The Southern Economy

This Version March 19, 2010

Prepared for the *Oxford Handbook of Southern Politics*

Art Carden**
Rhodes College Department of Economics and Business
2000 North Parkway
Memphis TN 38112
Email: cardena@rhodes.edu
Phone: 901-843-3829
Fax: 901-843-3736

Abstract

This essay surveys some of the key themes in Southern economic history and traces the development of the region through the colonial and revolutionary eras, the antebellum period, the Civil War and Reconstruction, the post-bellum period, and the modern period. In particular, I highlight the findings of economic historians on the economics of slavery and focus on the development of Southern institutions in light of the antebellum slave society. The resurgence of the Southern economy is examined in light of recent hypotheses about technological change, policy, and productivity growth.

Keywords: South, slavery, institutions, development, economic history.
JEL Codes: N11, N12, N31, N32, N41, N42, N91, N92

---

*-Assistant Professor. My intellectual debts for this project are too numerous to count; my clearest and most specific debts are to the economic historians who were gracious enough to serve on my dissertation committee at Washington University in Saint Louis—John V.C. Nye, Douglass C. North, and Sukkoo Kim. The first draft of this essay was completed while I was a Visiting Research Fellow at the American Institute for Economic Research in July 2009. I have benefitted from numerous conversations, but discussions with Robert Ekelund and Mark Thornton after the first draft was completed were particularly valuable. Timothy Huebner provided comments, and Dylan Chambers and Robin Steele read an early draft. After the draft circulated, Mike DeBow and Price Fishback provided detailed comments that inspired me to reconsider my thinking on a number of issues; their contributions are reflected in this version. Seminar participants at the American Institute for Economic Research and provided valuable comments, and Jennifer Mitchell and Kelly Gillean provided valuable research assistance. Portions of this essay are adapted from chapter 2 of my doctoral dissertation.

The South is a land of unlimited possibility and unrelieved privation. Potential adequacy and actual deficiency walk hand in hand across the Southern scene.
-Arthur F. Raper[1]

1. Introduction

The American South is one of the most studied and least understood regions in the world, and all aspects of the South's economic history are inextricably linked to the slave society that was destroyed by the Civil War and Emancipation. Southern economic history has several distinct phases: the Colonial Era that lasted from the settlement of Jamestown in 1607—earlier if you date it from the founding of Saint Augustine, Florida in 1565—until the Founding Era that culminated in the ratification of the Constitution in 1787, the antebellum era that lasted until the election of Abraham Lincoln in 1860 and the outbreak of the Civil War in 1861, the War and Reconstruction Era that lasted until 1877, the post-Reconstruction "New South" period that lasted until World War II, and the postwar modern era. Each period presented its own challenges.

Elizabeth Fox-Genovese and Eugene Genovese argue that the South developed as "a slave society" rather than simply "a society that permitted slavery" and place the South "with ancient Greece and Rome among the few genuine slave societies in world history—that is, societies in which slave labor provided the basis of the social structure, the economy, and the culture."[2] Along with Brazil and the Caribbean in the 16th-18th centuries, the South, Greece, and Rome were history's only real slave societies in that

[1] "Social and Moral Welfare," for Synod of Georgia 94th Session, October 12, 1938. Columbus GA. Mimeo, papers of Arthur F. Raper, Box 3, Folder 74. Southern Historical Collection, Wilson Library, University of North Carolina-Chapel Hill.

[2] Fox-Genovese and Genovese, *Mind of the Master Class*, pp. 70-71.

almost every aspect of life in these societies revolved around human bondage.[3] The South's economic history is inseparable from its social and political history, and the institutional residue from the slave society affected the Southern economy for the century following emancipation and beyond.

Before the Civil War, per-capita income and growth in the South compared favorably to per-capita income and growth in the North even though this wealth was distributed unevenly. Compared to other western slave societies, the South was a smashing economic success. Relative to the high-mortality Caribbean slave economies, the North American mainland had the conditions under which productive as opposed to extractive institutions developed.[4] Absentee landlordism in the Caribbean meant that the cultural and rhetorical institutions of capitalism and civil society did not develop, even in the bastardized form in which they developed in the American South.[5]

The Southern economy grew in spite of slavery: between 1840 and 1860, Southern incomes grew more rapidly than Northern incomes, and even during the decades following the Civil War Southern growth rates were comparable to Northern growth rates. Southern incomes grew after the Civil War and especially after World War II, but the institutional infrastructure that supported slavery in the antebellum South worked to undermine the market process in the post-bellum South. These institutions

---

[3] Engerman, "Slavery," p. 329. Engerman borrows the classification of the South, the Caribbean, Brazil, Greece, and Rome as "slave societies" from classicist Moses Finley.

[4] On the difference between these types of institutions, see Acemoglu, Johnson, and Robinson, "Colonial Origins." Franklin (*From Slavery*) argues that absentee ownership in the Caribbean meant a dearth of what is now called "social capital" that would have helped the region develop better institutions.

[5] Franklin, *From Slavery*, p. 64.

worked to the detriment of long-run Southern growth by reducing urbanization and industrialization, by restricting productive investments in education and entrepreneurial capital, by encouraging rent-seeking and corruption, by separating the South from the international labor market, and by actively obstructing the development of well-functioning markets.

The region's suitability for cotton, tobacco, indigo, sugar, and rice certainly helped shape the Southern economy, but Southern history is more than land and climate. In Rupert Vance's words, "(h)istory, not geography, made the solid South."[6] Gavin Wright argues that what matter are not the intrinsic physical, temporal, or spatial characteristics of the elements but "the level of demand, the state of knowledge, and the organization of property rights and markets."[7] Did the South have some market institutions? Yes. But the South was not a market economy.[8] Robert Fogel places the South in context:

> If we treat the North and South as separate nations and rank them among the countries of the world, the South would stand as the fourth most prosperous nation of the world in 1860. The South was more prosperous than France, Germany, Denmark, or any of the countries of Europe except England. The South was not only advanced by antebellum standards but also by relatively recent standards. Indeed, a country as

---

[6] Vance, *Human Geography*, p. 22. Vance is quoted in Wright, *Old South*, p. 6. See also Margo ("South as an Economic Problem") for more discussion of the role of geography. Mitchener and McLean ("Productivity of U.S. States") examine the role of mineral endowments and climate in determining productivity over the period from 1880 to 1980.

[7] Wright, *Old South*, p. 6.

[8] Engerman, "Slavery," p. 348; Wright, *Political Economy*, p. 180.

> advanced as Italy did not achieve the southern level of per capita income until the eve of World War II.[9]

Southern economic history is a complex tale that weaves together insights from all disciplines, not just economics and history. Important themes emerge. Slavery was both a system of property rights and a mode of labor organization, and it is the central element of Southern economic history. It influenced Southern cultural, economic, and political institutions, and it cast a long shadow from which Southerners have struggled to emerge. At the same time, the South shows how market institutions can generate wealth even in the face of opposition and oppression. Southern economic history tells a tale from which much can be learned. It begins with the colonial era.

2. The Colonial and Revolutionary Southern Economy

As Robert Higgs writes, "private property rights are the foundation of the market system of resource allocation" because "(t)hese rights permit an individual to exclude others from the use of his property and to transfer this exclusive ability to others on terms that are mutually agreeable."[10] Southern history revolves around a peculiar set of rights: rights to others' persons. Slavery was first formally recognized in Virginia in 1661 and in Maryland in 1663. When the supply of European indentured servants fell, farmers in the Chesapeake tobacco colonies substituted away from indentured servants and toward African slaves. It created in prosperity for Southern planters, but it ultimately proved to

---

[9] Fogel and Engerman, *Time on the Cross*, p. 250; Fogel, *Without Consent*, p. 87.

[10] Higgs, *Transformation*, p. 8.

be a Faustian bargain that pulled the region into war and poverty in the last half of the nineteenth century.[11]

A confluence of factors (rising wages in England, for example, and fewer opportunities in the Chesapeake) changed Chesapeake labor institutions. In 1680, indentured servitude was largely the norm for unfree labor. This changed over the course of the late seventeenth and early eighteenth centuries so that by 1720 "slaves greatly outnumbered servants, and blacks were nearly 20 percent of the population, while in some areas their population approached one-third."[12] Regional differences were evident in the distribution of wealth on the eve of the Revolution, and Southerners, on average, held more wealth than their counterparts in New England and the Middle Colonies. In 1774, Americans in New England, the Middle Colonies, and the South all had similar holdings of land, livestock, equipment, inventories, and consumers' goods. The difference in wealth was driven by slave holding. Southerners owned £18.4 worth slaves per capita compared to only £0.2 in New England and £1.6 in the Middle Colonies.[13]

The colonial South had four distinct borders and four distinct regions. It was bounded by the Ohio River, the Atlantic Ocean, the Gulf of Mexico, and the Mississippi River, and it was further subdivided into the Chesapeake tobacco region, the rice- and

---

[11] Franklin, *From Slavery*,pp. 72,75; Engerman, "Slavery," pp. 332-333; Lebergott, *The Americans*, p. 211. Powell (*Greatest Emancipations*) offers a broad survey of the end of slavery, and Parker ("South in the National Economy," especially the footnotes) summarizes the development of the literature on Southern economic history during the "cliometric revolution" of the 1960s and 1970s.

[12] Menard, "Economic and Social Development," p. 265.

[13] Alice Hanson Jones, *Wealth*, p. 96; data also reported in Hughes and Cain, *American Economic History*, p. 51.

indigo-cultivating low country of South Carolina and Georgia in which blacks comprised seventy percent of the population, the periphery, and “a frontier zone dominated by cross-cultural trade.”[14]

These regions were distinctly rural. Only 4% of Southerners in 1775 living in towns with populations greater than two thousand, and only another one percent living in towns with between one and two thousand residents. Charlestown, the South’s largest city, had only twelve thousand residents in 1775 while New York had over forty-seven thousand residents, Philadelphia had over twenty-seven thousand residents, and Boston had over eighteen thousand residents in 1790.[15]

Southerners of European extraction prospered during the Colonial era. Demographic data show that they ate well, as land was abundant and a large proportion of Southerners worked in agriculture. As Russell Menard writes, "by the time of the Revolution, southern-born men of European ancestry were, on average, just over 5'8" tall, about 3.5 inches taller than their English counterparts, slightly taller than northerners, and about the same height as Americans who served in the military during World War II."[16] Fertility outpaced mortality, the population increased exponentially, and southern planters earned handsome incomes exporting tobacco from the Chesapeake area and rice and indigo from the lowlands of South Carolina and Georgia.[17]

---

[14] Menard, “Economic and Social Development,” p. 249, 251.

[15] Menard, “Economic and Social Development,” p. 253; Sutch and Carter, *Historical Statistics*, Table Aa832-1033.

[16] Menard, “Economic and Social Development,” pp. 260, 253.

[17] Menard, “Economic and Social Development,” pp. 249, 256.

The Revolution was hard on the South in the 1770s and 1780s, just as the Civil war was hard on the South during the 1860s and 1870s. It took the South almost as long to recover from the Revolutionary War as it took to recover from the Civil War. Southern incomes were roughly equal to the national average in 1774 but had fallen to about 67% of the national average in 1798.[18] It wasn't until the early 1800s that the South regained the level of per-capita income it had enjoyed in 1774.[19] Regional distinctions took on a greater importance as the westward expansion of slavery and the rise of cotton cultivation—and the attendant culture of the Southern slave society—drove a wedge between the free and slave states.

3. The Antebellum Southern Economy

The slave/free split occurred after the War of 1812 as the western South was populated by slave owners and dotted with plantations.[20] Slave owners were a small-but-powerful fraction of the Southern population. During the cotton boom of the 1850s, the fraction of Southerners who owned slaves fell from about one-third to one-fourth.[21] By 1860, only a fourth of Southerners owned slaves.[22] The concentration of wealth in slave owners' hands created a powerful interest group: citing estimates from Claudia Goldin and Louis Rose, Jeffrey Rogers Hummel points out that in 1860 "the value of all slaves

---

[18] Menard, "Economic and Social Development," p. 294.

[19] Menard, "Economic and Social Development," p. 294.

[20] Hummel, "Civil War," p. 192.

[21] Engerman, "Slavery," p. 340.

