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The Strange Career of Jim Crow: Labor Scarcity  
and Discrimination in the American South

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THE STRANGE CAREER OF JIM CROW: LABOR SCARCITY  
AND DISCRIMINATION IN THE AMERICAN SOUTH\*

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Preliminary and Incomplete  
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Abstract:

IN

1.

American Civil War (1861-1865). I estimate the effect of Southern counties' labor scarcity, which was randomly determined by military deaths in the Civil War, on 1) racial violence (lynchings) and 2) black political participation (voting) from 1865-1900.

Labor scarcity did in fact lead to decreased discrimination on both margins. In terms of violence, counties with greater labor scarcity (higher Civil War deaths) saw far fewer lynchings: estimations suggest counties with 10 percentage-point higher death rates in the Civil War had 24 to 33% fewer lynchings from 1866-1900. In terms of political participation, counties with 10 percentage-point higher death rates had 3.6-5

on generals' decisions for armies this large. For robustness, I also generate predicted death rates using data on the actual battles in which each company fought and use them in 2SLS estimations. These predicted death rates purge the estimates of any unobserved factors not related to the generals' decision-making, such as a county's pre-war health conditions, which might have affected deaths from disease.

Instead of market forces, many believe governments to be the only relevant agents in changing discrimination. There is strong evidence that government actions have reduced discrimination (Collins, 2001; Donohue & Heckman, 1991; Wright, 2013). Darity & Mason (1998) argue that in the U.S., most of the black-white income convergence of the last century occurred in from 1965-1975, the decade immediately following the Civil Rights Act of 1964. They further argue that competitive forces did little to improve the standing of black workers before or since. This paper, then, gives strong empirical evidence that mhi.55 TmCces can in fact reduce discrimination in add

increased voting continued at least through 1900. Thus changes in discrimination were not immediately removed once the excess labor demand was satisfied. This may suggest a shift in these counties' racial norms—transitory changes in racial treatment may outlast the market forces that led to the improved treatment. Jha (20

findings of Voigtlander and Voth (2012) and Jha (2013) who find an extreme persistence of cultural traits, lasting several centuries.

The results further contribute to an important historical argument, put forth by C. Vann Woodward in *The Strange Career of Jim Crow* (1955/1974). Woodward gives a preponderance of evidence against the then-prevailing notion that the Southern racial system on the eve of the Civil Rights Movement was as it had always been:

"... things have not always been the same in the South. In a time when the Negroes formed a much larger proportion of the population than they did later, when slavery was a live memory in the minds of both races... the race policies accepted and pursued in the South were sometimes milder than they became later. The policies of proscription, segregation, and disfranchisement

## 2. Historical Background



Racial relations between Reconstruction and 1900 may still have been better in some respects than the period afterwards, however (Woodward, 1955/1974). Public accommodations, railroad travel, and other services that became hallmarks of the Jim Crow system were not uniformly segregated before 1900, with considerable variation across states and localities (Woodward, 1955/1974). Many African Americans were also able to buy property during this period, and despite very low levels of income in 1865, made significant economic progress by 1900 (Higgs, 1977a). In sum, African Americans faced significant prejudice in the Postbellum South, but there was considerable variation in discrimination prior to 1900.

## 2.2 Southern Labor Markets

The Civil War also altered Southern labor markets. The war resulted in over 750,000 deaths (Hacker, 2011), more than all other American wars combined. The South bore a disproportionate number of the fatalities, lo2(9)11ong tah bou6a(s)15(pr)-3(o)12(por)8(t)-eriinumbopo A1 0 0y 1 72.024 350(a)19rl ot 00

### 3. Data

All findings in this paper exploit variations in labor scarcity in Southern counties following the American Civil War. Labor scarcity is measured using new data I have constructed on county-level deaths in the Confederate Army. From a variety of sources, I have counted deaths for seven of the eleven former Confederate States: Alabama, Arkansas, Florida, Georgia, Louisiana, South Carolina, and Virginia. Death rates are reported as the total military deaths attributed to a county divided by the number of military-eligible men in that county.

experienced 100% casualties during three days at Gettysburg (McGee, 2014).<sup>5 6</sup> Nearly all of those men are documented as living in Caldwell County, which was sparsely populated, before the war.

