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Volume Title: Race and Schooling in the South, 1880-1950: An Economic History

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Volume Publisher: University of Chicago Press, 1990

Volume ISBN: 0-226-50510-3

Volume URL: http://www.nber.org/books/marg90-1

Conference Date: n/a

Publication Date: January 1990

Chapter Title: The Competitive Dynamics of Racial Exclusion: Employment Segregation in the South, 1900 to 1950

Chapter Author: Robert A. Margo

Chapter URL: http://www.nber.org/chapters/c8796

Chapter pages in book: (p. 87 - 108)

6 The Competitive Dynamics of Racial Exclusion: Employment Segregation in the South, 1900 to 1950

Previous chapters have shown that there were large racial differences in schooling in the South before 1950. This chapter and the next consider the implications of these differences for labor market outcomes. Chapter 6 focuses primarily on employment (industry and occupation) in the South, while Chapter 7 examines migration from the South. The results suggest that an eclectic mixture of the human capital and institutionalist models does a better job of explaining racial differences in labor market outcomes than either model taken separately.

6.1 Race and Employment in the South, 1900–1950: An Overview

This section reviews quantitative evidence on racial differences in employment in the South (industry and occupation) from 1900 to 1950. Its purpose is to put forth a set of basic facts to be examined in greater detail later in the chapter.

Panel A of Table 6.1 gives agricultural participation rates (the percentage of the labor force engaged in agriculture) for southern males from 1900 to 1950. The figures for ages 10 and over were derived from the published census volumes, while those for adults (ages 20–64) were calculated from the public use samples. Because the definition of the labor force in terms of ages changed in 1940 (to ages 14 and over), only figures for adult males are given for 1940 and 1950. No figures for adult males are given for 1920 or 1930 because census sample data are currently unavailable for those years.[1]

The South began the twentieth century as an agricultural economy—a majority of male workers, black and white, worked in farming. Agricultural participation rates were slightly lower for adult males than for all males in the labor force, but were still substantial. Importantly, racial differences in agricultural participation rates were relatively small at the turn of the century—4

Table 6.1 The Shift of Labor Out of Southern Agriculture, 1900–1950

A. Percentage of Male Labor Force in Agriculture: The South

	Ages 10 and Over			Ages 20–64		
	Black	White	Dif	Black	White	Dif
1900	64.2	59.9	4.3	60.7	58.7	2.0
1910	64.6	56.5	8.1	61.7	52.1	9.6
1920	57.7	46.8	10.9			
1930	52.8	39.9	12.9			
1940				46.5	32.5	14.0
1950				34.2	21.3	12.9

B. Percentage of Adult Male Labor Force in Agriculture, By Race and Age Group

	1900	1910	1940	1950
Black				
20–24	62.7	57.0	53.1	27.9
25–34	55.0	53.4	40.1	25.7
35–44	57.9	58.1	39.8	24.4
45–54	65.5	65.3	51.3	29.5
55–64	64.5	71.9	58.7	37.3
White				
20–24	63.1	51.6	34.5	17.9
25–34	54.2	47.6	22.7	15.1
35–44	55.4	48.1	28.0	17.6
45–54	61.8	54.7	35.6	19.0
55–64	66.8	61.4	50.9	29.7

Note: In Panel A, Dif means black minus white percentages.
Sources: **Ages 10 and over**: *1900*, U.S. Census Office (1904, 220–410); *1910, Black*, U.S. Bureau of the Census (1918, 503); *1910, White*, U.S. Bureau of the Census (1914, 434–529); *1920*, U.S. Bureau of the Census (1923, 874–1039); *1930, Black*, U.S. Bureau of the Census (1935, 303–9); *1930, White*, U.S. Bureau of the Census (1933, 105–1741). **Ages 20–64**: Author's calculations from census public use samples; 1940 figures exclude persons with emergency work relief jobs.

percentage points for males ages 10 and over, and 2 percentage points for adult males.

Over the next fifty years the southern economy "modernized," that is, labor shifted out of agriculture. In 1930, 40 percent of the white male labor force (ages 10 and over) was agricultural, a decrease of 20 percentage points from 1900. Black labor, too, shifted out of agriculture, but at a slower pace than white labor, with a decline of 13.4 percentage points between 1900 and 1930. Among adult males, agricultural participation rates declined from 1900 to 1940 for both races, but the decline was greater for whites. During the 1940s, however, black labor shifted out of southern agriculture more quickly than white labor did. Still, the racial gap in agricultural participation rates among adult males was larger in 1950 than in 1900.

Panel B of Table 6.1 gives agricultural participation rates among adult males by race and age group. Prior to World War Two, the shift of labor out of southern agriculture was a "cohort" phenomenon. That is, successive generations of younger males had lower agricultural participation rates, while older cohorts remained in agriculture as they aged. Consider the 25–34 age group in 1910: 53 percent of blacks and 48 percent of whites were in farming. Among those in the age group still in the South in 1940 (now between the ages of 55 and 64), 59 percent of the blacks and 51 percent of the whites were engaged in agriculture. But agricultural participation rates of 25 to 34-year-olds in 1940 were lower than in 1910 (the same was true of 20 to 24-year-olds). During the 1940s, however, the outflow from agriculture occurred in *every* age group, blacks to a greater extent than whites.

More detailed evidence is given in Panels A and B of Table 6.2, which show the distribution of employment by broad (one-digit) industrial and occupational categories. In 1910 blacks were relatively more numerous than whites in durable goods manufacturing, transportation-communications-public utilities, and personal services. Black labor was underrepresented in the other nonfarm industries, especially wholesale and retail trade (by 7 percentage points). In 1940 blacks continued to be overrepresented in durable goods manufacturing and personal services, and were underrepresented in mining-construction, nondurables manufacturing, trade, finance, and business services, professional services, and government jobs. In six of nine nonfarm industries, the degree of over- or underrepresentation of black labor was higher in 1940 than in 1910.

