The Economic Status of Black Women: An Exploratory Investigation

Staff Report
United States Commission on Civil Rights
October 1990

U.S. COMMISSION ON CIVIL RIGHTS

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Executive Summary

This report contains both heartening and disheartening findings with respect to black women's economic status. On the one hand, the pay of black women has increased substantially, both relatively and absolutely, over the past half-century. A primary cause of black women's increased relative pay appears to have been a substantial decline in the effects of racial discrimination in the labor market. In 1940 black women's hourly wages were barely one-half those earned by comparable non-Hispanic white women.[1] Today, black women earn roughly 90 percent as much as comparable white women. The occupational distributions of black and white women with similar characteristics have undergone an equally large convergence between 1940 and the present.

On the other hand, despite these increases in relative pay and occupational status, black women still earn less than white women, and black women's economic status continues to be far below white women's. Black women's average family income is less than two-thirds that of white women. Black women are three times more likely to have family incomes of less than $10,000, and seven times less likely to have family incomes of more than $60,000. Black women's median family net worth is $8,335, less than one-fifth as high as white women's, which is $45,659. Black women are five times more likely to be in poverty, five times more likely to be on welfare, and three times more likely to be unemployed than white women.

The report has three major components. First, the report traces the history of black women's labor force status, especially their wages and occupations, from 1940 to the present. Second, the report looks in detail at the current status of black women's wages and occupations in comparison to white women's. Finally, the report considers other factors that affect black women's current economic status, including their labor force participation and unemployment rates, their family structure, and the incomes of other family members.

The statistical analysis in this report is based on data on individuals between the ages of 18 and 64 taken from a variety of data sources, primarily the

- 1940–80 Public Use Samples of the Censuses of Population,
- the 1970–87 March Current Population Surveys (CPS), and
- the 1984 Panel of the Survey of Income and Program Participation (SIPP).

The population censuses provide a consistent series of data from 1940 to 1980 for the historical analysis, and the CPS and SIPP data provide more detailed information about the situation of black women in the 1980s. All three data sets permit comparisons of women with similar background characteristics.

The report compares the labor market outcomes (e.g., wages, occupations, labor force participation rates, and unemployment rates) of black women with those of white women with similar background characteristics (e.g., education, age, work experience, region of residence, marital status, and number of children). The results of these comparisons offer information about whether and to what extent black women have worse labor market outcomes than white women with similar background characteristics and provide insight into the possible effects of racial

[1]For convenience, non-Hispanic white women are referred to as "white" throughout the remainder of the report.

discrimination in the labor market on black women's economic status.

Thus, this study is limited to uncovering the effects of current racial discrimination in the labor market on black women's economic status. The reader should bear in mind that in addition to racial discrimination, black women also face gender discrimination. Moreover, many black women continue to experience discrimination that occurs outside of the labor market; in the provision of education, in the housing market, and in other areas. Also, discrimination that occurred in the past continues to depress the economic status of many black women. Thus, although this report provides essential information on one important aspect of discrimination against black women, racial discrimination in today's labor market, it does not constitute a comprehensive evaluation of all forms of discrimination against black women.

The report's major findings are summarized below.

Trends in Black Women's Wages and Occupations: 1940–80

Using census data, the report examines trends in black women's wages and occupations over the 1940–80 period. At the beginning of the period there were large differences between the wages and occupations of black and white women. In 1940 black women earned only 40 percent as much per hour as white women. Black women were concentrated in low-status occupations (roughly 70 percent worked as servants and farm laborers) and were almost completely absent from middle-status occupations, such as clerical work, and high-status occupations other than teaching.

Very little of the black-white differences in wages and occupations in 1940 could be accounted for by racial differences in background characteristics, such as age, educational attainment, region of residence (South or not South), and urban or rural location. Black women's hourly wages were barely one-half of those earned by comparable white women.[2] Black women and comparable white women worked in very different occupations. For instance, 58.4 percent of black women were domestic servants, compared with 11.5 percent of comparable white women. Thus, although racial differences in unmeasured characteristics such as schooling quality may have been partially responsible, racial discrimination in the labor market was probably the major cause of the disparities between black and white women's wages and occupations in 1940.

