

The Demise of an Organizational Form: Emancipation and Plantation Agriculture in the American South, 1860–1880¹

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This article addresses factors affecting the disappearance of organizational forms, particularly in regard to arguments derived from organizational ecology and the literature on social movements. These perspectives are used to explain the disappearance of the Southern plantation in the decades following the American Civil War. Findings suggest that there is limited support for exogenous explanations of plantation demise, emphasizing damage from the Civil War and population pressures. Ecological dynamics, especially challenges from alternative forms of labor organization and interdependencies with mid-size farms, play a greater role. Another crucial influence involves the decisions made by laborers in the plantation system with respect to incentive structures and the reconstruction of their social networks. These findings lead to a perspective on organizational forms that brings lower-level members back in as agents of grass-roots change and contestation.

INTRODUCTION

A comparison of American organizational censuses from the early 19th and early 21st centuries reveals marked differences in the types of organizations represented. While the 19th century “Census of Arts and Man-

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ufactures” includes counterparts to such contemporary organizational forms as textile mills and distilleries, it also features historically defunct forms such as wire card factories, cooper shops, and “manufactories of hair powder” (U.S. Census Office 1814, p. 23). Organizations devoted to the processing of hides and skins, the second-largest industry in the United States in 1810 (U.S. Census Office 1814, p. 37), had practically disappeared two centuries later. And plantations, once the cornerstone of large-scale agricultural production in the United States, had ceased to exist, even in the vestigial form they had maintained into the 20th century.

What social processes have contributed to the disappearance of these organizational forms? Although organizational sociologists have undertaken extensive analyses of disbanding on the part of individual organizations (e.g., Carroll and Hannan 2000; Aldrich 1999, chap. 10), as well as analyses of industry emergence (Ruef 2000; see also Stinchcombe 1965, pp. 153–69), studies of the extinction of entire forms of organizational activity—and the industries or populations associated with them—have been far more limited. To clarify the mechanisms contributing to form extinction, this article addresses the demise of a central 19th-century American institution, the Southern plantation, between 1860 and 1880. The plantation is of sociological interest, not just as an organizational form, but as the embodiment of a mode of domination clearly differentiated from legal-rational authority (Weber [1924] 1978, chap. 12). Using a broad organizational definition, the term *plantation* refers to any large agricultural unit (500 acres or more) that is owner-operated (rather than rented or tenant farmed) and heavily reliant on hired or enslaved labor.² In the American South, the plantation form had emerged by the early 18th century as “the basic unit of capitalist agriculture” (Elkins 1959, p. 47). It achieved its peak in 1860, when roughly one-third of all Southern cropland was concentrated in large agricultural estates (U.S. Census Office 1883). Nevertheless, just one decade later, informed observers predicted that “a time may come . . . when the cotton plant, instead of being grown in great continuous fields, a hundred or more acres together, will be cultivated as in a garden” (Loring and Atkinson 1869, p. 129). By 1880, the plantation system had practically ceased to exist, with less than 1% of farms and only 8% of cropland in the cotton-area South being operated under this model (Ransom and Sutch 2001, chap. 4). Although census

² The Oxford Dictionary did not adopt a contemporary meaning of “plantation” until 1706. Previous usage had simply emphasized organizations involved in the “act of planting” or any agricultural holding in a new or conquered territory (Thompson 1935, p. 318; Vlach 1993). It is worth emphasizing that our usage here does not identify slavery as an integral attribute of the plantation, although some coercive element is often required to sustain the labor intensiveness of the form (see, e.g., Paige [1997] on the political economy of coffee plantations).

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enumerators and social scientists would continue using the term “plantation” well into the 20th century (U.S. Census Office 1916; Rubin 1951), this nomenclature came to denote decentralized, sharecropped, and tenant-farmed arrangements that were fundamentally different from the centralized plantation form of the 19th century.³

On initial inspection, the disappearance of the plantation form in Southern agriculture appears to have straightforward explanations, namely that it was a natural consequence of exogenous factors such as the U.S. Civil War and the emancipation of four million slaves. Closer scrutiny reveals, however, that the plantation system initially staved off these threats and was successfully undermined only by mobilization among former slaves—who sought to reunite families or find alternative job opportunities (Litwack 1979)—as well as by competition from alternative forms of agricultural tenure (Wright 1978, 1986). An analysis of internal and organizational demography is thus crucial to understanding the disruption of the plantation system and provides a window on social processes that may threaten organizational forms more generally (see fig. 1).

In this study, I address the disappearance of the Southern plantation at multiple levels of analysis, considering exogenous factors, organizational demography, and the internal demography of the plantation, particularly as it relates to the incentive structures and networks among former slaves. To tease out specific implications of these factors for the demise of the plantation system in the postbellum South, I conduct an analysis that evaluates both declines in the preponderance of plantation agriculture at the county level and exits of former slaves from large-scale agriculture at the individual level. The first analysis relies on ecological data from U.S. Census reports on agriculture (U.S. Census Office 1864, 1872, 1883), as well as on a sample of 11,000 farms from manuscript censuses (Ransom and Sutch 1999). The individual-level analysis draws on 1,508 interviews conducted by the Works Progress Administration (WPA) with former slaves, in which respondents reported on the timing and reasons why they left the plantation system. These self-reports are corroborated using a behavioral analysis of labor exit rates from Southern plantations following emancipation. By connecting the actions of individual ex-slaves with the regional destabilization of plantation agriculture,

³ Historical claims regarding the disappearance of the plantation system are sensitive to whether one views it in terms of organizational features or social stratification. Thus, John Hope Franklin advances the claim that “there was no significant breakup of the plantation system during and after reconstruction” (1961, p. 219). His view of persistence emphasizes the postbellum status structure, in which “the most highly respected member of society in 1880, and indeed the most powerful in many ways, was still the planter” (1961, p. 221). Status structures among former slaves exhibited a mixture of continuity and disruption during the same period (Ruef and Fletcher 2003).

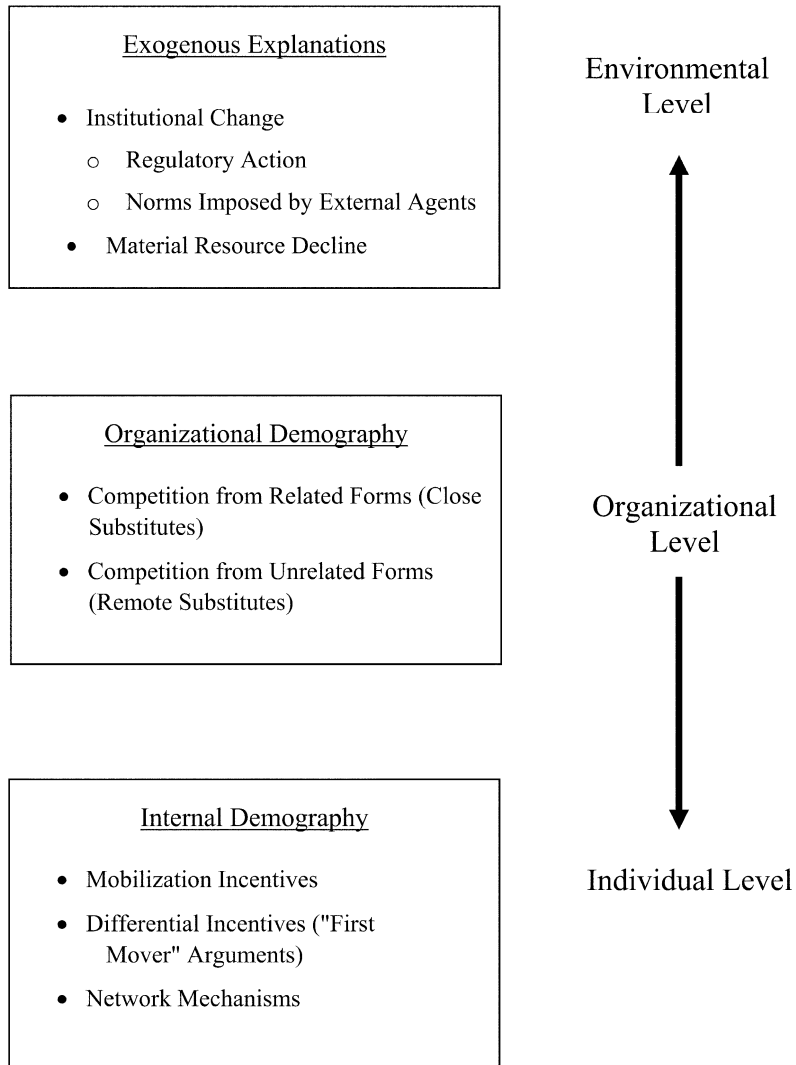


FIG. 1.—Generic explanations for the demise of an organizational form

the study develops new links between the literature on social movements, human demography, and organizational theory.

EXOGENOUS EXPLANATIONS FOR THE DEMISE OF ORGANIZATIONAL FORMS

Institutional Change

One basic explanation for the demise of organizational forms is that exogenous institutional conditions (such as regulatory reforms or normative changes imposed by outside agents) drive the disappearance of certain templates for organizing human activity. As noted above, understandings of the disappearance of American plantation agriculture tend to invoke this kind of explanation, with the Thirteenth Amendment to the U.S. Constitution—and consequent emancipation of four million slaves—serving as the crucial catalyst for the elimination of this “peculiar institution” (Stampp 1956). Since the late 18th century, Southern plantations had come to rely heavily on forced labor and, consequently, emancipation appeared to pose severe threats to the system of large-scale agriculture. Regional statistics for U.S. agriculture suggest broad consistency with this argument: in 1860, the average, owner-operated farm in the U.S. South and border states comprised well over 300 acres, an outlier compared to both the densely populated Northeast and sparsely populated West (see fig. 2). By 1880, the scale of Southern farms had fallen in line with the rest of the country, with most of the remaining variation accounted for by population density (Wright 1986).⁴ The emancipation of Southern blacks and the demise of the plantation appear to play a crucial part in this general pattern of institutional isomorphism, to invoke DiMaggio and Powell’s (1983) cogent phrase.

More detailed examination, however, questions the direct connection between slave emancipation and the disappearance of plantation agriculture. The plantation form had become so firmly institutionalized by the mid-19th century that most planters sought to reestablish the system on the basis of fixed wage payments between 1865 and 1866 (Wright 1986; Ransom and Sutch 2001). Lacking familiarity with alternative forms of agricultural tenure, planters believed that they could “go right on like we always did,” including the use of ex-slave work gangs (Florida planter Ethelred Philips, quoted in Litwack 1979, p. 337). Prima facie, the resulting *wage plantation* system could be readily adapted to free black labor. Out of economic necessity, many black laborers continued initially to work on plantations under wage agreements (Franklin 1961, p. 6).

⁴ The figure does not address trends in another defining feature of the plantation, namely its labor intensity. By the early 20th century, Southern farms departed considerably from the labor intensity presumed by the plantation form, with only 1.6% of all Southern farms reporting expenditures of over \$1,000 for wage labor, compared to 3.3% for farms in all other regions of the United States (U.S. Census Office 1916, tab. 23).

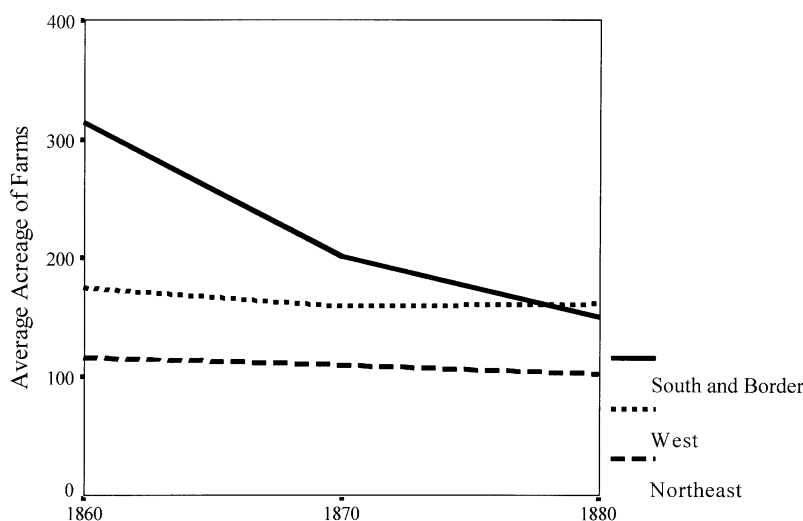


FIG. 2.—Change in average farm acreage by U.S. region, 1860–80. “South and border” region includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, North Carolina, South Carolina, Tennessee, Texas, and Virginia. “West” includes California, Dakota, Iowa, Minnesota, Nevada, New Mexico, Oregon, Utah, Washington, and Wisconsin. “Northeast” includes Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont.