Variations in such losses were randomly allocated across Southern counties. The death rates were driven by troop movements, made by generals for strategic reasons unrelated to the counties' pre-war conditions. Aside from strategic considerations, many battles and the level of casualties that occurred were random, not determined by the generals' planning. To cite a prominent example, in 1863, Confederate president Jefferson Davis wanted Robert E. Lee to send part of his army to relieve Vicksburg, Mississippi, then under siege by U. S. Grant. Lee instead persuaded Davis to let him invade Pennsylvania. Once his army traveled north, however, the cavalry distanced itself to the point that Lee had no idea where the Federal troops were. The two armies met by chance as a column of Southerners fell on Gettysburg in search of a rumored cache of shoes, leading to three days of fighting and the highest casualties of any battle in American history.

Most movements were also made at the " army" level, units comprised of hundreds of companies from many different states. At Gettysburg, Robert E. Lee commanded a few thousand companies from every Confederate state plus Missouri, Kentucky, and Maryland. One county's characteristics could not have affected generals' decisions in an army this large. Table 1 shows further that death rates were uncorrelated with pre-war county characteristics as measured in the 1860 census, including wealth, manufacturing output, population, and the percent of the county's population that were slaves. The death rates, then, are randomly distributed and allow for causal inference in the analysis.

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<sup>5</sup> Regiments were units of 10-12 companies, designed to have at least 1,000 men. Companies within regiments almost always moved together, thus the regiment was the smallest unit of troops for which generals made assignments.

<sup>6</sup> Casualties include those killed, wounded, or captured (many wounded or captured died later as well).

One concern is that some units were exposed to more battles because of greater "skill." A few units did gain reputations as good fighters during the war, but it is unclear whether these were actually superior to other units in any way. For example, the famed "Stonewall Brigade," originally commanded by Stonewall Jackson, was perhaps the most celebrated unit in the Confederate Army. Despite its initial reputation, however, it performed poorly in many later battles, both with and without its famous commander (Foote, 1958). Even if such a unit were chosen for assignments based on its perceived skill, this could not have been driven by an unobserved characteristic of a single company out of hundreds.

Another concern is that the death rates mis-measure the true treatment in counties with larger black populations. In such counties, the death rates (measured as a percentage of white men) would not have created as significant scarcities of labor. This measurement error should simply attenuate the estimates since the measured treatment was greater than the actual treatment for such counties. Alternately, I could construct death rates as the percent of a county's total population, white and black, that died in the war, which would measure the treatment more accurately. However, since nearly every Confederate soldier was white, such a measure would then be strongly correlated with the relative sizes of the white and black populations. This in turn could be correlated with a host of unobservable factors, especially those present in plantation counties. For this reason, I use the percent of the county's white, military-eligible population that died in the estimations, a measure that is uncorrelated with the relative sizes of the black and white populations.

For robustness, death rates are also predicted using data on the actual battles each company fought, listed in the Stewart Sifakis' *Compendium of Confederate Armies* for each Southern state. This purges the death rates of any unobserved factors not related to the generals' decision-making, such as a county's pre-war health conditions. In practice, the predicted death rates are very close to the

actual death rates for most counties, suggesting that even deaths from disease in the war were driven by factors such as battle wounds, the length of soldi

levels of racial violence in a county. For political participation, voting totals survive for large elections, though voter registration and characteristics of the voters, such as race, do not. Still, the lynching and voting data are remarkably consistent data series for the time period and each proxy for different aspects of the non-market discrimination that occurred in Southern counties.

## 4.1 Results— Violence towards African Americans, 1866-1900

### 4.1.1 Baseline Specification

Lynchings clearly had racial motivations. While whites were often lynched in the South, more than 90% of the documented lynchings were of black men (HAL, 2014). Victims were usually accused of some crime and the lynchings were intended as a means of vigilante justice, but convictions were often dubious and sometimes trials were never held. Regardless, lynchings served to remind the black community of their " place" in the Southern system. Jones, Troesken, & Walsh (2012) show that lynchings were an effective deterrent to black voting, for example. They were also intended to enforce racial norms on interracial relationships, specifically between black men and white women (Dray, 2002).