Black women made substantial progress relative to white women between 1940 and 1980, particularly after 1960. Census data show that by 1980 black women had reached near wage parity with white women. Similarly, black women's occupational status had improved considerably. By 1980 fewer than 8 percent of black women worked as farm laborers or domes-tic servants, and black women had made substantial inroads into middle- and high-status occupations. For instance, 29 percent of black women worked in the clerical sector, up from 1 percent in 1940, and 16 percent of black women were professionals, up from 5 percent in 1940.

The economic progress made by black women over the 1940–80 period cannot be accounted for by changes in measured characteristics. Even if all that had changed between 1940 and 1980 were black and white women's characteristics, black women still would have earned only half as much as white women and would have been only slightly less likely to work in low-status occupations. Black women's increased relative wage and occupational status between 1940 and 1980 were most likely the result of declining racial discrimination in the labor market, especially declining occupational discrimination, combined with changes in unmeasured characteristics, such as the quality of schooling received by black women.

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[2]The term "comparable white women" refers to white women with the same measured characteristics as the average black woman.

The Current Status of Black Women's Wages and Occupations

Despite the progress of the 1940–80 period, this report finds that the wages of black women continue to lag behind those of white women. Black women today earn roughly 90 percent as much per hour as white women. In addition, black women continue to be somewhat less likely than white women to work in middle- and high-status occupations such as clerical jobs, and more likely to work in low-status occupations such as factory and service jobs.

Racial differences in background characteristics can account for only part of the remaining wage and occupational disparities between black and white women. Using data from the Survey of Income and Program Participation, this report found that black women earn 9 percent less than comparable white women. Furthermore, relative to comparable white women, black women were found to be underrepresented in middle- and high-status occupations, and overrepresented in low-status occupations.

Some evidence was found of a small decline in the ratio of black women's to white women's wages after 1985, indicating that black women have not shared equally in the recent economic progress made by women in general. Changes in measurable characteristics cannot account for this decline.

Regional Differences in Black Women's Wages and Occupations

Southern black women have historically fared much worse than black women in the rest of the country. In 1940 southern black women earned less than 60 percent as much as black women elsewhere, whereas southern white women earned 90 percent as much as white women in the rest of the country. Similar disparities exist today: in 1980 southern black women earned 80 percent and southern white women earned 92 percent as much as their counterparts elsewhere. The occupational status of black women has also been worse in the South than in the rest of the country.

In the past black women's lower relative economic status in the South occurred because labor market discrimination was more severe in the South. Whereas black women outside of the South earned 71 percent as much as comparable white women in 1940, southern black women only earned 50 percent as much as comparable southern white women. Southern black women also faced more restricted job opportunities than black women outside of the South. For instance, up through 1960, black women in the South were almost completely excluded from jobs as operatives in the textile industry.

Despite considerable improvements after 1960, in the 1980s southern black women continue to earn less relative to comparable white women than black women elsewhere. Southern black women earn 87 percent as much per hour as comparable southern white women, whereas black women outside of the South earn 96 percent as much as comparable white women. Southern black women are also in less skilled occupations relative to comparable white women than black women elsewhere. For instance, southern black women today are strikingly underrepresented among clerical workers. Only 23 percent of southern black women are clerical workers, compared with 36 percent of comparable white women. Outside of the South, 35 percent of black women are clerical workers, compared with 37 percent of comparable white women.

Age Differences in Black Women's Wages and Occupations

Younger black women generally have fared better relative to similarly qualified white women than have older black women. In the 1980s black women over 40 earn only 88 percent as much as comparable white women, whereas black women under 40 earn 94 percent as much as comparable white women. Older black women's lower relative earnings appear to be because they are in lower status occupations relative to their white counterparts. This result suggests that older black women have not overcome the effects of past labor market discrimination. They grew up at a time when educational and occupational opportunities for black women were severely restricted. Thus, past discrimination reduces older black women's economic status today,

because it has a lasting impact on their educational attainment and occupational status.

Labor Market Discrimination and Trends in Wages and Occupations

Racial discrimination against black women exists in the labor market if employers, co-workers, or customers treat black women differently from white women with identical labor market skills solely on the basis of their race. Thus, if a black woman is paid less, promoted less quickly, denied access to the same job or occupation, or avoided or harassed more by her co-workers than an identical white woman simply because she is black, then she has suffered from labor market discrimination. A central concern of this report is to ascertain the extent to which labor market discrimination against black women has lowered their relative wages and limited their occupational opportunities, both now and in the past. The extent to which black women earn less and are in different occupations than white women with the same characteristics measures the possible effect of labor market discrimination on the basis of race on black women's wages and occupations.