[22] Hummel, "Civil War," p. 192; cf. Stampp, *The Peculiar Institution*, pp. 29-30.

was between $2.7 and $3.7 billion [in 1860 dollars], making it an asset that exceeded the value of all U.S. manufacturing and railroad capital combined."[23]

3.1 Wealth and Inequality

The distribution of wealth in the slave South was extremely unequal, but it was also extremely unequal in northern cities—so much so that combining non-egalitarian Northern cities with the egalitarian Northern countryside, Northern and Southern inequality statistics were similar.[24] There was a crucial difference between the inequalities in the North and South, however. As Fogel points out, the super-rich of the North differed from the super-rich of the South: "the top 1 percent of the wealth holders [in the North] were mainly urban merchants and manufacturers whose businesses were based on wage labor, while in the South the top 1 percent were mainly rural planters whose businesses were based on slave labor."[25]

Slave wealth accounted for a disproportionate amount of agricultural wealth in the South as "(a)lmost 60 percent of the agricultural wealth in Alabama, Georgia, Louisiana, Mississippi, and South Carolina was in slaves, while land and farm buildings accounted for less than one-third."[26] The South exploited its comparative advantage in cotton before the war, but they did so at the expense of developing the institutions and urban centers that were essential to industrialization. Inequality in land-holdings was a problem as

---

[23] Hummel, "Civil War," p. 192, citing Goldin ("Economics of Emancipation") for the lower estimate and Rose ("Capital Losses") for the higher estimate.

[24] See Fogel (*Without Consent*, pp. 82-83) for discussion of inequality in the South. The richest group among all Americans was, in fact, the planter aristocracy (what Fogel called "Gang-System farmers").

[25] Fogel, *Without Consent*, pp. 83-84.

[26] Atack and Passell, *New Economic View*, p. 307. cf. Wright, "Strange Career."

political institutions were shaped to reinforce and protect slavery rather than to promote economic development.[27] According to Wright, "(s)laveholders controlled between 90 and 95 percent of agricultural wealth in both 1850 and 1860."[28]

In contrast to traditional interpretations of the antebellum South as a desolate, impoverished region, the representative antebellum Southern farmer was quite well-off relative to his Northern counterpart. Fogel presents data on the average wealth of each household head for a variety of circumstances in 1860. For the Northern urban laborer in 1860, average wealth was $144. For the Northern rural laborer, average wealth was $374. For Northern urban artisans, it was $2,037 and for Northern rural artisans it was $1,218. Non-slave holding Southern farmers had an average wealth of $1,777, Northern farmers had $3,138, and Southern Yeomen with seven or more slaves had $3,396. Inequality was a product of the prosperity of large-scale farmers. "All Cotton-Belt farmers" held wealth of $13,124 each while Gang-System Farmers held $56,458. Small southern farmers were able to farm the prime lands of the South, but slaveholding became more concentrated: 36% of Southern households owned slaves in 1830, while only 25% did in 1860. Southern inequality was not a product of the dearth of the small farmer but of the prosperity of the gang-system planter. These planters were the super-rich of the antebellum era, but the overthrow of the slave system meant that the locus of wealth moved North.[29]

---

[27] Wright, *Political Economy*, p. 8.

[28] Wright, *Political Economy*, p. 35.

[29] Data in this paragraph are from Fogel (*Without Consent*), pp. 82-84.

Further, it was not the impoverishment of Southern farmers but rather the enrichment of the Southern planter plutocracy that explains antebellum Southern inequality.[30] The thesis that slavery ruined the Southern economy (at least in the short run) is further undermined by trends in Southern wages. Southern wage earners also did well relative to their Northern counterparts, which undermines that thesis and also helps explain why non-slaveholders were either enthusiastic about our indifferent to the Confederacy.[31] In 1820, for example, wages for common laborers in the South Atlantic states had been higher than wages for common laborers in the Northeast, but this changed in the 1830s.[32]

Migration accomplished many things; in the North, the east-west wage gap had closed because of migration.[33] Nonetheless, migration appears not to have aided the progress of the South because, as Susan B. Carter and others note, migrants to the United States were spurred in part by a desire to avoid the South.[34] During the decades before the war, military land grants, foreign migration, and the prospect of gold in California (among other things) pushed the American population westward. The old South, however, lost population on net due to the disease environment and foreigners' aversion to slavery.[35] This is evident from Figure 1, which shows the percentage of the population that was foreign-born in 1860. The relatively low percentage of foreign-born Southerners

---

[30] Fogel, *Without Consent*, p. 83.

[31] Fogel, *Without Consent*, p. 88. See Margo (2000) for a comprehensive evaluation of antebellum wages.

[32] Rosenbloom, *Looking for Work*, pp. 131-132.

[33] (Margo, *Wages*, p. 154; cited in Ferrie, "Internal Migration," HSUS p. 1-489)

[34] Carter, Haines, Sutch, and Wright, "Race," p. 1-11.

[35] Lebergott, *The Americans*, p. 228.

also suggests a lack of intellectual commerce with the rest of the world and a paucity of ties that could integrate the South into the international labor market.[36]

(Figure 1 Here)

The scale economies Fogel and Engerman attribute to the use of the gang system were apparently only possible under slavery, and while the gang system led to increases in measured output the fact that it relied on coercion suggests that it wasted resources. After the slaves were emancipated, planters could not capture the efficiencies of gang-system agriculture because even at a wage premium people were not willing to organize themselves into work gangs voluntarily. After the war, planters could not contract with workers to get them into gang agriculture. Before the war, workers could not contract with planters to get out of it.[37] The demise of the gang system brought with it a reduction in agricultural productivity.[38]

Even after the Atlantic slave trade was formally closed, there remained a large domestic market for slaves. Fertile western lands and the prospect of high cotton yields pulled slavery westward.[39] Between 1790 and 1799, Virginia, Maryland, and Delaware were net slave exporters while Kentucky, Tennessee, the Carolinas, and Georgia were net slave importers. Between 1820 and 1829, Kentucky and the Carolinas had become net slave exporters while new additions to the Union--Missouri, Arkansas, Louisiana,

---

[36] Wright (*Old South*) and Rosenbloom (*Looking for Work*) argue that the South's isolation from the international labor market helps explain the region's development as "a low-wage region in a high-wage country."

[37] Fogel, *Without Consent*, p. 109.

[38] Margo, "South as an Economic Problem," p. 168.

[39] Atack and Passell, *New Economic View*, p. 300.

Mississippi, Alabama, and Florida--had joined the ranks of net slave importers. The addition of Texas pushed the formal market for slaves still farther westward, and by the 1850s Tennessee and parts of Missouri, Alabama, and Georgia had joined the ranks of net slave exporters. Even though there was a network of trade that linked the ports of the Chesapeake with New Orleans, most of the slave trade occurred over overland routes.[40]

Slavery was a profitable enterprise rather than an exercise in conspicuous consumption. People who accumulated slaves also accumulated other forms of wealth.[41] Slaves were a very good investment, and Fogel argues that, contrary to popular belief, slavery *per se* was compatible with urbanization and industrialization. Fogel also reports that slaves performed well in manufacturing tasks and in supervisory capacities; he traces the decline of urban slavery in the 1850s not to slaves' inabilities in urban occupations but to their greater capabilities (and greater value) in the fields.[42]

Fogel and Engerman estimate that slaves consumed about 90 percent of the income they produced, leaving an exploitation rate of only ten percent. Their estimates are thoroughly critiqued by Paul David and Peter Temin.[43] Stanley Lebergott calls Fogel and Engerman's estimate "improbable" and argues that it was more on the order of about

---

[40] Tadman, *Speculators*, pp. 6-8.

[41] Fogel, *Without Consent*, p. 83.

[42] Fogel, *Without Consent*, pp. 107-108. Wright ("Prosperity," p. 32) disagrees.

[43] David and Temin, "Slavery."

sixty percent for field hands.[44] Roger Ransom and Richard Sutch argue that the rate of exploitation was approximately fifty-five percent.[45]

To be sure, planters were astute managers within the strict confines of the slave society. This was reflected in their responsiveness to agricultural market conditions and the prices they paid for their slaves. Their apparent fetish for cotton production was an illusion: Southern farmers were as responsive to changing market conditions as Northern farmers, if not more so.[46] Male and female slaves, for example, tended to trade at roughly the same price in spite of females' lower productivity in agriculture. This was hardly a triumph for women's rights. Rather, it shows how slavery dehumanized the slaves. Women traded at the same price as men because they could do what men couldn't: they could have children. The law specified that a child's legal status followed the status of its mother, so the children of slaves were slaves themselves. This meant that investments in female slaves were also investments in a larger future "capital stock."[47]

Southerners invested their capital in slaves and land.[48] In contrast, Northern soil and climate limited the returns to investment in agriculture, so northerners had to "search for more profitable outlets for their savings in manufacturing and in commerce."[49] This meant that Northerners had incentives to develop the human and social capital conducive

---

[44] Fogel and Engerman, *Time on the Cross*; Lebergott, *The Americans*, p. 220.

[45] Ransom and Sutch, *One Kind*, p. 169.

[46] Fogel, *Without Consent*, p. 94.

[47] Conrad and Meyer, "Economics of Slavery"; discussed in Lebergott, *The Americans*, p. 217.

[48] Fogel, *Without Consent*, p. 109.

[49] Fogel, *Without Consent*, p. 109.

to impersonal exchange while most Southern production took place “in-house” and in response to the opaque social signals of the plantation economy.[50]

3.2 Profits and Plantations in a Slave Society

The literature on slavery took a decisive turn with the publication of a paper by Alfred Conrad and John Meyer in 1958.[51] Conrad and Meyer launched an intellectual revolution that demolished the “slavery was conspicuous consumption” thesis. People investing in slaves could expect an annual return of approximately eleven percent in the slave-exporting Old South and about twelve percent in the slave-importing New South.[52] Conrad and Meyer estimated an annual rate of return on slaves of between six and eight percent, which was comparable to and competitive with returns on other investments.[53]

The studies that followed Conrad and Meyer showed that if slavery reduced economic growth in the long run, it was not because it was economically moribund while it was legal. Rather, it was because it prevented the development of entrepreneurs. Their experimentation with and adoption of better varieties of cotton notwithstanding, Southerners were unable to enjoy the full fruits of what Julian Simon called “*The Ultimate Resource*”—human ingenuity—because the institutions that supported slavery worked against it. Laws against teaching slaves to read, for example, reduced the rate at which Southerners accumulated human capital. Antebellum institutions discouraged

---

[50] Fogel, *Without Consent*, pp. 109-110.

[51] Conrad and Meyer, “Economics of Slavery.” The controversies that permeate the scholarship on slavery are summarized in detail by Fogel, *Slavery Debates*.

[52] Lebergott, *The Americans*, p. 216.

[53] Conrad and Meyer, “Economics of Slavery,” p. 101. Their results are discussed in detail by Lebergott (*The Americans*, p. 216).

urbanization and prevented innovators and entrepreneurs from emerging.[54] This manifested itself conspicuously in the under-development of the Southern educational and technological environments both before and after the Civil War.

Why did slavery persist? Mark Thornton and Robert Ekelund argue that the profitability, viability, and persistence of slavery were artifacts of government intervention rather than any inherent efficiency in slavery *as such*.[55] Southerners saw themselves as the cultural heirs of great classical civilizations, and they bolstered their social narrative with comparisons to the great civilizations of antiquity and the nobility of medieval England. The legal institutions of slavery were influenced by fears among whites of slave rebellions, and religious justifications were offered on grounds that it was morally legitimate to enslave heathens.[56] Slaves had no rights to property in their persons, in some places, even to self-defense.[57] Violation of a slave's person—by rape or murder, for example--was a crime not against the slave, but against the owner.[58]

Government-funded and government-organized slave patrols socialized the costs of maintaining slave wealth.[59] This was particularly true when slave patrols

---

[54] Fogel, *Without Consent*, pp. 103, 109. Bateman and Weiss (*A Deplorable Scarcity*) offer a comprehensive survey of Southern industrialization—or rather, the lack of Southern industrialization—under slavery. See also Wright (*Political Economy*, "Strange Career," *Old South*).

[55] Thornton and Eklund, *Tariffs*, p. 109. See also Thornton, "Slavery."

[56] Franklin, *From Slavery*, pp. 73, 78-79, 87, 105.

[57] Franklin, *From Slavery*, p. 188.

[58] Franklin, *From Slavery*, p. 188.

[59] Hummel, "Civil War and Reconstruction," pp. 192-193.

were conscripted. Willingness to leave slavery behind in search of better terms of employment was apparent in the frequency with which slaves ran away. John Hope Franklin points out that Mississippi Governor John A. Quitman claimed that "the South lost 100,000 slaves valued at more than thirty million dollars" between 1810 and 1850.[60] The international slave trade persisted even after it was outlawed in 1808; for example, slave shipments from Havana to Texas were being recorded as late as 1836.[61]

Under slavery, blacks were effectively excluded from civil society. As Franklin points out, "(b)enevolent societies and similar organizations were not allowed to convene. In Maryland, free Negroes could not have 'lyceums, lodges, fire companies, or literary, dramatic, social, moral, or charitable societies.'"[62] The states themselves in some cases created provisions for re-enslavement (Tennessee in 1857, Texas in 1858, Louisiana in 1859, and Maryland in 1860), and Arkansas in 1859 compelled blacks staying in the state to choose white "masters" who could post bonds that would allow them to act as if they were free.[63]

As an economic system, slavery was supported by philosophical, cultural, and political institutions reinforcing "Slavery in the Abstract." Apologists for slavery saw it as a solution to the supposed tension between capital and labor that comprised "the social

---

[60] Franklin, *From Slavery*, p. 260.