During the 1940s the migration of black labor off the farm found its way into the South's nondurable goods manufacturing plants, reducing the underrepresentation of black labor in that industry. Black labor also flowed into durable goods manufacturing, increasing its overrepresentation there. The proportion of black men employed in trade and professional services also rose over the decade. Black employment in personal services fell (the white share did not), suggesting the relatively high share of black employment in services in 1940 may have been a consequence of the Great Depression. The racial gap in employment increased in mining-construction, financial and business services, and government.

The distribution of employment across occupations in the South was more racially dissimilar than the distribution of employment across industries. At the turn of the century, black men were severely underrepresented in white-collar jobs. Sixteen percent of white men held white-collar jobs, compared with 2.7 percent of black men, or a racial gap of 13.6 percentage points. In the next several decades, black men entered white-collar occupations, increasing the percentage so employed to 3.7 percent in 1940 and to 5.5 percent in 1950. But the fraction of white men with white-collar jobs rose even faster. By 1940 the racial gap in white-collar employment was 22 percentage points, increasing to 24 percentage points within a decade. Disaggregation of the data

Table 6.2 **Distribution of Employment in the South: Males, Ages 20–64 (in percentages)**

	1900	1910	1940	1950
A. Occupation				
White collar				
Black	2.7	2.3	3.7	5.5
White	16.3	20.0	25.8	29.1
Professional/technical				
Black			1.5	
White			4.8	
Managers				
Black			1.2	
White			9.8	
Clerical/sales				
Black			1.0	
White			11.2	
Skilled blue collar				
Black	3.8	5.2	4.3	6.7
White	9.5	12.4	14.1	20.0
Semi-skilled blue collar				
Black	4.9	6.3	10.8	20.7
White	5.7	7.5	18.1	20.8
Service				
Black	4.2	5.7	10.9	10.3
White	1.5	2.5	4.1	3.5
Domestic				
Black			2.9	
White			0.1	
Protective				
Black			0.3	
White			2.3	
Other (includes personal)				
Black			7.7	
White			1.7	
Unskilled nonfarm laborer				
Black	23.8	18.8	23.8	22.6
White	8.1	5.7	5.8	5.3
Farm operator				
Black	37.6	39.9	26.2	20.7
White	44.2	39.4	22.2	15.2
Farm laborer				
Black	23.1	21.8	20.3	13.5
White	14.5	12.7	10.0	6.1
Segregation index	26.7	26.1	39.2	37.0
Sample size				
Black	2,065	6,011	4,767	5,346
White	4,921	18,956	20,237	20,445

Table 6.2 **(continued)**

B. Industry	1910	1940	1950
Agriculture			
Black	62.4	45.8	32.8
White	52.1	31.8	21.0
Mining-construction			
Black	6.7	8.4	11.2
White	7.8	12.2	15.7
Nondurables manufacturing			
Black	2.6	5.8	7.5
White	4.7	11.2	11.2
Durables manufacturing			
Black	9.8	11.0	13.7
White	7.5	8.6	9.5
Transportation-communications-public utilities			
Black	8.7	7.4	8.7
White	8.2	7.4	8.7
Wholesale-retail trade			
Black	3.7	7.9	11.0
White	10.9	14.7	16.3
Financial-business services			
Black	0.8	2.2	2.8
White	2.7	4.5	5.4
Personal services			
Black	3.6	8.1	6.3
White	1.7	2.8	2.8
Professional services			
Black	1.4	2.5	3.8
White	3.2	3.3	4.2
Government			
Black	0.3	1.0	2.3
White	1.2	3.6	5.3
Segregation index	15.0	21.7	19.5
Sample size			
Black	6,012	4,693	5,352
White	18,963	15,106	20,467

Sources: 1900, 1910, census public use sample; *1940, 1950,* 20 percent random sample of census public use tapes; 1940 sample excludes persons with emergency work relief jobs. Farm laborer category includes unskilled laborers, industry not specified, but living on a farm.

on white-collar employment further reveals that, throughout the period, a majority of black professionals in the South were found in just two occupations, teaching and preaching.[2] Cross classifications of industry and occupation show that blacks holding managerial positions were mostly self-employed businessmen, in wholesale and retail trade, financial and business services (e.g., real estate agencies), or personal services.[3]

If black employment in white-collar work lagged behind white employment, a skilled blue-collar job was another means of upward mobility. But blacks were underrepresented in skilled blue-collar jobs, and their underrepresentation increased over time. In the 1900 sample, 3.8 percent of black men held skilled blue-collar jobs, compared with 9.5 of white men. The black proportion increased to 4.8 percent in 1910, but the increase in the white proportion was larger, so that the racial gap in skilled blue-collar employment rose to 7 percentage points. The fraction of adult black men in 1940 with skilled blue-collar jobs was actually lower than in 1910. Black employment in the skilled trades expanded during the war decade, but growth in white employment was greater, and the racial gap rose to 13 percentage points by 1950.

In the semi-skilled operative category, blacks were underrepresented slightly in 1900. About 5 percent of black men in the 1900 sample held such jobs, compared with 5.7 percent of white men. In the next forty years, the fraction of adult black men in semi-skilled occupations increased, but white employment in semi-skilled jobs rose even faster, to 7.3 percentage points in 1940. But the racial gap closed abruptly during the 1940s, as black men filled newly created jobs in southern factories.