This report has found that differences in the measured characteristics of black and white women were able to account for only a small portion of the differences in their wages and occupations. Although differences in unmeasured characteristics, such as the quality of education undoubtedly contributed to the gap in black and white women's wages and occupations, this result suggests that labor market discrimination has played an important part in depressing the wages and occupational status of black women throughout the period from 1940 to the present. Similarly, the report's finding that southern black women had and continue to have lower wages and occupational attainment relative to comparable white women than black women in the rest of the country supports the view that labor market discrimination against black women has been and may continue to be worse in the South than elsewhere.

The evidence concerning the present day is less conclusive, because contemporary differences in the wages, occupations, and measured characteristics of black and white women are small by historical standards. There remain, however, portions of the wage and occupational gaps that cannot be explained by differences in the measured characteristics of black and white women, suggesting that current racial discrimination in the labor market may continue to reduce black women's wages and occupational attainment today.

This report has focused on uncovering the effects of current racial discrimination on black women's economic status. It should be remembered that, like all women, black women are also subject to gender discrimination, which also lowers their economic status. Furthermore, in addition to current discrimination, the legacy of past discrimination also limits black women's economic status. Whereas, as discussed above, past discrimination certainly continues to restrict opportunities for older black women, younger black women as well may suffer from its legacy. Since social and economic status are generally influenced by upbringing, hardships visited upon their parents and upon the black community by discrimination in the past continue to hinder the progress of young black women today.

Racial Differences in Labor Force Participation and Unemployment Rates

In addition to a persistent wage gap, black and white women have very different employment and unemployment patterns. Black women of all ages and marital statuses experience much higher unemployment rates than white women. Overall, 11 percent of black women who desire to work are unemployed, compared with 4 percent of white women. Young and unmarried black women have particularly high unemployment rates. For instance, the unemployment rate for unmarried black women between the ages of 18 and 24 is more than 25 percent. Controlling for differences in characteristics (age, education, presence and age of children, and, for married women, husband's income) only slightly narrowed the black-white unemployment gap: the report found that black women had substantially higher unemployment rates than white women with the same

characteristics. Thus, black women's high unemployment rates cannot be explained simply by differences in background characteristics between them and white women.

Although black and white women's average labor force participation rates are very close (68 percent and 69 percent, respectively), black and white women have very different labor force participation patterns by marital status. Married black women have much higher labor force participation rates than their white counterparts (73 percent versus 64 percent). Unmarried black women, on the other hand, have much lower labor force participation rates than their white counterparts (56 percent versus 73 percent). Unmarried black women under 24 are especially unlikely to participate. Moreover, among whites, married women are less likely than unmarried women to participate in the labor force, but among blacks, the reverse is true.

Racial differences in characteristics, especially education, presence and age of children, and percentage never married (as opposed to widowed, separated or divorced), account for almost three-quarters of the gap between the labor force participation rates of black and white unmarried women. For married women, however, none of the gap in labor force participation rates can be explained by differences in characteristics.

Black Women's Relative Economic Status in the 1980s

Despite the improvements over the past half-century, in the late 1980s, black women continue to have much lower economic status than comparable white women. Black women's average family income is less than two-thirds and median family net worth less than one-fifth as high as white women's. Black women are five times more likely to be in poverty, five times more likely to be on welfare, and three times more likely to be unemployed than white women. Black women's labor market earnings constitute a higher fraction of their families' incomes than white women's. On average, black women contribute one-third of their family's income, whereas white women contribute one-fourth.

Many factors, some the result of past discrimination, combine to lower black women's economic status. One factor that is partly responsible for black women's lower economic status is the large differences between the family structures of black and white women. Whereas roughly two-thirds of white women are married, roughly two-thirds of black women are not married. Unmarried black women are considerably more likely to have children than their white counterparts. For instance, 44 percent of black women who have never been married have at least one child under 18, compared with 6 percent of white women. These differences in family structure mean that a black woman is more likely than a white woman to be the only adult earner in her family, and if so, to be responsible for children.