Descriptions of antebellum and postbellum plantations emphasized similarities in their organizational structures (e.g., Barrow 1881), pointing to such postbellum practices as housing workers in old slave quarters, providing them with rations comparable to those received under slavery, and allocating quota rewards for crop production (Reid [1866] 1965; cf. Stampp 1956). Parallels in reward structures between the two organizational forms were encouraged by outside authorities, especially the contractual templates provided by the Freedmen’s Bureau (U.S. Bureau of Refugees, Freedmen, and Abandoned Lands 1867). Given the initial persistence of plantation agriculture in the years following the Civil War (and the mobilizing effort required of former slaves to challenge it), a direct causal link between formal emancipation and the demise of the plantation seems historically untenable.⁵

⁵ As this discussion underscores, by using the term *wage plantation*, I do not mean to assert that compensation on the postbellum plantation was always monetary in character. Often, the “wages” took the form of crops, food rations, or housing, as revealed in labor contracts from the period. I am thankful to an AJS reviewer for emphasizing this point.

Material Resource Conditions

An alternative exogenous explanation for the disappearance of the plantation system addresses the impact of material resource conditions that supported the organizational form. During the aftermath of the American Civil War, the devastation imposed on human life, livestock, cropland, and farm implements seemed to pose a fundamental threat to traditional Southern agriculture (Coulter 1947; Gates 1965). Sherman's infamous "March to the Sea" and other Union incursions had left many Southern plantations in shambles. Between 1860 and 1870, (former) slaveholding states suffered an aggregate decline of \$61 million in livestock and farm machinery values (U.S. Census Office 1864, 1872), a sum that would total more than one billion dollars today. During the same period, working animals—horses, asses, mules—declined by nearly one-third in the cotton states (Ransom and Sutch 2001, p. 48). These immediate consequences from the war called the viability of large-scale agriculture into question, given the reliance of plantations on extensive tracts of arable land and, by historical standards, complex agricultural technology.

Examining geographic heterogeneity in plantation prevalence following the Civil War supports the intuition that local resource conditions impacted the persistence of the organizational form. Figure 3 plots the change in the number of plantations relative to all agricultural units between 1860 and 1870 at the county level. Medium-gray areas on the map denote relatively stable plantation counties—that is, those in which the density of plantations in 1870 (as a percentage of all farms) did not differ from the density of plantations in 1860 by more than $\pm 0.5\%$. Black and light-gray areas denote decreased and increased prevalence, respectively.

Some of the patterns of decline appear to follow those of major Union incursions in the South—such as the patterns observed in the lower Mississippi river valley and in northern and central Virginia. In other cases, however, the pattern deviates considerably from Civil War campaigns. Upper Georgia evidences stable (and, in a few counties, even *increased*) plantation prevalence, despite the extensive Atlanta campaign. This suggests that an emphasis on short-term declines in carrying capacity—such as those affecting the cropland, farming machinery, and livestock on which the plantation system was constructed—should be complemented by attention to long-term contractions in the resource niche.

As noted in prior scholarship on plantations and geographic frontiers (e.g., Thompson 1935), a major long-term threat to the organizational form involves human population growth. The Southern farm was uncharacteristically large by national standards, averaging 315 acres of improved cropland, compared to 116 acres in the industrialized Northeast and 175 acres in the sparsely populated West (fig. 2; U.S. Census Office

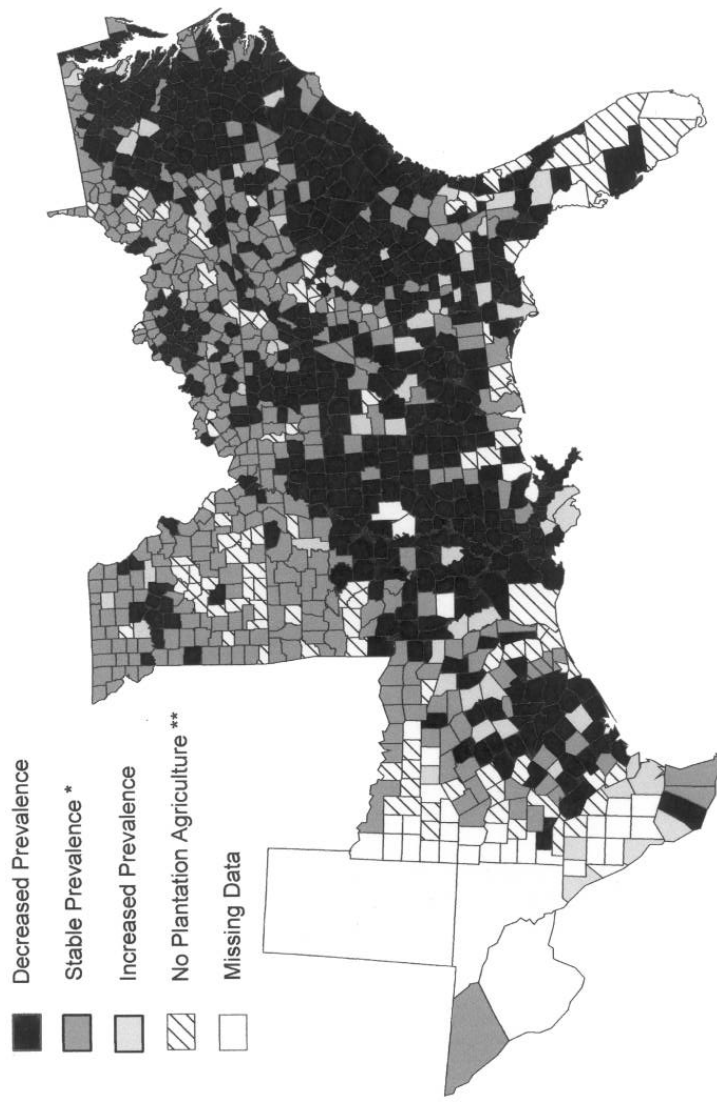


FIG. 3.—Change in plantation prevalence in the U.S. South, 1860–70; for stable preference (*), change in prevalence is no greater than $\pm 0.5\%$ of all agricultural units; for no plantation agriculture (**), counties without plantations in 1860 and 1870.

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1883). Arguably, this model of Southern land tenure was incompatible with population growth, which favored a less expansive system of farming. Some social historians have argued that the development of Southern urban centers, such as Charleston, was *inhibited* in the 19th century by their dependence on the plantation economy (Smith 1987).⁶ Following this argument, the decline of large-scale agriculture in the postbellum period might be traced to postponed urbanization in the South after the Civil War, representing a contraction in the plantation's resource niche because of alternative land allocation.

INTERNAL DEMOGRAPHY AND THE DEMISE OF ORGANIZATIONAL FORMS

In direct contrast to accounts that emphasize the "top down" influence of exogenous changes in institutional arrangements or material resource conditions, microlevel analyses of the internal demography of organizational forms question how participants are likely to react to those external forces—for example, *what* would former slaves do with their newfound freedom? These "bottom up" explanations allow a greater role for agency in the analysis of threats to organizational forms and encourage consideration of counterfactuals to observed historical patterns (Zald and Berger 1978).

From a social movement perspective, a key dynamic in the analysis of internal demography is the threshold, or tipping point, where a critical mass of participants decides to abandon an organizational form and seek out alternative arrangements (Granovetter and Soong 1988; Marwell and Oliver 1993; Chwe 1999). Threshold phenomena apply when the costs and benefits of supporting the alternative arrangement vary depending on how many other participants make the same choice.⁷ In the postbellum South, for instance, the defection of agricultural laborers from wage plantations in small numbers may have led to relatively little individual cost, as alternative opportunities in nonagricultural employment were readily available. If moderate numbers of laborers left the wage plantations, individual mobilization costs could rise as the pool of nonagricultural workers became saturated and few alternative agricultural opportunities

⁶ Other scholars (e.g., Firebaugh 1979) have argued that plantation agriculture initially spurs urbanization in underdeveloped regions. This is consistent with the model of dependent urbanization advanced by Smith (1987), explaining the relatively large size of urban centers such as Charleston in colonial America.

⁷ There are conceptual parallels between the abandonment of plantation agriculture among Southern blacks and other well-known threshold phenomena, such as worker strikes (see Granovetter 1978 for additional substantive examples).

presented themselves (particularly, given the economic and social difficulties associated with land acquisition among free blacks). Following large numbers of defections from the plantation system, on the other hand, the mobilization cost could again fall, as plantation owners were forced to abandon the wage plantation altogether in favor of alternative forms of land tenure (e.g., sharecropping).

Four generic types of tipping-point outcomes can be illustrated using the empirical pattern observed for Southern blacks abandoning the plantation system as well as several hypothetical counterfactuals, as seen in figures 4 and 5. In the observed pattern (top half of fig. 4), the plantation was gradually abandoned in favor of experiments with sharecropping and other forms of land tenure during the period of radical Reconstruction.⁸ This outcome can be contrasted with a counterfactual pattern (bottom half of fig. 4), where the plantation system is subject to rapid displacement, possibly because of revolt among ex-slaves (as some Southern whites had feared) or federal reparations encouraging proprietor farming (the “40 acres and a mule” solution hoped for by many emancipated Southern blacks). Alternatively, it is equally plausible that the wage plantation system would have survived emancipation (top half of fig. 5), if exodus from the plantations failed to achieve the critical mass required to sustain alternative agricultural arrangements. Finally, institutional fragmentation (bottom half of fig. 5) could have occurred if the costs of abandoning the plantation system increased after sharecropping had achieved critical mass, leading to the sustained existence of these two competing forms of land tenure.

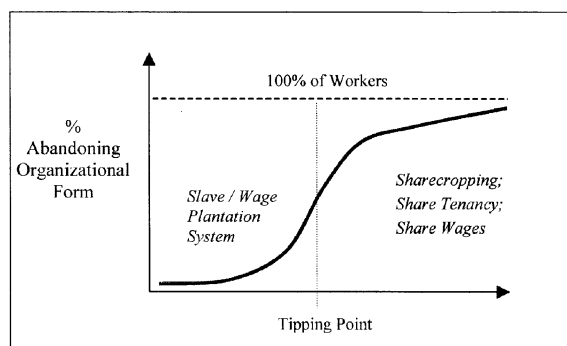
Given these plausible counterfactual patterns, an examination of internal demography should address the mechanisms supporting one outcome (gradual displacement of the plantation form) rather than the others. Drawing from the social movements literature, two mechanisms can help to account for this pattern of decline, one based on differential incentives among organizational participants and the other based on network effects.

Mobilization Incentives

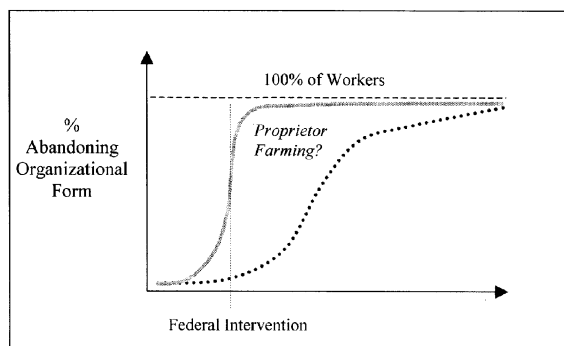
A well-established literature examines the mobilization benefits and costs that participants bear in undertaking insurgent action (e.g., Oberschall 1973; Granovetter 1978; Chwe 1999). In the case of the wage plantation, the costs to free blacks for *not* abandoning the form can be identified readily. A common explanation for black emigration from large-scale agriculture was that white planters, used to relying on forced labor, failed

⁸ Although the pattern of exits displayed in the figure is stylized, it is based on a cumulative hazard rate derived below from interviews with former slaves.

