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# A Deplorable Scarcity

The Failure of Industrialization in the  
Slave Economy



# 1

## THE SOUTHERN INDUSTRIAL ECONOMY: INTRODUCTION AND OVERVIEW

*Everyone knows that one of the heaviest burdens of the Confederacy was their lack of sufficient mechanical industries to supply their own needs.... We know that there was a deplorable scarcity of every kind of fabricated article. . . . But we lack any sort of account of such local industries as tanneries, wagon shops, shoe shops and the like.... We can only hope that sometime enough records may turn up to enable the historian to reconstruct their [southern industries'] story in greater part than now seems possible.*

—Charles W. Ramsdell

*The Journal of Southern History* (1936)

Had the southern United States not existed, scholars might have invented it. To some extent they did. Stereotyped and caricatured, the South became not only an object of curiosity, but also a bench mark against which to compare other regions. Much of the uniqueness of southern society hinges upon its economic traditions and ultimately upon the institution of slavery. The historical legacies of slavery and the cotton economy have yet to be fully unravelled. Well into the twentieth century, the region was still viewed as relatively less advanced than the rest of the nation, a status presumably rooted in the antebellum era. Such judgments appeared obvious, given the South's dependence on a single-crop agriculture and on a forced-labor system. That economic historians would develop a special interest in antebellum southern development seems virtually inevitable.

Despite its presumed similarity to underdeveloped or backward economies, the antebellum South fared better economically than traditionally believed. The growth of per capita income between 1840 and 1860 approximated that of other regions in the United States (Fogel and Engerman, 1974, p. 246). The level of per capita income, while below the national average

when slaves are included in the population, approximated that average and even exceeded that of the North-Central region when only the free population is considered. Southern backwardness has been defined largely by comparison with the prosperous Northeast. But when viewed in a broader context, the South appears materially successful, exhibiting the world's fourth highest per capita income in 1860 (Fogel and Engerman, 1974, p. 250). Still, there remain the questions of whether the region's economic record could have been better in antebellum days, and whether it could have endured in the environment of the late nineteenth century.

In the debates over southern evolution, agricultural activities garner most attention. The economy is perceived as a limited-base, agricultural export system that engendered, sustained, and depended upon bonded labor. All else traditionally has been seen as peripheral to this system and largely determined by it: services as they supplied agricultural needs, transportation as it served the shipping requirements of staple exports, and the local food-producing activities as they supported the plantation-export economy.

In the economic histories of the South, manufacturing has occupied the lowliest position of all. In the scant literature on the subject, the most frequently cited characteristic of antebellum southern manufacturing is its alleged backwardness. In the words of industrial historian Victor Clark, the region "chafed continually under the discomfort of an ill balanced economic system" (1909, p. 321). Even recent interpretations, such as that in the study of slavery by Robert Fogel and Stanley Engerman (1974), tend to sustain this perception.

Typically, the most often cited "cause" of the imbalance has been the nature and prominence of southern agriculture. When compared to the rest of the United States, industrial development in the South seemed laggard, held back by the comparative advantage of staple production, by deliberate actions of powerful planters and their legislative allies, by the slave institution so fundamental to the region's agricultural production, or by other forces related to the farm sector and the "peculiar institution." Unfortunately, such a diagnosis results from indirect evidence or inference rather than from any thorough analysis of southern manufacturing sectors. The few aggregative studies of antebellum southern manufacturing that exist are too often founded upon presumption, impressions, and implicit hypothesis from studies of agriculture. Some of the clearest examples of such indirectly derived conclusions are found in the studies of slave profitability, all of which center on agriculture, and most on cotton pro-

duction only. Yet, authors have not refrained from such comments as:

The southern decision to slight manufacturing was not an absurd eccentricity. It now appears to have been a rational response to profits in plantation agriculture, that were considerably above alternative opportunities. [Fogel, 1966, p. 647]

Had the plantation owners, in the absence of slavery, sought other forms of investment, they would have invested wherever they thought the return was highest. That might not have been Southern manufacturing. More probably it would have been in the expansion of plantation agriculture. [Panel Discussion, 1967, p. 541]

These statements, neither of which rests on any information pertaining to manufacturing, are deduced from comparing agricultural returns with returns on northern bonds. In their more recent work, Fogel and Engerman introduced a manufacturing alternative limited to selected industries in the North, and concluded that the returns to slavery investments were comparable to industrial ones (1974, p. 70).

The accepted wisdom regarding southern industrialization thus evolved more from historiographical inference than from direct examination or analysis of this region's industrial status before the Civil War, perhaps a predictable approach given the close association between agriculture and industry in many developing economies. Students of the southern economy, lacking a prolific literature on the area's manufacturing sector, perforce made working assumptions or informed guesses about the character of industry, and developed supporting hypotheses to account for its limited development.<sup>1</sup> Consequently, a doctrine arose regarding the retarded nature of antebellum southern manufacturing, accompanied by hypotheses designed to explain it.