A second important factor lowering black women's economic status is the relatively lower incomes of other family members, especially the lower labor market earnings of their husbands. On average, black husbands earn only two-thirds as much as white husbands. It should be remembered in this regard that current racial discrimination in the labor market likely contributes to black men's lower labor market earnings.

A third factor contributing to black women's low economic status today may be current racial discrimination in the labor market. Racial discrimination in the labor market may depress black women's wages and occupational status, increase their unemployment rates, and indirectly lower their labor force participation rates. In all these ways, racial discrimination may lower black women's labor market earnings. Since black women's labor market earnings make up a substantially larger fraction of their family income than white women's, and since black family incomes are comparatively low, any negative effect of labor market discrimination on their labor market earnings has a particularly harmful effect on black women's economic status and on that of their families.

Importance of Using Data Sources Besides the Census

This research highlights the importance of using other data sources besides the census when studying discrimination against black women. Census data yield significantly

different estimates of black women's relative wages than other data sources examined for the contemporary period. Research using census data alone suggests that black women earn at least as much, probably more than white women. By contrast, other data sources, such as the March Current Population Surveys and the Survey of Income and Program Participation (SIPP), indicate that black women continue to earn less than white women.

When studying black-white female wage differentials, it is important to have as much information as possible about women's labor market skills. In particular, it is essential to use data sources that provide measures of women's past work experience, since individuals with more work experience generally have acquired more labor market skills. The analysis here using the SIPP, which does provide information on women's past work experience, shows that when black women's greater work experience is taken into account, less of the black-white wage gap can be explained: When women's work experience is not taken into account, black women appear to earn 5 percent less than comparable white women, and when it is taken into account, they are found to earn 9 percent less. Since the census data do not provide information on women's work experience, it is essential to draw upon other data sources as well.

Recommendations

This report investigates the effect of racial discrimination in the labor market on black women's economic status. A comprehensive assessment of the effect of all forms of discrimination on black women's economic status requires further research. An especially important topic for future research is the effect of gender discrimination on black women's economic status. Also, to complement the statistical analysis contained in this report, new, more refined data sources and research methodologies need to be developed.

Statistical studies based on large national data sets are valuable in providing thorough information about the likely effects of discrimination and pinpointing problem areas. They have inherent limitations, however. These studies cannot reach definitive conclusions about the existence and extent of labor market discrimination. Furthermore, they yield only modest insight into the nature of labor market discrimination, and, in particular, the mechanisms through which it operates. This report suggests how future research can complement statistical studies of labor market discrimination against black women.

Other data sources may be able to provide more insight into the nature of labor market discrimination. For instance, the Equal Employment Opportunity Commission and State equal opportunity commissions gather information on specific instances of discrimination when complaints are filed. To improve our understanding of the nature of discrimination, it may be fruitful to assemble and analyze information in their files.

One possible avenue for future research suggested by the report is to set up "experiments" to test for employment discrimination by sending black and white women to apply for jobs and monitoring employers' responses. Such experiments would allow researchers to control fully for skill differences by choosing black and white women with very similarskills. They would also have the advantage of providing additional insight into the mechanisms through which labor market discrimination operates. For instance, do employers refuse to interview black applicants? At what points in the hiring process are black women treated differently from their white counterparts? This type of question could be answered by careful monitoring of employers' responses to the black and white job applicants.

Experiments could provide much new information about labor market discrimination, but they, too, are limited in their ability to capture fully all aspects of employment discrimination. Although experiments can often be set up to detect discrimination in hiring, it will seldom be practical to set up experiments to detect discrimination in promotions. Furthermore, it is unlikely that experimental evidence can be used to detect hiring discrimination for complex jobs, such as professional jobs and high-level management jobs, that require considerable specialized training and personal contacts. Yet, because of the

subjective nature of promotion decisions and hiring decisions for high-level jobs, it is possible that the greatest effect of labor market discrimination today is precisely in these areas. Indeed, blacks, women, and other minorities often cite an invisible "glass ceiling" that prevents them from reaching the top of the job ladder.