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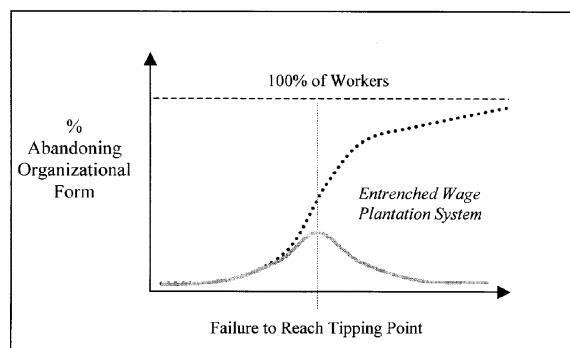
Gradual Displacement of Plantation Agriculture



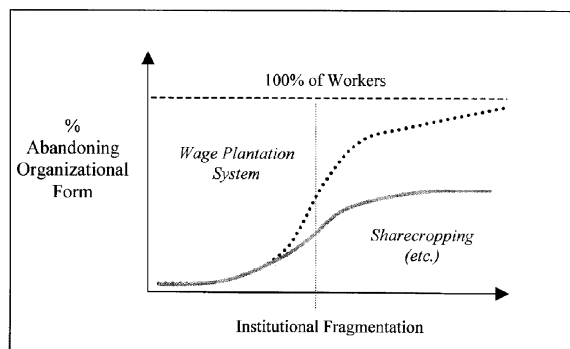
Rapid Displacement of Plantation Agriculture

FIG. 4.—The tipping point in internal demography and a counterfactual pattern: Gradual and rapid displacement of plantation agriculture.

to provide adequate reimbursement for retaining their workforce. Labor contracts were routinely broken by white landowners, and other anti-market practices—such as collusion over wage payments—were common. Moreover, the postbellum plantation form suffered from what Hannan and Freeman (1984) termed *structural inertia*, retaining many of the features of its antebellum counterpart. The gang system of labor was still widely used after emancipation, and overseers were simply given new titles such as “supertender,” “manager,” or “agent” (Barrow 1881; Reid 1965). Physical punishment of laborers, though less than that experienced under slavery, often persisted. More fundamentally, many freeman and freewomen associated the very idea of labor-intensive, large-scale agriculture with chattel slavery and sought to distance themselves from any organizational form exhibiting these features. Contemporary observers



Failed Displacement of Plantation Agriculture



Competing Forms of Agricultural Tenure

FIG. 5.—Additional counterfactual patterns: Failed displacement of plantation agriculture and competing forms of agriculture tenure.

noted “the desire of the [black] laborer or freedman to be entirely independent of the white men” (Loring and Atkinson 1869, p. 22).

Still, the emancipated slave faced daunting obstacles in leaving the plantation. Some of these involved immediate constraints, such as anti-vagrancy laws limiting black migration (Cohen 1991). Of greater theoretical importance, from a social movement perspective, there was no alternative form of land tenure available to free blacks at the close of the Civil War—tenant farming, as an organizational form, was virtually unknown in the antebellum period (Ransom and Sutch 2001, p. 88), and land ownership remained elusive for the great majority of emancipated blacks (Du Bois 1901). Like many incidents of insurgent action, the displacement of the plantation form required a critical mass of defectors.

Because “free” market opportunities for emancipated slaves differed by human capital and antebellum status (Ruef and Fletcher 2003), several

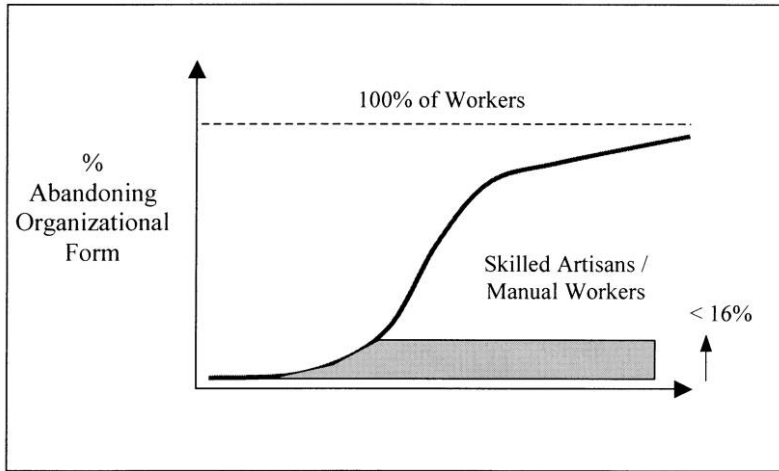
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classes of early defectors may be identified. Black artisans (e.g., blacksmiths, carpenters, masons) had enjoyed some advantages in the antebellum period—even competing successfully against white craftsmen (Greene and Woodson 1930)—and continued to witness strong demands for their skills outside the plantation system. Other manual workers from the plantations were desired in a variety of postbellum “industrialization” projects. Planters were particularly concerned about competition from railroads, which tended to draw laborers from large-scale agriculture. In their postbellum report on cotton production, Loring and Atkinson (1869, p. 23) estimated “that hands representing 50,000 bales are working on railroads in [southwest] Georgia, beside which the large number of new railroads being built in other parts of the South, are constructed chiefly by black labor.”

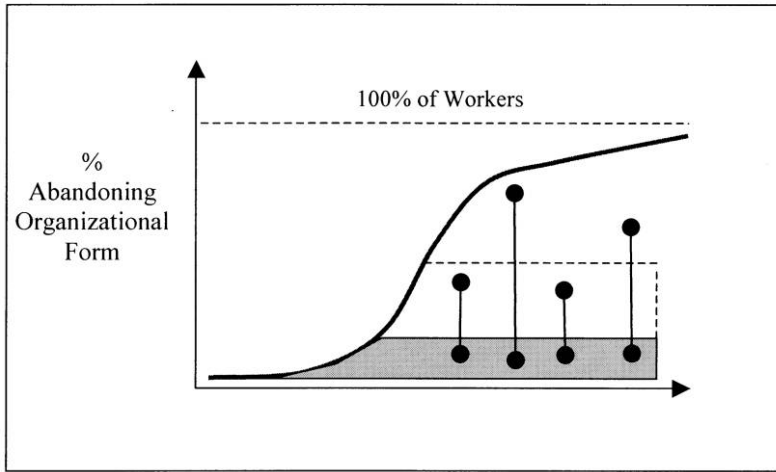
The availability of such nonagricultural employment suggests that early exits from the plantation occurred primarily among artisans, manual laborers, and field laborers prepared to abandon agricultural work. Ex-slaves who had held other antebellum positions, such as domestics, were likely to venture cautiously into an uncertain labor market. The aggregate effect of this differential attrition among former slave classes is that the tipping point for the displacement of plantation agriculture would have been approached in the years following the Civil War but probably not reached (see fig. 6 [a]). Even if the free labor market had been able to accommodate all of the skilled and semi-skilled manual workers from the plantation system, this number would only have been about 16% of the total plantation workforce (Ruef and Fletcher 2003 [tab. 1]). A more conservative figure is based on the amount of manufacturing activity in the American South, which accounted for only 6.5% of total employment by the turn of the century. Considering internal demography alone, another mechanism is required to explain the displacement of plantation agriculture and appearance of alternative forms of land tenure.

Network Effects

A crucial element of success for a new formal organization or social movement is the presence of preexisting network ties connecting potential members to others within the organization and an absence of ties between those potential members and individuals or organizations posing conflicting commitments (Snow, Zurcher, and Olson 1980; McAdam and Paulsen 1993). By the same token, individual organizations—and, more generally, organizational forms—are threatened when the balance of network ties connects their members more strongly to actors outside the boundaries of the organization than to those within. In this respect, an important but underanalyzed microstructural component of the demise of the Southern



a. Approaching "Tipping Point" Due to Non-Agricultural Alternatives



b. Reaching "Tipping Point" Due to Network Effects

FIG. 6.—Social movement effects and the “tipping point” in plantation agriculture

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plantation system is that it had originally been developed with very little regard for the familial networks of slaves. Large numbers of nuclear slave families were broken owing to the sale of some family members by planters, as well as to the migration of planters themselves. Some social historians speculate that “a central tension between slaves and their owners [may have] had its origins in the separation of work and kinship obligations” (Gutman 1976, p. 209). Although kin sometimes remained on nearby plantations after familial disruption, many slaves reported that close relatives were in distant or unknown locations (Escott 1979, chap. 2).

As former slaves left their plantations in the postbellum era to reconstruct familial networks, two possible outcomes may be anticipated. Insofar as network ties occurred exclusively between ex-slaves on different wage plantations, the aggregate effect would simply be migration (and temporary disruption) among plantations. On the other hand, if familial networks bridged an existing group of defectors (particularly, those who had already entered nonagricultural employment) with those remaining on wage plantations, then network effects could trigger further abandonment of the organizational form (fig. 6 [b]). According to this structural explanation, the tipping point in the abandonment of plantation agriculture was reached because of the combination of a “core” group of defectors and the reconstruction of familial ties between those defectors and individuals who were slower to abandon the plantation system. Conversely, when plantation owners allowed (or encouraged) family formation among their slaves, this social support may have posed a countervailing influence on decisions to leave the plantation (Gutman 1976).⁹

ORGANIZATIONAL DEMOGRAPHY AND THE DEMISE OF FORMS

An emphasis on the internal demography of organizational forms leaves a crucial question unanswered: why do forms disappear altogether, when they could continue to exist alongside new organizational arrangements? For the postbellum Southern economy, this translates into a question about institutional fragmentation, given the potential for an equilibrium involving both tenant farming and wage plantation forms (see the bottom

⁹ The theory implies further that strong ties may be especially important in mobilizing those individuals with relatively high thresholds for abandoning an organizational form (i.e., late movers). Interestingly, this contradicts Chwe’s (1999, pp. 141–46) game-theoretic account, which suggests that the influence of strong ties is especially relevant for early mobilizers and that weaker ties, particularly those that transfer information, are of greater importance to holdout groups. I provide an empirical test of this interaction effect below.

half of fig. 5). When extensive information on individual costs and benefits is used, threshold models of internal demography may be able to identify when such institutional fragmentation can occur (Granovetter 1978). Analyzing whether the process leads to the competitive exclusion of one form or another, however, often requires information at a higher level of analysis, particularly the demography of related and unrelated organizations.

Competition and Operational Scale

Ecological theorists emphasize organizational competition in a resource niche as a predominant factor influencing the viability of an organizational form. Although organizations in a population are subject to competitive pressures throughout their history, these pressures tend to grow geometrically with density in the population (Carroll and Hannan 2000, chap. 10). When do these ecological dynamics contribute to the demise of an organizational form? For the plantation in particular, theories of ecological succession do not provide a satisfactory organizational explanation, since they relate the changing nature of forms of land tenure back to *individual* population density. Thompson (1935) traced the early predominance of large plantations growing cash crops, followed by the appearance of yeoman farmers and smaller, subsistence farms. He noted that in the advanced stages of plantation economies, large-scale agricultural holdings increasingly become carved up into tracts farmed by peasants or former bondsmen. Interestingly, this pattern of ecological succession affects plantations *despite* a number of advantages that might be garnered from their large size, with respect to capital indivisibilities, division of labor, and market power (Ransom and Sutch 2001, pp. 74–75).

Explaining the phenomenon at an organizational level requires attention to the major forms of agricultural tenure at the time of the Civil War, their respective niches, and the economies of scale accruing to each (see table 1). Two considerations address why the plantation form was threatened by other agricultural producers, despite its apparent economies of scale. First, some historians have argued that economies of scale in Southern agriculture were curvilinear, accruing primarily to agricultural units of intermediate size (those employing between eight and 25 working hands) rather than to plantations or small family farms (Fogel and Engerman 1974); some diseconomies of scale tended to apply to the largest agricultural holdings, possibly owing to limits of administrative capacity on the part of plantation owner-managers (Wright 1978, p. 85). By virtue of this argument, the postbellum plantation form could have been undermined by the growth of midsized agricultural producers in the South.

Second, if the competitive success of plantation agriculture was tied not only to its scale but also its level of crop diversity, then there is a

TABLE 1
COMPETITIVE POSITIONING AMONG AGRICULTURAL FORMS IN THE POSTBELLUM COTTON SOUTH

Organizational Form	Crop Niche	Economies of Scale	Labor Organization	Mean Crop Diversity*	N
Small family farm (< 100 acres)	Subsistence crops	-	Personal/family labor	.407	7,493
Medium-size farm (100-499 acres)	Cash and subsistence crops	++	Hired wage labor	.514	1,210
Wage plantation (500+ acres)	Cash crops	+	Hired wage labor	.506	77

NOTE.—All cases = 8,780. Cases are weighted for sample representativeness. Analysis excludes small wage farms that have <100 acres in crops and improved land but employ more than 26 weeks of hired labor per year ($N = 990$), as well as large farms that have 500+ acres of crops or improved land but are rented or tenant farmed ($N = 13$).

* Crop diversity calculated as Shannon-Weaver ([1949] 1963) entropy of cropland on Southern farms (see also Hannan and Freeman 1989, chap. 5). Data are from the 1880 Agricultural Micro-Census Records.

clear possibility that dediversification in the lean years following the Civil War may have led to a blurring of boundaries with other producers. Records on individual farms from the 1880 census suggest that the crop diversity of plantations and medium-sized farms was almost identical (see table 1). Farm operators identified acreage for cotton, corn, and up to four other crops (e.g., tobacco, rice, and potatoes). As seen in the table, small family farms were only slightly more specialized in crop allocation, while the niche width of mid-sized farms and plantations was virtually equivalent.¹⁰ Moreover, the land allocation of mid-sized farms and plantations in the cotton South was highly isomorphic following the Civil War, with 33% and 35% of arable land, respectively, being devoted to the cotton crop (Ransom and Sutch 1999). From the perspective of agricultural production, this begs the question as to whether the postbellum wage plantation continued to represent a distinctive organizational form relative to its competitors during the postbellum era.