[61] Franklin, *From Slavery*, p. 183.

[62] Franklin, *From Slavery*, p. 219.

[63] Franklin, *From Slavery*, p. 221.

question."[64] According to Fox-Genovese and Genovese, "the presuppositions of the southern defense of slavery ended with Slavery in the Abstract--the doctrine that declared slavery or a kindred system of personal servitude the best possible condition for all labor regardless of race."[65] The alleged benevolence of the peculiar institution was reinforced by comparisons of free wage labor in the North and in Europe to Southern society, with apologists arguing that participants in the cash nexus of the free labor market had their dignity undermined by capitalist competition.[66]

Further, apologists saw slavery as a proper and moral relationship between the supposedly noble and elevated Caucasian race and the supposedly licentious and degraded Negro race. Rev. William A. Smith, for example, placed blacks on the same level as "minors, imbeciles, and uncivilized persons" who "have a right to be governed and protected, to such means of physical comfort and moral improvement as are necessary and compatible with their providential condition."[67] The ideology of racism and the racial basis for slavery developed as the institutions earned profits for landowners. The system's viability was further underscored by government policies restricting manumission and conscripting whites into slave patrols that helped slaveowners socialize the costs of maintaining the system.[68]

---

[64] Fox-Genovese and Genovese, *Mind of the Master Class*, p. 696, and *Slavery*, pp. 8, 11-25.

[65] Fox-Genovese and Genovese, *Slavery*, p. 1.

[66] Fox-Genovese and Genovese, *Slavery*, pp. 38-39.

[67] Smith is quoted in Fox-Genovese and Genovese, *Mind of the Master Class*, p. 622.

[68] Yanochik et al., "New Perspective."

Slavery undermined the institutions of civil society and created a warped moral code. Fogel summarizes the views of the religious radicals of the antebellum era that ultimately brought about the end of slavery:

> The religious radicals who sparked the abolitionist movement, convinced that they were divinely inspired, dismissed the dilemma that had beset the founding fathers between the natural right of the enslaved to their freedom and the natural right of the masters to the security of their property. Rejecting the rationalism of the Revolutionary generation, they denounced slavery as an unmitigated evil, incapable of being justified by material gain or any other worldly consideration. They declared that slavery was not just any sin but an extraordinary sin, a sin so corrupting that persistence in it, or complicity with it, infected every other aspect of life and created an insuperable barrier to both personal and national salvation.[69]

Slavery was perpetuated by a combination of interests, ideology, and institutions. The South's "peculiar institution" was individually rational given the constraints provided by the institutional environment, but it was socially irrational. The transition to a more efficient set of property rights was complicated by the prospect of capital losses for slaveholders. The same economic considerations that caused Governor John Quitman to complain loudly about runaway slaves also motivated Southern defenses of slavery as a set of property rights. Lebergott summarizes President Andrew Jackson's views on the matter: "Andrew Jackson declared, with some violence, that to free the slaves would cut the value of Southern lands by 75 percent. White people, he asserted, could not till the

[69] Fogel *Slavery Debates*, p. 6.

lowlands on which rice, sugar, and much cotton was grown."[70] The prospect of these kinds of losses from institutional change reinforced a commitment to slavery among Southern political leaders. The impossibility of a bargain between slaves and slave owners led to war.

Robert Fogel and Stanley Engerman argue that the profitability and viability of large-plantation slavery was due to the productivity advantages from "gang system" cotton cultivation. This was a system whereby slaves were divided into work gangs in which tasks were very clearly specified and very closely monitored.[71] According to Fogel and Engerman, Southern farms could have produced about 41% more output with the same inputs as Northern farms.[72] The productivity of free Southern and Northern farms was similar, so large plantations drove the difference between Northern and Southern.[73]

3.3 Cotton Biology, Innovation, and Productivity

Scholarship on the Southern economy following the work of Conrad and Meyer focused on the static properties of northern agriculture, Southern slave agriculture, and Southern non-slave agriculture, with productivity differences being attributed to organizational advantages from gang-system agriculture. Alan L. Olmstead and Paul Rhode note, however, that the supposed advantages from gang-system agriculture were absent from contemporary plantation accounts. As Olmstead and Rhode show, it was the

[70] Lebergott, *The Americans*, p. 211.

[71] Fogel and Engerman, *Time on the Cross*; Fogel, *Without Consent*.

[72] Fogel and Engerman, "Explaining," p. 278.

[73] Fogel and Engerman, *Time on the Cross: Evidence and Methods*, p. 135. Their estimates are discussed in greater detail by Fogel and Engerman ("Explaining" and "Explaining (Reply)").

introduction and diffusion of progressively better cotton varieties that explains increases in Southern cotton productivity between 1800 and 1862.[74]

They point out that "southeastern planters experimented with myriad varieties to find suitable stock for their local conditions" and argue that the progressive improvement in the quality of Southern cotton rather than efficiencies attributable to gang-system agriculture explain rising productivity in the slave South.[75] The effect was substantial: Olmstead and Rhode argue that the introduction of new cotton varieties from Mexico had an impact on cotton cultivation that exceeded the impact of the mechanical reaper on wheat cultivation in the North.[76] French settlers in the Mississippi Valley in the 1720s and 1730s had experimented with varieties of cotton brought from the East and from Siam.[77] The cotton from Siam—called "Black Seed" or "Creole"--"moved eastward and mixed with local stocks of Black and Green Seed to create an array of varieties of differing quality and ripening characteristics."[78]

The introduction of and experimentation with a new Mexican cotton variety in the years between 1806 and 1820 revolutionized Southern cotton cultivation.[79] The resulting

---

[74] Olmstead and Rhode, "Biological Innovation."

[75] Olmstead and Rhode, "Biological Innovation," pp. 1132, 1151-1153.

[76] Olmstead and Rhode, "Biological Innovation," p. 1165.

[77] Olmstead and Rhode, "Biological Innovation," p. 1132.

[78] Olmstead and Rhode, "Biological Innovation," p. 1132.

[79] Olmstead and Rhode, "Biological Innovation," pp. 1132-1133.

cottons ultimately produced higher-quality fibers and higher lint-to-seed ratios.[80] As picking rates improved, more land could be devoted to cotton.[81]

Cotton output grew more rapidly than the enslaved cotton labor force—between 1800 and 1860, for example, cotton output increased by 6.61% per year and real cotton prices fell by 0.53% per year. During this period, slave prices increased by 1.92% per year.[82] Growth in cotton efficiency of 2.3% per year was "substantially faster than the advance in labor productivity in the overall economy."[83] Profits accrued to Southern planters because coercion was cheap, particularly in the cultivation of staples like cotton and tobacco.[84]

3.4 Slavery and Antebellum Industrialization

Slavery marked the most important institutional difference between the North and the South, and it affected Southern growth over the long run.[85] According to Gavin Wright, slavery affected the Southern economy through four channels:

> (1) Slavery reduced the mechanization of farming by offering an alternative way for farm scale to expand, (2) slavery discouraged town-building and investment in infrastructure by providing a form of agricultural wealth, the value of which was independent of local development; (3) slavery worked against the spread of rural

[80] Olmstead and Rhode, "Biological Innovation," pp. 1132-1135.

[81] Olmstead and Rhode, "Biological Innovation," p. 1142.

[82] Olmstead and Rhode, "Biological Innovation," Table 1, p. 1127.

[83] Olmstead and Rhode, "Biological Innovation," p. 1124.

[84] Reid, "Causes and Effects of Sharecropping," p. 37.

[85] Rosenbloom and Sundstrom, "Labor-Market Regimes," p. 16.

> markets and farm-town interactions by creating an incentive toward diversification and self-sufficiency on plantations; (4) slavery hindered the early progress of manufacturing by integrating slave women and children into the cotton economy, and by minimizing the incentives to open the region to outside labor flows.[86]

Together, these forces limited Southern industrialization relative to the North. Both regions began industrializing at the same time, but Northern industrialization proceeded more rapidly: "(b)etween 1820 and 1860 the Southern workers engaged in manufacturing increased by 72 percent, but the northern increase was 383 percent."[87] Fred Bateman and Thomas Weiss argue that Southerners could have profited by reallocating their resources into manufacturing, but they were discouraged from doing so by strong cultural constraints like low risk preference and an aversion to industrial investment.[88] In particular, the South's "comparative advantage [in agriculture] had been overindulged."[89] In 1850 and 1860, Southern manufacturing capital per capita and manufacturing output per capita were both well below those in New England and the Middle States, as Figures 1 and 2 show.

(Figure 1 Here)

(Figure 2 Here)

---

[86] Wright, "Strange Career," p. 166.

[87] Fogel, *Without Consent*, p. 103.

[88] Bateman and Weiss, *Deplorable Scarcity*, pp. 161-162; see also the discussion in Atack and Passell, *New Economic View*, pp. 318-319.

[89] Bateman and Weiss, *Deplorable Scarcity*, p. 163.

Compared to the North, the South was an industrial laggard. Compared to European countries like France, Germany, and Austria-Hungary, however, it was an industrial leader.[90] Further, Fogel argues that the official data over-stated the degree to which the South industry lagged behind Northern industry, saying that "more than half of the apparent industrial gap between the North and the South disappears" when the data are corrected for apparent inconsistencies in the definition of manufacturing.[91]

Nevertheless, Southerners did not make the most of opportunities to industrialize.[92] Instead, they chose to invest their wealth in slaves and, to a degree, land.[93] Slave ownership and wealth concentration reduced incentives for structural change, and the inward orientation of the plantation economy meant insufficient investment in the human and social capital that underlies a successful market economy.[94] In this respect, slavery was a conservative element that prevented the emergence of a dynamic Southern economy.[95]

4. The Effects of the Civil War and Reconstruction

Decades of tension precipitated the dissolution of the union and the bloodiest conflict the country has ever seen—a conflict that Jeffrey Rogers Hummel called "a simultaneous

---

[90] Fogel, *Without Consent*, pp. 103, 109.

[91] Fogel, *Without Consent*, p. 104.

[92] Bateman and Weiss, *Deplorable Scarcity*.

[93] See on this Wright, "Strange Career," p. 166 and *Old South*.

[94] Gallman, "Slavery," p. 1019.

[95] Carden, "Inputs."

culmination and repudiation of the radical principles of the American Revolution."[96] War was waged, and with few exceptions, the fighting took place on Southern soil. The consequences were devastating, particularly for the South. This is apparent from the income estimates. Table 1 reports estimates of per-capita income for 1840, 1860, and 1880 as well as estimated growth rates for the years covered by those periods. Free southern incomes compare favorably with Northern incomes, and even when we count slaves as people rather than as intermediate goods, we still see that Southern incomes are comparable to Northern incomes.

(Table 1 Here)

Between 1840 and 1860, per-capita income in the South grew more rapidly than per-capita income in the rest of the country. The average annual Southern growth rate was 1.7% while the average annual national growth rate was 1.3%. This changed during the 1860s and 1870s. Northern per capita income grew at a rate of 1.9% per year between 1860 and 1880. Southern per capita income, conversely, "grew" at a rate of -0.8% per year over the same period.[97] Southern wages fell in agriculture, household occupations, and manufacturing.[98] The wage difference was one of the clearest proximate causes of relatively low Southern incomes.[99] Robert Gallman argues that the decline in Southern standards of living was overstated because freedom is valuable, but the decline was likely

[96] Lebergott, *The Americans*, p. 233; Hummel, "Civil War," p. 190.

[97] Fogel, *Without Consent*, p. 89.

[98] Margo, "North-South Wage Gap."

[99] Kim, "Economic Integration."

substantial nonetheless.[100] There is evidence that black labor force participation fell during the 1860s and 1870s, but Fogel argues that since the entire decline is explained almost entirely by a change in labor productivity, "there is no room for substantial labor withdrawal in 1880."[101] Fogel points out that declines in income also aren't explained by sharecropping: "(s)harecroppers had a slightly lower labor productivity than cash renters, mainly because they had less capital and land per worker than did cash renters."[102]

Southern farm labor productivity fell by between 31% and 43% between 1860 and 1880.[103] Of this, "about two-thirds of the reduction in labor productivity was due to a decrease in the efficiency of labor…(t)he balance was due to a decline in the amount of improved land, work animals, and other capital that was available to each agricultural laborer."[104] On the eve of the Civil War, Northern and Southern wages were comparable. However, Northern farm wages increased by approximately 50% between 1860 and 1866 while Southern wages barely changed.[105]

The South was decimated by the war. According to Claudia Goldin and Frank Lewis, the Civil War cost slightly less than $6.7 billion in 1860 dollars; of this, approximately $3.37 billion was borne by the North and $3.29 billion was borne by the South. This would have been approximately $206 per capita—twice the average American's annual

[100] Gallman, "Economic Growth," p. 19.