A second avenue of research that allows researchers to learn more about discrimination in hiring into top-level jobs and discrimination in promotions is to conduct specialized surveys of individuals or case studies of firms or industries. Specialized surveys could allow researchers to follow the careers of similarly qualified individuals over time and to obtain specific information about their qualifications, their job applications, the times when they were up for promotion, and so on. Case studies could allow researchers to look closely at employers' decisionmaking processes when choosing whom to hire or whom to promote. Both of these types of studies would add significantly to the current understanding of labor market discrimination.

This report provides evidence supporting the view that racial discrimination continues to affect black women in today's labor market and pinpoints several problem areas. On the whole, the evidence presented in this report suggests that the main effect of labor market discrimination on the basis of race today is to limit black women's occupational opportunities, particularly in management and sales jobs. In the South, black women appear also to have substantially fewer employment opportunities in clerical occupations than comparable white women. Thus, a major problem facing black women today appears to be discrimination in hiring, referrals, and promotions.

Since discrimination in hiring, referrals, and promotions can be extremely subtle, identifying and combatting employment discrimination in these areas is inherently difficult. Often the victims of discrimination may not even be aware that it has occurred. Consequently, new and aggressive enforcement methods may be needed to eradicate discrimination against black women. One such method, audits of firms and employment agencies, might be useful in antidiscrimination enforcement efforts: By sending carefully matched individuals of different races and genders to apply for jobs, enforcement agencies could obtain direct evidence of illegal discrimination in hiring or referrals. Such direct evidence would not only be useful in prosecuting discrimination cases, but could also provide a valuable informational basis for guiding antidiscrimination enforcement policy. As an example, the New York City Human Rights Commission is currently using evidence gathered by Commission employees posing as job applicants in prosecuting four employment agencies for discriminating against blacks, Hispanics, women, and the elderly.[3] Other agencies in charge of enforcing equal opportunity legislation, such as the Equal Employment Opportunity Commission, should consider using audits to ferret out discrimination in employment and should search actively for other innovative means of enforcing antidiscrimination laws.

[3]"New York Sues 4 Work Firms in Bias Case," *New York Times*, Sept. 29, 1989.

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Part I
Introduction

Chapter 1
Overview

Background

American black women have long experienced discrimination both because of their race and because of their sex. As American blacks, they have shared all the injustices suffered by their race. Like their fathers, husbands, sons, and brothers, they inherited the legacy of slavery and were denied equal access to education, jobs, and public places. As women, they found their opportunities restricted further, their job choices even more limited, and their pay even lower than those of their male relatives.

Upon their release from slavery, many black women sought to stay home and raise their children, but found that this was a luxury they could not afford.[1] To help support themselves and their families, they found jobs, most as farm laborers and domestic servants, some as laundresses and seamstresses, and a few as teachers. Most of these jobs entailed low wages, long hours, and poor working conditions. Their jobs in domestic service conflicted with their desire to lead independent lives with their families: as servants, they were typically required to live in and often not allowed to see their children more than once a week. The fact that they flocked to the few jobs in manufacturing open to them—the jobs with the worst working conditions and the lowest pay—indicates their desire to leave their domestic service jobs. More recently, as more jobs opened up to black women, they have left domestic service altogether. Most often, they have taken other service sector jobs and manufacturing jobs. They also have found jobs in clerical, sales, managerial, and professional occupations.

Accompanying the changes in black women's work opportunities were changes in the social, political, and legal climate of the country. The civil rights movement brought about a new public awareness of racial issues and helped to change prejudiced attitudes. The 1963 Equal Pay Act made it illegal for employers to pay persons performing identical jobs differently based on their gender, and Title VII of the 1964 Civil Rights Act made discriminatory employment practices illegal. All these factors have contributed to the opening up of new opportunities for black women after 1940.[2]

This study of black women's economic status has three major components. First, the report traces the history of black women's labor force status, especially their wages and occupations, from 1940 to the present. Second, the report looks in detail at the current status of black women's wages and occupations in comparison to white women's. Finally, the report considers other factors that affect black women's current economic status, including their labor force participation and unemployment rates, their family structure, and the incomes of other family members.

The statistical analysis in this report is based on data on individuals between the ages of 18 and 64 taken from a variety of data sources, primarily the

- 1940–80 Public Use Samples of the Censuses of Population,
- the 1970–87 March Current Population Surveys, and
- the 1984 Panel of the Survey of Income and Program Participation.