Data on lynchings were first collected by Monroe Work at Tuskegee Institute (NAACP, 1919) and have been added to by the Historic American Lynchings (HAL) Project by Hines & Steelwater (2014). Records indicate the victim's name and several details for each lynching, including the year and county where it occurred. This data is widely used, but does not cover Virginia and only begins in 1881. I supplement the HAL data with lynchings in Virginia beginning in 1880 from Brundage (1993). I also include lynchings reported in Northern newspapers from 1866 to 1880 using a Proquest Historical Newspaper search. Since most counties have no lynchings in a given year, I aggregate the

data over the period from 1866 to 1900, by which time the Jim Crow system became ubiquitous (Woodward, 1955/1974). Total lynchings in this period are divided by the county's average black population. They are reported as lynchings per 1,000 in the black population.

The estimations include region fixed effects (for the Appalachian, Piedmont, Coastal Plain, and Coastal regions) by state as well as a variety of other county-level covariates. The estimating equations are of the form:

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for counties  $i$  in state-regions  $s$ . Data comes from counties in Virginia, South Carolina, Georgia, Alabama, Florida, Louisiana, and Arkansas.

Table 2 shows the effects of counties' death rates in the American Civil War on lynchings from 1866-1900. Due to the distribution and number of zero observations in the lynching data, I use Poisson regressions. In the baseline specification (Column 1), the estimated coefficient for the death rate'





and varied little within regions.<sup>7</sup> Still, the regression reported in Column 6 controls for military participation rates as well as desertion rates and two proxies for capital destruction in the war (the number and size of battles that occurred in the county). The results are very similar to the other estimations.

Alston & Ferrie (1993) have shown that lynchings were much less common in plantation counties. Though these counties had worse racial treatment on most margins, paternalist landowners offered protection from violence as a benefit to prevent their low-wage workers from migrating. To ensure that the results are not simply showing the effects of paternalism, in Column 7 I add a variable for plantation counties. For simplicity, I use an indicator variable for whether or not slaves made up 40% or more of the county's 1860 population. Using the actual percentage of a county's population that were slaves (a continuous variable) does not affect the estimates. I also include an interaction term to test for a differential effect of labor scarcity on lynchings in plantation counties. Not surprisingly, plantation counties had a strong negative effect on lynchings, as Alston & Ferrie predict. The interaction term suggests the death rate may have had little effect on lynchings in these counties as well. The main effect of death rates on lynchings, however, changes very little—the effect of a 10 percentage-point increase in the death rate on lynchings, absent paternalism, is estimated at 3.2%. This suggests the effects estimated in the previous columns are not driven by plantation counties.

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The counties in Appalachia participated somewhat less due to ideological differences, with many men even fighting for the Union. The coastal areas had lower participation since many served in "Home Guard" units (which guarded the coast but were not incorporated into the traditional army), served in the Navy, or worked as blockade runners.

#### 4.1.2 IV Results

A potential bias in the estimates remains due to deaths from disease, which might represent an unobserved county characteristic driving both the death rate and postwar outcomes. Over half of the deaths in the American Civil War occurred due to disease (Hacker, 2011).<sup>8</sup> These non-combat deaths were still heavily influenced by where troops served, the intensity of their fighting, marching, and other assignments, and injuries sustained in battle. All of these factors were still determined by commanding officers.

random nature of troop assignments. They will only be biased if generals' decisions were influenced by counties' pre-war characteristics, which is unlikely for the several reasons mentioned earlier. In addition to accounting for counties' pre-war health and disease exposure, the predicted death rates



## 4.2 Results—Political Participation, 1865-1900

### 4.2.1 Baseline Specification

A second proxy for racial treatment in the South from 1865-1900 is the county's participation levels in major elections. Total votes cast in presidential, congressional, and gubernatorial elections are available through the ICPSR's *United States Historical Election Returns, 1824-1968*. The log of total votes is regressed while controlling for the log of the voting-age population (males over 21), so the dependent variable can equivalently be thought of as voter turnout (as a percent of eligible voters). The estimations are equivalent to Frisch-Waugh regressions where the left-hand side variable is the residual from regressing the log of the voting age population on the log of total votes. The remaining right-hand side variables thus explain variations in voting behavior that cannot be explained by the size of the potential voting pool. Similar measures have been used previously by Naidu (2012) and Jones, Troesken, and Walsh (2012) as proxies for variations in black voter participation. Total black votes have been estimated for a handful of elections by using ecological inference (Redding & James, 2010). However, this method assumes a constant relationship between total votes and a county's black population. I, on the other hand, am testing for differences in voting