This long-standing view of the mid-nineteenth-century American economy saw the Northeast as the developing industrial area, the West as the food-supplying region, and the South as an agricultural region exporting raw materials for industrial use. There followed a tendency to unite East and West into an "industrial North," where the economy differed dramatically from the nonindustrialized agrarian South. The North by implication became "modern and progressive," whereas the South remained "traditional and backward." This categorization depended upon a variety of social and political characteristics, but a key element was usually

the southern states' backward industrial position. The American Industrial Revolution, well under way in the Northeast and already apparent in the Old Northwest, was bypassing the southern states. Innumerable statements illustrate this persistent view:

Almost everything produced at the North meets with ready sale. While, at the same time, there is no demand, even among our own citizens, for the production of the Southern Industry. [Helper, 1857, p. 21]

The South before the Civil War had relied for manufactured goods almost entirely upon England and the North. [Mitchell, 1931, p. 21]

[the South] provided a market for outside industry. On the other hand, that very market was too small to sustain industry on a scale large enough to compete with outsiders who could draw upon wider markets. . . . Plantation slavery so limited the purchasing power of the South that it could not sustain much industry. [Genovese, 1965, pp. 165, 173]

Manufacturing appears to be the only area in which the antebellum South lagged seriously behind the North in physical capital formation. [Fogel and Engerman, 1974, p. 254]

This sampling demonstrates the durability of this belief, from the fiery rhetoric of a Hinton Helper to the cliometric analysis of Robert Fogel and Stanley Engerman. One need not build an ideological strawman, or single out a particular school of thought. Proslavery or abolitionist, new economic historian or old, nineteenth-century man or twentieth-, most writers characterize the southern industrial sector, and everything related to it, as backward. These views, inferred from research on the plantation-slave economy, receive some support from census statistics which show that only 11 percent of the national output of manufactured goods was produced in that geographic area containing one-third of the national population (U.S. Census, 1860, p. 730; and 1975, Series A: 123–80).

## An Overview of the Southern Industrial Economy

The development of colonial southern manufacturing was influenced by regulations and restrictions of the Crown, and at times by bounties offered by the British government. How-

ever, the predominating force was the success of the export staples: tobacco, rice, and naval stores (Hawk, 1934, chap. 4; Lord, 1898, p. 137). The chief result was to discourage manufacturers in the South, particularly in comparison with the New England and Middle Atlantic colonies where staple exports were less successful. Although fluctuations in the international market for southern staples spurred interest in manufacturing, no substantial market-oriented sector emerged to complement the household manufacturers and cottage producers in woolen textiles, scattered throughout the region (Lander, 1969, p. 3). There were nevertheless some serious attempts at industrial development. In the early eighteenth century, beginning with the discovery of iron ore in northwestern Virginia and the establishment there of Governor Spotswood's furnace in 1716, southerners "started operating furnaces on a larger scale than any before in America" (Hawk, 1934, p. 120). Although the industry was concentrated in Virginia, North Carolina producers also exported pig iron, and South Carolina iron works were producing near Spartanburg before the Revolution (Hawk, 1934, p. 121; Lander, 1954, p. 337). Flour milling, common throughout the South as a small-scale enterprise, had become an export industry for some Virginia producers by 1765 (Kuhlmann, 1929, p. 32). English artisans whose backgrounds were similar to Samuel Slater's, began developing simple cotton mill operations during the 1780s, concurrent with Slater's in Rhode Island. First among those to establish a manufactory was Hugh Templeton who, in partnership with several planters, established a factory-type textile mill that began production in Statesburg in 1789, before Slater's mill had opened in the North (Griffen, 1964, p. 34; Lander, 1969, p. 5). The mill, producing both woolen and cotton cloth, operated for several years, but proved less successful than Slater's and was abandoned. Societies to encourage manufacturing were established in Virginia in 1785 and in Kentucky in 1789. The Kentucky Society for the Promotion of Manufacture built a textile mill at Danville that functioned until the Panic of 1837. Near Nashville, Tennessee, a 200-spindle mill was established in 1791 by another Englishman, John Hague (Griffen, 1964, pp. 35, 36; Hammond, 1961, pp. 47–55).

The first major stimulus to manufacturing during the national period began with the Embargo Act of 1807, and was sustained by the effects of the War of 1812. According to one student of cotton-industry history, Virginia was the first southern state to issue corporate charters for cotton-manufacturing enterprises, granting the initial charter in 1803 to the

Petersburg Manufacturing Society and to the Halifax County Manufacturing Society (Griffen, 1960, pp. 36, 37). Victor Clark, citing the “scanty official returns,” claims that by 1810 there were 6 spinning frames in Maryland, 17 in Virginia, 56 in North Carolina, and 91 in Georgia; many were powered by hand or by horses (1909, p. 320). Most of them, like the small iron works then in South Carolina, sold exclusively in local markets. In total, according to Albert Gallatin’s 1810 report, southern textile mills comprised only 5 percent of the national total, but approximately 17 percent (16,800) of all spindles as of 1809 (Griffen, 1964, p. 37). The obstruction of foreign trade during the second war with England stimulated domestic production in the South as in the North, but most war-induced mills disappeared with the end of that conflict.

After the war, northern textile producers, most of whom came from Rhode Island, migrated into the region. Among them were Henry Donaldson and Thomas Hutchins (North Carolina), Samuel Nightengale (Tennessee), and William Bates (the Carolinas) (Griffen, 1960, p. 38). Among their establishments was the South Carolina Cotton Manufactory, opened in 1816, which consisted of a 500-spindle mill, a cotton gin, a sawmill, and gristmill (Lander, 1960a, p. 88).<sup>2</sup> These industrialists helped to establish the foundations for southern cotton textile manufacturing, which by 1860 was to become the region’s fourth largest industry. From their ranks also arose some of the most ardent advocates for southern industrial development during the antebellum period.