[101] Fogel, *Without Consent*, p. 100.

[102] Fogel, *Without Consent*, p. 100.

[103] Fogel, *Without Consent*, p. 99.

[104] Fogel, *Without Consent*, p. 99.

[105] Margo, "North-South Wage Gap," p. 8.

consumption—in 1861.[106] Atack and Passell note that the cost of the war "would have been enough to buy the freedom of all the slaves (at 1860 market value), to give each slave family a forty-acre farm and a mule, and still have left $3.5 billion for reparations payments to the ex-slaves in lieu of one hundred years of back wages."[107] Indeed, compensated emancipation plus "forty acres and a mule" would have been possible using only the South's losses.[108] Stephen DeCanio argues that a failure to compensate slaves for their time in bondage explains the gap in black and white wealth that persisted for decades afterward.[109]

The lone salutary effect of the war was the emancipation of the slaves, but with the benefit of hindsight we can see that this could have perhaps been accomplished in 1860 at a far lower cost in terms of lives and treasure. Gross National Product in 1860 was approximately $4.2 billion (in 1860 dollars); Claudia Goldin has estimated that for $2.7 billion, the Federal government could have purchased all of the slaves at market prices and freed them. Emancipation plus settlement in Africa would have cost just over $3 billion, emancipation in the next generation would have cost approximately $210 billion, and gradual abolition over a thirty-year period would have cost about $550 million.[110]

---

[106] Goldin and Lewis, "Economic Cost"; Atack and Passell, *New Economic View*, p. 362. Textbook s differ in their treatment. Atack and Passell (*New Economic View*) round Goldin and Lewis's estimate of the aggregate cost of the war to $6.6 billion. Hughes and Cain (*American Economic History*) round it to $6.7 billion.

[107] Atack and Passell, *New Economic View*, p. 363.

[108] Atack and Passell, *New Economic View*, p. 363. See Lebergott, *The Americans*, pp. 243-248 for further discussion.

[109] DeCanio, "Accumulation and Discrimination," p. 204.

[110] Goldin, "Economic Costs," p. 85. Data are 1860 dollars, valued in 1860.

Table 1 reports Goldin's estimates of the annual per-capita cost of different emancipation schemes. Immediate emancipation paid for by all free people and financed with thirty year bonds paying six percent annually would have cost about $7.25 per year, which would require taxes on the order of five percent of national income in 1860 with the tax requirement falling as the bonds approached maturity.[111] It would have been even cheaper to enact such a scheme in 1850 when the capital gains in slaves of the 1850s could have been avoided and it could have been done at an annual per-person cost of $4.80.[112]

(Table 1 Here)

The South was also slow to recover from the War. Physical capital could be rebuilt, but those killed during the war could not be brought back to life. Even in 1880 the South had not reached its 1860 level of per-capita income. Contrary to some interpretations, the Civil War retarded rather than increased economic growth and industrialization.[113]

Lebergott offers three reasons for secession. First, the South exhibited "a frontier-feudal willingness to adopt a belligerent stance, personally and politically," which was a "stance [that] did not characterize regions where the family farmer or small craftsman was dominant."[114] Second, "American" identity was weak. Third, the South "was

---

[111] Goldin, "Economic Costs," p. 85.

[112] Goldin, "Economic Costs," p. 85. See also the discussion in Atack and Passell, *New Economic View*, pp. 358-360.

[113] Lebergott, *The Americans*, pp. 246-248. See also Engerman, "Economic Impact" and "Some Economic Factors" for detailed discussions of the relationship between the War and industrialization.

[114] Lebergott, *The Americans*, p. 235.

committed to a way of life that rested on the profitable ownership of slaves."[115] Blood was sprinkled across the South: in addition to the 1836 war for Texas's independence and the Mexican War in 1848, there were conflicts with Native Americans in Georgia and Florida.[116] Southerners were disproportionately also represented among American military personnel.[117]

Slavery was firmly entrenched in the South when the war started. The *Dred Scott* decision was still relatively recent, the President and Congress had made overtures about defending slavery, and the Fugitive Slave Act remained on the books and in force. Losing slavery would mean capital losses, and restrictions on slavery in the new territories would limit growth in demand for slaves.[118]

In addition to the South's desire to ensure that slavery continued its westward expansion (which would increase the value of Southerners' slaves), Thornton and Ekelund explain the war in terms of "tariffs, blockades, and inflation:" battles over tariffs and subsidies helped motivate secession, the Confederate government itself made the Union blockade by turning its own guns inward, and financing the war through the printing of paper money destabilized production. Decades of wrangling about tariff policy and Lincoln's victory in the 1860 election created uncertainty about exactly what the tariff regime would be going forward, and the Confederate Constitution explicitly

---

[115] Lebergott, *The Americans*, p. 236.

[116] Lebergott, *The Americans*, p. 235.

[117] Lebergott, *The Americans*, p. 235.

[118] Lebergott, *The Americans*, pp. 235-237.

forbade protective tariffs.[119] Lincoln's victory led to an approximately 33% reduction in the value of slaves—a reduction that Thornton and Ekelund interpret as evidence that Southern secession was in part a gamble to preserve slavery.[120] The South also blocked its own ports and prosecuted blockade runners who imported luxuries rather than necessities. This helped contribute to the Southern defeat.[121]

During the War, Southerners piled their wealth into assets like Confederate bonds, for example, and Confederate currency) that were rendered worthless with the war's end. Notes were also issued by cities, in some cases, and private corporations; notes issued by Mississippi railroads, for example, "were redeemable in Confederate notes or banknotes and receivable by the railroads in payment for transportation."[122] Monetary uncertainty also encouraged people to open "bogus banks" in late 1861 so as to take advantage of the ability to issue notes.[123] The South financed almost half of its war expenditure by printing money—over $1 billion in paper currency—with disastrous effects.[124] The policy reduced real wages in the South by approximately two-thirds, and it led to food riots in cities like Richmond.[125] Further, outright confiscation implied that "southerners

---

[119] Thornton and Ekelund, *Tariffs*, p. 23.

[120] Thornton and Ekelund, *Tariffs*, pp. 22-24. The estimate of declining slave values is from Gunderson ("Origin").

[121] Thornton and Ekelund, *Tariffs*, pp. 29-58.

[122] Schwab, *Confederate States*, p. 155. See Weidenmier, "Money and Finance" and the sources cited therein for a complete evaluation of Confederate money and banking.

[123] Schwab, *Confederate States*, p. 159.

[124] Thornton and Ekelund, *Tariffs*; Hummel, "Civil War."

[125] Hummel, "Civil War," p. 202.

suffer(ed) almost as much from the proximity of their own armies as from the invasions of Union armies."[126]

The economic costs of wartime inflation were worse than the burdens that would have emanated from increased taxation, but they came without the political costs. People blamed not government inflation but "speculators, middlemen, and foreigners" for hardships generated by the government's enthusiasm for the printing press.[127] The South suffered extensive material deprivation but was better able to keep up, resource-wise, than has been previously thought. In spite of shortages in some areas many commodities could be had for the right price, and at the end of the war North Carolina still had in inventory more than 90,000 new uniforms.[128] An excess supply of uniforms combined with an excess demand for guns and bullets suggests poor planning on the part of the Confederates.[129]

The South was devastated by the War and hobbled by the institutional reorganization that took place during Reconstruction. The gap between Southern and Northern incomes narrowed to a degree over the course of the early twentieth century, but the South did not converge rapidly until World War II and afterward.[130] In 1880, per-capita Southern incomes were approximately half of per-capita incomes in the rest of the country, and this ratio remained relatively constant for the better part of the next century.

---

[126] Hummel, "Civil War," p. 203.

[127] Thornton and Ekelund, *Tariffs*, p. 67.

[128] Lebergott, *The Americans*, pp. 241-242.

[129] See Eaton, *History of the Southern Confederacy*, pp. 131-150 for an account of Confederate logistics. Hummel ("Civil War," pp. 206-211) refers to Confederate policy as "Confederate war socialism."

[130] Fogel, *Without Consent*, p. 89.

It is true that the South grew as rapidly—and during some years, more rapidly—than the North over this period, but Wright argues that this means relatively little as these growth rates are measured from the low point of Southern economic history.[131] The institutional upheaval combined with the legacy of the slave society combined to prevent the South from growing faster.[132]

5. The New South: The Southern Economy in Transition

Emancipation, Reconstruction, and transition altered the Southern institutional landscape. Roger Ransom and Richard Sutch write that "(p)rogress was nowhere in evidence" for the South in 1900, and they blame this on racist institutions that ossified the labor market, reduced entrepreneurial dynamism, "impeded capital formation," and prevented innovation.[133] Higgs blames this specifically on "portfolio disequilibrium:" the portfolio of social capital and human capital that had been adapted to the slave society was of limited usefulness in a free society.[134] Higgs argues that blacks were almost miraculously successful in spite of their low standing at the time of emancipation and the institutions aimed at keeping them on the margin of the market.[135] Racism, according to Ransom and Sutch, "left no economic institution undistorted;" they argue that the development of rural credit monopoly allowed merchants to control the economic

---

[131] Wright, *Political Economy*, p. 159.

[132] Carden, "Institutions and Southern Development," "Inputs and Institutions."

[133] Ransom and Sutch, *One Kind,* p. 176.

[134] Higgs, *Transformation*.

[135] Higgs, *Competition and Coercion*.

destinies of small farmers, and a traditional interpretation of the Southern economy in transition holds that sharecropping helped lock the South into long-term poverty.[136]

5.1 Sharecropping, Tenure, and Debt

The key problem facing the post-bellum South, to paraphrase Lee Alston and Robert Higgs, was to combine the former master's land and the freedman's labor with capital in order to produce output.[137] The South was an agricultural society: 82% of the Southern workforce in 1900 worked in agriculture while the national proportion was 43%.[138] However, some argue that sharecropping was an efficient and economically rational response to the uncertainties of the post-bellum Southern contracting environment.[139] Furthermore, DeCanio argues that "cotton culture was more productive in value terms than the alternatives, other things being equal."[140]

Sharecropping was not unique to the South as "(t)he 1880 census reported that half of U.S. croppers were outside the South"; it was also not unique to the post-bellum era as the contracts that governed post-bellum agriculture were similar to the contracts that had governed antebellum agriculture.[141] Reid called sharecropping "an understandable market response," and the agricultural contractual mix adapted itself

---

[136] Ransom and Sutch, *One Kind*, pp. 176, 171.

[137] Alston and Higgs, "Contractual Mix," p. 328.

[138] Kim, "Economic Integration," p. 672.

[139] Higgs, "Patterns of Farm Rental"; Alston and Higgs, "Contractual Mix"; Reid, "Sharecropping"; DeCanio, *Southern Agriculture***.**

[140] DeCanio, *Agriculture*, pp. 7-8, 13.

[141] Lebergott, *The Americans*, p. 256. Reid reports on a set of antebellum contracts with two farmers, Thomas Lenoir and William Lenoir, in Haywood County, North Carolina. The county "grew no cotton and little tobacco," but the contracts were structured like post-bellum contracts (Reid, "Antebellum Southern Rental Contracts," pp. 70, 79). Cf. Reid, "White Land."

rapidly to local conditions.[142] Free labor requires appropriate institutions; the development of these institutions was essential to Southern recovery.[143] Sharecropping, which some historians have interpreted as a system that was "slavery in all but name," allowed people to contract around risk and potential opportunism. As Fishback writes, "the land tenure arrangements were responses to a series of specific problems. In many ways sharecropping and other tenancy arrangements were responses to the causes of poverty, rather than a root cause of poverty."[144]

Did sharecropping lock Southern farmers into a cycle of poverty? Using data on Georgia farmers in the 1880s, Fishback argues that there was no cycle of indebtedness among Georgia farmers, and rural credit providers were unable to force farmers to produce cotton rather than corn. Further, "(c)ountry stores faced more competition and farmers and tenants had more credit options than Ransom and Sutch suggest."[145] Gavin Wright argues that "annual turnover and mobility rates were high among southern tenants and sharecroppers of both races."[146] Within the constraints set by the institutional environment, markets and production processes were efficient.[147]

5.2 The Boll Weevil

---

[142] Alston and Higgs, "Contractual Mix," p. 329; Reid, "Sharecropping."

[143] Lebergott, *The Americans*, p. 256.

[144] Fishback, "Operations," p. 749.

[145] Fishback, "Debt Peonage," pp. 233, 220; Fishback, "Operations," pp. 750-751n.

[146] Wright, "Reflections," p. 42.

[147] Garrett and Xu, "Efficiency." See also Rosenbloom, *Looking for Work*, pp. 114-115.