Column 6 focuses the estimation on a time period that preceded the labor market's return to equilibrium. Elections included are from 1868 (the first year Southern states voted again in federal elections) to 1880, by which time the population difference across high and low-death counties is indistinguishable. Over this time period, the estimated effect of labor scarcity is even larger, suggesting the strongest effect when excess labor demand was greatest.

#### 4.2.2 Robustness

Table 5 Column 1 estimates the effect of labor scarcity on voter turnout using the predicted



Since death rates were distributed randomly, the results can be interpreted causally, but it is impossible to show that any of the additional voters in high-death counties were actually black. However, in Table 5 Column 7 I pursue an alternate strategy by instrumenting the size of a county's black population with the county's death rate. The effect of death rates on the change in black population is estimated in the first stage, and the effect of the change in black population on voting is estimated in the second stage. Because an IV regression produces a local-average treatment effect, the black population in the second stage is interpreted as the change in black population that was sensitive to variations in labor scarcity, which is exactly what I would like to estimate. This would include migrants, for example, but not the larger black populations in plantation counties. The coefficient, then, does not indicate that having a larger black population led to more voting in the South on average. Clearly this was not the case. Instead, it indicates the larger the black population that was influenced by the labor scarcity, the higher the voter turnout. I also estimate a new null hypothesis since one step in the previous calculation is accounted for in the first stage. From the data on actual voter participation by race, a 10 percentage-point increase in the fraction of potential voters that was black should reduce voting by 2.7%. While not significantly different from zero, the IV estimate is well above the estimated null hypothesis.

Unfortunately, it is difficult to determine whether the exclusion restriction has been satisfied for this estimation. The Civil War death rates are uncorrelated with unobservable county characteristics, but it is difficult to determine whether the full effect of labor scarcity on voting comes through these marginal black voters (and possibly the consequent increase in white voters to oppose them). As stated earlier, it is still possible that labor scarcity created other structural changes

## 4.3 Channels of Causation

I interpret the preceding results as causal impacts of labor scarcity on non-market discrimination in the Postbellum South due to the random nature of counties' Civil War death rates. However, the channel through which these effects come is still unclear. Military deaths and labor scarcity could have created several changes in these counties, some of which could have in turn led to decreases in lynchings and increases in voter turnout. I explore several potential channels below.

### 4.3.1 Non-Market Channels

As I have shown, several channels that are not consistent with market conditions affecting discrimination can be rejected. These include a larger black population, which might have offered some measure of protection or power to that community, and a smaller white population, which conceivably could have been less able to carry out acts of discrimination.

Some channels that might be considered economic, but not necessarily market forces, include structural changes and paternalism. Structural changes in the counties' economies, including growth of manufacturing and changes in cotton and corn output, are similarly unable to explain the results. Paternalism can explain decreased racial violence in plantation counties, but it seems to have been independent of the effect of Civil War death rates on discrimination.

Government action

### 4.3.2 Market Channels

While I cannot take a strong stand on the exact channel through which the effects come, I

Lastly, labor scarcity may have simply led to higher wages. If acts of non-market discrimination are inferior goods, then this discrimination would necessarily decrease in areas with greater labor scarcity. High incomes within and across countries tend to be correlated with lower discrimination today, though there is no evidence of a causal link. This might be thought of as an extension of modernization theory, whereby economic progress creates social progress, thus creating a correlation between income gains and more enlightened views on race. Some women and minority workers tend to have poorer outcomes during recessions as well (Hogarth et al., 2009), though these results do not hold for all minority groups. This might indicate, among other things, that employers or co-workers have latent racial preferences that only become pronounced when incomes fall.