The southern industrialists’ advocacy was reinforced by state legislative actions and newspaper editorial support, and by the commercial conventions that became commonplace after 1820. In 1827 the North Carolina legislature created a special committee to explore possibilities for the state’s textile industry, including an examination of the role of state government in fostering industrial development, and the possibilities for employing slave labor in industry (Griffen, 1964, p. 39). The committee reported favorably on the latter. Similar studies followed in Georgia and Virginia, both of which encouraged the expansion of cotton manufacturing. During the late 1840s another legislative committee was appointed in Georgia to report on the progress of manufacturing; at the same time the legislature endorsed development of the state’s iron industry (Clark, 1909, pp. 316, 317).

Newspaper support was even stronger. The best-known publication, DeBow’s *Commercial*

*Review* founded in 1846, “had the development of manufacturing, especially cotton manufacturing, for a sort of religion” (Herring, 1931, p. 8). During the 1820s, Hezekiah Niles in his *Register* and John Skinner in *The American Farmer* performed a similar role in encouraging industrial expansion (Griffen, 1964, p. 39). Reinforcing these publicists were many textile mill owners themselves, most notably William Gregg, who sought to attract both northerners and southerners to industrial development in the South.

These companies’ concern coincided with a resurgent interest in textile development during the 1820s. Mills that closed after the War of 1812 were reopened, new factories were built, and the migration of northern businessmen resumed. This movement, claims textile-industry historian Richard Griffen, proceeded with scant criticism. In his estimate, the result was a resurgence of the southern textile industry that led to its producing at least 12 percent of the national output by 1833. By 1860 the southern share of the textile industry had grown to between 20 and 25 percent (1963, p. 87; 1964, p. 39).<sup>3</sup>

The spate of commercial conventions—which began during the late 1830s and early 1840s as an outgrowth of the general movement for industrialization—accelerated in response to the Panic of 1837 (Clark, 1909; Collins, 1946; Wender, 1930). North Carolina spinners held a convention in Raleigh in 1840 to promote the state’s cotton manufacturing industry. This event was followed by others, including the Southwestern Convention in Memphis in 1845, which was addressed by John Calhoun and which resolved that planters should invest in manufacturing industries. Meetings in Tennessee in 1847, in Richmond in 1851, in Memphis two years later, and in Charleston in 1854 were among the more important conventions designed to promote southern industrialization before the Civil War. “The movement to encourage and promote the manufacture of cotton,” says Herbert Collins, “was not far removed from the impulse which led to the general convening habit which descended upon northern cities after 1837 in the form of commercial conventions” (1946, p. 391). This general impulse, Collins asserts, was similarly related to the publication of such journals as the *Southern Quarterly Review*, and to the movement to employ poor whites in southern manufacturing, as expressed in the creation of the South Carolina Institute and by the hiring policies of William Gregg (1946, p. 393).<sup>4</sup>

Although the literary evidence tends to emphasize the textile industry, it also provides

some impression of the extent of other industrial activities.<sup>5</sup> There were the ubiquitous flour and lumber mills, scattered over the southern countryside as they were across the northern, which generally served geographically restricted local markets. Many of these were situated on plantations, intended primarily to serve home needs. But wherever agglomerations of farmers existed, commercially operated and market-oriented flour mills, gristmills, and sawmills emerged to serve local residents, thus performing a processing function previously performed on farms. Many, in fact, were operated by the farmers themselves who filled their slack time working as manufacturers. The presence of sawmills further encouraged development of such related industries as railroad car construction, carriage making, or shipbuilding. Blacksmiths, often performing not only simple smithing but also custom work on iron goods, were prevalent in the rural economy as well as in cities. The traditional southern industries—cotton ginning, manufactured tobacco products, cotton gin production, sugar and rice milling, and those producing paper, locomotives, and steam engines—also persisted during this era.

Individual southern firms generally have been considered small, anonymous, and inconsequential, unworthy of the status accorded such eastern producers as the Boston Manufacturing Company, or such western ones as Cyrus McCormick's reaper factory. Historians have taken note of some entire industries, such as Virginia's flour milling and tobacco manufacturing; of firms, such as E. M. Holt's in North Carolina, which produced the so-called "Alamance plaids"; and even of Edward Me-Gehee's Woodville (Mississippi) Manufacturing Company. Yet, scholars have generally singled out only three enterprises—William Gregg's Graniteville Manufacturing Company, Joseph Reid Anderson's Tredegar Iron Works, and Daniel Pratt's Alabama conglomerate—as impressive examples of what might have been in southern industry.<sup>6</sup>

William Gregg indeed was a major figure in southern industrialism (Mitchell, 1928; Lander, 1969; Wallace, 1960; Terrill, 1976). Well before his South Carolina manufactory commenced operations in the late 1840s, he had been an advocate and publicist for the cause of southern industrialization, his views propounded in his *Essays on Domestic Industry* published in 1844. Like others devoted to this cause, he championed economic diversification—meaning primarily the development of manufacturing—as a means to reduce dependence both on a single-crop agricultural system and on northern industrial output. Because of what he

perceived to be the prevailing legislative attitude toward manufacturing and, in particular, toward corporations, Gregg related the following in an address to the Manufacturers Association of the Confederate States:

As public sentiment in political circles was opposed to manufacturing corporations, and fearing that we might fail to obtain a charter in South Carolina, we made a simultaneous application to the legislature of Georgia, intending, if we failed in South Carolina, to accept a charter from Georgia and locate our capital in that state. [Wallace, 1960, p. 20]