Competition and Labor Organization

While distinctions in production outputs yield the most typical boundaries for organizational forms, economic sociologists have recently identified labor organization as an alternative dimension to be considered in inter-form competition (Baron 2004). From this perspective, the most salient threat to the wage plantation may not have involved mid-sized farms, which adopted a largely congruent model of hired gang-system labor (see table 1), but a variety of smaller tenancy forms, ranging from sharecropping to farm ownership. As emphasized by economic historians, these arrangements represented radical alternatives to the plantation in the postbellum period because they could count on a reliable and price inelastic supply of family labor. In effect, “the [small] size of farms was largely determined by the acreage which the family could cultivate” (Wright 1978, p. 47), while all larger agricultural enterprises had to invest extensively in the recruitment and monitoring of hired wage labor.

Arguably, the ecology of alternative forms of labor management was a crucial “pull” factor influencing the abandonment of the plantation among former slaves, complementing the individual-level mechanisms noted

¹⁰ A diversity index of 1.0 indicates when crop acreage is completely heterogeneous in allocation, and an index of 0.0 indicates when all acreage is devoted to a single crop. Specifically, the diversity measure (D) is computed as:

$$D = - \sum_{i=1}^n \left(\frac{\log y_i}{\log n} \right) y_i,$$

where n is the number of different crops and y_i is the proportion of crops listed within each crop category i .

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above. In regions of the South where small plots of land became readily available for sharecropping or rental farming, the demise of the plantation form was likely to be hastened (Reid 1981). This dynamic reflected the more general difficulty sustained by larger-than-family farms in retaining their wage labor force during the late 19th and early 20th centuries (Raup 1973). Moreover, regions experiencing growth in family farms were also likely to witness the emergence of economic institutions, such as country general stores and agricultural creditors, that supported small-scale tenancy. Conversely, the legitimacy of wage labor arrangements could be sustained—at least temporarily—when midsized producers in a region thrived. Not only did these producers rely on supervised wage labor, like the postbellum plantations, they also employed a similar external network of importers, wholesalers, and middlemen known as “cotton factors” (Ransom and Sutch 2001). In contrast to a perspective that emphasizes crop production, an emphasis on labor organization thus holds that while wage plantations and midsized farms could function as complementary organizational forms, smaller farms represented a greater competitive threat.

Community Ecology

Competitive threats to an organizational form need not arise exclusively from close substitutes, but also from dissimilar forms that may draw public attention, physical resources, and labor from a common resource niche (Ruef 2000). In this regard, another significant threat to plantation agriculture in the postbellum South may have been long-delayed industrialization. Manufacturing activity in the cotton states increased rapidly in the 30 years following the Civil War, with the value of manufacturing output increasing sixfold between the late 1860s and the 1890s (Easterlin 1957). While Southern employment in manufacturing continued to be dwarfed by that in agriculture, plantations relied disproportionately on skilled and semiskilled manual workers that might be attracted to manufacturing pursuits. Beyond the short-term mobilization effects of such employment alternatives (see discussion above), an emphasis on community ecology suggests that the growth of manufacturing establishments and transportation networks in the South siphoned resources that had formerly been devoted to the plantation economy.

Summary of the Model

Substantive analysis of the demise of Southern plantation agriculture suggests an influence from exogenous factors (e.g., damage from the Civil War and urbanization), organizational demography (the density of related and unrelated organizations), and individual demography (incentive and

network mechanisms). (See fig. 1.) To capture these effects, I propose a two-level model. At the ecological level, the model views the decline in the prevalence of an organizational form in a given region ($\Delta N_i < 0$) as a function of changes in the carrying capacity for that form (ΔK), the existing prevalence of organizations having the same identity as that form (N_i), and the growth or decline of organizational populations having a dissimilar form (ΔN_j) but relying on some shared resources. Short-term changes in the carrying capacity may prove especially destabilizing, often reflecting “top-down” disruptions imposed by external agents (e.g., the destruction of cropland by Union troops— ΔK_1) or “bottom-up” movements resulting from efforts among former members to abandon an organizational form (ΔK_2):

$$\Delta N_i \propto f(\Delta K_1, \Delta K_2, N_i, \Delta N_j). \quad (1)$$

Among the components of the model at the ecological level, one (ΔK_2) relates the demographic viability of the form to the *internal* demography of its membership or constituents (for further discussion, see Carroll and Hannan 2000, chap. 2). This parameter can capture grassroots movements against the organizational form, linking institutional and structural factors to individual motivations. I address three groups of individual motivations, including general incentives (X_1) tied to the structural inertia of an organizational form, differential incentives (X_2) that pertain to specific groups of mobilizers, and network mechanisms (X_3). In short:

$$\Delta K_2 \propto f(X_1, X_2, X_3). \quad (2)$$

DATA, MEASURES, AND METHOD

Data

I conduct an analysis of farm ecology between 1860 and 1880 using both aggregated and disaggregated census data. The aggregated data derive from the reports on agriculture for the eighth, the ninth, and the tenth U.S. Census (U.S. Census Office 1864, 1872, 1883), which provide the size and tenure distribution of agricultural establishments, the value of farm machinery and livestock, and the amount of “improved” (arable) cropland, all at the county level. These data are supplemented with information on human demography and manufacturing from other census reports. For purposes of analysis, I consider changes in the prevalence of plantation agriculture in all U.S. states having significant slave populations in 1860, including Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Slaveholding states with fewer than 2,000

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slaves in the 1860 census—including Delaware, Kansas, and Nebraska—were not considered. This leads to a total of 1,091 counties that are available for analysis.¹¹

Because the aggregated data conceal unobserved heterogeneity in such organizational characteristics as labor requirements, crop diversity, and sociodemographic background of owners, I also examined Ransom and Sutch's (1999) systematic sample of farms from the 1880 manuscript census to develop a profile of the postbellum plantation in the final period of its existence. The sample includes 11% of all farms drawn from 73 representative counties throughout the South, comprising 11,202 farms in all (for further information, see Ransom and Sutch 2001, app. G). Sampling weights allow generalization from this data to the entire South, subsuming all of the slaveholding states noted above, with the exception of Kentucky, Maryland, and Missouri. I also employ this data in aggregated form to track the demise of the plantation form through 1880.¹²

The internal demography of the plantation system was analyzed using 1,508 Works Progress Administration (WPA) interviews with former slaves who reported on their activities during and after the Civil War. Following pilot projects conducted at Fiske University, Southern University, and Prairie View College in the late 1920s (see Cade 1935; Egypt, Masuoka, and Johnson 1945), the Federal Writer's Project sought to develop a more comprehensive autobiographical portrait of ex-slaves. Between 1936 and 1940, the WPA collected life histories from more than 3,000 former slaves and free blacks in 25 states, as well as a large number of secondary materials, such as bills of sale from the antebellum South and obituaries of ex-slaves (Rawick 1972–79; Escott 1979; Yetman 1984). In approximately half of the interviews, former slaves indicated when they left the plantation system and whether they had ever returned as wage laborers.

Weights were applied to the WPA data to deal with a well-known sampling problem, involving survivor bias among the elderly respondents. As identified by demographers, the principal factor impacting mortality for this population is occupation under slavery (Fogel 1989, pp. 127–28). Controlling for crop type, slaves engaged in domestic and skilled manual labor have been found to have mortality rates less than half that of field hands of the same age. To account for this source of differential mortality,

¹¹ Another 38 counties failed to provide agricultural census reports in 1860 or 1870 and have been removed from the descriptive and confirmatory analyses.

¹² Although the information is available for only 73 representative counties, it is far more accurate than the 1880 census report on agriculture, which combines cropland, pasture, and unimproved woodland in its enumeration of farm size distributions, introducing comparability problems with the 1860 and 1870 censuses.

I employ weights based on the gender-specific mix of slave occupations in the late antebellum South, using Olson's (1992, tab. 8.3) sample of plantation records. I found that unskilled agricultural workers in my data set tended to be undersampled, whereas domestics were oversampled (see also Escott 1979). The weighting procedure generates a gender-stratified occupational distribution that is representative for the late antebellum period.

Measures for Analysis of Farm Ecology

The dependent variable for the ecological model is the *number of plantations* in a given county. A plantation is defined as an agricultural enterprise that is owner-operated (rather than rented or tenant farmed) and has 500 or more acres of arable land.¹³ My operationalization, based on raw organizational counts, has advantages over two alternative measures of plantation prevalence: (a) the ratio of plantations to all agricultural units in a county and (b) the degree of land concentration within the plantation system, rather than alternative forms of land tenure. Although useful for descriptive purposes (see fig. 3), the former measure is sensitive to simultaneity bias when the vector of predictor variables also contains components found in the ratio variable's denominator. The latter measure can only be estimated from aggregated census records, since the largest farms are categorized in an open-ended interval (one thousand or more acres).¹⁴

Independent measures in the analysis of farm ecology include changes in the arable land in a county, the size of the free population, and the value of livestock and machinery; changes in the number of farms (aside from plantations) and manufacturing establishments; and changes in the percentage of county residents who are black. Since immigrants were sometimes used as replacements for ex-slaves on the plantation system (Litwack 1979, pp. 351–53), I also control for the migration of foreign nationals to Southern counties between 1860 and 1870. Analyses include fixed effects for the states in which counties are located, in order to account

¹³ Some definitions of the postbellum plantation form use a more generous lower threshold (e.g., 200 acres of cropland) in delineating the size of the organization but add the requirement that a substantial amount of production be handled by hired wage labor (Ransom and Sutch 2001, tab. 4.3). Estimates of plantation prevalence by this standard are virtually identical to the definition employed here.

¹⁴ The correlations between all three measures of plantation prevalence are high. For 1860, the raw count of plantations has a 0.76 correlation with the ratio metric comparing plantations to all farms and a 0.75 correlation with the estimated concentration of land under plantation tenure (treating the largest agricultural units as having 1,500 acres of cropland, on average).

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for unobserved political heterogeneity. Selected descriptive statistics are summarized in table 2.

As seen in the table, the prevalence of plantations—considered relative to all farming establishments—decreased on average by more than 50% between 1860 and 1870, from 3.8% to 1.8% of agricultural organizations in former slaveholding counties. Further decreases are evident in the following decade, with plantation prevalence dropping to an average of 1% of agricultural establishments in the cotton South. The statistics for the independent variables reveal considerable destruction of fixed capital assets between 1860 and 1870 (almost \$93,000 on average), population growth, and loss of arable land—all of which could pose environmental constraints on the persistence of plantation agriculture. Developments affecting the labor demography of Southern plantations, on the other hand, seemed more propitious, at least on the surface. Relatively few blacks emigrated from the South after the Civil War (net population growth of 172 per county, on average), although many relocated from rural to urban areas. Foreign immigration also appears to have provided a “reserve army of labor” for plantation owners.

Measures for Analysis of Departures from Plantation System

Turnover from the plantation system is assessed at the individual level, examining rates of exit for former slaves during the Civil War and afterward. In the WPA interviews, ex-slaves were asked when they left the plantation system and if they ever returned (Alsberg 1937, p. 175). Responses on timing were grouped into segments, as shown in table 3 (see also Escott 1979, chap. 5). For purposes of analysis, those slaves escaping the plantation during the Civil War were considered as exiting during the first annual segment, between 1864 and 1865. Observations on exits were right-censored in 1870.