## 5. Persistence of Racial Treatment, 1881-1920

The previous section analyzes 1865-1900, the full period in which Woodward (1955/1974) suggests racial treatment still had considerable variance across the South. I now analyze the period from 1880-1900 separately to test for the persistence of racial treatment as a cultural norm. The size of the labor force across counties with different death rates converged by 1880, which suggests that economic considerations in such counties were likely no different beyond that point. I attribute effects that remained in 1880-1900 and beyond to an actual change in the racial norms, distinct from a short-term improvement in racial relations exploited for economic gain.

Table 6 repeats the main specification for the effect labor scarcity on racial violence for three time periods: 1881-1900, 1901-1920, and 1881-1920. Civil War death rates greatly reduced lynchings in the period after labor-market convergence (Column 1). The results are robust to the tests

is not statistically significant, the effect over the period as a whole (1881-1920, Column 3) was very strong. From these estimates, the negative effect of Civil War death rates on racial violence clearly lasted beyond the initial period of labor scarcity (ending around 1880) and indicates some degree of persistence in racial treatment.

Columns 4-6 repeat the results for electoral participation. The estimate for 1881-1900 again indicates some persistence in racial treatment from the earlier period. The results are also robust to the tests presented in the previous sections (not shown). The effect does not remain after 1900, however. By this time, nearly every Southern state had installed significant restrictions against black voters, and it appears the constraints were binding—there was no significant effect of previous labor scarcity on voting behavior in these decades

## 6. Racial Treatment in the Very Long Run

The previous sections show that: first, counties with greater labor scarcity saw decreases in non-market discrimination from the end of the Civil War to 1880. Second, the effects lasted beyond 1880, with electoral participation higher in counties with higher death rates until 1900 and racial violence reduced in these counties through 1920. I now test the evolution of non-market discrimination through the Civil Rights Era (1950-1970).

Unfortunately, the beneficial effects of labor scarcity on discrimination not only disappeared in the very long run, they

Figure 8 shows the effects of death rates on electoral participation over 20-year intervals starting in the antebellum period. The line plots the regression coefficients







1929). Instead it seems the "mind of the South" was amenable to considerable change, even over a few short decades.

While Woodward argues the period before 1900 was in some ways less racist than the Jim Crow era that followed, these results paint an even darker picture—areas that were the least racist after the Civil War had become the most racist by the Civil Rights Era. The grandchildren of people who prevented lynchings, for example, were considerably more likely to commit racially-motivated murders by the 1950s.

Third, the results in the very long run contradict the idea of steady social progress over time. Martin Luther King famously stated "the arc of the moral universe is long, but it bends towards justice," (1965). This contrasts considerably with Figure 8, in which the arc bends in exactly the opposite direction. King borrowed his words from an assertion on the inevitability of the abolitionist cause in the 19





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States of America (rather than their home state)<sup>15</sup>. This includes the Navy, though there were very few Confederate sailors in the war. In all cases, soldiers can still be assigned to counties of origin if they began the war serving in a local company since their records are grouped with the original unit. Together, these excluded groups made up a small minority of the Confederate military.

## 1.2 Deaths by County

Unlike modern armies, military units in the American Civil war were raised locally, so nearly all Confederate companies can be mapped back to a county of origin. This is accomplished using records from Civil War historians as well as some summary documents included with the Archives' records. The roots of county-based military units preceded the war—the South had long used a militia system for local defense, based at the county level (Fleming, 1905). Some of these companies had been mustered into U.S. service in the Mexican war, and they similarly formed Confederate units in 1861-62. Nearly all additional Confederate units were raised at the county or city level as well. As mentioned, most companies even carried geographic designations in their nicknames, such as the Chunky Heroes (from Chunky, Mississippi), the Catahoula Guerillas (from Catahoula County, Louisiana) and the Hot Spring Hornets (from Hot Spring County, Arkansas). In my preliminary sample of Virginia soldiers, I can assign counties for over 95% of the documented deaths.