If they had problems finding white-collar and skilled blue-collar employment, black men had much less trouble getting a low-paying service job or a job as an unskilled laborer. The proportion of black men in service occupations (such as domestic, personal services, or protective services) more than doubled over the first half of the twentieth century. In the 1950 sample, 10.3 percent of black men held service jobs, compared with only 3.5 percent of white men. The racial gap in domestic employment—6.8 percentage points—was nearly three times as large as in 1900. The proportion of black men working as unskilled nonfarm laborers remained roughly constant between 1900 and 1950, at about 23 percent. The proportion of white men in such jobs, however, declined consistently, from 8.1 percent in 1900 to 5.3 percent in 1950. Consequently, the racial gap in unskilled nonfarm employment increased, from 15.7 percentage points in 1900 to 17.3 percentage points in 1950.

A summary statistic of racial dissimilarities in employment is a "segregation index." The index I use is[4]

$$(1) \qquad SI = \left(\sum_i |b_i - w_i|/2)\right) \times 100$$

where b_i is the share of the black labor force in industry or occupation i; w_i and is the share of the white labor force in industry or occupation i. The segregation index ranges from zero to 100. Complete integration (a value of zero) would occur if the black proportion equalled the white proportion in every industry or occupation. Complete segregation (a value of 100) would occur if industries and occupations were either all white or all black; that is, for every

industry or occupation in which w_i was positive, b_i would be zero, and vice versa.

Values of the segregation index are shown in Table 6.2. It is important to keep in mind that the values are *not* invariant to the number of industry and occupational categories. Were a larger number of categories used, the indices would take on larger values, indicating greater racial dissimilarity.[5] This is particularly true in the case of industrial segregation. It is unlikely, however, that substantive conclusions would change if the number of categories were expanded.

The results show that employment segregation in southern industry increased from 1910 to 1940: the value of the index in 1940 (21.7) was 45 percent higher than in 1910. Occupational segregation, too, rose in this period. During the 1940s, employment segregation declined in the South. Despite the decline, however, both the industry and occupation indices show that segregation was greater in 1950 than in 1910.

In summary, labor shifted out of southern agriculture between 1900 and 1950. Prior to World War Two, this shift was primarily a cohort phenomenon and in overall magnitude was greater for whites than for blacks. Black men were underrepresented in the expansion of nonfarm employment in particular industries in the South, and in the expansion of white-collar and blue-collar employment. Overall, employment segregation in the South worsened between 1900 and 1940. Employment segregation declined in the 1940s as blacks left farming for semi-skilled nonfarm jobs. Despite this decline, industries and occupations in the South were more highly segregated by race in 1950 than in 1900.

6.2 The Southern Economy and Black Progress

The human capital and institutionalist models discussed in Chapter 1 offer very different explanations of the evolution of racial differences in employment in the South. The human capital explanation has several parts. On average, real incomes in southern agriculture were lower than real incomes in the nonfarm sector, South or North. The odds of entering the nonfarm economy in the South were a positive function of schooling (Ransom and Sutch 1977; Higgs 1989). As each successive birth cohort came of age and entered the labor force, better-educated members of the cohort, black or white, were more likely to find a nonfarm job. But, because racial differences in the quantity and quality of schooling were persistently large—and, in the case of racial differences in school quality, were increasing early in the century—the black shift into the nonfarm economy lagged behind the white shift, particularly in the expansion of blue- and white-collar employment. The lag produced the increase in employment segregation in the South after 1900, which, in turn, was a key proximate cause of failure of the aggregate black-to-white earnings ratio to rise before World War Two. Region-specific indices of relative (black-

to-white) occupational status (a proxy for the earnings ratio) show a decline in the South during the first half of the twentieth century (Becker 1957).[6]

In addition to the effects of schooling, the shift of black labor out of southern agriculture may have been slowed initially by "spatial mismatch" (Higgs 1989). Early in the century the southern black population was concentrated in rural black-belt counties, where nonfarm jobs were few and far between. Finding a nonfarm job frequently required leaving the black belt for a distant town or city. Spatial mismatch diminished in importance, however, as industrialization spread throughout the South, leading to a more uniform geographic distribution of people and jobs.

The institutionalist view is well expressed by Gavin Wright (1986) in his recent book, *Old South, New South* (see also Mandle 1978). According to Wright, a dualistic labor market emerged in the South before 1950 in which white and black workers were "noncompeting groups" in the nonfarm labor market. Wright (1986, 196) rejects the argument that this dualism can be attributed to racial differences in schooling, because "schooling had little to do with job requirements" in most of the South's expanding nonfarm industries. Consider, as Wright does, the case of cotton textiles. Prior to the 1960s few blacks were employed in textiles, but not because of inadequate schooling; textile jobs have never required much in the way of formal education (Heckman and Payner 1989). Rather than being causally related, racial differences in employment and in schooling were the joint outcomes of a "larger historical process of creating a segregated society" (Wright 1986, 197).

Wright also rejects the claim that racial differences in employment can be explained by differences in the geographic distribution of white and black labor within the South. Location was irrelevant because:

> segregation followed industry lines rather than geography. The state of North Carolina contained all-white cotton mills and nearly all white furniture factories, along with heavy tobacco factories and mixed saw and planing mills. Tobacco manufacturing was a major black employer even though it was concentrated in white-majority states like North Carolina. . . . This regularity held down to the level of particular towns. . . . In Birmingham, where two-thirds of the iron and steel workers were black, the Avondale cotton mill was 98.1 percent white. (1986, 178)

Rather, Wright argues, employment segregation in industry was a consequence of historical accident and fixed costs. Cotton textiles are again a prime example. The textile industry developed in the Northeast before the Civil War. After the war the industry moved to North and South Carolina in search of cheaper labor, which it found by employing whites, primarily in family groups. Once the racial pattern was established, however, it became unprofitable for mill owners to substitute "inexperienced" blacks for "whites who had been born and raised in a mill village," even if blacks could be paid a lower wage (1986, 189). Black labor predominated in such industries as tobacco processing and lumber milling, but the same had been true under slavery.