Figure 7 plots selected survivor functions, tracking the proportion of sampled African-American laborers remaining on plantations over time. The solid line provides the Kaplan-Meier estimate when all covariates are held at their mean values. The survivor function generally matches estimates of turnover offered by contemporary observers, ranging from 40% to 50% in the period shortly after the Civil War. Writing in a Memphis newspaper, one planter argued that 1.3 million plantation slaves had been actively employed in cotton production in 1860 but that no more than 800,000 free blacks were so employed (under wage contracts) within a few years after the Civil War (quoted in Loring and Atkinson 1869, p. 18).¹⁵ Because reports concerning exits from the plantation system are

¹⁵ Note that the estimates in the figure do not consider former slaves who return to

TABLE 2
 COUNTY-LEVEL STATISTICS FOR PLANTATION AGRICULTURE AND RELATED ECOLOGICAL MEASURES

Variable	Mean/ Proportion	Standard Deviation	Minimum	Maximum
Prevalence of plantation agriculture:				
Ratio of plantations to all farms (1860) .....	.038	.065	.000	.558
Ratio of plantations to all farms (1870) .....	.018	.040	.000	.434
Ratio of plantations to all farms (1880)* .....	.010	.024	.000	.214
Carrying capacity (1860-70):				
Δ Cropland (1,000s)	-38.424	105.716	-1,376.288	341.916
Δ Free population (1,000s) [†]	4.934	11.064	-11.818	279.788
Δ Fixed capital (livestock/farm ma- chinery) (\$1,000s)	-92.701	326.091	-2,184.398	1,470.679
Organizational density (1860):				
Farming establishments	634.442	401.044	1	2,365
Manufacturing establishments	26.783	64.160	0	1,232
Labor demography:				
Black population (Δ in no. of blacks, 1860-70) (1,000s) .....	.172	2.464	-18.055	40.508
Foreign immigration (Δ in foreign population, 1860-70) (1,000s) .....	.102	2.014	-17.884	56.395
Geography:				
County in border state .....	.223	.416	0	1

NOTE.—*N* = 1,091.
 * Based on stratified sample of 73 Southern counties, weighted by region to represent cotton South.
 † Excludes immigrant population.

likely to be influenced by interviewer characteristics, I also provide separate Kaplan-Meier estimates for the sample of respondents queried by white interviewers and the sample queried by black interviewers. These estimates suggest that departures from plantations may be underreported to white interviewers, leading to discrepancy of 11% in estimates of workforce retention by 1870. The following analyses control for the confounding influence of interviewer effects.

Independent variables coded for the ex-slaves subsume status under slavery (ranked by primary occupation, including (a) artisan or driver; (b) house servant; (c) semiskilled agricultural worker or domestic; (d) unskilled agricultural worker; (e) unemployed child), reported conditions on the plantation (physical treatment, treatment of fellow slaves), and social

the plantation system as wage laborers after a period of absence. A small number of the slaves in the WPA sample (ca. 1.5%) ended up returning to the same plantations that they had left earlier.

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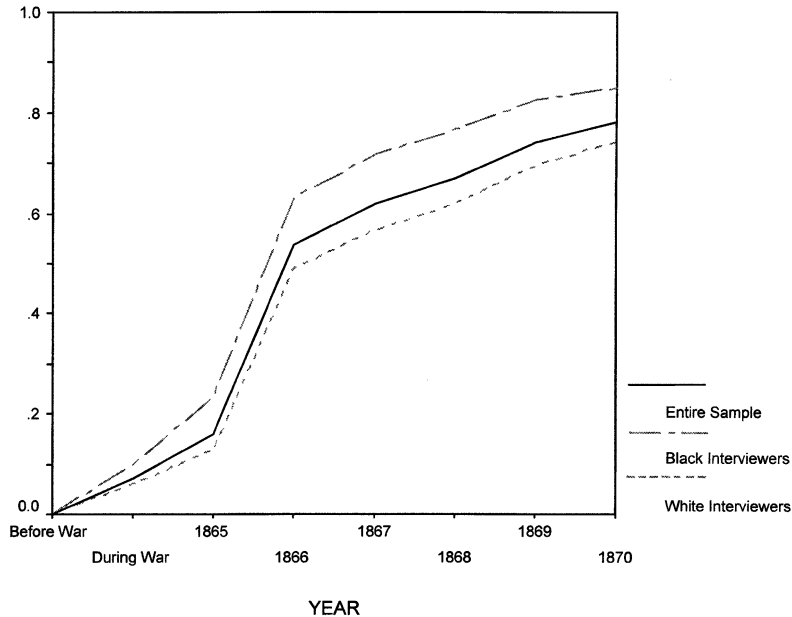


FIG. 7.—Kaplan-Meier estimates of cumulative turnover from Southern plantations, weighted based on gender-stratified occupational distribution of slaves (1860). Estimates consider only exits from plantations; laborer mortality and rehires are not addressed.

network characteristics (marital status under slavery, familial integrity, exits by fellow laborers). (See table 3 for detailed operationalizations.)¹⁶ The analyses also control for demographic characteristics (gender and age).

STATISTICAL METHODOLOGY

Changes in the prevalence of the plantation form were addressed in two stages: one considering prevalence among counties in all major slaveholding states between 1860 and 1870 and another considering prevalence in a representative set of 73 Southern counties between 1860 and 1880.

¹⁶ A measurement problem arises with respect to eliciting information on conditions on the plantation, since most WPA interviews were conducted by white interviewers in the 1930s (Blassingame 1975). This will lead to underestimates of adverse conditions, such as physical abuse. However, because research interest here focuses on contentious action, the reports provided by former slaves still prove useful. In effect, the mobilization of collective effort against plantation agriculture presumes that ex-slaves are willing to engage in some public denunciation of its practices.

TABLE 3
INDIVIDUAL-LEVEL STATISTICS FOR INTERNAL DEMOGRAPHY OF PLANTATION WORKFORCE

Variable	Proportion/ Mean*	Valid N	Operationalization
Exit from plantation system:			
Left during war .....	.072	1,508	Approximate time given by ex-slaves when they first left their former owner(s); right-censored after 1870
Left upon emancipation .....	.090		
Left within one year ^f .....	.376		
Left within one to two years .....	.081		
Left within two to five years .....	.163		
Stayed (until right-censoring) .....	.218		
Demographics:			
Gender .....	.489	1,505	Male = 0; female = 1
Age	13.130	1,492	Age in 1865
Status under slavery:			
Child of slaves .....	.279	1,353	Unemployed child of slaves
Artisan/overseer .....	.090		Skilled manual worker (e.g., blacksmith) or slave driver
House servant .....	.148		Skilled domestic (e.g., cook)

Semiskilled field/chores .....	.220	Semiskilled agricultural (e.g., teamster) or domestic worker
Unskilled field hands .....	.263	Unskilled agricultural worker
Social networks:		
Reported on fellow ex-slaves leaving plantation .....	.169	No report = 0; report = 1
Time delay until fellow ex-slaves left	1.160	Left by/upon emancipation = 0; left within two years = 1; left afterwards/stayed = 2
Married during slavery .....	.070	Single = 0; married = 1
Broken family .....	.210	Nuclear family intact = 0; family broken by sale, move, etc. = 1
Reported conditions on plantation:		
Physical punishment .....	.278	No reported punishment = 0; inadequate food; some reported punishment = 1; reports of physical violence (e.g., whippings, forced sex) = 2
Witnessed punishment of others .....	.303	No reported punishment = 0; observed physical violence = 1
Interviewer characteristics:		
Ethnicity .....	.246	White = 0; minority = 1

NOTE.—N = 1,508.

* Weighted based on gender-stratified occupational distribution of slaves (1860).

† Includes respondents (8.8% of sample) who left at an uncertain time but within the first year of emancipation.

The latter analysis aggregates data on individual plantations and serves as a safeguard against well-known shortcomings in the 1870 census (Ransom and Sutch 1975). For both analyses, county-level increases or decreases in plantation density over time (ΔN_i) are measured on an interval-level scale and are thus amenable to OLS estimation. Given potential heterogeneity in institutional influences on density at the state level, I employed the following first-order difference specification with state-level effects:

$$\Delta N_i = \alpha_k + \beta' \Delta \mathbf{x}_i + \gamma N_i + \varepsilon_i \quad (3)$$

where ΔN_i is the change in density of plantations in each county (i), α_k is the fixed effect for each Southern state (k), and $\Delta \mathbf{x}_i$ corresponds to a vector of changes in county-level covariates over time. Consistent with model specifications in population ecology, the model assumes that the rate of change in plantation density is tied to antebellum density (N_i).¹⁷

One drawback of this model is that spatial contagion of plantation failures between adjoining counties may contribute to correlated error terms, violating OLS assumptions. Spatial autocorrelation may arise because of a number of unmeasured geographic factors, including common weather conditions affecting crop viability, regional market interdependencies, and local influence among planters who decide to abandon plantation ownership. Consequently, I test all hypotheses against a null model in which changes in plantation density in a given county i are generated exclusively by changes in nearby counties j . The corresponding estimate of ΔN_i is given by the following formula for inverse distance weighting:

$$\Delta \hat{N}_i = \sum_{j=1}^{10} \lambda_j \Delta N_j, \quad (4)$$

where λ is the weight (decreasing with distance) associated with influence from the nearest 10 counties. I use a conventional geostatistical measure for λ , known as inverse distance squared weighting (Isaaks and Srivastava 1989). The measure is based on the distance δ_{ij} between a focal county and its neighbors:

$$\lambda_j = \delta_{ij}^{-2} / \sum_{j=1}^{10} \delta_{ij}^{-2} \quad (5)$$

With respect to internal demography, event history techniques were

¹⁷ For organizational populations observed from their origins, organizational ecology proposes a positive first-order effect of density on population growth and a negative second-order effect (Hannan and Freeman 1989). Because I focus exclusively on plantation decline, my model assumes a simple linear form, with the prediction that $\gamma < 0$ (i.e., plantations disappear at a rate proportional to their antebellum density).

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used to analyze exit rates from the plantation system. Temporal heterogeneity appears to be one major factor affecting abandonment of the plantation, given a surge of exits among ex-slaves in the year following emancipation and a subsequent slowing of workforce turnover (see fig. 7). Since this heterogeneity is a likely consequence of general bandwagon effects, I employ a semiparametric approach that treats it as an underlying “nuisance” function and apply the following Cox (1972) specification:

$$r(t) = h(t) \exp(\beta' \mathbf{x}), \quad (6)$$

where $r(t)$ is the plantation exit rate, $h(t)$ is an unspecified baseline rate (which controls for temporal variation), \mathbf{x} is a vector of covariates, and β is the corresponding vector of coefficients. In terms of my theoretical model (see equation 2), $r(t)$ corresponds to demographic turnover within the plantation system (ΔK_2). The vector \mathbf{x} is negatively related to individual variation in the thresholds that ex-slaves have for abandoning the plantation system, with low thresholds corresponding to movers and high thresholds corresponding to stayers.

One issue that arises with respect to causal inference is whether laborer turnover is driving the decline of wage plantations or whether the decline of wage plantations is driving turnover. To establish causal precedence, I removed 84 cases from the WPA sample in which ex-slaves noted that they were forced off the plantation by exogenous “push” factors (e.g., destruction of a plantation). As I review below, “pull” factors appear to dominate workforce turnover during the years immediately following the Civil War.

RESULTS

Plantation Ecology

Table 4 presents models predicting changes in the number of plantations in 1,090 Southern counties between 1860 and 1870.¹⁸ Based on a baseline model with fixed effects alone (see model 1), declines in the plantation form could be primarily attributed to spatial autocorrelation and unmeasured environmental factors influencing the “Deep South” (Alabama, Georgia, Mississippi, and South Carolina). The model suggests a relatively simple explanation of plantation disappearance, driven largely by local contagion among neighboring counties. The effect of spatial autocorrelation no longer holds, however, when information on antebellum plantation density and regional changes in carrying capacity are incorporated

¹⁸ Missing census information from St. Bernard parish in Louisiana leads to the exclusion of this case.