Gregg received his relatively restrictive South Carolina charter in December 1845. He purchased spindles from William Mason and Company in Taunton, Massachusetts, then installed two water turbines to power his factory, and a third—which could be used for the cotton mill in an emergency—to run a sawmill. Having been North to view the industrial enemies at first hand, Gregg returned to use their example in establishing his firm. Broadus Mitchell's highly laudatory study of Gregg and his company (1928) describes the man as an energetic businessperson intent on capitalistic success but with an essentially feudalistic conception of his enterprise.<sup>7</sup> Graniteville was a company town centered around Gregg's mill. Surrounding the mill were workers' cottages, a machine shop, lumber mills, gristmills, a hotel, churches, a school, and other buildings. The mill, consisting of some 9,000 spindles and 300 looms, employed the area's "poor whites" in accordance with Gregg's belief that this policy would economically uplift this large but downtrodden group (Mitchell, 1928, pp. 58–60). According to Mitchell, the company village plan was successful as a social venture as well as an economic one. The operation became a model for other southern textile mills both in organization and paternalistic attitude. As Victor Clark said, "Modern cotton manufacturing in the South dates from the founding of Graniteville rather than from the postbellum period" (1929, p. 557).

Unlike the Graniteville enterprise, the name of the Tredegar Iron Works itself is perhaps more historically prominent than that of Joseph Reid Anderson, the man who guided it to fame and success. Chartered in 1837, this Virginia iron works was four years old when Anderson was appointed as commercial agent for the enterprise; in 1859 he joined with other firms to form the partnership of Joseph R. Anderson and Company (Dew, 1966). According to Charles Dew's study of Anderson and his firm, by the eve of the Civil War, the company could

produce "almost every conceivable type of finished iron" (1966, p. 20). Without the Tredegar Iron Works, some historians speculate that the South's participation in the war would have been curtailed substantially, an importance reflected in Dew's title selection for this work, *Ironmaker to the Confederacy*. Another student of the firm's history, Kathleen Bruce (1931) accorded it similar economic importance.

Only three establishments in the United States produced more iron at the outbreak of the war, making Tredegar not only one of the most important in the South but in the nation. Beyond its size and financial achievements, the Tredegar enterprise is also notable for its labor force composition. Anderson "broke the opposition of his free workers," says Dew, "and introduced large numbers of Negro slaves into skilled rolling mill positions" (1966, p. 22). This plan's success demonstrated the adaptability of bonded labor to skilled industrial jobs.

Farther to the southwest, Daniel Pratt's multiproduct firm thrived by mid-century. A transplanted New Hampshire native, Pratt carved out his famous industrial village thirteen miles from Montgomery, Alabama (Jordan, 1957, p. 152). Upon settling in Alabama in 1833, he established an enterprise that by 1860 included his cotton gin factory—which manufactured some 25 percent of the national output in that year—a sawmill, planing mill, a gristmill, an iron foundry, and the Prattville Manufacturing Company, a cotton cloth factory with nearly 3,000 spindles. The gin factory remained the most important component of Pratt's business throughout the antebellum era. It employed a work force that included slaves, and was housed in a building organized for specialized production of gins. Like Gregg and other southern industrialists, Pratt was a propagandist for economic self-sufficiency through manufacturing development. He had built the best-known manufacturing firm in the Lower South, a multiple-product enterprise which became not only a base for his financial success but for his publicist activities as well (Miller, 1972).

In contrast to the national and even international fame of these three firms, most southern manufacturing firms, like those elsewhere, were obscure outside their small local markets. The industrial counterpart to Frank Owsley's "plain folk," they left no individual company records, only the information reported to census takers. Although this information does not reveal much about any single firm, careful analysis reveals much in general about this group of firms, which Charles Ramsdell thought so important to Confederate success or failure.

At the geographic level, one of the most detailed investigations of southern manufacturing is Ernest Lander's 1960 study of antebellum Charleston. As early as 1826 that city had several iron foundries, rice mills, gristmills, and sawmills. By the mid-1850s it ranked third only to Richmond and New Orleans as a leading center of southern industry, its array of manufacturing industries including foundries, rice mills, gristmills, lumber mills, rail car firms, shipyards, wagon shops, saddleries, brickyards, coopers, and wheelwrights. Throughout the antebellum era, the city's economy boasted a developing and diverse manufacturing sector. Though far from representative of the rural South, the Charleston experience demonstrates the feasibility of industrial development in the region. Elsewhere in South Carolina, iron production had begun late in the eighteenth century. In the northwestern part of the state, three firms—the Hill Company, the Nesbit Company, and the South Carolina Manufacturing Company—had secured a strong position in iron production by 1837, a status which they held until the Civil War (Lander, 1954, pp. 337–55).<sup>8</sup> Most of the work force consisted of blacks, many of whom performed highly skilled tasks. Using domestic iron, these firms produced most of the farm implements for nearby residents. Slaves, usually hired rather than owned, also constituted most of the work force at Virginia and Tennessee iron works, performing every kind of task except management (Bradford, 1959, pp. 194–206; Dew, 1975).