Within industries occupational segregation was a matter of racial prejudice and privilege. There were "black" jobs, primarily menial, and "white" jobs. Whites simply refused to work for a black foreman. Black access to apprenticeship and training programs in the skilled blue-collar trades was jealously restricted by prejudiced employees, employers, and trade unions. White employers did not hire blacks in retail sales or office work because white customers or clients would be offended.[7] The "old" black middle class (Landry 1987), composed of black merchants and professionals (including clergy and teachers), serviced a segregated clientele, but the number and average size of black-owned establishments was too small to provide a significant alternative source of nonfarm employment for blacks (Greene and Woodson 1930).

In normal times, most *individual* southern firms, owned or managed by whites, had few or no incentives to deviate from these social norms; and once the norms were in place, individual blacks could overcome them only by enormous effort and, not infrequently, at great personal risk.[8] To dislodge the competitive dynamics of racial exclusion, the South had to be "shocked" out of regional isolation and segregationist ideology. World War One was an initial shock; while it ushered in the beginnings of an exodus of black labor from the South (Chapter 7), for a variety of reasons it did not fundamentally alter racial hiring patterns in southern nonfarm industries (Mandle 1978; Wright 1986; Whatley 1990). World War Two had a much bigger impact. In the early 1940s, labor markets were extremely tight and the demand for nonfarm labor skyrocketed. As shortages of semi-skilled and skilled white labor intensified, pressure to overcome social norms mounted. Although the South was slow to respond initially, a black breakthrough in nonfarm employment, concentrated in semi-skilled operative jobs, had occurred there as well by 1944. The expansion of black nonfarm employment was also aided by Roosevelt's Executive Order 8802, which outlawed racial discrimination in hiring in defense plants (Vatter 1985, 132–34).[9]

The effects of World War Two were, first, to reduce employment segregation in the South; and second, to permanently raise wage levels in southern agriculture, which provided the impetus for agricultural mechanization and further displacement of farm labor in the late 1940s and throughout the 1950s (Day 1967; Wright 1986). But, by itself, World War Two was not enough; the southern economy was still highly segregated in 1950. Further progress awaited an additional shock, the civil rights movement and its associated antidiscrimination legislation.

6.3 Employment Segregation in the South: An Econometric Analysis

In this section I use the census samples to distinguish between the human capital and institutionalist interpretations of the history of employment segregation in the South. The analysis is based on least squares regressions of the form

$$p = X\beta + \varepsilon \tag{2}$$

where p is the probability an individual would be employed in a particular industry or occupation; the X's are personal characteristics (for example, age and years of schooling); the β's are coefficients to be estimated; and ε is a random error term.[10]

Industry and occupation categories are those shown in Table 6.1. It is important to stress that the dependent variable is *not* an industry-occupation cell (e.g., semi-skilled operatives in durable goods manufacturing). Unfortunately, the sample sizes are too small to permit disaggregation of that sort. The independent variables are taken from the census samples: age, literacy (1900, 1910), years of schooling (1940, 1950), census region, degree of urbanization, marital status, and an indicator of geographic mobility.[11]

The mobility variable indicates whether the person's state of residence differed from his state of birth. The hypothesis is that, if spatial mismatch were important, black interstate migrants should have been employed more frequently in nonfarm occupations and industries. The mobility variable has obvious limitations. The number of moves across state lines vastly understates total moves, and certainly state boundaries were not coincident with well-defined labor markets. Unfortunately, there is no good way to distinguish rural-to-urban migration in the census samples. While I can (and do) control for the degree of urbanization of the person's residence, I cannot tell whether (except for moves across state lines) an urban resident grew up in a particular town or city, or moved there from the countryside. To the extent that rural-urban moves were associated with shifts in jobs (which, of course, to at least some extent they were), the regressions understate the significance of spatial mismatch.

Two sets of estimations were performed. In the first set the white and black samples were pooled, and a dummy variable indicating race was included among the independent variables.[12] The signs and magnitudes of the coefficients of the race variable measure the extent to which black labor was over- (a positive coefficient) or underrepresented (a negative coefficient) in a given industry or occupation, controlling for other factors. It is straightforward to aggregate the race coefficients into a segregation index.[13]

Although the pooled regressions reveal the importance of race per se in determining the distribution of employment, the regression specification constrains the coefficients to be the same for blacks and whites. The second set of estimations, therefore, is race specific. Later in the chapter I use the race-specific coefficients to calculate segregation indices under various assumptions about racial differences in schooling.[14]

The full set of regression coefficients reveals an enormous amount of detail about employment in the South, but is too complex and unwieldy to discuss here. Instead, attention is focused on the race, schooling, and migration coefficients.

Panel A of Table 6.3 shows the race coefficients from the occupation regressions. The principal finding of Panel A is that race per se (that is, holding other factors constant) was an economically significant determinant of the distribution of occupations in the South. The importance of "pure" racial over- or underrepresentation, however, varied across occupations, as can be seen by comparing the race coefficients with the racial differences in the sample mean occupation shares (Tables 6.1 and 6.2). Much of the overrepresentation of blacks in the farm laborer category can be explained by factors other than race. It is also noteworthy that, in 1940 and 1950, black underrepresentation in white-collar employment—and, to a much lesser extent, in the semi-skilled category in 1940—was considerably less once factors other than race are controlled for. However, blacks were still overrepresented among unskilled nonfarm laborers and in domestic and personal service. Factors other than race cannot explain this overrepresentation.

Panel B of the table reveals the effect of schooling on occupations. Among blacks, schooling had a large, negative effect on the probability of employment as a farm laborer; and, as the century progressed, a negative effect on the probability of employment as a farm operator or unskilled nonfarm laborer. Schooling improved the chances a black man would be employed in service jobs (primarily personal service), skilled blue-collar and white-collar occupations and—in 1940 but *not* 1950 (see Sec. 6.5)—as a semi-skilled operative. Education reduced the probability a white man would be employed in agriculture or as an unskilled nonfarm laborer, but (except in 1940) had little effect on employment chances in services. Early in the century, better-educated whites were more likely to be employed in the skilled blue-collar trades, but as the century progressed, increasingly opted for white-collar employment. It is important to note that the positive effects of schooling on white-collar employment (and skilled blue-collar employment in 1900 and 1910) were higher for whites than for blacks.