The population censuses provide a consistent series of data from 1940 to 1980 for the historical analysis, and the CPS and SIPP data provide more detailed information about the situation of black women in the 1980s. All three data sets permit comparisons of women with similar background characteristics. The report compares the labor market outcomes—e.g., wages, occupations, labor force participation rates, and unemployment

[1]This brief history of black women's work beginning with slavery and extending to the mid-20th century is drawn from Jacqueline Jones, *Labor of Love, Labor of Sorrow* (New York: Basic Books, 1989).

[2]See chap. 7 of The U.S. Commission on Civil Rights, *The Economic Progress of Black Men* (1986) for a discussion of the effects of civil rights policy on black Americans.

rates—of black women with those of non-Hispanic white women[3] with similar background characteristics (e.g., education, age, work experience, region of residence, marital status, and number of children). The results of these comparisons offer information about whether and to what extent black women have worse labor market outcomes than white women with similar background characteristics and provide insight into the possible effects of racial discrimination in the labor market on black women's economic status.

Discrimination is reprehensible in all its manifestations and has far-reaching and insidious consequences. A unmarried report, however, cannot examine comprehensively all aspects of discrimination with respect to black women. The focus of this report is on assessing the effect of racial discrimination in the labor market on black women's economic status. Thus, the report does not address discrimination outside of the labor market, such as discrimination in the provision of education, nor does it consider discrimination based on gender. Finally, although the report looks at labor market discrimination from 1940 on, it does not attempt to evaluate the overall present-day legacy of past discrimination, but focuses instead on discrimination that occurs in the present.

Black Women in Broader Perspective: A Comparison of Black Women with Women from Other Racial and Ethnic Groups

Throughout this report black women are compared with white women. It is helpful, first, to place black women's economic status in a broader context. This section provides a general comparison of the wages, labor force status, and social characteristics of black women with those of white women and women from other minority groups—Native Americans, Asian and Pacific Islanders (hereafter, Asians), and women of Spanish origin (hereafter, Hispanics). This section also compares the wages of women of all racial and ethnic groups with those of white men. The information in this section is derived from published data from the 1980 census.[4]

Women's hourly earnings vary across minority groups. Table 1.1 shows the mean hourly earnings of women from each of the above minority groups in comparison to those of white women.[5] Relative hourly earnings are shown by educational level for all working women and for wo-men working full time. Overall, black women earn about 2 percent less than white women, Native American and Hispanic women earn about 10 percent less, and Asian women earn about 12 percent more.

Earnings differences between minority women and white women are generally narrower when hourly earnings are compared within education levels. Black, Native American, and Hispanic women's relative earnings are typically higher and Asian women's lower within schooling levels than overall. Thus, differences in schooling levels across groups appear to account for some of the differences in earnings between minority and white women.

Except for Native Americans, minority women earn more relative to white women at higher

[3]For convenience, non-Hispanic white women are referred to as "white" throughout the remainder of the report.

[4]Information on women's earnings was taken from U.S. Department of Commerce, Bureau of the Census, 1980 Census of the Population, Subject Reports vol. 2, *Earnings by Occupation and Education*, tables 3-7. Information on other characteristics was taken from U.S. Department of Commerce, Bureau of the Census, 1980 Census of the Population vol. 1, *Characteristics of the Population*, chap. C., *General Social and Economic Characteristics*: part 1, *United States Summary*, tables 166 and 168.

[5]The mean hourly earnings reported in published census volumes are calculated for each minority group as the sum of the earnings of all women in the minority group divided by the sum of the hours worked by women in the minority group. As such, they represent the amount earned on average per hour worked by members of the minority group rather than the average hourly earnings for members of the minority group. Thus, women who work many hours a year are overrepresented and women who work few hours a year are underrepresented in the averages reported by the Census. In the sections of the report that rely on data on individuals, hourly earnings are calculated for each individual and then averaged across individuals. Many of the discrepancies between the figures reported in this section and figures reported in the remainder of the report can be attributed to these differences in methods of calculating averages. Another reason for the discrepancies is the differences in the samples considered. For instance, the published census volumes report averages for all women over 16, whereas this report has generally limited the sample to women between the ages of 18 and 64.