Any survey limited to commercial manufacturing operations omits two of the most important regional sources for manufactured goods: plantation production and household manufacture. Studies of the slaveplantation system typically allude to the variety of products often made by slave artisans, and utilized on the plantation. On plantations throughout the antebellum era, considerable manufacturing activity also existed in the form of cotton ginning, sugar refining, rice milling, and tobacco processing. Tench Coxe, Albert Gallatin, and Secretary of the Treasury McLane, in his report on manufacturing, emphasized the importance of home manufacturing to the southern consumer. Said Harriet Herring, "It is impossible to know just how much [sic] goods were made at home, but all sorts of evidences are agreed on one thing, namely, that when crops failed or sold for low prices, the people turned readily to household manufactures" (1931, p. 3).<sup>9</sup> The existence of plantation and household manufacture suggests a demand for a variety of industrial products. Had supply conditions—such as improved inland transportation, capital availability or managerial capabilities—permitted, a larger marke-

toriented industrial sector could have been created.

## An Overview of Regional Industrialization: The Census Record

Although manufacturing censuses were compiled for the early decades of the nineteenth century, their contents are too sketchy and unreliable to provide a basis for acceptably accurate generalizations. The censuses of 1850 and 1860, despite known deficiencies, offer the most reliable and comprehensive data collections available to the student of the midnineteenth-century American economy. Examination of these reports reveals the extent, the composition, and the diversity of American manufacturing before the Civil War. They provide a massive, consistent, and surprisingly well-formulated record. Used judiciously and in conjunction with other source material, they offer a quantitative record of a magnitude unavailable for any other economy during comparably early stages of development. The following analysis rests primarily on the manuscript census records, data that facilitate analysis of the behavior of individual manufacturing firms as can no other source. To provide a setting for the work that follows, the following passage concentrates on the published aggregative data.

Quantitative evidence on manufacturing before 1850, although scanty and subject to error, supplies an indicator at least as reliable as available literary evidence. The resulting picture must be viewed only as impressionistic. [Table 1-1](#), a summary compilation of data from the 1810 federal census, although incomplete, shows Virginia, North Carolina, and Kentucky as by far the most important manufacturing states of the South; New York and Pennsylvania, as the most industrially significant of the Middle States; and Massachusetts, as the leading state of New England. Ordinarily these relationships approximate actual conditions, but cardinally their accuracy is dubious as a result of an inability to determine the extent of omissions or errors and the direction of biases. Manufacturing reports for 1840, while of greater reliability, are notoriously incomplete.<sup>10</sup>

**Table 1-1**  
*Estimated Output of Manufactured Goods, 1810*

State, Territory, or Region	Manufactured Output (\$000)	Population (000)
<b>South</b>		
Alabama	—	—
Arkansas	—	—
Florida Territory	—	—
Georgia	3,658	252
Kentucky	6,181	407
Louisiana Territory	200	21
Mississippi Territory	419	40
North Carolina	6,653	556
Orleans Territory	1,222	77
South Carolina	3,624	415
Tennessee	3,611	262
Virginia	<u>15,263</u>	<u>976</u>
Total	40,831	3,005
<b>New England</b>		
Connecticut	7,772	262
Maine	3,741	229
Massachusetts	21,896	472
New Hampshire	5,225	214
Rhode Island	4,106	77
Vermont	<u>5,407</u>	<u>218</u>
Total	48,147	1,472
<b>Middle States</b>		
Delaware	1,734	73
Maryland	11,469	381
New Jersey	7,055	246
New York	25,370	959
Pennsylvania	33,691	810
District of Columbia	<u>1,100</u>	<u>24</u>
Total	80,419	2,493
<b>West</b>		
Indiana	3	25
Illinois	<u>1</u>	<u>12</u>
Total	4	37

SOURCES: Coxe (1814, p. 38); U.S. Bureau of the Census, 1810, p. 1.

The figures for 1850 and 1860 ([Table 1-2](#)) are organized regionally largely because that represents the context in which judgments regarding southern industrial “laggardness” generally have been couched. The Northeast, clearly the most industrialized region, led all others in total output, employment, and capital both in 1850 and 1860. On a per capita or individual establishment basis, New England was the most industrially developed area, ahead of the Middle States by a wide margin. By the middle of the nineteenth century Massachusetts, Rhode Island, Connecticut, New York, and Pennsylvania were leading the American Industrial Revolution. The South obviously was not sharing that experience. Even in cotton manufacturing, after decades of newspaper and business promotional activity that had become still more intense following the Panic of 1837, the South produced only 10 to 11 percent of the national industrial output by 1850. The entire region, in fact, produced less than New Hampshire, about the same amount as Rhode Island, and approximately one-third that of Massachusetts at mid-century (U.S. Bureau of the Census, 1850, p. 41). Its relative position had hardly improved ten years later. While the aggregate deficiency of manufacturing may be explicable as an adjustment to regional comparative advantage, the low level specifically of cotton manufacturing is less apparent. Comparative advantage may have directed resources away from the industrial activity in general, but could hardly have done so for a particular industry so dependent on large inputs of a raw material produced within the region. The lack of textile industry development—which puzzled William Gregg, his contemporaries, and subsequent generations of scholars—lends support to the belief that the southern industrial laggardness may not have resulted entirely from rational adjustment to factor and product market conditions.