TABLE 4
 SPATIAL REGRESSION MODELS PREDICTING CHANGE IN NUMBER OF PLANTATIONS IN SOUTHERN COUNTIES, 1860-70

Variable	Model 1	Model 2	Model 3	Model 4
Spatial autocorrelation	.717 (.060)***	-.008 (.049)	-.008 (.046)	.034 (.048)
Carrying capacity:				
Δ Cropland (1,000s)	...	.009 (.004)*	.005 (.004)	.005 (.004)
Δ Free population (1,000s)	...	.102 (.048)*	.250 (.077)**	.172 (.088) ⁺
Δ Fixed capital (livestock/farm machinery) (\$1,000s)	...	.000 (.002)	-.001 (.002)	-.000 (.002)
Organizational density:				
Plantations (1860)	...	-.562 (.020)***	-.565 (.020)***	-.587 (.021)***
Δ Small farms	...	...	-.006 (.001)***	-.006 (.001)***
Δ Mid-size farms	...	...	.055 (.005)***	.054 (.005)***
Δ Manufacturing	...	...	-.008 (.005) ⁺	-.007 (.006)
Labor demography:				
Black emigration (% decline from 1860)	...	...	...	-.097 (.031)**
Foreign immigrants	...	...	...	.000 (.000)

State-level fixed effects:					
Alabama	-10.021 (3.001)**	2.437 (2.269)	5.498 (2.136)*	4.761 (2.143)*	
Arkansas	-.392 (2.574)	.080 (1.872)	1.907 (1.774)	.433 (1.832)	
Florida	-.359 (3.205)	3.337 (2.315)	3.274 (2.166)	.596 (2.330)	
Georgia	-3.407 (1.819) ⁺	2.338 (1.329) ⁺	3.127 (1.245)*	.807 (1.455)	
Louisiana	-4.448 (2.977)	1.627 (2.245)	3.058 (2.117)	.446 (2.306)	
Kentucky	-.912 (1.837)	1.828 (1.342)	2.744 (1.270)*	2.027 (1.289)	
Maryland	-1.967 (4.165)	-.126 (3.111)	1.131 (2.935)	.557 (2.932)	
Mississippi	-6.108 (2.890)*	-.319 (2.117)	4.431 (2.042)*	2.410 (2.138)	
Missouri	.049 (1.784)	2.447 (1.452) ⁺	2.667 (1.386) ⁺	2.208 (1.392)	
North Carolina	-1.439 (2.075)	4.056 (1.522)**	8.771 (1.498)***	7.034 (1.598)***	
South Carolina	-18.246 (3.967)***	-7.198 (2.949)*	3.524 (2.958)	2.402 (2.976)	
Tennessee	-2.327 (2.111)	-.582 (1.531)	4.120 (1.518)**	3.394 (1.539)*	
Texas	-.157 (1.720)	1.378 (1.289)	1.978 (1.232)	.064 (1.379)	
Virginia	-2.458 (1.621)	5.436 (1.206)***	6.141 (1.130)***	5.126 (1.178)***	
R^2	.373	.676	.717	.720	
F -test (vs. previous model)	42.55***	333.51***	52.36***	4.87***	
Condition index	2.81	3.59	5.54	7.40	
df	15	19	22	24	

NOTE.—No. of cases = 1,090.
⁺ $P < .10$, two-tailed tests.
* $P < .05$.
** $P < .01$.
*** $P < .001$.

into the specification (model 2). As expected, plantation decline is generally proportional to prevalence of the organizational form in the antebellum South, with an estimated 56% decline in density over 10 years. Plantations are more likely to survive in counties where cropland is abundant and where there is a growing free population. In conjunction with other evidence on the ecology of the plantation, the latter estimate challenges economic frontier hypotheses, which position the organizational form predominately in underpopulated regions (see Gregor 1965, p. 226, for critique). Instead, the positive correlation seems to reflect the wage plantation's need for a relatively large agricultural and commercial labor force.

Adding information on organizational ecology (model 3) improves model fit substantially. The effects of prior plantation density and human population growth continue to hold but are now supplemented by two significant ecological dynamics. First, we find that declines in the plantation form tend to be exacerbated when a county has a proliferation of smaller family-owned or sharecropped farms (less than 100 acres in size). In particular, model estimates suggest that a county will lose one plantation for every 160 small agricultural enterprises that are developed in the region. This process of "creative destruction" (Schumpeter [1942] 1975) dovetails with the argument of labor historians, who emphasize the tendency of the wage plantation and small-acreage sharecropping or rental farming to constitute competing alternatives from the perspective of freed blacks at the end of the Civil War (Reid 1981). Choice of alternative forms of agricultural tenure, in this respect, did not just draw labor away from larger agricultural units but also led to labor unrest and pressure for the reorganization of the plantation form into smaller tenant plots.¹⁹

While the plantation form was threatened in regions with growing numbers of small producers, it persisted in regions experiencing growth in mid-sized farms (100–499 acres). (See model 3.) From the standpoint of competition over crop output, this result seems surprising, given the scale advantages exhibited by mid-sized agricultural units (Fogel and Engerman 1974) and their substantial niche overlap with plantations. Nevertheless, as we have seen, the survival of the plantation form in the postbellum era was driven far more by the problem of avoiding the delegitimation of a particular form of labor organization than success in the commodity markets for cotton and other cash crops. Ex-slaves in a region who saw substantial numbers of medium-sized farms relying on wage labor were

¹⁹ On the other hand, there is no support for resource partitioning arguments, which suggest that plantations and smaller specialized farms could thrive alongside one another in the late 19th century. From an evolutionary perspective, this results largely because small farmers increasingly abandoned subsistence farming in favor of cash crop production in the postbellum era (Wright 1978, p. 166), thus coming into direct competition with larger agricultural units.

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more likely to accept this arrangement on the plantation as well, rather than considering the possibility of nonwage agricultural forms. This historical case of legitimacy “spillovers” between closely related organizational forms parallels colegitimation processes found in other organizational sectors (Ruef 2000).

The effects of exogenous conditions (i.e., carrying capacity) are much weaker once the labor demography of the plantation system is taken into account (model 4).²⁰ Destabilization of the plantation form was associated with the emigration of the black population from a county ($P < 0.01$), driven by movement from rural to urban areas in search of alternative employment, as well as by hopes of reuniting with family members in other counties or states (Woodson 1918). The presence of foreign immigrants, on the other hand, did little to stave off plantation decline. Contemporary accounts from planters themselves underscored the unreliability (and small numbers) of Chinese, Swedish, German, Dutch, and Irish farmworkers who were induced to work on Southern plantations during the postbellum era (Litwack 1979).

Table 5 presents corresponding results for the 1860–80 period, using aggregated microcensus data from a more limited set of counties.²¹ The data are weighted so as to be representative of economic regions in the cotton South. A number of differences between the estimates from these models and those calculated for the 1860–70 time period are worth noting. First, the availability of cropland represents a carrying capacity constraint that has a greater impact on plantation persistence over the long term than in the 10-year period analyzed previously. Second, the competitive interaction between alternative forms of agricultural tenure (represented by small farms) and plantations continues to hold, although standard errors are inevitably larger than those calculated for the full sample. Third, the growth of mid-sized agricultural units begins to exercise a significant *negative* influence on plantation persistence. Although the viability of these farms tended to legitimate the use of wage labor on plantations in the immediate postbellum period, their ongoing proliferation later became

²⁰ Notably, the positive effect of population expansion on plantation prevalence—as identified in models 2 and 3—appears to be largely spurious.

²¹ Five counties from the Ransom and Sutch sample—including Grant in Louisiana; Clay, Lincoln, and Washington in Mississippi; and Houston in Tennessee—were excluded from this analysis owing to nonmatching census definitions or missing data between 1860 and 1880. Given the relatively small number of counties in this sample, I do not attempt to estimate state-level fixed effects.

TABLE 5
OLS REGRESSION MODELS PREDICTING CHANGE IN THE NUMBER OF PLANTATIONS IN
SELECTED SOUTHERN COUNTIES, 1860–80

Variable	Model 1	Model 2	Model 3
Constant	3.353 (3.060)	7.586 (3.392)	9.133 (3.395)
Carrying capacity:			
Δ Cropland (1,000s)	.064 (.025)*	.076 (.024)**	.077 (.024)**
Δ Free population (1,000s)	.290 (.403)	1.617 (.644)*	.820 (.727)
Δ Fixed capital (livestock/ farm machinery) (\$1,000s)	-.015 (.008)*	-.012 (.007)	-.013 (.007) ⁺
Organizational density:			
Plantations (1860)	-.936 (.074)***	-1.014 (.074)***	-.931 (.083)***
Δ Small farms	. . .	-.010 (.005)*	-.008 (.005) ⁺
Δ Mid-size farms	. . .	-.019 (.006)**	-.017 (.006)**
Δ Manufacturing	. . .	.035 (.058)	.050 (.057)
Labor demography:			
Black emigration (% decline from 1860)	. . .	. . .	-.515 (.279) ⁺
Foreign immigrants	. . .	. . .	.024 (.017)
R ²	.877	.896	.904
F-test (vs. previous model)	112.46***	3.64*	2.64
Condition index	6.04	11.06	12.79
df	4	7	9

NOTE.—No. of cases = 68.
⁺ $P \leq .10$, two-tailed tests.
 * $P \leq .05$.
 ** $P \leq .01$.
 *** $P < .001$.

a source of competition in both the labor and output markets.²² Finally, the impact of labor demography (especially the emigration of former slaves) has a less significant relationship to plantation persistence over time. Consistent with our exploratory analysis (see fig. 7), this suggests that the underlying mechanisms of plantation abandonment should be examined primarily for the first few years of the postbellum period.

²² While the lack of annual data prevents us from exploring the issue more definitively, the shift in interpopulation effects is entirely consistent with the density-dependent account offered by organizational ecology (Carroll and Hannan 2000) and recently extended to multiple organizational forms (Ruef 2000). In 1870, midsized farms represented less than one-quarter of agricultural units in the cotton South and could be seen as complementary to the plantation form; by 1880, their numbers approached 40% of all agricultural units and had to be recognized as a source of competition by larger producers.

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Internal Demography of the Plantation

Based on the WPA interviews, table 6 lists the principal reasons given by former slaves for leaving their plantations. In only a small number of cases did exogenous circumstances—such as the destruction of a plantation, a failure to convert to wage labor arrangements, or a planter's decision to abandon plantation agriculture—force ex-slaves off the plantation. Among the remaining respondents, 37% found that economic necessity (or coercion) required that they stay on the plantation after emancipation, while over 51% left the plantation by choice.²³

The reasons provided by slaves who left the plantation prove instructive in sorting out the subjective salience of differential incentives, norms, and networks in the abandonment of this organizational form. Interestingly, relatively few former slaves emphasize status or income differentials between the plantation system and the free market economy (8%–9%), contrary to the expectation of economic historians (e.g., Wright 1986). While a number of slaves left the plantations during the Civil War to join the Union army, the material and status-based incentives of nonplantation labor proved uncertain in the postbellum period. A far more typical reason for the abandonment of plantation labor was normative in character, relating to the structural inertia of the wage plantation form. A number of former slaves reported having cruel or unscrupulous masters and wage contract conditions that were routinely violated (19%); these individuals were inclined to abandon plantation agriculture even if they lacked better opportunities elsewhere. The most common motivation guiding the decision to leave was network-based (22%–23%), since many ex-slaves left the restrictive confines of the plantation to reunite broken families or to marry.

Identification of subjective motivations underlying insurgent action is only an initial step toward a more complete individual-level analysis. The reasons given by former participants for leaving an organizational form may be influenced by retrospective bias. Tabulation of these reasons is also a relatively blunt instrument for teasing apart the multiple influences that can impact any given participant's decision to leave. Consequently, I corroborated these results using a behavioral analysis of the abandonment of plantation agriculture among all WPA respondents (see table 7). As noted in the exploratory analysis, these specifications are subject to strong interviewer effects, with respondents being more likely to tell white interviewers that they delayed leaving the plantation system (see model 1, cf. fig. 7). Differential incentives account for some variance in exit rates

²³ These statistics do not correspond strictly to the Kaplan-Meier estimates plotted in fig. 7 owing to missing values in the reasons given by former slaves.

TABLE 6
PRIMARY REASONS GIVEN BY EMANCIPATED SLAVES FOR LEAVING PLANTATION

Reason	Unweighted (%)	Weighted (%)*
Social networks	22.9	21.6
Reunite family	20.7	19.6
Left to marry	2.2	2.0
Conditions on plantation	18.6	18.9
Cruelty/dislike of master	17.6	17.7
Broken promises	1.0	1.2
Relative social status	7.8	9.4
Better opportunities in army	3.3	5.1
Better opportunities on other planta- tion .....	.6	.5
Better opportunities elsewhere	3.9	3.8
Exogenous factors	11.7	11.4
Forced by circumstances	9.6	8.4
Forced by master	2.1	3.0
Other reason (unspecified)	1.5	1.4
Stayed (various reasons)	37.6	37.2

NOTE.—*N* = 720.

* Weights based on gender-specific occupational distribution of slaves (1860).

(model 2 vs. model 1, likelihood ratio $\chi^2 = 13.70$, $\Delta df = 4$, $P < 0.01$). In particular, I estimate that artisans, semiskilled laborers, and field hands left the plantation system at between 1.36 and 1.43 times the rate as house servants, which posed clear problems for the sustainability of plantation agriculture. However, as suggested by the fit statistics—as well as by the ex-slaves' own explanations—status comparisons between plantation and nonplantation labor account for only a small part of the motivation for labor turnover.²⁴

Paralleling the responses enumerated in table 6, normative reactions to living conditions in the plantation system are another important influence on the exit process (model 3). Interestingly, the effect is contextual rather than self-directed, since former slaves are especially sensitive to abuse directed at their fellow laborers. This dovetails with the idea that physical violence, poor rations, and inadequate shelter served as signals of structural inertia, even when former slaves did not suffer the impact themselves. In conjunction with the findings for social status, the results suggest

²⁴ Given the average age of WPA respondents at the end of the Civil War (13 years old), a possible concern with this analysis is that many of the respondents were too young to make their own decisions during emancipation. To verify the robustness of the results, I reestimated the exit rate models for a sample restricted to adolescents and adults. Results for the more limited sample are consistent with those reported here, although—as one might expect—status considerations explain more variance in the outcomes.