Not every soldier came from the company's listed county of origin, but a wide majority did. I can document 80 to 90% of soldiers as living in the company's county of origin for the subsamples I have tested. Most men preferred to serve in units from their home towns and counties, and the army

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<sup>15</sup> Nearly all soldiers served in units organized by their states, not the Confederate government, though the Conf



## Tables and Figures

FIGURE 1:

AVERAGE GR

FIGURE 3:  
DEATH RATES FOR NEIGHBORING COUNTIES IN SOUTHWEST GEORGIA  
IN THE AMERICAN CIVIL WAR

Note: Death rates calculated as the number of soldiers reported dead from each county divided by the white male population age 15-39 in the 1860 U.S. Census

FIGURE 4:  
GEORGIA

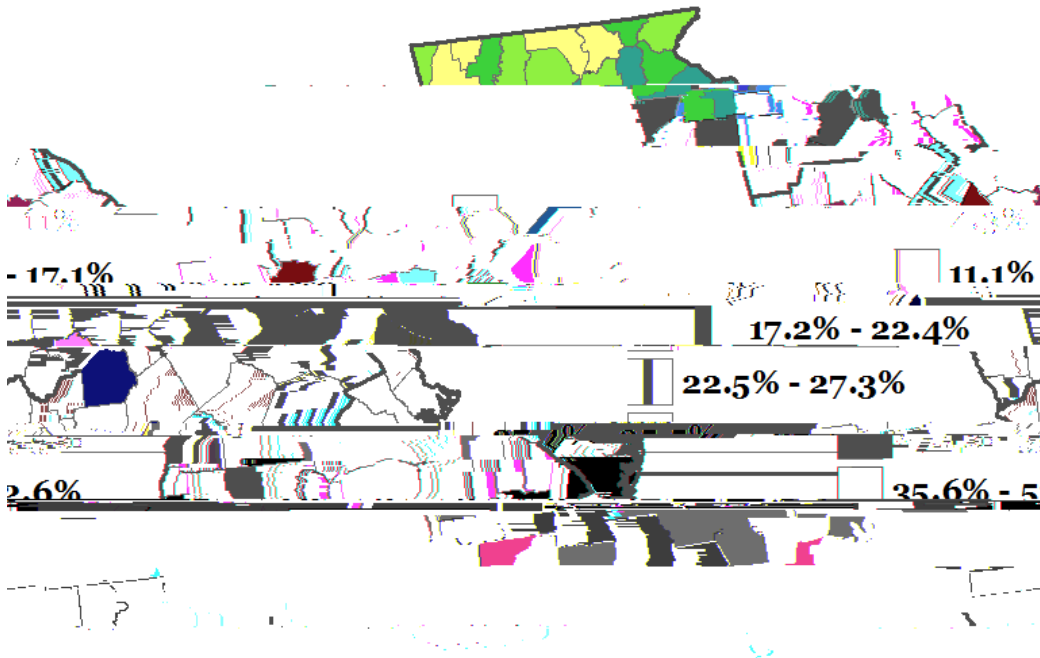


FIGURE 5:

LOUISIANA DEATH

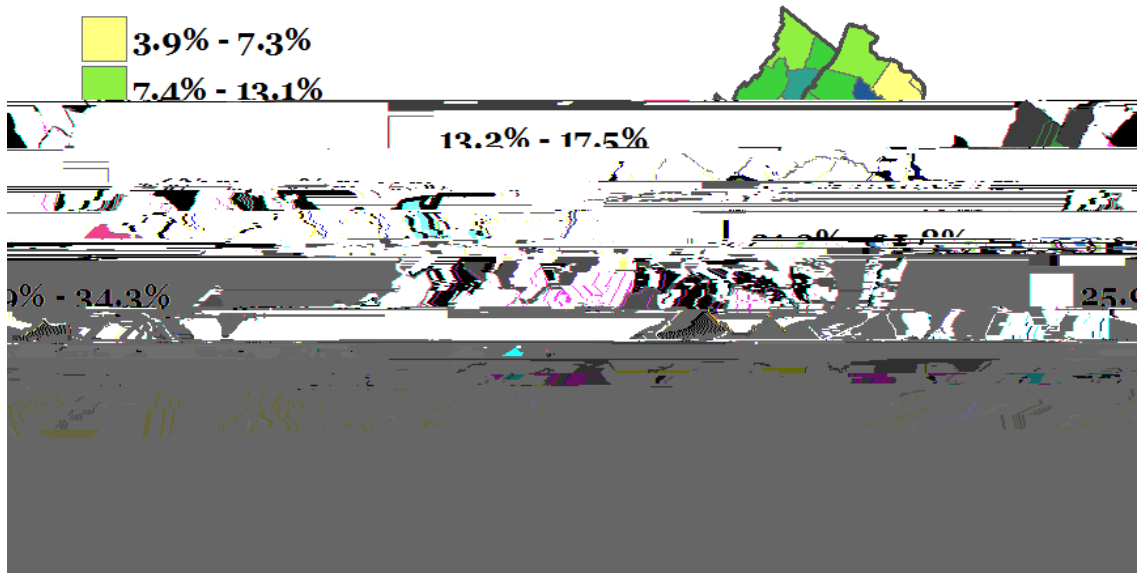
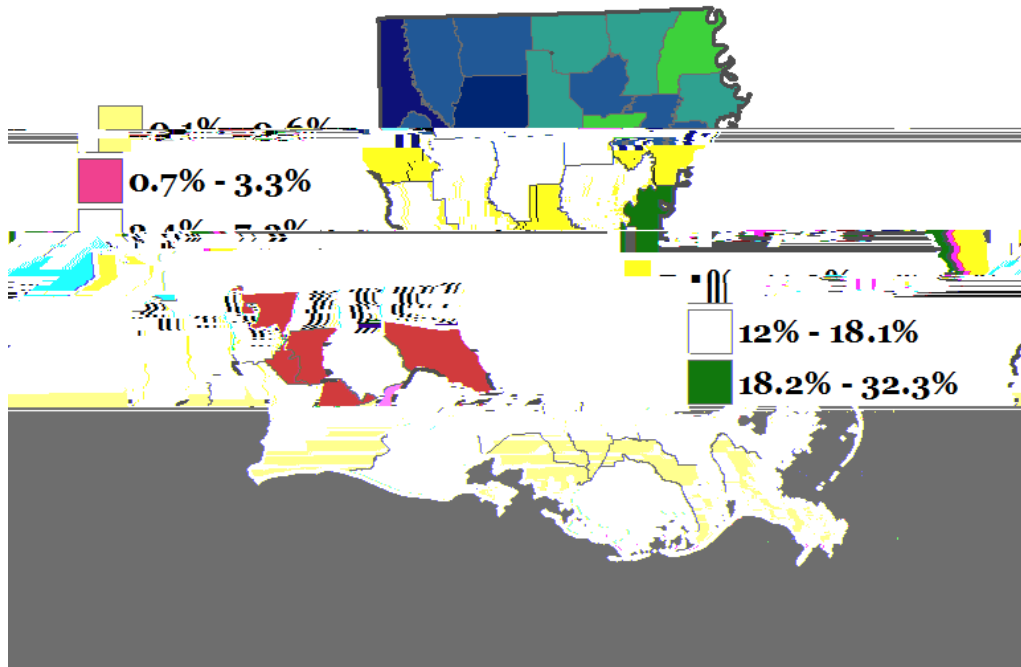
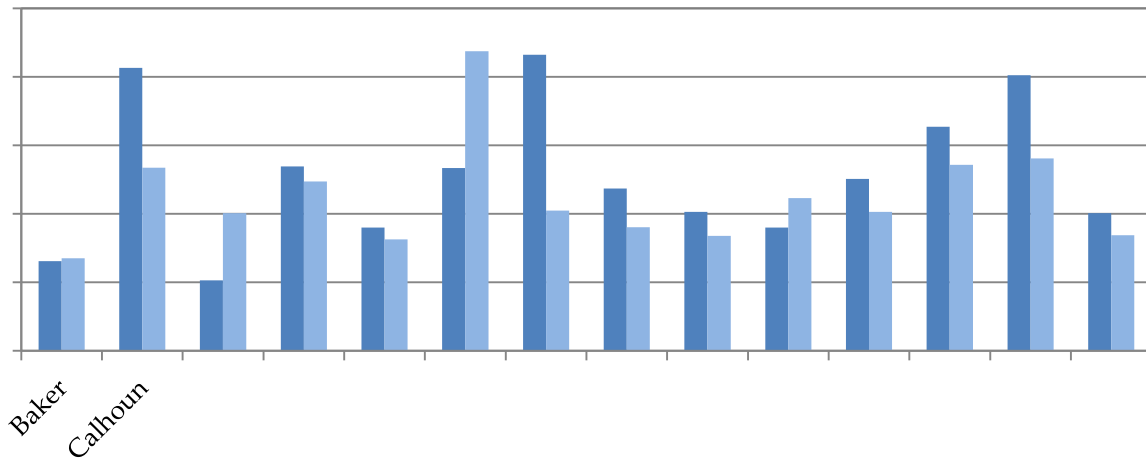