**Table 1-2**

*Manufacturing in the United States, by Region, 1850–1860*

Region	Number of Firms	Capital (\$000,000)	Employees (000)	Output (\$000,000)	per Firm (\$)	Capital	Number of Employees	Output per Firm (\$)	Output per Capita (\$)
						per Firm	(\$)	(\$)	(\$)
<b>1850</b>									
New England	22,487	166	313	283	7,364	14	12,594	104	
Middle States	54,024	236	421	473	4,363	8	8,757	71	
West	24,921	63	111	146	2,526	4	5,877	27	
South	20,505	67	110	101	3,273	5	4,921	12	
<b>1860</b>									
New England	20,671	257	392	469	12,456	19	22,669	149	
Middle States	53,287	435	546	802	8,164	10	15,059	96	
West	33,350	174	189	347	5,216	6	10,395	38	
South	24,081	116	132	193	4,827	6	8,034	19	
Percentage Changes, 1850–1860									
New England	-8	55	25	66	69	36	80	43	
Middle States	-1	84	30	70	87	25	72	35	
West	34	176	70	138	106	50	77	41	
South	17	73	20	91	48	20	63	58	

SOURCES: U.S. Bureau of the Census, 1850, 1860, *Manufactures*. The regions include the states as shown in Table 1-1, except for the following: the West includes Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin; the South includes Missouri and Texas in addition to the states listed in Table 1-1.

Southern industrial change over the decade 1850–60 was equally unimpressive. As the data in [Table 1–2](#) reveal, the southern states' growth rates compared less than favorably with those of other regions. Relative to the West—the area it most resembled industrially in 1850—the South's performance suffered noticeably in all but one respect, the growth of output per capita. Growth in manufacturing capital in the western states, for example, expanded 176 percent over the decade compared with the southern growth of only 73 percent. Greater expansion occurred even in the already industrialized Middle States. The South's manufactured output per capita did expand at a more rapid rate than that of other regions, yet the absolute

level remained one-half that of the agrarian West and only one-eighth that of New England. Comparative figures ([Table 1-3](#)) reveal the South's position over the decade preceding the Civil War, a time during which state legislatures, newspapers, and individuals issued rapidly mounting calls for industrial development. The region produced the same proportion of the nation's industrial output in 1860 as it had in 1850; although a slightly smaller percentage of the national industrial labor force resided within its boundaries by 1860, its share of industrial capital had fallen from 13 to 11 percent. By most measures, the West grew at the greatest rate, suggesting that the industrialization of the North was advancing from East to West and lending credence to the belief that East and West were uniting economically into a system markedly unlike that of the South—an inwardly directed manufacturing economy inimical to the economic interests of the export-oriented, slave-based, agrarian system. The West was beginning its own industrial revolution which was to attain full flower during the last decades of the nineteenth century. The fact remains, however, that in 1860 both South and West exhibited more industrial promise than accomplishment.

On a per capita basis, the South's output in 1860 lay far below that of every other region, less than one-third the national average and one-ninth that of New England. Industrial capital per individual was only one-seventh that of New England in 1850 and 1860; in both years it remained the lowest among the regions of settled population. The southern states accounted for 36 percent of the American population in 1850 and 33 percent a decade later, yet they never accounted for more than 11 percent of the nation's industrial output.

**Table 1-3**

*Distribution of Manufacturing Output, Employment, and Capital, 1850–1860 (percentage)*

Region	Output		Employment		Capital	
	1850	1860	1850	1860	1850	1860
South	10	10	11	10	13	11
New England	28	25	33	30	31	25
Middle States	47	43	44	42	44	43
West	14	18	12	14	12	17
Pacific	1	4	1	4	1	2

SOURCE: U.S. Bureau of the Census, 1870, Table 8-A. The distribution of value added is similar to that of output. See Table 2-11, below. For a breakdown of the regions, see Table 1-2.

On the eve of the Civil War, the South as well as the West thus remained demonstrably backward in manufacturing development relative to New England and the Middle States. In New England, where plant size was almost twice that of southern producers, each firm employed on the average more than three times as many workers as did firms in the West or South. Output per firm in New England was more than twice that of the West and nearly triple that of the South.<sup>11</sup> In 1860, the total manufactured output of the entire South fell below that of either Pennsylvania, New York, or Massachusetts, and was only 42 percent greater than that of Philadelphia County, Pennsylvania.

The southern states were not, however, abysmally lacking in manufacturing, and when compared with the West, do not appear as laggard as in the traditional comparisons with Massachusetts, New York, or Pennsylvania. But it has generally been the convention to compare the industrial levels of the entire South with such older, and differently endowed, states as Massachusetts or New York, or to contrast an Arkansas or Mississippi with a state of the Northeast rather than one of the Old Northwest. This has given rise in large part to the traditional view of southern industrial retardation. Since all such depictions of the region's industrial condition rely upon relative positions, the South's situation is sensitive to changes in the basis of comparison. A broader perspective especially enhances southern manufacturing accomplishments. In cotton manufacture, the South was the world's fifth most developed "nation" in 1860; in terms of iron production it was eighth (Fogel and Engerman, 1974, p. 6).

## **Composition of the Southern Industrial Economy**

Contemporary nineteenth-century observers and subsequent historians criticized the southern manufacturing economy not only for its small size, but also for its presumed lack of diversity and its domination by "traditional" processing industries. Such a view is largely, though not completely, substantiated by the statistical evidence. Consider the region's industrial composition during the late antebellum era. By far the most important manufactured products were flour and corn meal, goods whose value totaled almost \$38 million. Flour and gristmilling—processing activities drawing directly upon agriculture for inputs and farm families for the primary product market—became important in the South as in all settled areas of the United States during early phases of economic development. That these industries and lumber milling (\$18.6 million in output) emerged as the leaders in industrial production is not surprising. Each represented a shifting of productive function away from the farm as agriculture became more productive, profitable, and commercialized. Almost half of the manufacturing activities among the largest fifteen industries were agricultural processing activities—flour and gristmilling, sawmilling, tobacco manufacture, and leather tanning—that directly drew upon agricultural materials for inputs and the farm community for final market.