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TABLE 7
COX MODELS PREDICTING EXIT RATE FROM PLANTATION SYSTEM AMONG
EMANCIPATED BLACKS

Variable	Model 1	Model 2	Model 3
Demographics:			
Gender (1 = female) .....	.016 (.064)	.073 (.070)	.055 (.071)
Age (in 1865) .....	.017 (.004)***	.013 (.005)**	.009 (.005)
Status under slavery:			
Child of slaves .....	. . .	.159 (.125)	.115 (.125)
Slave: ^a			
Artisan/driver .....	. . .	.307 (.150)*	.353 (.152)*
Semiskilled field/chores .....	. . .	.333 (.118)**	.273 (.118)*
Unskilled field hands .....	. . .	.355 (.111)***	.283 (.112)**
Conditions on plantation:			
Physical punishment .....	. . .	. . .	.073 (.052)
Witnessed punishment of others .....	. . .	. . .	.252 (.075)***
Interviewer characteristics:			
Ethnicity (1 = minority) .....	.360 (.082)***	.362 (.083)***	.310 (.084)***
-2 log likelihood	13,053.65	13,039.95	13,022.55
Δ in log likelihood	39.84***	13.70**	17.40***
<i>df</i>	3	7	9

NOTE.—No. of cases = 1,261.

^a Slaves working as house servants are the omitted reference category.

* $P < .05$ (one-tailed tests for hypothesized effects; two-tailed tests otherwise).

** $P < .01$.

*** $P < .001$.

that the core movement away from the wage plantation was initiated by (a) former slaves in “unreformed” plantations (i.e., organizations incorporating structural elements from the antebellum system) and (b) former slaves with low status relative to opportunities in the postbellum labor market (artisans, semiskilled workers, and field laborers). In the fully specified model (3), we can note that the exit rate from the wage plantation tended to be especially high for the relatively small group of skilled artisans.

How can one account for the mobilization of the remaining “stayers” from the plantation form? Aside from global bandwagon effects, a number of localized network influences may play a role in this process (see table 8). To probe differences in network influences on “movers” and “stayers,” I derived individual threshold values (θ) for each respondent in the sample as $\theta = -\exp(\beta'x)$, using the final Cox model in table 7. Lower thresholds thus identify early movers, while higher thresholds identify stayers.

With the exception of marital status, strong network ties contribute substantially to the plantation laborers’ decision to stay or leave (table 8, model 1). Those ex-slaves whose nuclear families had been broken as a

TABLE 8
COX MODELS PREDICTING EXIT RATE FROM PLANTATION SYSTEM, WITH NETWORK EFFECTS

Variable	Model 1	Model 2
Threshold (θ)	-1.120 (.141)***	-1.094 (.140)***
Strong ties:		
Married during slavery	-.143 (.129)	-.130 (.130)
Broken family .....	.413 (.178)**	.381 (.177)*
$\theta \times$ broken family ties .....	.486 (.265)*	.461 (.263)*
Weak ties:		
Alter threshold reported .....	. . .	.541 (.149)***
Threshold of alters (delay until fellow ex-slaves left) .....	. . .	-.609 (.114)***
-2 log likelihood	13,016.58	12,983.95
Δ in log likelihood	5.97	32.63***
<i>df</i>	12	14

NOTE.—No. of cases = 1,261.
* $P < .05$ (one-tailed tests for hypothesized effects; two-tailed tests otherwise).
** $P \leq .01$.
*** $P < .001$.

result of the sale of family members or migration of masters evidenced a high rate of exit from the plantation system (1.32 times the rate of those with intact nuclear families). Based on this result, the postbellum plantation system would have suffered destabilization even if ecological conditions had been favorable and its incentive systems were aligned with those of the free labor market. Because the plantation system was developed on the assumptions that its labor force had no right to geographic mobility nor to familial integrity, the removal of these restrictions posed severe structural problems for the organizational form.²⁵ As former slaves migrated in search of family, the need for more flexible labor arrangements became clear.

Another notable feature of the strong network effect is that it holds to a greater extent for stayers than for movers. Former slaves with low thresholds for plantation abandonment are motivated readily by status comparisons between plantation and nonplantation labor, as well as by normative reactions to the structural inertia of the plantation form. But those ex-slaves with few alternative economic opportunities in the postbellum era were taking a leap of faith in exiting their former work arrangements. Contrary to prior theoretical results questioning the mobi-

²⁵ The threat of geographic mobility was widely recognized by Southern planters. In some cases, planters actively tried to stop migration—as in the 1879–80 exodus of blacks to Kansas—using persuasion, accommodation, and legalized detention.

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lizing role of strong ties for late movers (see Chwe 1999), broken family ties could serve as a crucial catalyst in this respect.

The strong tie influences continue to hold when I control for local bandwagon effects (model 2). Those laborers reporting knowledge of plantation abandonment among their fellow ex-slaves exit at a much higher rate than those not reporting on such local knowledge. Moreover, laborers exit the wage plantation at one-half to one-third the rate when a large number of other ex-slaves on that plantation are stayers. Despite the magnitude of these local bandwagon effects, neither evidences any significant interaction with non-network thresholds (θ). Strong tie influences thus remain the principal factor differentiating movers from stayers, once the baseline thresholds are accounted for.

Micro-Macro Links

How does the mobilization of former slaves from the plantation (internal demography) bear on the ecology of the plantation and competing agricultural forms (organizational demography)? My argument thus far has largely considered these mechanisms in parallel, with the only micro-macro link being that the decision of slaves to abandon the plantation weakens that form and has implications—albeit ones not currently specified—for the viability of alternative arrangements. I now conclude my analysis by expanding on this argument to address how choices of agricultural tenure brokered between free blacks and Southern landowners in the postbellum period contributed to a cycle of “creative destruction” that hastened the demise of the plantation form.²⁶

For the sake of argument, the relevant agricultural forms can be arrayed on a single dimension, reflecting how many inputs workers provide and, correspondingly, how much autonomy they expect to exercise under each form of land tenure (Wright 1978). (See fig. 8.) At one extreme, one finds the wage plantation form, where workers simply provide labor and operate under direct supervision. At the other extreme, we locate proprietor farming, where workers become farm owners, providing land, livestock, tools, management know-how, and labor while operating under a relatively high level of autonomy. On the continuum in between, various “share farming” forms are defined as arrangements in which workers provide not just labor but also some combination of management know-

²⁶ A full exploration of this process is beyond the scope of this article, since it requires that we consider the origins of alternative agricultural forms in the postbellum South. In the following analysis, I take these alternative forms—i.e., farm proprietorship, rental farming, and share farming—as given and probe the impact of tenure choices among Southern blacks.

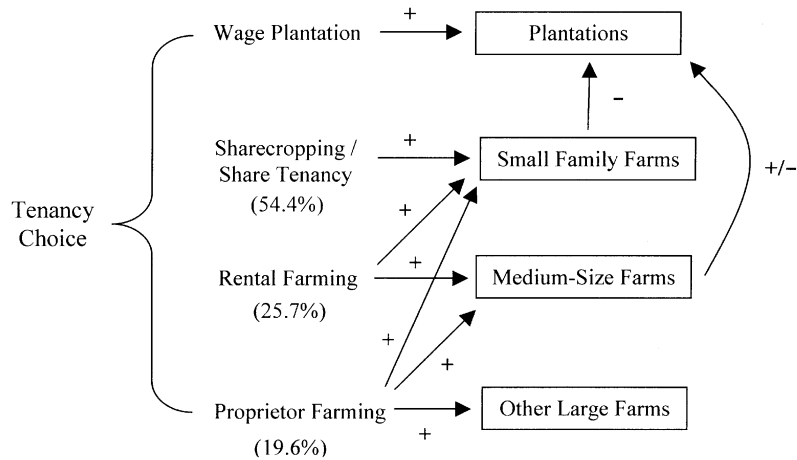


FIG. 8.—Individual tenancy choice and organizational ecology in Southern agriculture. Percentages correspond to tenure distribution of Southern blacks in 1880 microcensus (see Reid 1981, tab. 3.1).

how and, possibly, livestock and tools—all other inputs are reimbursed based on crop shares. In “rental” arrangements, laborers provide all inputs aside from land, which is secured through a nonshares contract (Reid 1981).

As underscored by my analysis of the internal demography of the plantation, few emancipated blacks preferred the wage plantation as a form of land tenure. At the same time, structural impediments and the opposition of white landowners also rendered proprietor farming an unlikely goal for many freemen and freewomen. Consequently, the majority of black farm operators opted for sharecropping or share tenancy (54.5% by 1880), while about half that number opted for rental agreements (25.7%). The distribution of tenancy choices thus reflected the well-known compromise between emancipated blacks, who wished to throw off the shackles of plantation gang labor, and white landowners, who “discouraged any sign of black independence that might have suggested a move toward social or economic equality” (Ransom and Sutch 2001, p. 86).

The empirical effects of tenure choice on organizational ecology are sketched on the right-hand side of the figure. Each arrow from a tenure choice to a particular organizational form indicates that the conditional probability of establishing that type of farm is at least 10%, given the tenure choice. Thus, share farming arrangements contracted by Southern blacks were largely limited to the development of small tracts of land (92% of these cases). Rental farming agreements also generally involved small agricultural holdings (88%), but in 11% of these cases black farmers

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were able to secure the use of mid-sized farms, which typically involved the hiring of some wage laborers. Access to larger agricultural holdings was most likely in the case of outright ownership—70% of black agricultural proprietorships entailed small family farms, but 19% involved mid-sized establishments and 10% involved large farming units.

The figure underscores the unanticipated consequences of white resistance to the upward mobility of former slaves on the agricultural tenure ladder. By limiting black land ownership, Southern whites eliminated one crucial avenue whereby wage labor on larger agricultural units could have been legitimated—particularly if it involved emancipated blacks working for other emancipated blacks. Instead, most former slaves had to be satisfied with low-acreage share farming agreements, which in turn stimulated the need to break the wage plantations into smaller agricultural tenancies. Ironically, the same mechanisms that supported short-term persistence in the status structure of the plantation system (see Ruef and Fletcher 2003) also hastened the demise of its central organizational form.

CONCLUSIONS

My analyses of postbellum plantation agriculture suggest that common historical explanations are inadequate to account for the disappearance of this organizational form. First, exogenous institutional explanations—proposing a straightforward relationship between the elimination of slavery and the disappearance of the plantation—do not account for the initial persistence of the plantation form under wage labor arrangements. Second, exogenous material explanations—focusing on damage from the Civil War or trends in urbanization—fail to explain much of the variance in plantation prevalence at the local level. Moreover, contrary to theories that position the plantation on a sparsely populated, resource-rich frontier, the agricultural form was most likely to persist in areas where these material conditions seemed unfavorable, such as counties with a limited influx of capital for agricultural reconstruction and with a growing population.

In lieu of these accounts, I have proposed that the decline of the plantation can be explained by reference to the organizational and internal demography of the organizational form. Over the long term, ecological mechanisms—emphasizing interdependencies between plantations, mid-sized farms, and smaller agricultural producers—account for much of the variance in regional plantation decline. In the short term, these mechanisms are complemented by dynamics affecting the internal demography of the plantation itself. Following long-standing appeals by social movement theorists for more analysis of grassroots movements challenging

organizational arrangements (e.g., Zald and Berger 1978), I find that the incentive structures, networks, and norms among former slaves constituted a fundamental challenge to the wage plantation.

Based on my individual-level analyses, the decision to abandon the plantation is not one that was immediately engendered by emancipation, with almost 50% of WPA respondents waiting more than a year to make this decision. This is unsurprising from a sociological perspective, given the nature of plantations as “total institutions” (Goffman 1961). Most plantation slaves had lived in closed societies, subject to limited contact with the outside world and habituated routines imposed on them by planters and overseers. Upon emancipation, initial release from the plantation may have led slaves to feel “marvelously alive to the liberties and pleasures of civil status” (Goffman 1961, pp. 70–74) but this was often followed by confusion or anxiety as to their new role in Southern society. High-status slaves (overseers and skilled artisans), in particular, risked “moving from the top of a small world to the bottom of a large one” (Goffman 1961, p. 73).

My attitudinal and behavioral analyses of emancipated slaves suggest that instrumental and normative motivations played a substantial role in the destabilization of plantation agriculture. According to these findings, the plantation form suffered decline in the postbellum period because of its incongruence with the emerging free market for black labor and the unwillingness (or inability) of planters to modify the incentive and authority structures of the plantation. Structural inertia, often formulated by organizational ecologists as a population-level property (see Carroll and Hannan 2000, pp. 362–67, for a discussion), had accumulated among Southern plantations since the early 1700s and ultimately inhibited a successful transition of this form to wage labor arrangements. Simultaneously, white resistance to upward status mobility among freed blacks dictated that the most likely alternative to the plantation form would be share farming, an arrangement that called for the decentralization of farm management while maintaining concentrated land ownership in planter hands.