According to Ransom and Sutch, the South was shocked off its low-development path after the boll weevil spread across the South beginning in 1892.[148] The weevil induced the cotton states to finally diversify their crops and began pushing Southern blacks out of the region and into the North and West; these were accompanied by other changes like free rural postal service and parcel post, which made the markets for goods and services more competitive.[149] Higgs, however, argues that the pull from industrial opportunities in the North—rather than the push from the boll weevil infestation—was mostly responsible for the Great Migration that occurred during World War I.[150] Since Southern cotton production in 1921 was higher than in 1892, it is also apparent that the weevil did not destroy the Southern cotton economy.[151]

Recent research by Fabian Lange, Alan L. Olmstead, and Paul W. Rhode suggests that the weevil devastated the areas it entered but that across the South, people were able to adjust their behavior accordingly by, for example, switching to varieties of cotton that ripened earlier. Furthermore, the elasticity of demand for cotton was almost one, which implied that a reduction in cotton output was almost perfectly offset by an increase in cotton prices.[152] The weevil's impact came during an expansion of the Southern cotton economy, and it was an exercise in extreme local devastation—as Lange et al. write, "the

---

[148] Ransom and Sutch, *One Kind,* pp. 171-173. Woodman ("Comment," pp. 52-53) argues that this was due to "the law, not location."

[149] Ransom and Sutch, *One Kind,* pp. 196-197.

[150] Higgs, "Boll Weevil," p. 350. Higgs argues that the Weevil infestation took on a renewed importance in the early 1920s.

[151] Lange et al., "Impact of the Boll Weevil," p. 687, citing Giesen, "South's Greatest," p. 2.

[152] Lange et al., "Impact of the Boll Weevil."

boll weevil hit local communities with the force of a tsunami."[153] The weevil reduced yields, and anticipation of the weevil's arrival reduced land prices. The disastrous effects of the weevil were localized rather than region-wide.

5.3 Government and Paternalism

The political upheaval after the War encouraged rent-seeking, corruption, and waste. Hummel points out that subsidies for internal improvements provided ample opportunities for graft and corruption.[154] The South adopted state-funded compulsory schooling, but its centralization relative to the North suggests less competitive pressure and more rent-seeking within the Southern system itself.[155] Hummel's assessment of Southern state governments is succinct and grim: "Once captured by the forces of white rule, they could be turned into engines of racial exploitation."[156] In response to the changing labor market institutions at the Federal level, Southern planters began enacting "Black Codes" that were designed to coerce blacks into menial labor.[157]

Lee Alston and Joseph P. Ferrie argue that paternalistic contracts whereby planters offered protection and other non-wage forms of compensation emerged from the chaos.[158] Southern planters stood to gain from paternalism, so they worked to prevent the South's integration into the national labor market and perhaps more importantly, to prevent the

[153] Lange et al., "Impact of the Boll Weevil," p. 696.

[154] Hummel, "Civil War," pp. 211-212.

[155] Hummel, "Civil War," p. 212.

[156] Hummel, "Civil War," p. 212.

[157] Engerman, "Slavery," p. 353. See also Powell (*Greatest Emancipations*, p. 225) and Roback ("Jim Crow") for examples.

[158] Alston and Ferrie, *Southern Paternalism*.

South from moving out of agriculture and into industry and services. As Figure 4 shows, the Southern manufacturing labor force was very small relative to those in other parts of the country. The concentration of Southerners in low-wage agriculture rather than high-wage manufacturing helps explain low Southern incomes.[159]

(Figure 4 Here)

Paternalism comprised a set of implicit and sometimes explicit contracts whereby planters traded in-kind guarantees, like protection of individual rights, for "good and faithful" labor services.[160] It was a substitute for state intervention. Alston and Ferrie point out that "(a) powerful patron can be viewed as a substitute for the state. Although blacks needed protection more than whites, the capriciousness of local and state law enforcement and judicial systems meant that white workers might also benefit from a patron."[161] Market forces induced institutional innovation, which increased productivity even in the face of extreme uncertainty resulting from arbitrary violence and unresponsive law enforcement.

5.4 Education, Invention, and Innovation

Southern education and technology also lagged behind the rest of the country. The region had few technology workers relative to the population, and it was also awarded few patents relative to the population.[162] The systematic application of science to technological problems—touted by Douglass C. North as one of the most fundamental

---

159 Kim, "Economic Integration"; Caselli & Coleman, "US Structural Transformation."

160 Alston and Ferrie, *Southern Paternalism*; "Shaping Welfare Policy," p. 492.

161 Alston and Ferrie, *Southern Paternalism*, p. 8.

162 Higgs, "American Inventiveness"; Carlton and Coclanis, "Uninventive South," *South*; Schmookler, *Invention*.

and important ways that man has attempted to solve the problems confronting him because of scarcity—appears to have missed a foothold in the South.[163]

Wright argues that the South failed to develop a "strong indigenous technological tradition and a 'southern' technical community developing an advanced southern version of new innovations," and Michelle Connolly notes that the South lacked a "sufficiently educated labor force to aid in the adoption or possible adaptation of Northern technology to Southern needs."[164] It appears that the South failed to develop an indigenous entrepreneurial community apart from the planter aristocracy—a group whose entrepreneurial tendencies were directed toward plantation management and political preservation of the slave system.

Public health also affected Southern education and, therefore, Southern productivity. Garland Brinkley attributes declines in Southern agricultural productivity to hookworm, and Hoyt Bleakley argues that the hookworm eradication programs that began in 1910 with the help of the Rockefeller Sanitary Commission helped raise agricultural productivity. According to Bleakley, childhood hookworm exposure could have reduced adult earnings by forty percent, and "(a)reas with higher levels of hookworm infection prior to the RSC experienced greater increases in school enrollment, attendance, and literacy after the intervention."[165] Hookworm reduced the efficacy of

---

[163] See North, *Structure and Change*, pp. 171-186.

[164] Wright, *Old South*, p. 79, 14; Connolly, "Human Capital," p. 378.

[165] Brinkley, "Economic Impact", "Decline"; Bleakley, p. 76, 73.

Southern educational efforts because it caused listlessness and, since education is energy intensive, the net benefit of education was lower.

Separate and unequal education hurt both blacks and whites. Margo argues that even if separate-but-equal had been a reality, blacks still would have lagged behind whites because of lower school attendance. Further, the barriers to black education reduced competitive pressure on whites, which reduced the rate at which whites acquired human capital.[166]

Southern education lagged behind education in the rest of the country, and badly.[167] This was exacerbated by racial dynamics in Southern schooling. Michelle Connolly suggests that resources were diverted from black schools and toward white schools; the deadweight losses of political transfers may have also reduced the educational outcomes of whites. Education was, to use Margo's phrase, "a ticket out" of the South—those who had attended high school were approximately twice as likely to have left the region—and it was hardly in the best interests of Southern planters to provide, at their own expense, training for which they would earn little or no real return.[168] Publicly provided education would have been a pure transfer from rich to poor with the rich reaping little or no benefit and probably losing money.

5.5 The Southern Labor Market

---

[166] Carden, "Institutions and Southern Development," p. 17. I am indebted to Richard Steckel for this insight.

[167] See on this the research of Margo (*Race and Schooling*) and more recently Michelle Connolly ("Human Capital").

[168] Margo, *Race and Schooling*, pp. 48, 110-111.

At its widest point, the Ohio River is one mile wide. By comparison, the distance from New York City to Portsmouth, England is 3,483 miles. According to Gavin Wright and Joshua Rosenbloom, the Ohio River historically appears to have been the greater barrier to labor market integration.[169] Wright argues that the South developed as a low-wage region in a high-wage country while Rosenbloom argues that while the Northeastern, Midwestern, and European labor markets functioned as a single market, the Southern labor market operated separately.[170] This did not change until the World Wars effectively shut off the flow of European migrants to the United States.[171]

The southern labor market itself appears to have been well integrated between the Old South and the New South, but the region was not integrated into the international labor market. Joshua L. Rosenbloom writes that "rising North-South wage gaps and the small volume of migration between North and South imply that southern labor markets remained largely isolated from northern and international markets."[172] Fishback argues that "(t)he South, which some consider isolated, offered numerous opportunities for workers to raise their earnings near levels in the North through migration within the region."[173]

---

[169] Wright, *Old South*; Rosenbloom, *Looking for Work.*

[170] Rosenbloom, *Looking for Work*, p. 114.

[171] See on this Wright (*Old South*), Rosenbloom (*Looking for Work*). Roback ("Southern Labor Law") discusses specific legal rules that worked against effieicnt labor markets. These are discussed in further detail by Bernstein, (*Only One Place*).

[172] Rosenbloom, *Looking for Work*, p. 141.

[173] Fishback, "Operations," p. 723.

Leaving the region would have been one way for poor Southerners to increase their earnings, but Southern planters worked to prevent the national labor market from integrating.[174] Therefore, Southerners did not develop the networks of social capital that had pulled Europeans across the Atlantic.[175] Fishback argues, however, there were "larger wage gaps between Europe and the United States than between the North and the South."[176]

Wages for skilled laborers in the East and West South Central regions compare favorably to Middle Atlantic wages; however, Rosenbloom argues that given the limited migration out of the South this reflected not an integrated labor market but the good fortune of Southern skilled laborers who were supplying valuable services in relatively non-competitive conditions.[177] National labor market integration would have increased Southern wages.[178]

Real average earnings in manufacturing for the South Central and South Atlantic regions fell between 1879 and 1914. While relative wages in the South Central (relative to Middle Atlantic wages) were actually higher than Middle Atlantic wages in 1879 (South Atlantic wages were lower), they had fallen below relative Middle Atlantic manufacturing earnings by 1889 and continued their downward march through the late

---

[174] Alston and Ferrie, *Southern Paternalism*, p. 10.

[175] Wright, *Old South*; Rosenbloom, *Looking for Work*, pp. 14-79, 141.

[176] Fishback, "Operations," p. 726.

[177] Rosenbloom, *Looking for Work*, pp. 124-125.

[178] Rosenbloom, *Looking for Work*¸p. 143.

nineteenth and early twentieth centuries.[179] While unskilled wages in the West South Central states had caught up to wages in the North by 1890, wages in the East South Central and South Atlantic states continued to lag behind.[180]

5.6 Racism, Markets, and Politics

Black Southerners began their careers as free people with almost no assets, and they faced racism at virtually every turn. Nonetheless, using data from Georgia between 1865 and 1915, Higgs shows that Southern blacks accumulated property rapidly.[181] Using data from Virginia firms, Higgs further argues that the evidence suggests that blacks and whites were paid the same wage for the same work.[182] In 1870, black incomes were about 25% of white incomes. This had grown to approximately 30-40% by 1910 and in the late 1990s was about 70%. Wages were similar for blacks and whites in similar occupations, but black incomes were lower because there were fewer blacks in skilled, high-wage jobs.[183]

At any point in time, the incentives facing profit-maximizing firms eliminated wage discrimination, and differences were explained by differences in skills and differences in the frequency with which blacks were paid in-kind.[184] Even in spite of

---

[179] Rosenbloom, *Looking for Work*, p. 128.

[180] Rosenbloom, *Looking for Work*, p. 130.

[181] Higgs, “Accumulation of Property,” p. 728.

[182] Higgs, “”Firm-Specific Evidence,” p. 244.

[183] Fishback, “Operations,” p. 741.

[184] Higgs, *Competition and Coercion*, “Firm-Specific Evidence”; Wright, *Old South*, pp. 182-185. These are discussed in Fishback, “Operations,” pp. 740-741.

schools that were separate and unequal, a shrinking black-white education gap helps explain convergence between black and white incomes.[185]

Jim Crow was easier to enforce in activities that might have "smacked of intimacy or 'social equality,'" according to Sundstrom, and statistical discrimination—whereby skin color was used as a signal of productivity or suitability for a particular occupation—reduced integration.[186] Further, there was a strong cultural norm that blacks weren't to supervise whites.[187]As textile jobs became "white jobs," for example, white skin was interpreted as a signal of industry-specific human capital.[188]

Indulging a "taste for discrimination" is easier in the political arena than in the marketplace. For example, Jennifer Roback argues that Jim Crow Southern labor law was explicitly coercive and explicitly anti-competitive.[189] In a study of Southern streetcars, Roback argues that Southern streetcar companies opposed Jim Crow restrictions on passengers.[190] It was sometimes difficult here, too. Southerners were able to discriminate in the provision of many public services, but indeed racists' tastes for discrimination (perhaps paradoxically) led them to construct public water and sewer

---

[185] Fishback, "Operations," p. 742. See also Sundstrom ("Explaining the Racial Unemployment Gap," p. 461, citing in particular Margo, *Race and Schooling*). Sundstrom augments and discusses the findings of Vedder and Gallaway ("Racial Differences").

[186] Sundstrom, "Color Line," p. 387.