In 1860 the remaining industries among the top fifteen—cotton goods production, machinery, carriages and wagons, boots and shoes, men's clothing, tin, copper and sheet iron ware, blacksmithing, woolen goods production, saddlery, and bar, railroad, and sheet iron manufacture—indicate that southern industrial development was not as seriously undiversified as some have claimed. While a greater output of tobacco and cotton goods may have been anticipated—in view of the regional abundance of these raw materials and the years of boosterism designed to encourage a large industrial sector founded on cotton—their presence among the five largest industries suggests that the southern entrepreneur had responded at least partially to market inducements. While far from eastern levels, the output of the machinery producers and the bar, railroad, and sheet iron industry (the thirteenth largest southern industry in 1860) was sufficient to place them among the region's most important industrial activities. Such consumer-oriented industries as boot and shoe production, men's clothing, and carriages round out the picture of the southern manufacturing sector.

An examination of industrial composition as it varied across regions reveals the comparability of West and South. Among the five most important industries in these two regions, three are common to both: flour and corn milling, lumber milling, and machinery production. The flour and gristmilling industry, the leading manufacturing activity in both South and West, accounted for 29 percent of total regional output in the South and 27 percent in the West. Processing industries predominated in both areas. The two remaining industries among the five largest reflect regional raw material differences—meat packing and liquor distilling in the West, and cotton and tobacco goods production in the South. While flour and corn meal manufacture was also the largest industry in the Middle States, it was relatively less important there, accounting for only 10 percent of that region's total industrial output. The leading industries in the Middle States and in New England tended to produce goods two steps removed from the agricultural raw material, such as boots and shoes, cotton or woolen cloth, and clothing, products that used such processed materials as tanned leather or cotton thread.

Comparing the industrial sector of southern and western cities ([Table 1-4](#)) further reveals the economic resemblance of these regions, and shows that the South was not especially backward in relation to states other than New York, Pennsylvania, or some in New England.<sup>12</sup> Richmond's per capita production was only 4 percent below that of Cincinnati, and in 1860

both Richmond and Louisville boasted greater industrial output than Pittsburgh, Indianapolis, or Chicago. There is no clear pattern of western superiority over the southern areas, although such older established southern cities as New Orleans or Charleston already had been surpassed by Chicago.

The case of New Orleans bears further examination. Although its manufactured output was low, compared to some other southern cities it was producing a wide variety of goods. Viewed in conjunction with its high level of port activity and its complement of such port-related services as warehousing, banking, and freight handling, the picture of the antebellum New Orleans's economy is not at all a dismal one. It was, in fact, one of the richest cities in America. While its fortunes were to fade later in the century, as of 1860 it was prospering as few cities in the world. At a more disaggregated level, even its manufacturing economy appears reasonably robust. Its most important industry, men's clothing, produced a value of output exceeding that of meat packing in Chicago, that city's largest industry in 1860. New Orleans's aggregate output of machinery, steam engines, and related goods was almost double that of Chicago even though the Orleans Parish free population was only 3 percent greater. The Crescent City's output of boots and shoes was approximately the same as Cincinnati's, and more than Pittsburgh's, while its output of men's clothing far exceeded that of either Chicago or Pittsburgh. In fact, New Orleans's output of men's clothing made this the largest industry in Louisiana, an unusual situation in view of the preeminent position of flour and gristmilling in most states of the Union.

**Table 1-4**

*Per Capita Output of Manufactured Goods, Selected Urban Counties, 1860*

County (City) (\$)	Manufactured Output per Capita (\$)
1. Hamilton County, Ohio (Cincinnati)	217.16
2. Henrico County, Virginia (Richmond)	209.86
3. Jefferson County, Kentucky (Louisville)	158.10
4. Allegheny County, Pennsylvania (Pitts-	148.54

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burgh)	
5. Cook County, Illinois (Chicago)	93.52
6. Orleans Parish, Louisiana (New Orleans)	65.18
7. Marion County, Indiana (Indianapolis)	27.35
8. Charleston County, South Carolina (Charleston)	16.82
United States (all counties)	58.13

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SOURCE: U.S. Bureau of the Census, 1860, *Manufactures*.

In general, at regional, state, or county level the South does not appear as industrially stagnant as normally depicted. But one should not overlook a clear pattern: antebellum southern production fell below that of the populous northeastern states, both on an aggregate and a per capita basis. More important, after the Civil War, both the East and Midwest did pull away from the South industrially, suggesting that in 1860 something was already amiss, something that would continue to affect the economic destiny of the South well into the twentieth century. Perhaps the roots of retardation had indeed been planted before the Civil War, a possibility that makes it particularly important to better understand the “failure of industrialization” in the antebellum period.

## A Comment on the Subsequent Analysis

Before turning to a consideration of the southern industrial condition and the hypotheses advanced to account for that backwardness, three topics merit review. The first is the data source that underlies much of the analysis; the second, the methodological philosophy followed; and the third, the limitations of our sources, methodology, and our various conclusions.