The migration coefficients shown in Panel C demonstrate that the distribution of occupations in the South was not neutral with respect to migrant status. Interstate migrants, black or white, were far more likely to be employed in the nonfarm sector. In terms of upward mobility in the nonfarm economy, however, interstate migration had a bigger impact on whites. Among blacks, interstate migrants were significantly more likely to be employed as unskilled nonfarm laborers or in service occupations, but any positive effects of migration on blue- or white-collar employment were small and generally statistically insignificant. White interstate migrants, by contrast, were more likely than blacks to find employment in skilled blue-collar or white-collar occupations. The impact of migration, however, was much smaller in 1950 than earlier in the century, suggesting that any spatial mismatch between jobs and people diminished over time as the South industrialized.

The results of the industry regressions broadly confirm those from the occupation regressions. As Panel A of Table 6.4 demonstrates, race per se

Table 6.3 Coefficients from Occupation Regressions

	1900	1910	1940	1950
A. Coefficients of Race (= 1 if black)				
Farm operator	−0.088*	−0.027*	−0.022	−0.001
Farm laborer	0.039*	0.046*	0.042*	0.033*
Unskilled nonfarm laborer	0.155*	0.154*	0.151*	0.172*
Services	0.036*	0.041*	0.077*	0.067*
Domestic			0.028*	
Protective			−0.018*	
Other			0.067*	
Semi-skilled blue collar	−0.011	−0.007	−0.106*	−0.064*
Skilled blue collar	−0.034*	−0.055*	−0.095*	−0.149*
White collar	−0.097*	−0.138	−0.046*	−0.084*
Professional/technical			0.034*	
Managers			−0.036*	
Clerical/sales			−0.044*	
B. Schooling Coefficients (= 1 if literate, 1900 and 1910; years of schooling completed, 1940 and 1950)				
Farm operator				
Black	−0.014	0.004	−0.012*	−0.012*
White	−0.073*	−0.028*	−0.016*	−0.010*
Farm laborer				
Black	−0.099*	−0.061*	−0.017*	−0.011*
White	−0.069*	−0.082*	−0.015*	−0.009*
Unskilled nonfarm laborer				
Black	0.009	−0.019	−0.010*	−0.012*
White	−0.053*	−0.051*	−0.009*	−0.009*
Services				
Black	0.036*	0.033*	0.014*	0.008*
White	0.003	0.007	−0.001*	−0.001
Domestic				
Black			0.001	
White			−0.0002*	
Protective				
Black			0.0005	
White			0.00005	
Other				
Black			0.013*	
White			−0.001*	
Semi-skilled blue collar				
Black	−0.007	0.011	0.003**	−0.005
White	−0.003	0.010	−0.012*	−0.021*
Skilled blue collar				
Black	0.029*	0.022*	0.003*	0.009*
White	0.068*	0.048*	−0.001	−0.007*
White collar				
Black	0.045*	0.024*	0.019*	0.021*
White	0.127*	0.125*	0.054*	0.057*

Table 6.3 **(continued)**

	1900	1910	1940	1950
B. Schooling Coefficients (= 1 if literate, 1900 and 1910; years of schooling completed, 1940 and 1950)				
Professional/technical				
Black			0.013*	
White			0.020*	
Managers				
Black			0.003*	
White			0.015*	
Clerical/sales				
Black			0.003*	
White			0.019*	
C. Migration Coefficients (= 1 if interstate migrant in the South)				
Farm operator				
Black	−0.042	−0.074*	−0.087*	−0.062*
White	−0.073*	−0.096*	−0.094*	−0.059*
Farm laborer				
Black	−0.081*	−0.077*	−0.042*	−0.019
White	−0.033*	−0.019*	−0.003	0.005
Unskilled nonfarm laborer				
Black	0.071*	0.091*	0.061*	0.009
White	0.021**	0.027*	0.004	0.004
Services				
Black	0.015	0.014**	0.022**	0.026
White	0.0002	0.002	0.03*	0.002
Domestic				
Black			−0.006	
White			−0.0004	
Protective				
Black			0.004**	
White			0.026*	
Other				
Black			0.024*	
White			0.004	
Semi-skilled blue collar				
Black	0.015	0.005	0.024*	0.030
White	0.037*	0.026*	0.006	−0.010
Skilled blue collar				
Black	0.005	0.023*	0.002	−0.003
White	0.028*	0.037*	0.026*	0.008
White collar				
Black	0.015	0.012*	0.020*	0.011
White	0.053*	0.023*	0.031*	0.050*
Professional/technical				
Black			0.013*	
White			0.018*	

(continued)

Table 6.3 (continued)

	1900	1910	1940	1950
C. Migration Coefficients (= 1 if interstate migrant in the South)				
Managers				
Black			0.005	
White			0.016*	
Clerical/sales				
Black			0.002	
White			−0.002	

Notes: An asterisk means significant at 1 percent level or better, and a double asterisk means significant at 5 percent level or better. Significance tests were based on least-squares *t*- statistics.
Source: See Table 6.2 and text.

influenced the distribution of employment across industries. Controlling for factors other than race, blacks were overrepresented to a significant extent in agriculture, durable goods manufacturing (except in 1940), and personal services. Blacks were underrepresented in mining-construction, wholesale and retail trade, nondurable goods manufacturing (which includes textiles), and government.[15] Educated men of both races were more likely to work outside of agriculture, and schooling had its biggest positive impact on employment in services, not in manufacturing. Interstate migrants were more likely to be employed in the nonfarm sector, particularly mining-construction and durable goods manufacturing. Consistent with the occupation results, the impact of interstate migration declined over time.