[187] Sundstrom, "Color Line, p. 389.

[188] Fishback, "Operations," p. 742.

[189] Roback, "Jim Crow."

[190] Roback, "Political Economy of Segregation."

systems that effectively removed waste and thereby led to large increases in black life expectancy.[191]

6 The South Rises Again

Southerners built a society and an economy on slavery, plantation agriculture, and the cultural and political institutions that these systems produced.[192] Progress in the face of institutional obstacles notwithstanding, this gamble paid off poorly: in the 1930s, the members of the Southern Regional Study argued that the region exhibited "deficiency" in its "science, skills, technology, organization," "waste" in its "general economy," "Richness, combined with immaturity and multiple handicaps" in its culture, and trends exemplified by "(h)esitancy and relative regression in many aspects of culture."[193] A combination of low farm incomes and a high proportion of the labor force in farming kept the region poorer than it might have otherwise been.[194]

Reconstruction formally ended in 1877, and the South that emerged was poorer than it would have been had it enjoyed its prewar growth. Kris James Mitchener and Ian McLean report data on regional incomes and productivity. They show that the standard deviation of state per-capita income, price-adjusted per capita income, and price-adjusted income per worker fell as time passed, which suggests convergence in economic

---

[191] Troesken, *Water, Race, and Disease*.

[192] Coclanis, "Tracking"; Cobb, *Away Down South*, p. 9.

[193] Public Affairs Committee, *South's Place*, p. 4.

[194] Public Affairs Committee, *South's Place*, p. 7; Kim, "Economic Integration"; Caselli and Coleman, "U.S. Structural Transformation."

conditions across regions; however, there was little convergence between North and South during the period from 1880 and 1940.[195]

Figure 5 shows trends in price-adjusted income per worker relative to the national average for U.S. regions from 1880 to 1980. Southern incomes per worker hovered at just under sixty percent of the national average in the 1880s and 1890s, increased relative to the national average between 1900 and 1940, and then began to converge to the national average during the last half of the twentieth century. Convergence between 1880 and 1940 was driven by convergence between Western incomes and the national average; after World War II it was driven by rising average incomes in the South.[196]

(Figure 5 Here)

Figure 6 shows the trend for sub-regions within the South and suggests that there has in fact been some divergence between the regions. The West South Central, East South Central, and South Atlantic regions started at just under sixty percent of the national average income per worker in 1880. By 1980, the West South Central states actually had higher-than-average income per worker while the South Atlantic and East South Central states were still behind.

(Figure 6 Here)

The institutional legacy of slavery racism appears to have slowed growth, but the region grew nonetheless.[197] Convergence appears to have started "in earnest" after

---

[195] Mitchener and McLean, "U.S. Regional Growth," pp. 1020-1021.

[196] Mitchener and McLean, "U.S. Regional Growth," pp. 1021-1022.

[197] Margo, "South as an Economic Problem"; Ransom and Sutch, *One Kind*; Alston and Ferrie, *Southern Paternalism*; Carden, "Institutions and Southern Development."

World War II.[198] Manufacturing moved to the South. Educational opportunities increased. The Southern economy joined the modern world, and by 1990, per-capita incomes in the region were approximately 90% of incomes in the rest of the country.[199] According to the Bureau of Economic Analysis, per-capita real GDP in 2008 was $37,899 in chained 2000 dollars. Per-capita real GDP in the Southeast was $33,006, or 87% of the national average, while per-capita real GDP in the Southwest was $35,767, or 94.4% of the national average.[200]

Edward L. Glaeser and Kristina Tobio attribute the Sunbelt's expansion in the 1950s and 1960s to changes in productivity rather than rising values of sun-related amenities or housing market conditions.[201] They estimate that Southern productivity growth in the 1950s was 3% faster than the rest of the country and 6% faster in the 1960s, but they acknowledge that these estimates might conflate productivity increases with improvements in the quality of human capital.[202] For the 1970s—for which they are able to control for human capital accumulation—the addition of human capital control variables to their model reduces estimated productivity increases but still suggests that Southern productivity was growing more rapidly than the rest of the country. In the

---

[198] Margo, "South as an Economic Problem."

[199] Margo, "South as an Economic Problem."

[200] Data can be downloaded from the BEA website at http://www.bea.gov/newsreleases/regional/gdp_state/gsp_newsrelease.htm (retrieved August 25, 2009). The Bureau of Economic Analysis defines the Southwest as the region consisting of Arizona, New Mexico, Texas, and Oklahoma while the Southeast is the region consisting of Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, West Virginia, Kentucky, and Tennessee.

[201] Glaeser and Tobio, "Rise of the Sunbelt," p. 634.

[202] Glaeser and Tobio, "Rise of the Sunbelt," p. 632.

1970s and 1980s, the Southern housing stock grew more rapidly and housing supply increased in importance.[203] Data for the 1980s yield more ambiguous results about the role of productivity, but data for the 1990s suggest rising productivity.

Timothy Besley, Torsten Persson, and Daniel Sturm argue that increased political competition was part of the change that created higher growth.[204] Until the 1950s, the Southern system was designed primarily to ensure economic, political, and social inequality among blacks and whites; as Alston and Ferrie put it, "with disenfranchisement, the entire machinery of the state became an instrument with which to coerce blacks."[205] The Southern economy was built on cheap labor, and political institutions were such that a relatively profitable route for Southern elites was to ensure profitability by maintaining cheap labor in the South rather than by investing in new technology or more capital. They accomplished these ends by sharply circumscribing Southern property rights and by reducing incentives to migrate by specifically restricting labor recruiters' access to the labor market.[206]

This changed as cotton cultivation was mechanized. Mechanization increased the relative return to capital and reduced the relative return to labor; this meant that Southern elites and landlords had reduced incentives to try to control their "disorganized and unruly labor force" through political channels. Lower returns to obstruction meant that

---

[203] Glaeser and Tobio, "Rise of the Sunbelt," p. 635.

[204] Besley et al., "Political Competition."

[205] Alston and Ferrie, *Southern Paternalism*, p. 18.

[206] Roback, "Jim Crow." Alston and Ferrie (*Southern Paternalism*) discuss the political economy of the Bracero program, a system by which Mexican immigrants were permitted to migrate to the West in greater numbers. This reduced incentives for blacks to migrate westward.

markets for capital and labor were able to operate more freely. Cotton differed from crops like corn and wheat in that it was extremely difficult to harvest cotton with anything other than human hands: the technological problem of harvest stemmed from plant biology. Corn and wheat could simply be cut down, but cotton had to be pulled from the individual boll by hand. There were many attempts to mechanize the cotton harvest, but very few innovations caught on until the technological changes of the 1940s and 1950s introduced low-cost ways to harvest cotton with capital instead of labor.[207]

7 Conclusion

The South was decimated by the Civil War, it recovered somewhat after the War, it failed to converge during the late nineteenth and early twentieth centuries, and it underwent especially rapid growth in the post-World War II era as Southern incomes converged on Northern incomes. It is clear that the destruction wrought by the War caused the massive reduction in Southern incomes during the War. The Reconstruction Era complicated the adjustment process, and the South had some difficulty establishing a credible new structure of private property rights. Research shows that slavery was profitable and viable, and contrary to interpretations that viewed slave owners as quasi-feudal lords, slave owners behaved as economizing profit-maximizers within the constraints of the slave society.

Southerners participated in the international marketplace, but the antebellum South itself was not a market economy. It was one of the few true slave societies that the world has seen, and the institutional residue from the Southern slave society had lingering

[207] Alston and Ferrie, *Southern Paternalism*, pp. 119-142.

consequences for generations of Southerners. Slavery affected the institutions that developed in the South in the aftermath of the Civil War, and this contributed to the region's relative poverty during the late nineteenth and early twentieth centuries. With some of the changes that occurred in the middle of the twentieth century, Southern incomes increased dramatically and the South rejoined the nation economically.

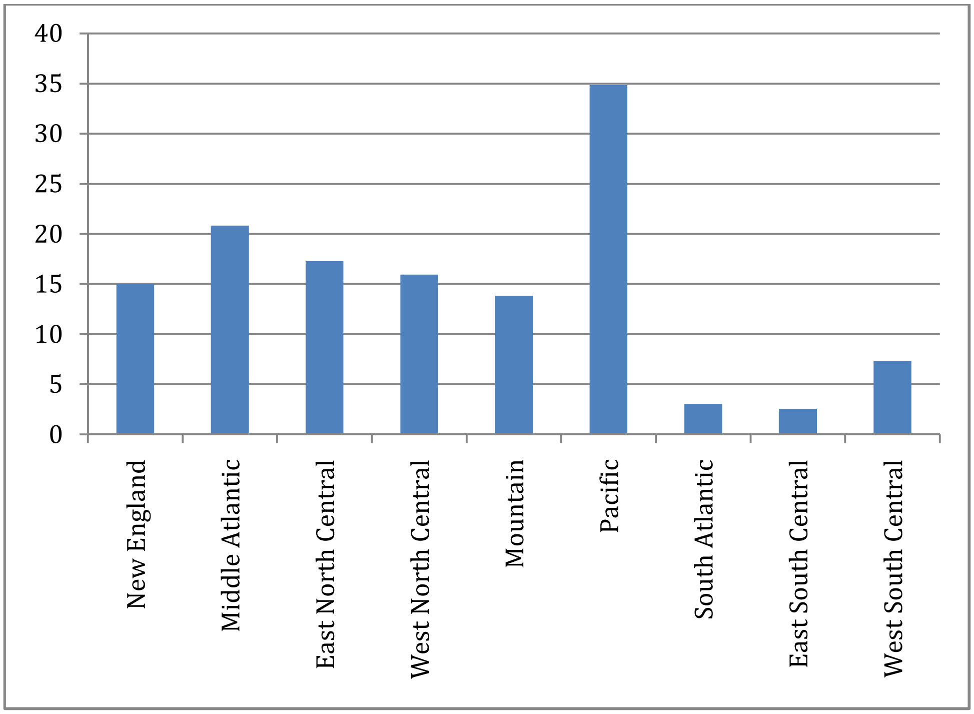

Figure 1: Percentage of Residents Foreign-Born, 1860.
Source: Hughes and Cain, *American Economic History*, p. 115.

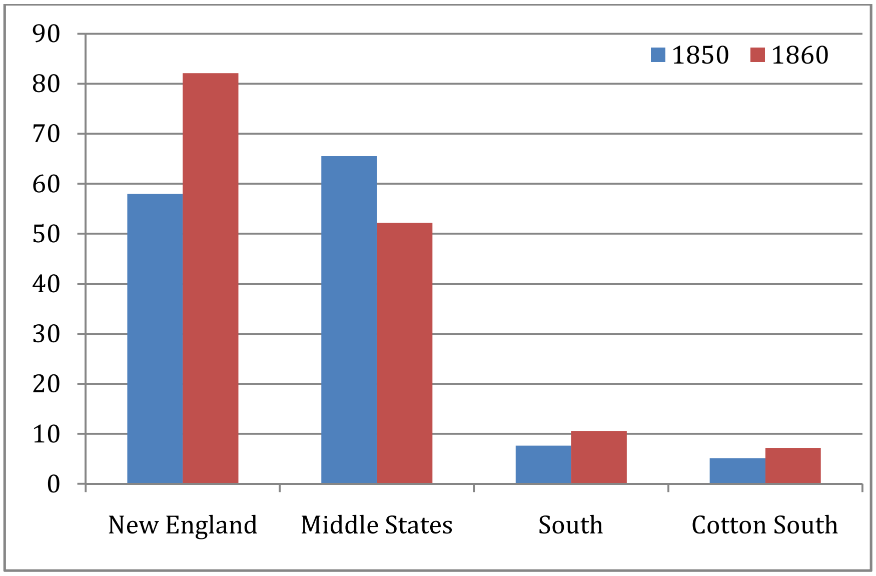

Figure 2: Manufacturing Capital Per Capita, 1850-1860
Source: Wright, *Political Economy*, p. 110.

