicit bias in the North, while a significant correlation exists in the South. These results provide evidence for the exogeneity of cotton suitability. In summary, cotton suitability meets the conditions of relevance and exogeneity for an instrumental variable.

Table 5. The second-stage effects on racial implicit bias anti-Black hate crimes

	Dependent variable			
	Racial implicit bias		**Anti-Black hate crimes**	
	(1)	(2)	(3)	(4)
	Ordinary Least Squares			
Slavery Intensity	0.0674***	0.0837***	0.0994	-0.4426***
	(0.0082)	(0.0092)	(0.0986)	(0.1214)
Observations	426	422	1,081	1,064
	Reduced Form			
Cotton Suitability	0.0213**	0.0231**	0.0871	-0.1458
	(0.0107)	(0.0111)	(0.1386)	(0.1386)
Observations	407	404	994	970
	Two-Stage Least Squares			
$\widehat{Slavery\ Intensity}$	0.0691**	0.1080**	0.2847	-0.8235
	(0.0322)	(0.0479)	(0.4705)	(0.7778)
Controls		√		√
First-stage F-statistic	30.2712	17.0023	57.1462	30.3999
Observations	406	404	982	970

Note. For columns 1 and 2, the dependent variable is the racial implicit bias of Whites from 2002 to 2016, where higher values indicate stronger negative implicit bias against Blacks. For columns 3 and 4, the dependent variable is the average annual number of anti-Black hate crimes per 100,000 people in a county from 2000 to 2018. *Slavery Intensity* represents the county-level slave proportions in 1860. *Cotton Suitability* is an index reflecting the suitability of a county's land and climate for cotton cultivation. The control

variables include total population, the proportion of farms over 50 acres, and per capita farm value. Standard errors in parentheses are clustered at the county level. *** p<0.01, ** p<0.05, * p<0.1.

The results of the first-stage regression of the 2SLS are presented in Table F1 of Appendix F. In columns 1 to 2, whether without controls or with controls, the coefficient of *cotton suitability* is consistently significant under the 5% significance threshold, and the F-statistic values exceed 10. The results indicate that cotton suitability is a strong instrumental variable. The results of the second-stage regression of the 2SLS are presented in Table 5. Columns 1 to 2 show that, whether without controls or with controls, the coefficients of $\widehat{Slavery\ Intensity}$ are significant. The 2SLS results indicate that even more than a century after the abolition of slavery, the historical proportion of slaves still has a positive effect on the racial implicit bias of current Whites.

The findings from our 2SLS analysis are consistent with the results obtained by Payne et al. (2019) through the use of multilevel modeling procedures with restricted maximum likelihood estimation. Specifically, in counties with historically higher proportions of slaves, current Whites exhibit stronger negative implicit biases against Blacks.

B. Anti-Black hate crimes

Another way to explore the long-term impact is to examine whether the historical proportion of slaves is associated with the geographic distribution of current anti-Black hate crimes. The anti-Black hate crimes variable represents the average number of such crimes per 100,000 people in each county from 2000 to 2018. Detailed information on the sources of anti-Black hate crimes can be found in Section II. Given that the proportion of slaves and anti-Black hate crimes are both cross-sectional variables in our data, and considering the potential estimation bias in OLS. We use cotton suitability as an instrumental variable and employ the

2SLS estimation method. Specifically, we follow the specification of equations (10) and (11), but we replace the dependent variable $Implicit\ bias_c$ with $Anti-Black\ hate\ crimes_c$. The correlation between cotton suitability and the proportion of slaves is verified in *A. Racial implicit bias*. Furthermore, we employ the same falsification test to assess the exogeneity of cotton suitability in this estimation, with anti-Black hate crimes as the dependent variable. The falsification test results in Table G1 of Appendix G (columns 3 to 4) indicate that cotton suitability remains exogenous.

Columns 3 and 4 of Table 5 present the second-stage 2SLS results, with anti-Black hate crimes as the dependent variable. The results show that the estimated coefficients of $\widehat{Slavery\ Intensity_c}$ are not statistically significant under the 5% significance threshold, regardless of whether controls are included. Therefore, the historical proportion of slaves does not affect the current geographic distribution of anti-Black hate crimes.

Taken together, we find that, although slavery was abolished over a century, Whites in counties with higher historical proportions of slaves still exhibit stronger negative implicit biases against Blacks. However, we do not find a significant association between the proportion of slaves and anti-Black hate crimes. These results suggest that racism persists in more subtle and covert forms (Bonilla-Silva, 2021; Dovidio & Gaertner, 1996; McConahay, 1986; Quillian & Lee, 2023; Sears & Henry, 2005).

VII. Conclusion

In this paper, we examine the link between the abolition of slavery and the prevalence of racist narratives in the American South from the 19th century to the early 20th century. The quantitative analysis provides plausible causal evidence that, following the abolition of slavery, counties with higher historical proportions of slaves experienced a greater increase in the prevalence of racist narratives than those with lower proportions. Moreover, we find that the

increase in racist narratives following abolition is primarily driven by labor market competition between Black and White workers. The classic idea that economic competition influences racial relations has been confirmed in some studies (Becker & Pascali, 2019; Olzak, 1990; Semyonov et al., 2002). Furthermore, more than a century after the abolition, slavery continues to influence current implicit racial bias, but has no impact on racial hate crimes, indicating that racism persists in more subtle and covert forms.

Our research has some limitations. First, the Project Implicit data has limited representativeness, but it is the only large-scale dataset available that provides implicit bias data with precision at the county level (Xu et al., 2014). In the future, internet search data can be used to measure racial bias, a method that has already been applied in many studies (Bail et al., 2018; Isoya & Yamada, 2021; Stephens-Davidowitz, 2014). Second, our study measures racist narratives solely through historical newspapers. However, racist narratives may spread through other channels, such as interpersonal communication and books. Therefore, the impact of the abolition of slavery on racist narratives may be larger than what we have captured in our research.

Our findings suggest that racism in the American South has deep historical roots. While we focus on a historical context that allows for a plausible causal interpretation, this paper offers valuable insights into the geographic distribution of current racial relations in the American South. At the same time, it may offer guidance to governments in formulating effective racial policies that foster racial harmony. In addition, our systematically developed and validated racism lexicon can serve as a reference for future research.

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