6.4 Accounting for Employment Segregation

In this section I use the regression coefficients to calculate counterfactual segregation indices under various assumptions about racial differences in the independent variables. The occupation indices are shown in Panel A, and the industry indices in Panel B, of Table 6.5.

The indices in the rows labelled Race were calculated from the race coefficients in Tables 6.3 and 6.4. They reveal levels and trends in employment segregation, adjusting for all factors (in the regressions) other than race. Because these factors did affect the extent of employment segregation, the indices are smaller in value than those based on the sample mean occupational and industrial employment shares in Table 6.2. Controlling for factors other than race lowers occupational segregation by 10 to 14 percent in the early twentieth century; the reductions are larger for 1940 and 1950, but the 1940 and 1950 regressions use a much better measure of educational attainment (years of schooling instead of literacy). Controlling for factors other than race lowers industrial segregation by about a third in 1910 and 1940. However, after adjusting for other factors, employment segregation in the South was

Table 6.4 Coefficients from Industry Regressions

	1910	1940	1950
A. Coefficients of Race (= 1 if black)			
Agriculture	0.031*	0.021*	0.030*
Mining-construction	−0.002	−0.050*	−0.041*
Nondurables manufacturing	−0.020*	−0.057*	−0.048*
Durables manufacturing	0.027*	0.006	0.027*
Transportation-communications-public utilities	0.019*	0.007	−0.011
Wholesale-retail trade	−0.052*	−0.022*	−0.027**
Financial-business services	−0.013*	−0.003	−0.001
Personal services	0.027*	0.064*	0.048*
Professional services	−0.009	0.040*	0.041*
Government	−0.007*	−0.006**	−0.018*
B. Schooling Coefficients (= 1 if literate, 1910; years of schooling completed, 1940 and 1950)			
Agriculture			
Black	−0.064*	−0.029*	−0.024*
White	−0.147*	−0.031*	−0.018*
Mining-construction			
Black	0.005	−0.001	0.0003
White	0.011	−0.005	−0.007
Nondurables manufacturing			
Black	−0.0003	−0.0004	−0.004
White	0.003	−0.0005	−0.001
Durables manufacturing			
Black	0.001	−0.006*	−0.005*
White	−0.002	−0.005*	−0.007*
Transportation-communications-public utilities			
Black	−0.002	−0.001	0.002
White	0.024*	0.002*	−0.003*
Wholesale-retail trade			
Black	0.015*	0.006*	0.002
White	0.055*	0.013*	0.010*
Financial-business services			
Black	0.008*	0.004*	0.005*
White	0.020*	0.005*	0.007*
Personal services			
Black	0.021*	0.010*	0.007*
White	0.007**	0.001*	0.0002
Professional services			
Black	0.017*	0.014*	0.012*
White	0.023*	0.013*	0.013*
Government			
Black	−0.0003	0.002*	0.005*
White	0.006**	0.006*	0.006*

(continued)

Table 6.4 Coefficients from Industry Regressions

	1910	1940	1950
C. Migration Coefficients (= 1 if interstate migrant in the South)			
Agriculture			
Black	−0.127*	−0.118*	−0.072*
White	−0.116*	−0.086*	−0.060*
Mining-construction			
Black	0.056*	0.054*	0.029
White	0.049*	0.042*	0.020
Nondurables manufacturing			
Black	−0.011**	0.004	−0.012
White	0.020*	0.0004	0.002
Durables manufacturing			
Black	0.040*	0.053*	0.031
White	0.025*	0.013*	0.010
Transportation-communications-public utilities			
Black	0.033*	−0.001	0.028
White	0.014*	0.0006	−0.016
Wholesale-retail trade			
Black	−0.008	0.003	−0.029
White	−0.002	0.006	0.009
Financial-business services			
Black	−0.002	−0.007	−0.010
White	−0.005	0.006	−0.005
Personal services			
Black	0.001	−0.005	0.044
White	0.007*	0.008	0.010**
Professional services			
Black	0.017*	0.008	0.028
White	0.009*	0.005	0.016*
Government			
Black	0.001	0.002	0.007
White	−0.002	0.006	0.014*

Notes: An asterisk means significant at 1 percent level or better, and a double asterisk means significant at 5 percent level or better. Significance test based on least-squares *t*-statistics.
Source: See Table 6.2 and text.

higher in 1950 than earlier in the century.[16] It is noteworthy that pure racial segregation continued to worsen during the 1940s, despite the large shift of black labor out of agriculture.

The next several rows in Panels A and B give values of the segregation indices under various assumptions about racial differences in schooling. The calculations are based on employment distributions predicted from the occupation and industry regressions. Racial differences in educational attainment (literacy and years of schooling) contributed to employment segregation, but the impact was modest. A small fraction of occupational segregation around the turn of the century can be attributed to racial differences in literacy. The percent of occupational segregation explained by racial differences in years of

Table 6.5 Segregation Indices

	1900	1910	1940	1950
A. Occupation				
Sample means	26.7	26.1	39.2	37.9
Race	23.1	23.4	26.9	28.4
Percentage explained	13.5	10.3	31.4	25.1
Equal literacy	24.5	24.1		
Percentage explained	8.2	7.9		
Equal years of schooling			30.8	31.4
Percentage explained			21.4	17.2
Equal years of schooling, adjusted for school quality			27.9	27.0
Percentage explained			28.8	28.8
B. Industry				
Sample means		15.0	21.7	18.5
Race		10.4	13.7	14.5
Percentage explained		32.0	36.9	20.8
Equal literacy		13.6		
Percentage explained		9.3		
Equal years of schooling			17.2	15.0
Percentage explained			20.7	18.0
Equal interstate migration rates		15.8	21.1	18.1
Percentage explained		–	2.8	2.2

Notes: "Equal": white mean = black mean; "–": percentage explained was less than zero.
Source: See text. Sample means: segregation index calculated from regression sample mean occupational and industrial employment shares.

schooling was 21 percent in 1940 and 17 percent in 1950. Had black and white literacy rates been the same in 1910, the industry segregation index would have been 13.6 instead of 15.0, a decline of 9.3 percent. If mean years of schooling in 1940 had been the same for both races, the industrial segregation index would have equalled 17.2 instead of 21.7, a 20.7 percent decrease. Controlling for racial differences in educational attainment does not alter the fundamental finding that employment segregation in the South was worse in 1950 than in 1900 or 1910.