My findings point to the social networks of emancipated slaves as an important microlevel factor mobilizing those laborers who had few alternative opportunities in the postbellum South. The Southern plantation had been developed on the assumption that its workforce was geographically immobile—unless moved or sold by plantation owners—and that kinship ties among slaves could be largely ignored in allocating and exchanging slave labor. When these assumptions were challenged by emancipation, large numbers of former slaves migrated in search of family members, guided by bits of news from kin or other members of the black community (Escott 1979, chap. 5). The new agricultural forms created to

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replace the wage plantation also tended to have a foundation in familial networks, since black sharecroppers and rental farmers largely recruited labor on the basis of kinship ties (Wright 1978).

These findings have several implications beyond the substantive example of the Southern plantation. Most importantly, understanding challenges to organizational forms requires detailed attention to the activities and perceptions of their participants. The postbellum plantation is perhaps one of the clearest historical examples where the actions of an otherwise disenfranchised and subjugated minority could have far-reaching consequences for the decline of a form of social organization. But most organizations generate choices between exit, voice, or loyalty for their members that can lead to rapid abandonment of forms, fundamental restructuring, or organizational stability (Hirschman 1970). In this article, I have focused primarily on the alternatives of “exit” and “loyalty.” Qualitative accounts from the postbellum period also reveal that the option of “voice” was frequently employed by former slaves, as they confronted former masters with new demands and developed cultures of resistance (Litwack 1979). What strategy prevails is likely to depend on the specific structural context confronting organizational members, as well as the broader institutional frameworks that yield alternative incentive structures, norms, and organizing templates. Research that couples comparative analysis of the decline and—in some cases—resurgence of organizational populations with the actions of participants is required to adjudicate between these outcomes.

The study also points to the importance of understanding geographic variability in the decline of organizational forms. Aggregated data on density often disguise regional pockets of persistence in organizational populations, owing to heterogeneity in resource and institutional environments. Separating the impact of these analytic factors from more idiosyncratic factors associated with a region (e.g., a local cultural identity supporting certain types of organizational forms) remains an underexplored research task. Well into the 20th century, one could find ethnographers assigning the label of “plantation counties” to certain regions in the American South (Rubin 1951). Indeed, one Arkansas observer noted in 1942 that “the plantation is as deeply rooted today as at any time in the history of the South” (quoted in Wright 1986, p. 236). Why this label persisted, despite a fundamental restructuring of the underlying organizational form, may speak to the recalcitrance of identities—both individual and collective—that become linked to organizational forms.

REFERENCES

Aldrich, Howard. 1999. *Organizations Evolving*. Thousand Oaks, Calif.: Sage.

American Journal of Sociology

- Alsberg, Henry. 1937. "Memorandum to the State Directors of the Federal Writer's Project." Work Projects Administration, Washington, D.C., July 30th.
- Baron, James. 2004. "Employing Identities in Organizational Ecology." *Industrial and Corporate Change* 13 (7): 3–32.
- Barrow, David. 1881. "A Georgia Plantation." *Scribner's Monthly* 21:830–36.
- Blassingame, John. 1975. "Using the Testimony of Ex-Slaves: Approaches and Problems." *Journal of Southern History* 41:473–92.
- Cade, John. 1935. "Out of the Mouths of Ex-Slaves." *Journal of Negro History* 20: 294–337.
- Carroll, Glenn, and Michael Hannan. 2000. *The Demography of Corporations and Industries*. Princeton, N.J.: Princeton University Press.
- Chwe, Michael. 1999. "Structure and Strategy in Collective Action." *American Journal of Sociology* 105:128–56.
- Cohen, William. 1991. *At Freedom's Edge: Black Mobility and the Southern White Quest for Racial Control, 1861–1915*. Baton Rouge: Louisiana State University Press.
- Coulter, E. Merton. 1947. *The South during Reconstruction, 1865–1877*. Baton Rouge: Louisiana State University Press.
- Cox, David. 1972. "Regression Models and Life Tables." *Journal of the Royal Statistical Society* 34:187–220.
- DiMaggio, Paul, and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48:147–60.
- Du Bois, W. E. B. 1901. "The Negro Landholder in Georgia." *Bulletin of the Department of Labor* 35:647–777.
- Easterlin, Richard. 1957. "Estimates of Manufacturing Activity." Pp. 635–701 in *Population Redistribution and Economic Growth, United States, 1870–1950*, vol. 1. Edited by S. Kuznets and D. S. Thomas. Philadelphia: American Philosophical Society.
- Egypt, Ophelia, J. Masuoka, and Charles Johnson. 1945. *Unwritten History of Slavery: Autobiographical Accounts of Negro Ex-Slaves*. Nashville: Fisk University Social Science Institute.
- Elkins, Stanley. 1959. *Slavery: A Problem in American Institutional and Intellectual Life*. Chicago: University of Chicago Press.
- Escott, Paul. 1979. *Slavery Remembered: A Record of Twentieth-Century Slave Narratives*. Chapel Hill: University of North Carolina Press.
- Firebaugh, Glenn. 1979. "Structural Determinants of Urbanization in Asia and Latin America, 1950–1970." *American Sociological Review* 44:199–215.
- Fogel, Robert. 1989. *Without Consent or Contract: The Rise and Fall of American Slavery*. New York: W. W. Norton.
- Fogel, Robert, and Stanley Engerman. 1974. *Time on the Cross*, 2 vols. Boston: Little, Brown.
- Franklin, John Hope. 1961. *Reconstruction: After the Civil War*. Chicago: University of Chicago Press.
- Gates, Paul. 1965. *Agriculture and the Civil War*. New York: Alfred A. Knopf.
- Goffman, Erving. 1961. *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. Garden City, N.Y.: Doubleday Anchor.
- Granovetter, Mark. 1978. "Threshold Models of Collective Behavior." *American Journal of Sociology* 78:1420–43.
- Granovetter, Mark, and Roland Soong. 1988. "Threshold Models of Diversity: Chinese Restaurants, Residential Segregation, and the Spiral of Silence." *Sociological Methodology* 18:69–104.
- Greene, Lorenzo, and Carter Woodson. 1930. *The Negro Wage Earner*. Washington, D.C.: Association for the Study of Negro Life and History.

Emancipation and Plantation Agriculture

- Gregor, Howard. 1965. "The Changing Plantation." *Annals of the Association of American Geographers* 55:221–38.
- Gutman, Herbert. 1976. *The Black Family in Slavery and Freedom 1750–1925*. New York: Random House.
- Hannan, Michael, and John Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49:149–64.
- . 1989. *Organizational Ecology*. Cambridge, Mass.: Harvard University Press.
- Hirschman, Albert. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge, Mass.: Harvard University Press.
- Isaaks, Edward, and R. Mohan Srivastava. 1989. *Applied Geostatistics*. New York: Oxford University Press.
- Litwack, Leon. 1979. *Been in the Storm So Long: The Aftermath of Slavery*. New York: Alfred A. Knopf.
- Loring, F. W., and C. F. Atkinson. 1869. *Cotton Culture and the South Considered with Reference to Emigration*. Boston: A. Williams.
- Marwell, Gerald, and Pamela Oliver. 1993. *The Critical Mass in Collective Action*. Cambridge: Cambridge University Press.
- McAdam, Doug, and Ronnelle Paulsen. 1993. "Specifying the Relationship between Social Ties and Activism." *American Journal of Sociology* 99:640–67.
- Oberschall, Anthony. 1973. *Social Conflict and Social Movements*. Englewood Cliffs, N.J.: Prentice-Hall.
- Olson, John. 1992. "The Occupational Structure of Southern Plantations during the Late Antebellum Era." Pp. 137–69 in *Without Consent or Contract: The Rise and Fall of American Slavery* (Technical Papers, vol. 1), edited by R. Fogel and S. Engerman. New York: W. W. Norton.
- Paige, Jeffrey. 1997. *Coffee and Power: Revolution and the Rise of Democracy in Central America*. Boston: Harvard University Press.
- Ransom, Roger, and Richard Sutch. 1975. "The Impact of the Civil War and of Emancipation on Southern Agriculture." *Explorations in Economic History* 12:1–28.
- . 1999. *A Sample of Southern Farms, 1880*. New York: Cambridge University Press.
- . 2001. *One Kind of Freedom: The Economic Consequences of Emancipation*, 2d ed. Cambridge: Cambridge University Press.
- Raup, Philip. 1973. "Corporate Farming in the United States." *Journal of Economic History* 33:274–90.
- Rawick, George, ed. 1972–79. *The American Slave: A Composite Autobiography*. Ser. 1–2, suppl. 1–2. Westport, Conn.: Greenwood Press.
- Reid, Joseph. 1981. "White Land, Black Labor, and Agricultural Stagnation: The Causes and Effects of Sharecropping in the Postbellum South." Pp. 33–56 in *Market Institutions and Economic Progress in the New South, 1865–1900*, edited by G. Walton and J. Shepherd. New York: Academic Press.
- Reid, Whitelaw. (1866) 1965. *After the War: A Tour of the Southern States, 1865–1866*. New York: Harper & Row.
- Rubin, Morton. 1951. *Plantation County*. New Haven, Conn.: Yale College and University Press.
- Ruef, Martin. 2000. "The Emergence of Organizational Forms: A Community Ecology Approach." *American Journal of Sociology* 106:658–714.
- Ruef, Martin, and Benjamin Fletcher. 2003. "Legacies of American Slavery: Status Attainment among Southern Blacks Following Emancipation." *Social Forces* 82: 445–80.
- Schumpeter, Joseph. (1942) 1975. *Capitalism, Socialism and Democracy*. New York: Harper.
- Shannon, Claude, and Warren Weaver. (1949) 1963. *The Mathematical Theory of Communication*. Urbana: University of Illinois Press.

American Journal of Sociology

- Smith, David. 1987. "Dependent Urbanization in Colonial America: The Case of Charleston, South Carolina." *Social Forces* 66:1–28.
- Snow, David, Louis Zurcher, and Sheldon Olson. 1980. "Social Networks and Social Movements: A Microstructural Approach to Differential Recruitment." *American Sociological Review* 45:787–801.
- Stampp, Kenneth. 1956. *The Peculiar Institution: Slavery in the Antebellum South*. New York: Alfred A. Knopf.
- Stinchcombe, Arthur. 1965. "Social Structure and Organizations." Pp. 142–93 in *Handbook of Organizations*, edited by James G. March. Chicago: Rand McNally.
- Thompson, Edgar. 1935. "Population Expansion and the Plantation System." *American Journal of Sociology* 41: 314–26.
- U.S. Bureau of Refugees, Freedmen, and Abandoned Lands. 1867. *Reports of the Assistant Commissioners of Freedmen, and a Synopsis of Laws Respecting Persons of Color in the Late Slave States*. Washington, D.C.: Government Printing Office.
- U.S. Census Office. 1814. *A Statement of the Arts and Manufactures of the United States of America* (1810). Philadelphia: A. Cornman.
- . 1864. *Agriculture of the United States in 1860, Compiled from the Original Returns of the Eighth Census*. Washington, D.C.: Government Printing Office.
- . 1872. *The Statistics of Wealth and Industry of the United States, Compiled from the Original Returns of the Ninth Census* (1870). Washington, D.C.: Government Printing Office.
- . 1883. *Report on the Production of Agriculture in the United States at the Tenth Census* (1880). Washington, D.C.: Government Printing Office.
- . 1916. *Plantation Farming in the United States*. Washington, D.C.: Government Printing Office.
- Vlach, John. 1993. *Back of the Big House: The Architecture of Plantation Slavery*. Chapel Hill, N.C.: University of North Carolina Press.
- Weber, Max. (1924) 1978. *Economy and Society: An Outline of Interpretive Sociology*, 2 vols. Berkeley and Los Angeles: University of California Press.
- Woodson, Carter. 1918. *A Century of Negro Migration*. Washington, D.C.: Association for the Study of Negro Life and History.
- Wright, Gavin. 1978. *The Political Economy of the Cotton South: Households, Markets and Wealth in the Nineteenth Century*. New York: Norton.
- . 1986. *Old South, New South: Revolutions in the Southern Economy since the Civil War*. New York: Basic Books.
- Yetman, Norman. 1984. "Ex-Slave Interviews and the Historiography of Slavery." *American Quarterly* 36:181–210.
- Zald, Mayer, and Michael Berger. 1978. "Social Movements in Organizations: Coup d'État, Insurgency, and Mass Movements." *American Journal of Sociology* 83: 823–61.