FIGURE 7:  
ACTUAL AND PREDICTED DEATH RATES FOR COUNTIES IN SOUTHWEST GEORGIA



Notes: Death rates calculated as the number of deaths in each county divided by the number of white men age 15-39 in the 1860 U.S. Census. Predicted death rates are estimated using battle data for each company in the given counties from Sifakis (1995).

FIGURE 8:  
EFFECT OF CIVIL WAR DEATH RATES ON LOG TOTAL VOTES BY 20-YEAR PERIOD, 1848-1960

Notes:

TABLE 1:  
BALANCE TEST: PARTIAL CORRELATIONS OF 1860 COUNTY CHARACTERISTICS  
WITH DEATH RATES IN THE AMERICAN CIVIL WAR

VARIABLES	(1) Death Rate	Mean of Variable
1860 Population (1,000s)	.00009 (.00026)	12.45
% of County Pop. Slaves (1860)	.0398 (.0352)	.358
Per Capita Wealth (1860)	-.0216 (.0227)	.641
Per Capita Mfg. Output (1860)	-.135 (.297)	.014
Arkansas	-.014* (.008)	
Florida	.109*** (.021)	



TABLE 2:

## DEATH RATES IN THE AMERICAN CIVIL WAR AND LYNCHINGS PER 1,000 IN BLACK POPULATION, COUNTIES, 1866-1900

VARIABLES	(1) Lynchings/1,000 in Black Pop.	(2) Lynchings/1,000 in Black Pop.	(3) Lynchings/1,000 in Black Pop.	(4) Lynchings/1,000 in Black Pop.	(5) Lynchings/1,000 in Black Pop.	(6) Lynchings/1,000 in Black Pop.	(7) Lynchings/1,000 in Black Pop.
Death Rate	-3.341*	-2.869*	-3.665**	-3.282*	-2.762**	-3.702**	-4.033**

TABLE 3:  
ROBUSTNESS CHECKS AND CHANNELS OF CAUSATION: DEATH RATES AND LYNCHINGS PER  
1,000 IN BLACK POPULATION, 1866-1900

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(1)

(2)

(3)

(4)

(5)

TABLE 4:  
DEATH RATES IN THE AMERICAN CIVIL WAR AND LOG TOTAL VOTES IN CONGRESSIONAL,  
PRESIDENTIAL, AND GUBERNATORIAL ELECTIONS IN SOUTHERN COUNTIES,



TABLE 6:  
PERSISTENCE OF EFFECTS OF DEATH RATES ON LOG TOTAL VOTES AND LYNCHINGS PER  
1,000 IN BLACK POPULATION, 1880-1920

VARIABLES	(1) Lynch.'s/1,000 Blk. Pop. 1880-1900	(2) Lynch.'s/1,000 in Blk. Pop. 1901-1920	(3) Lynch.'s/1,000 in Blk. Pop. 1880-1920	(4) Log Total Votes 1881-1900	(5) Log Total Votes 1901-1920	(6) Log Total Votes 1881-1920
Death rate	-3.656** (.807)	-2.116** (.851)	-3.83** (.821)	.416** (.171)	-.0347 (.447)	-.112 (.241)
Urban Counties	NO	NO	NO	YES	YES	YES
Registered	YES	YES	YES	NO	NO	NO

TABLE 7:

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TABLE A.1: DATA SOURCES AND DESCRIPTIONS BY STATE

	Source	Type	Soldiers	Original Sources	Notes
ALABAMA	<i>ADAH Civil War Service Database</i>	Database	Majority Sample		