The adjustments for schooling can be criticized, however, because they do not take into account racial differences in the quality of schooling. The final rows in Panel A show the results of an adjustment for school quality. The assumption is that for the quantity and quality of schooling to be considered truly equal for blacks and whites, mean years of schooling for blacks had to equal the white mean plus three additional years. Thus, for example, a black man completing nine years of schooling is assumed to have been as well educated as a white completing 6 years of school. The basis for such an adjustment is that black scores on standardized tests were lower than white test scores (Bond 1939; Orazem 1987).[17]

Racial differences in the quality of schooling certainly were a factor in employment segregation. The indices of occupational segregation in 1940 and 1950 would have been 29 percent smaller had both school quantity and quality been equalized. Nevertheless, much of employment segregation in the South is not explained by racial differences in the quantity and quality of schooling. Race, not schooling, was the principal factor limiting the participation of black labor in certain industries and occupations.

The final row in Panel B gives the industry segregation indices under the assumption that the black and white interstate migration rates were equal. Industrial segregation would have been little changed had blacks been as mobile across state lines as were whites.[18] Similar results (not shown) were obtained for occupational segregation. Spatial mismatch limited the participation of black labor in the nonfarm economy, but it was not a major factor behind employment segregation in the South.

6.5 Black-White Earnings Ratios in the South: 1940–1950

Prior to World War Two the shift of labor out of southern agriculture was a cohort phenomenon. Schooling and migration—"human capital"—were integral to this shift. Better-educated, geographically mobile blacks (and whites) left farming; the illiterate and immobile stayed behind. The quantitative significance of illiteracy and immobility can be revealed by using the agricultural industry regressions to calculate the probability that an uneducated, immobile (i.e., did not migrate across state lines), young black male (ages 20 to 24) would be employed in agriculture. This probability exceeded 70 percent in 1910 and 1940, but the probability fell to below 50 percent in 1950. The best explanation of the decline is the one offered by Wright (1986), that is, an increase in the nonfarm demand for black labor, coupled with rising agricultural wages leading to displacement of farm workers. I have already shown that many blacks who left agriculture in the 1940s found employment as semi-skilled operatives. Before World War Two, schooling and semi-skilled employment for blacks were positively related, but the influx of rural, less educated blacks reversed the sign of the relationship during the 1940s.

Data from the 1940 and 1950 public use samples reveal that the black-to-white ratio of average weekly earnings of adult males rose in the South by about 17 percent between 1940 and 1950 (Table 6.6).[19] Because agricultural wages were lower than nonfarm wages (including wages in semi-skilled occupations), the greater relative (black minus white) shift of black labor out of agriculture may have raised the earnings ratio.[20] But it is also true that racial differences in educational attainment were smaller in 1950 than in 1940, as better-educated blacks entered the southern labor force (Chapter 2). This decline in racial differences in years of schooling might also have increased the earnings ratio.

To distinguish between the two hypotheses, I estimated race-specific earnings regressions for southern males ages 25 to 64, using samples from the

Table 6.6 Regressions of Weekly Wages: The South, 1940 and 1950

	1940			1950		
	Mean	β	*t*-statistic	Mean	β	*t*-statistic
A. Black Males						
Constant		2.34	40.43		3.08	39.86
Age						
25–34	0.39	−0.15	−4.00	0.35	−0.01	−0.21
45–54	0.19	−0.01	−0.30	0.22	−0.06	−1.05
55–64	0.09	−0.10	−1.62	0.12	0.05	0.74
Years of schooling completed × 10^{-1}	0.493	0.32	5.88	0.582	0.33	5.13
Married	0.80	0.03	0.77	0.77	0.09	1.85
Sector:						
Agricultural	0.25	−0.90	−21.08	0.16	−0.69	10.40
Service	0.36	−0.12	−2.97	0.44	−0.003	−0.06
SMSA resident	0.39	0.11	2.98	0.51	0.23	5.09
Region:						
East South Central	0.24	−0.21	5.15	0.23	−0.06	−1.10
West South Central	0.22	−0.14	3.38	0.24	0.02	0.35
Dependent variable	2.14			3.33		
Number of observations		1,352			746	
R^2		0.35			0.28	
B. White Males						
Constant		2.32	41.31		3.40	54.60
Age						
25–34	0.41	−0.16	−4.73	0.36	−0.07	−2.00
45–54	0.20	0.10	2.41	0.22	0.11	2.75
55–64	0.10	0.05	0.44	0.13	0.04	0.94
Years of schooling × 10^{-1}	0.848	0.69	18.22	0.911	0.50	11.98
Married	0.84	0.15	4.09	0.88	0.16	3.66
Sector						
Agricultural	0.11	−0.97	−20.78	0.08	−0.78	−14.10
Service	0.44	−0.03	−1.00	0.48	−0.11	−3.62
SMSA resident	0.40	0.24	8.19	0.52	0.17	5.86
Region						
East South Central	0.19	−0.13	−3.46	0.17	−0.05	−1.17
West South Central	0.36	−0.006	−0.18	0.38	−0.004	−0.12
Dependent variable	2.94			3.96		
Number of observations		2,270			1,627	
R^2		0.39			0.25	