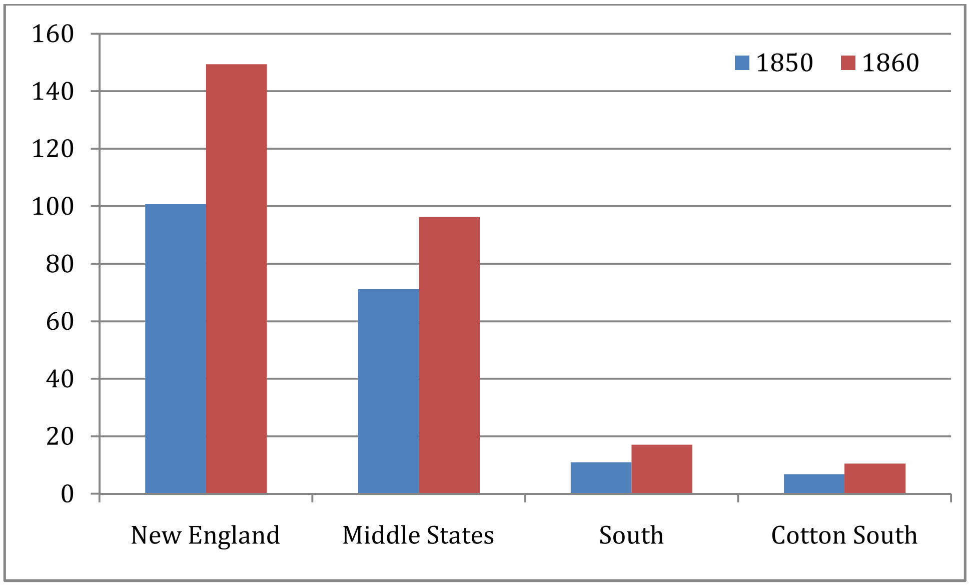

Figure 3: Manufacturing Output Per Capita, 1850-1860
Source: Wright, *Political Economy*, p. 110.

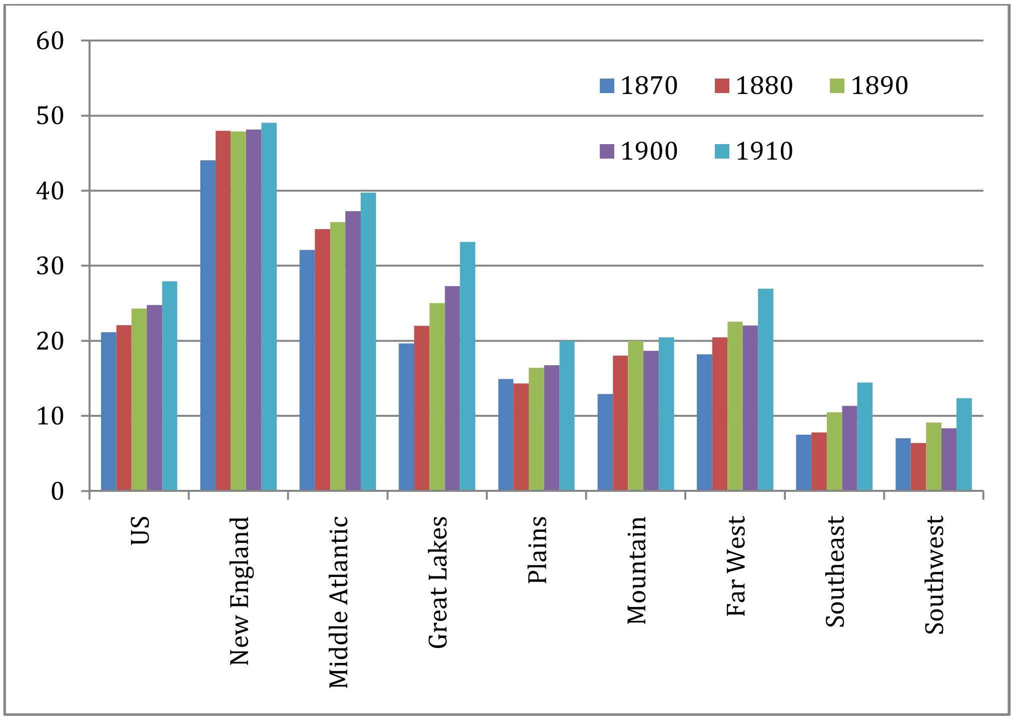

Figure 4: Percentage of Labor Force in Manufacturing, 1870-1910
Source:Perloff et al., *Regions*, pp. 172-182

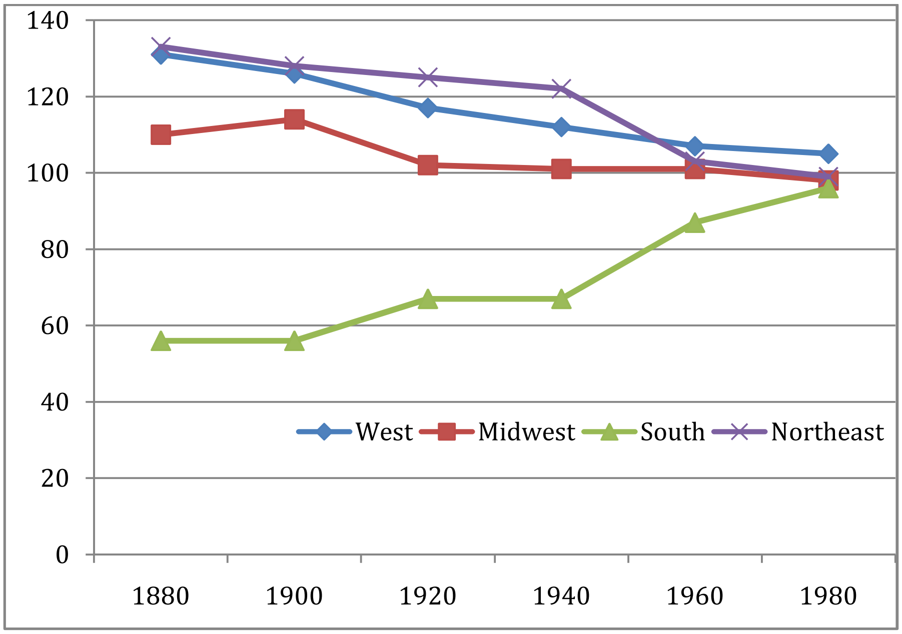

Figure 5: Price-Adjusted Income per Worker by Region as a Percentage of U.S. Average, 1880-1980.

Source: Mitchener and McLean, “U.S. Regional Growth,” p. 1019.

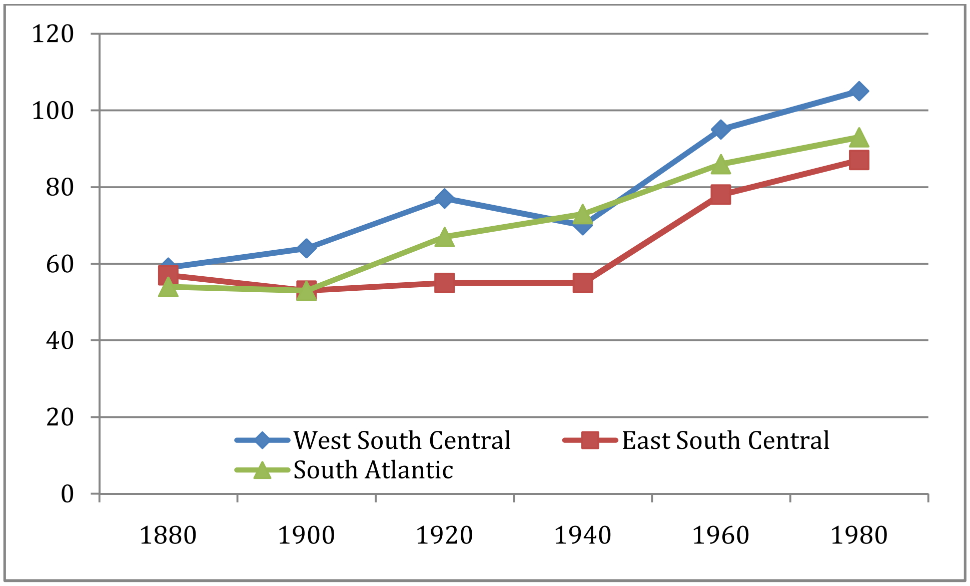

Figure 6: Price-Adjusted Income Per Worker in the South as a Percentage of U.S. Average, 1880-1980.

Source: Mitchener and McLean, “U.S. Regional Growth,” p. 1019.

Table 1: Annual Per-Capita Cost of Various Emancipation Schemes, 1860			
	All Free Persons	Northerners	All Persons
Immediate Emancipation	$7.25	$9.66	$6.30
Immediate Emancipation Plus Colonization	$8.00	$10.70	$6.90
Emancipation in Next Generation	$0.56	$0.75	$0.49
Gradual Abolition (over thirty years)	$1.50	$2.00	$1.30

Source: Goldin, "Economics of Emancipation," p. 85; reported in Atack and Passell, *New Economic View*, p. 359.

Note: Annual per-capita cost of emancipation schemes financed by thirty-year bonds paying six percent.

Table 2: Regional Per Capita Income and Growth, 1840-1880

	Free Population		Total Population, Including Slaves			Average Growth Rate, 1840-1860	Average Growth Rate, 1860-1880
	1840	1860	1840	1860	1880		
United States	109	144	96	128	173	1.4%	1.5%
North	110	142	109	141	205	1.3%	1.9%
Northeast	130	183	129	181	244	1.7%	1.5%
North Central	66	90	65	89	170	1.6%	3.3%
South	105	150	74	103	88	1.7%	-0.8%
South Atlantic	96	124	66	84	78	1.2%	-0.4%
East South Central	92	124	69	89	88	1.3%	-0.1%
West South Central	238	274	151	184	104	1.0%	-2.8%

Source: Fogel, *Without Consent*, pp. 85, 89 and author's calculations. 1860 Prices.
Notes: "Free Population" calculations treat slaves as intermediate inputs. Average Growth Rate, 1840-1860 is based on the total population.

References

Alston, Lee J. and Joseph P. Ferrie. 1999. *Southern Paternalism and the American Welfare State: Economics, Politics, and Institutions in the South 1865-1975*. New York: Cambridge University Press.

Alston, Lee J. and Joseph P. Ferrie. 2007. Shaping Welfare Policy: The Role of the South, in Price Fishback, et al. *Government and the American Economy: A New History*. Chicago: University of Chicago Press, pp. 490-506.

Atack, Jeremy and Peter Passell. 1994. *A New Economic View of American History*. New York: W.W. Norton.

Bernstein, David E. 2001. *Only One Place of Redress: African Americans, Labor Regulations, and the Courts from Reconstruction to the New Deal*. Durham: Duke University Press.

Besley, Timothy, Torsten Persson, and Daniel Sturm. 2005. Political Competition and Economic Performance: Theory and Evidence from the United States. NBER Working Paper 11484.

Bleakley, Hoyt. 2007. Disease and Development: Evidence from Hookworm Eradication in the American South. *Quarterly Journal of Economics* 122(1):73-117.

Brinkley, Garland L. 1995. The Economic Impact of Disease in the American South, 1860-1940. *Journal of Economic History* 55(2):371-373.

Brinkley, Garland L. 1997. The Decline in Southern Agricultural Output, 1860-1880. *Journal of Economic History* 57(1):116-138.

Carden, Art. 2006. Institutions and Southern Development: Lynching as a Signal of Insecure Property Rights. PhD Dissertation, Washington University in Saint Louis.

Carden, Art. 2009a. Inputs and Institutions as Conservative Elements. *Review of Austrian Economics* 22(1):1-19.

Carden, Art. 2009b. Slavery, Violence, and Law in the Nineteenth Century South. Working Paper, Rhodes College.

Carden, Art. 2009c. Jim Crow. Draft in Progress for EH.Net Encyclopedia of Economic

History.

Carlton, David L. and Peter A. Coclanis. 1995. The Uninventive South? A Quantitative Look at Region and American Inventiveness. *Technology and Culture* 36(2): 302-326.

Carlton, David L. and Peter A. Coclanis. 2003. *The South, the Nation, and the World: Perspectives on Southern Economic Development*. Charlottesville: University of Virginia Press.

Carter, Susan B., Michael R. Haines, Richard Sutch, and Gavin Wright. 2005. Race and Ethnicity: Population, Vital Processes, and Education, in Richard Sutch and Susan B. Carter, eds. *Historical Statistics of the United States: Millennial Edition,* v. 1. New York: Cambridge University Press, pp. 1-10-1-25.

Caselli, Francesco and Wilbur John Coleman II. 2001. The US Structural Transformation and Regional Convergence: A Reinterpretation. *Journal of Political Economy* 109(3): 584-616.

Cobb, James C. 2005. *Away Down South: A History of Southern Identity*. New York: Oxford University Press.

Coclanis, Peter. 2000. Tracking the Economic Divergence of North and South. *Southern Cultures* 6(4):82-103.

Connolly, Michelle. 2004. Human Capital and Growth in the Postbellum South: A Separate but Unequal Story. *Journal of Economic History* 64(2):363-399.

Conrad, Alfred and John Meyer. 1958. The Economics of Slavery in the Antebellum South. *Journal of Political Economy* 66(2):95-130.

DeCanio, Stephen J. 1974. *Agriculture in the Postbellum South: The Economics of Production and Supply*. Cambridge, MA: MIT Press.

DeCanio, Stephen J. 1979. Accumulation and Discrimination in the Postbellum South. *Explorations in Economic History* 16(2):182-206.

Eaton, Clement L. 1954. *A History of the Southern Confederacy*. New York: The Free Press.