## *The Census Manuscripts*

The most widely used source for general quantitative data on American manufacturing has been the published federal censuses, particularly those from 1850 on. The published data, although long relied upon in debates on southern development, are nevertheless a secondary source, because underlying them is a more basic set of records, the manuscripts of the published enumerations. Stored in state archives for decades, the manuscripts for the 1850 through 1880 manufacturing censuses have remained virtually untouched by scholars of American industrialization.<sup>13</sup> Why this neglect of such a valuable research collection bearing on so fundamental an issue in U.S. economic development? The sheer volume of effort required to deal with the massive amount of data in these documents was apparently the major impediment.

The development of computer technology removed this obstacle. It made possible the collection and analysis of data that under earlier calculating methods could have occupied several professional lifetimes or required an army of research assistants. While this physical barrier accounts for the past failure to compile and utilize this collection in its entirety, it does not adequately explain its limited use for examining the experience of single firms, industries, or geographic areas. Calculating problems aside, the thorough exploitation of these data depended upon an altered intellectual perception of certain issues and methods in economic history. This new viewpoint finally emerged over the past two decades and changed the perspective in this field, focusing attention on a new set of questions that could only be answered quantitatively and within the discipline of theoretical economics. As they pertain to industrial development, many of these answers could be found only in the individual firm's data, and most of the answers could be useful only if based upon a broad variety of industrial experiences. Clearly one research source best meets these requirements: the federal census manuscripts. Most of the original analysis in this book draws upon this previously untapped data collection.

Even with the availability of contemporary computer technology, to have collected and analyzed data on every firm included in the manuscripts would have necessitated the mon-

umental task of completely recompiling the censuses for 1850 through 1870, the years with which we are most concerned. Scientific sampling methods offered a solution. By taking a random sample of individual manufacturers, North and South, from the manuscripts and subjecting the results to conventional tests of representativeness, we could provide a basis for answering the kinds of questions that we as economists found important and worthy of investigation, questions that required reliance upon generalizations, microeconomic theory, and econometric analysis. To supplement the generalized anonymity of these samples, we collected a second set of data for the largest firms in each state. These data sets—which cut through the anonymity of random samples to reveal such famous mid-nineteenth-century producers as the Appleton Company in the North, and Daniel Pratt in the South—complement the random samples. They provide “color” to the historical narrative by presenting a more personal viewpoint. Much of this information has been woven into this text and most of it is reported in the appendix. But essentially our approach in this book is that of the economist: we relied heavily on the random samples to provide answers to the questions we asked.

Included in our analysis are Alabama, Arkansas, Florida, Kentucky, Mississippi, North and South Carolina, Tennessee, Texas, and Virginia. Because the records for antebellum Georgia and Louisiana no longer exist, these states cannot be considered in our generalizations about southern industry. Nor can we examine industrial firms in the major southern city, New Orleans. We do not think that the exclusion of those two states from the sample data greatly affects our general conclusions about southern manufacturing.

Although there exists no perfect research source, either for quantitative or nonquantitative studies, our work leads us to believe that these census manuscripts are the best available source for a general economic analysis of American manufacturing during the antebellum years. Supplemented by other quantitative and literary material—as they are in this book—these data provide a broad view of southern manufacturing, and remain the foundation on which our investigation rests. The samples are discussed more fully in Appendix A.

### *Methodology: The Approach and Its Limits*

This work is essentially an economic analysis of what we consider an important historical

issue. Our intent is to use economic analysis to test various hypotheses that have persisted through the years, then sift through what remains to construct a plausible, consistent explanation for the South's failure to industrialize during the founding era of the American Industrial Revolution. In this sense our work represents a narrow approach to obviously broad issues. We try to define these issues in an operational manner, in terms of their relation to backward industrialization. We have considered only those lines of causation that seem most reasonable from an economist's point of view. Despite this somewhat narrow approach, the results should appeal to a wide audience. Throughout the book we mesh historical detail and qualitative evidence with our economic analysis, and present the material in a form accessible to even the lay reader. In the analytical sections we remind the reader of the limitations of some techniques, the constraints sometimes imposed by data availability, and the fragile nature of some of our conclusions. We approach the subject of southern industrialization scientifically, articulating testable hypotheses, and testing them using our representative data sample in conjunction with techniques drawn from economic and econometric analysis.

The notion of southern industrial backwardness has persisted through history. Our results generally do not challenge that belief. They do, however, indicate that it was backward only relative to the industrial Northeast and to some European economies during the late antebellum years. Relative to America's other settled areas and to most other nations of the world, the South was developing reasonably well industrially. Yet the region's propensity to backwardness perhaps is not easily measured by a simple comparison of aggregate and per capita indicators of prevailing conditions during the antebellum period. Perhaps southerners were indeed slipping behind those elsewhere, particularly in the decade preceding the Civil War, in preparing for continued or accelerating industrial development in the postbellum decades. If they were, then the historically pervasive issue of laggardness remains a viable and important one despite the apparent relative similarity between South and West on the eve of the Civil War. In fact, the testing of two long-standing but contradictory explanations for the observed backwardness assumes an even greater significance if the cause was less obvious, and hence less directly measurable. One explanation holds that there was little southern manufacturing simply because it was an unprofitable investment, whereas the other asserts that it was indeed profitable but was ignored or resisted by investors, particularly the planter class. Embellishing

each of these are many related hypotheses. [Chapter 2](#) elaborates the various hypotheses advanced to explain this industrial condition, and ensuing chapters subject those hypotheses, or at least our operational versions of these explanations, to analysis and scientific testing. Because this study draws heavily on the existing, albeit scant literature on early southern industrialization, the conversant reader should find himself on familiar ground. Our contribution to this subject lies in the critical examination of the causes of the conditions described in these works.