(continued)

Table 6.6 **(continued)**

C. The Increase in the Black-to-White Wage Ratio (% of increase explained)

	Black		White	
	1940	1950	1940	1950
Racial differences in sectoral shift	30.8	25.8	35.6	26.5
Shift out of agriculture	33.8	26.9	36.4	30.0
Narrowing of racial differences in years of schooling	5.0	5.4	11.3	8.1

Notes: **Panel C:** Percentage explained is $\beta^i_j\,(dx^w - dx^b)$, i = black, white, j = 1940, 1950, where the β's are the regression coefficients and dx's are the changes between 1940 and 1950 in sample means (from Panels A and B); "sectoral shift": total effect of all sectoral shifts.
Sources: **Panels A, B:** 10 percent random samples from 1940 and 1950 public use tapes. Dependent variable is log of weekly earnings.

1940 and 1950 public use tapes.[21] The dependent variable is the log of weekly earnings, and the independent variables are dummy variables for age group, years of schooling, location in the South (region and an urban dummy), marital status, and dummy variables for economic sector (agricultural and service; the manufacturing sector was omitted).

Sample means and regression coefficients are shown in Panels A and B of Table 6.6. Better-educated men of both races earned higher weekly wages, although the rate of return to schooling was higher for whites. Among whites, earnings rose with age through the age group 45–54, but the age-earnings profile was much flatter for blacks. Married white men earned more than single men; the premium for married black men was much smaller and statistically insignificant. The results confirm that agricultural wages were far below nonfarm wages in both years, but that the wage gap between agriculture and manufacturing diminished during the 1940s. Earnings were higher in urban than in rural areas in both years; regional differences were substantial in 1940 (especially for blacks), but diminished over the decade.

Panel C of Table 6.6 uses the sample means and the regression coefficients to calculate how much of the increase in the mean earnings ratio between 1940 and 1950 can be explained by sectoral shifts in employment versus changes in years of schooling. Between 27 and 36 percent of the increase in the earnings ratio can be attributed to the greater relative shift of black labor out of agriculture. Declining racial differences in years of schooling were less important, accounting for 5 to 11 percent of the increase in the earnings ratio.[22]

It has been argued in recent studies that the civil rights movement and its associated antidiscrimination legislation played a minor role in raising the national earnings ratio in the 1960s and 1970s (Smith 1984; Smith and Welch 1989). The earnings ratio increased during the 1940s (also in the 1950s) *before* social change had occurred and civil rights legislation fully enacted. According to Smith and Welch (1989, 55) the pre–civil rights increase in the

earnings ratio "suggests that . . . slowly moving historical forces [e.g., education] . . . were the primary determinants of the long-term black economic improvement." But, as I have shown, the increase in the earnings ratio in the South during the 1940s was not a consequence of "slowly moving historical forces" but of abrupt changes in labor demand in the context of large sectoral differences in wages. The experience of the 1940s supports the institutionalist argument that, historically, black economic progress and labor demand were closely linked.

6.6 Summary

Analysis of the census samples reveals much about the determinants of employment in the South during the first half of the twentieth century. Racial differences in the quantity and quality of schooling limited the participation of blacks in the nonfarm southern economy. In the words of Roger Ransom and Richard Sutch (1977, 31), illiteracy "helped to trap the black farmer in southern agriculture." Educational discrimination in the South was worse in the upper elementary and high school grades, but it was precisely this level of education that would have led to greater black employment in blue- and white-collar occupations. Consistent with the human capital model, a narrower racial gap in the quantity and quality of schooling would have improved the employment prospects of southern blacks, leading to a higher earnings ratio before World War Two.

But the quantitative impact of racial differences in schooling was modest, and it was concentrated in certain occupations and industries. More and better schooling would have increased the number of *self-employed* blacks in white-collar occupations.[23] The expansion of black employment in managerial positions in corporations, in clerical and sales jobs in large firms, and in the government would be the product of a later era.

Race, not schooling or spatial mismatch, was the principal factor behind employment segregation in the South. Overall, employment segregation in the South was worse on the eve of World War Two than at the turn of the century. The finding that employment segregation increased over time is not new; in the early 1950s Donald Dewey (1952, 282) noted:

> In the fifty years before World War II the relative position of Negro workers in Southern industry actually deteriorated; they did not share proportionately the expansion of urban employment and they were not upgraded as individuals into jobs previously held by whites.

What *is* new is the finding that employment segregation increased *after* controlling for racial differences in schooling and other factors.[24] The rise in employment segregation was not, primarily, a consequence of racial differences in human capital. Rather, it seems that black participation in the southern economy was constrained by discrimination and social norms.[25] During the

1940s, employment segregation declined and the black-to-white earnings ratio rose, as black labor left southern agriculture in response to an increase in nonfarm labor demand. But World War Two did not fundamentally alter the social norms that supported racial discriminations. Controlling for factors other than race, employment segregation in the South was higher in 1950 than in 1940.

In the 1950s and 1960s the dualism of southern labor markets finally came into conflict with the long-term increase in black schooling. Recent histories have emphasized the grass roots character of the early civil rights movement (Morris 1984; Branch 1988). The brilliance and courage of the principal protagonists notwithstanding, the boycotts, sit-ins, and freedom marches could not have succeeded without the broad-based support of blacks who had suffered mightily under *de jure* and customary segregation. Blacks entering the southern labor force in the 1950s and 1960s were better educated than previous generations. For them, and their parents, the wait to end segregation had been long enough. Eventually the new generations would have a new ally in the federal government, whose enforcement of antidiscrimination legislation helped facilitate the expansion of black employment in nontraditional occupations and industries in the South in the late 1960s and early 1970s (Donohue and Heckman 1989).