Engerman, Stanley L. 1971a. The Economic Impact of the Civil War, in Robert W. Fogel and Stanley L. Engerman, eds. *The Reinterpretation of American Economic History*. New York: Harper & Row, pp. 369-379.

Engerman, Stanley L. 1971b. Some Economic Factors in Southern Backwardness in the Nineteenth Century, in John F. Kain and John R. Meyer, eds. *Essays in Regional Economics*. Cambridge, MA: Harvard University Press, pp. 279-306.

Engerman, Stanley L. 1996. Slavery and Its Consequences for the South in the Nineteenth Century, in Stanley L. Engerman and Robert E. Gallman, eds. ***The Cambridge Economic History of the United States, v. II: The Long Nineteenth Century***. New York: Cambridge University Press, pp. 329-366.

Ferrie, Joseph P. 2006. Internal Migration, in Susan B. Carter, Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, and Gavin Wright, eds. *Historical Statistics of the United States, Millennial Edition Online*. Online: http://www.hsus.camridge.org: Cambridge University Press, pp. 1-489-

Fishback, Price V. 1989. Debt Peonage in Postbellum Georgia. *Explorations in Economic History* 26(2):219-236.

Fishback, Price V. 1998. Operations of "Unfettered" Labor Markets: Exit and Voice in American Labor Markets at the Turn of the Century. *Journal of Economic Literature* 36(2):722-765.

Fogel, Robert William. 1989. *Without Consent or Contract: The Rise and Fall of American Slavery*. New York: W.W. Norton.

Fogel, Robert William. 2003. *The Slavery Debates, 1952-1990: A Retrospective*. Baton Rouge: LSU Press.

Fogel, Robert William and Stanley L. Engerman. 1974. *Time on the Cross: The Economics of American Negro Slavery*. New York: W.W. Norton.

Fogel, Robert William and Stanley L. Engerman. 1974. *Time on the Cross: Evidence and Methods—A Supplement*. Boston: Little, Brown and Company.

Fogel, Robert William and Stanley L. Engerman. 1977. Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South. *American Economic Review* 67(3):275-296.

Fogel, Robert William and Stanley L. Engerman. 1980. Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South: Reply. *American Economic*

Review 70(4):672-690.

Fox-Genovese, Elizabeth and Eugene Genovese. 2005. *The Mind of the Master Class*. New York: Cambridge University Press.

Fox-Genovese, Elizabeth and Eugene Genovese. 2008. *Slavery in White and Black.* New York: Cambridge University Press.

Franklin, John Hope. 1969. ***From Slavery to Freedom: A History of Negro Americans***, 3rd Edition. New York: Vintage Books.

Gallman, Robert E. 1979. Slavery and Southern Economic Growth. *Southern Economic Journal* 45(4):1007-1022.

Gallman, Robert E. 2000. Economic Growth and Structural Change in the Long Nineteenth Century, in Stanley L. Engerman and Robert E. Gallman, eds. *The Cambridge Economic History of the United States, v. II: The Long Nineteenth Century*. New York: Cambridge University Press, pp. 1-55.

Garrett, M.A. and Z. Xu. 2003. The Efficiency of Sharecropping: Evidence from the Postbellum South. *Southern Economic Journal* 69(3):578-595.

Giesen, James C. 2004. "The South's Greatest Enemy: The Cotton Boll Weevil and Its Lost Revolution, 1892-1930. Unpublished PhD Dissertation, University of Georgia.

Glaeser, Edward L. and Kristina Tobio. 2008. The Rise of the Sunbelt. *Southern Economic Journal* 74(3):610-643.

Goldin, Claudia D. and Frank D. Lewis. 1975. The Economic Cost of the American Civil War: Estimates and Implications. *Journal of Economic History* 35(2):299-326.

Goldin, Claudia. 1979. "N" Kinds of Freedom. *Explorations in Economic History* 16(1):8-30.

Gunderson, Gerald. 1974. The Origin of the American Civil War. *Journal of Economic History* 34(4):915-950.

Higgs, Robert. 1971a. *The Transformation of the American Economy. 1865-1914: An Essay in Interpretation*. New York: John Wiley and Sons.

Higgs, Robert. 1971b. American Inventiveness, 1870-1920. *Journal of Political Economy* 79(3):661-667.
Higgs, Robert. 1972. Did Southern Farmers Discriminate? *Agricultural History* 46(2):325-328.

Higgs, Robert. 1974. Patterns of Farm Rental in the Georgia Cotton Belt, 1880-1900. *Journal of Economic History* 34(2):468-482.

Higgs, Robert. 1975. Interpretive Problems and Further Evidence. *Agricultural History* 45(2):445-447.

Higgs, Robert. 1976. The Boll Weevil, the Cotton Economy, and Black Migration 1910-1930. *Agricultural History* 50(2):335-350.

Higgs, Robert. 1977. Firm-Specific Evidence on Racial Wage Differentials and Workforce Segregation. *American Economic Review* 67(2):236-245.

Higgs, Robert. 1978. Racial Wage Differentials in Agriculture: Evidence from North Carolina in 1887. *Agricultural History* 52(2):308-311.
Higgs, Robert. 1982. Accumulation of Property by Southern Blacks before World War I. *American Economic Review* 72(4):725-737.

Hughes, Jonathan and Louis P. Cain. 2007. *American Economic History*, 7th Edition. Boston: Pearson/Addison Wesley.

Hummel, Jeffrey Rogers. 2007. The Civil War and Reconstruction, in Price Fishback, et al. *Government and the American Economy: A New History*. Chicago: University of Chicago Press, pp. 188-231.

Jones, Alice Hanson. 1980. *Wealth of a Nation to Be*. New York: Columbia University Press.

Kim, Sukkoo. 1998. Economic Integration and Convergence: U.S. Regions, 1840-1987. *Journal of Economic History* 58(3):659-683.

Lange, Fabian, Alan L. Olmstead, and Paul W. Rhode. 2009. The Impact of the Boll Weevil, 1892-1932. *Journal of Economic History* 69(3):685-718.

Lebergott, Stanley. 1984. *The Americans: An Economic Record*. New York: W.W. Norton.

Lee, Everett S., Ann Ratner Miller, Carol P. Brainerd, and Richard A. Easterlin. 1957. *Population Redistribution and Economic Growth: United States, 1870-1950*. Philadelphia: American Philosophical Society.

Margo, Robert A. 1990. *Race and Schooling in the South, 1880-1950: An Economic History*. Chicago: University of Chicago Press.

Margo, Robert A. 1995. The South as an Economic Problem: Fact or Fiction? In *The South as an American Problem*, edited by Larry J. Griffin and Don H. Doyle. Athens: University of Georgia Press, pp. 164-180.

Margo, Robert A. 2000. *Wages and Labor Markets in the United States, 1820-1860*. Chicago: University of Chicago Press.

Margo, Robert A. 2002. The North-South Wage Gap, Before and After the Civil War. NBER Working Paper 8778.

Menard, Russell R. 1996. Economic and Social Development of the South, in Stanley L. Engerman and Robert E. Gallman, eds. ***The Cambridge Economic History of the United States, v. 1***. New York: Cambridge University Press, pp. 249-295.

Mitchnener, Kris James and Ian W. McLean. 1999. U.S. Regional Growth and Convergence, 1880-1980. *Journal of Economic History* 59(4):1016-1042.

Mitchener, Kris James and Ian W. McLean. 2003. The Productivity of U.S. States since 1880. *Journal of Economic Growth* 8:73-114.

Naidu, Suresh. 2008. Recruitment Restrictions and Labor Markets: Evidence from the Post-Bellum U.S. South. Working Paper, Harvard University.

Olmstead, Alan L. and Paul W. Rhode. 2008. Biological Innovation and Productivity Growth in the Antebellum Cotton Economy. *Journal of Economic History* 68(4):1123-1171.

Parker, William N. 1980. The South in the National Economy, 1865-1970. *Southern Economic Journal* 46(4):1019-1048.

Perloff, Harvey S., Edgar S. Dunn Jr., Eric F. Lampard, and Richard F. Muth. 1960. *Regions, Resources, and Economic Growth*. Baltimore: Johns Hopkins University Press.

Public Affairs Committee. 1936. *The South's Place in the Nation* (Prepared by Rupert B. Vance). Washington DC.

Reid, Joseph D. 1973. Sharecropping as an Understandable Market Response: the Post-Bellum South. *Journal of Economic History* 33(1): 106-130.

Reid, Joseph D. 1976. Antebellum Southern Rental Contracts. *Explorations in Economic History* 13(1):69-83.

Reid, Joseph D. 1979. White Land, Black Labor, and Agricultural Stagnation: The Causes and Effects of Sharecropping in the Postbellum South. *Explorations in Economic History* 16(1):31-55.

Roback, Jennifer. 1984. Southern Labor Law in the Jim Crow Era: Exploitative or Competitive? *University of Chicago Law Review* 51(4):1161-1192.

Roback, Jennifer. 1986. The Political Economy of Segregation: The Case of Segregated Streetcars. *Journal of Economic History* 46(4):893-917.

Roberts, Charles A. 1975. Did Southern Farmers Discriminate? The Evidence Reexamined. *Agricultural History* 49(2):441-445.

Rose, Louis. 1964. Capital Losses of Southern Slaveholders Due to Emancipation. *Western Economic Journal* 3:39-51.

Rosenbloom, Joshua L. and William A. Sundstrom. 2009. Labor-Market Regimes in U.S. Economic History. NBER Working Paper 15055.

Schmookler, Jacob. 1966. *Invention and Economic Growth*. Cambridge, MA: Harvard University Press.

Schwab, John C. 1901. *The Confederate States of America*. New York: Charles Scribner's Sons.

Simon, Julian. 1996. *The Ultimate Resource 2*. Princeton: Princeton University Press.

Stampp, Kenneth M. 1956. *The Peculiar Institution: Slavery in the Ante-Bellum South*. New York: Vintage Books.

Sundstrom, William A. 1990. The Color Line: Racial Norms and Discrimination in Urban Labor Markets, 1910-1950. *Journal of Economic History* 54(2):382-396.

Sundstrom, William A. 1997. Explaining the Racial Unemployment Gap: Race, Region, and the Employment Status of Men, 1940. *Industrial and labor Relations Review* 50(3):460-477.

Sutch, Richard and Susan B. Carter (eds). 2005. *Historical Statistics of the United States: Millenial Edition Online*. Online: http://hsus.cambridge.org. Access provided by Rhodes College.

Tadman, Michael. 1989 [1996]. ***Speculators and Slaves: Masters, Traders, and Slaves in the Old South***. Madison, WI: University of Wisconsin Press.

Thornton, Mark. 1994. Slavery, Profitability, and the Market Process. ***Review of Austrian Economics*** 7(2):21-47.

Thornton, Mark, Mark A. Yanochik, and Bradley T. Ewing. 2009. Selling Slave Families Down the River: Property Rights and the Public Auction. *Independent Review* 14(1):71-79.

Troesken, Werner. 2004. *Water, Race, and Disease*. Cambridge, MA: MIT Press.

Vance, Rupert. 1935. *Human Geography of the South*. Chapel Hill: University of North Carolina Press.

Vedder, Richard K. and Lowell Gallaway. 1992. Racial Differences in Unemployment in the United States, 1890-1990. *Journal of Economic History* 52(3):696-702.

Weidenmier, Marc. 2002. Money and Finance in the Confederate States of America. E.Net Encyclopedia, Edited by Robert Whaples. Online: http://eh.net/encyclopedia/article/weidenmier.finance.confederacy.us.

Whatley, Warren C. 1990. Getting a Foot in the Door: "Learning," State Dependence, and the Racial Integration of Firms. *Journal of Economic History* 50(1):43-66.

Woodman, Harold D. 2001. Comment: *One Kind of Freedom* after 20 Years. *Explorations in Economic History* 38:48-57.

Wright, Gavin. 1976. Prosperity, Progress, and American Slavery. In Paul A. David et al., *Reckoning with Slavery: A Critical Study in the Quantitative History of American Negro Slavery*, by Paul A. David et al. New York: Oxford University Press, pp. 302-336.

Wright, Gavin. 1978. *The Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century*. New York: W.W. Norton.

Wright, Gavin. 1982. The Strange Career of the New Southern Economic History. *Reviews in American History* 10(4): 164-180.

Wright, Gavin. 1986. *Old South, New South: Revolutions in the Southern Economy Since the Civil War*. New York: Basic Books.

Wright, Gavin. 2001. Reflections on *One Kind of Freedom* and the Southern Economy. *Explorations in Economic History* 38(1):40-47.

Yanochik, Mark A., Bradley T. Ewing, and Mark Thornton. 2001. A New Perspective on Antebellum Slavery: Public Policy and Slave Prices. *Atlantic Economic Journal* 29(3):330-340.