TABLE 1.1
Hourly Wages of Minority Women as a Percentage of White Women's Hourly Wage: 1980

	Black	Native American	Asian	Hispanic
All	97.9	90.4	112.0	89.1
Years of schooling completed				
0–8	94.8	95.1	98.0	93.6
9–11	99.8	92.1	104.7	97.0
12	100.2	95.2	104.6	97.1
13–15	101.5	95.3	103.4	96.1
16	106.7	96.5	100.8	95.3
17+	111.7	93.9	109.5	96.8
Full time	93.7	89.9	111.6	87.8
Years of schooling completed				
0–8	91.5	91.3	96.0	90.0
9–11	93.8	88.4	102.1	93.6
12	95.8	93.5	102.4	94.3
13–15	97.6	94.4	101.8	94.2
16	99.7	95.7	101.4	94.0
17+	102.9	90.8	113.7	95.9

Source: 1980 Census of Population Subject Report, *Earnings by Occupation and Education*, tables 3–7.

TABLE 1.2
Labor Force Status and Social Characteristics of Women by Minority Group: 1980

	Black	Native American	Asian	Hispanic	White
Labor force participation rate	53.3	47.7	57.5	49.3	49.4
Unemployment rate	11.3	11.9	5.2	9.6	5.6
Percent employed	47.1	41.9	54.5	44.5	46.5
Percent worked 1979	55.3	55.3	71.1	52.6	55.5
Percent worked 50–52 weeks 1979	50.7	42.1	63.5	45.5	51.3
Percent usually worked 35+ hours 1979	43.0	36.5	58.7	38.9	40.9
Percent unemployed 1979	15.7	16.4	13.1	14.1	10.2
Percent unemployed 15+ weeks 1979	6.7	6.4	4.0	5.1	3.1
Labor force participation rate					
Married women	60.5	47.9	58.6	48.3	48.1
Unmarried women	49.4	47.6	55.9	50.4	51.1
Married women with children under 6	65.2	44.5	50.9	43.0	41.7
Unmarried women with children under 6	51.2	47.2	57.9	41.1	60.2
Percent married	34.7	49.0	59.9	52.5	58.1
Percent of unmarried women who have children under 6	25.4	11.4	3.4	10.7	3.5
Percent over 25 high school graduates	51.6	54.4	71.5	42.7	68.9

Source: 1980 Census of Population, *General Social and Economic Characteristics: United States Summary*, tables 166–168.

schooling levels. Black and Asian women's hourly earnings actually exceed those of white women at higher schooling levels. On the other hand, Native American and Hispanic women earn less than white women at all schooling levels.

When the sample is restricted to full-time workers only, a slightly different pattern emerges. Black women's relative hourly earnings are lower than when all workers are included in the sample: among full-time workers, black women earn about 6 percent less than white women. The relative hourly earnings of women from other minority groups, on the other hand, are virtually unchanged.

Not only are black women's overall relative earnings lower when the sample is restricted to full-time workers, but their relative earnings are also lower at all educational levels, especially at the high educational levels. For instance, whereas highly educated black women earn roughly 12 percent more than similarly educated white women and roughly 2 percent more than similarly educated Asian women when all workers are considered, when only full-time workers are considered, highly educated black women earn only 3 percent more than white women and earn roughly 9 percent less than Asian women.

Overall, Native American and Hispanic women appear to earn substantially less, black women about the same or slightly less, and Asian women somewhat more than white women. There is no *a priori* reason for women from all minority groups to have the same average hourly earnings, however. That black women earn about the same as white women and Asian women more than white women does not necessarily mean that women from these groups are not affected by labor market discrimination on the basis of their race. Indeed, a U.S Commission on Civil Rights report[6] finds that Asian women earn about the same as white women with the same skills. Asian women's higher overall earnings come about because they have generally better labor market skills. Similarly, black women's long tradition of labor force attachment may have caused them to develop better labor market skills than white women. Thus, it is possible that labor market discrimination on the basis of race lowers their earnings even though they earn roughly the same as white women.

Earnings differences among minority groups are not, therefore, by themselves informative about the relative extent of current labor market discrimination experienced by members of the different minority groups. Women from different minority groups may have different labor market skills, and they may also have different family situations and different degrees of labor force attachment. All of these factors could contribute to the differences in hourly earnings across minority groups. Thus, women's earnings differentials should be studied in the context of their labor market skills, labor force attachment, and family situations.

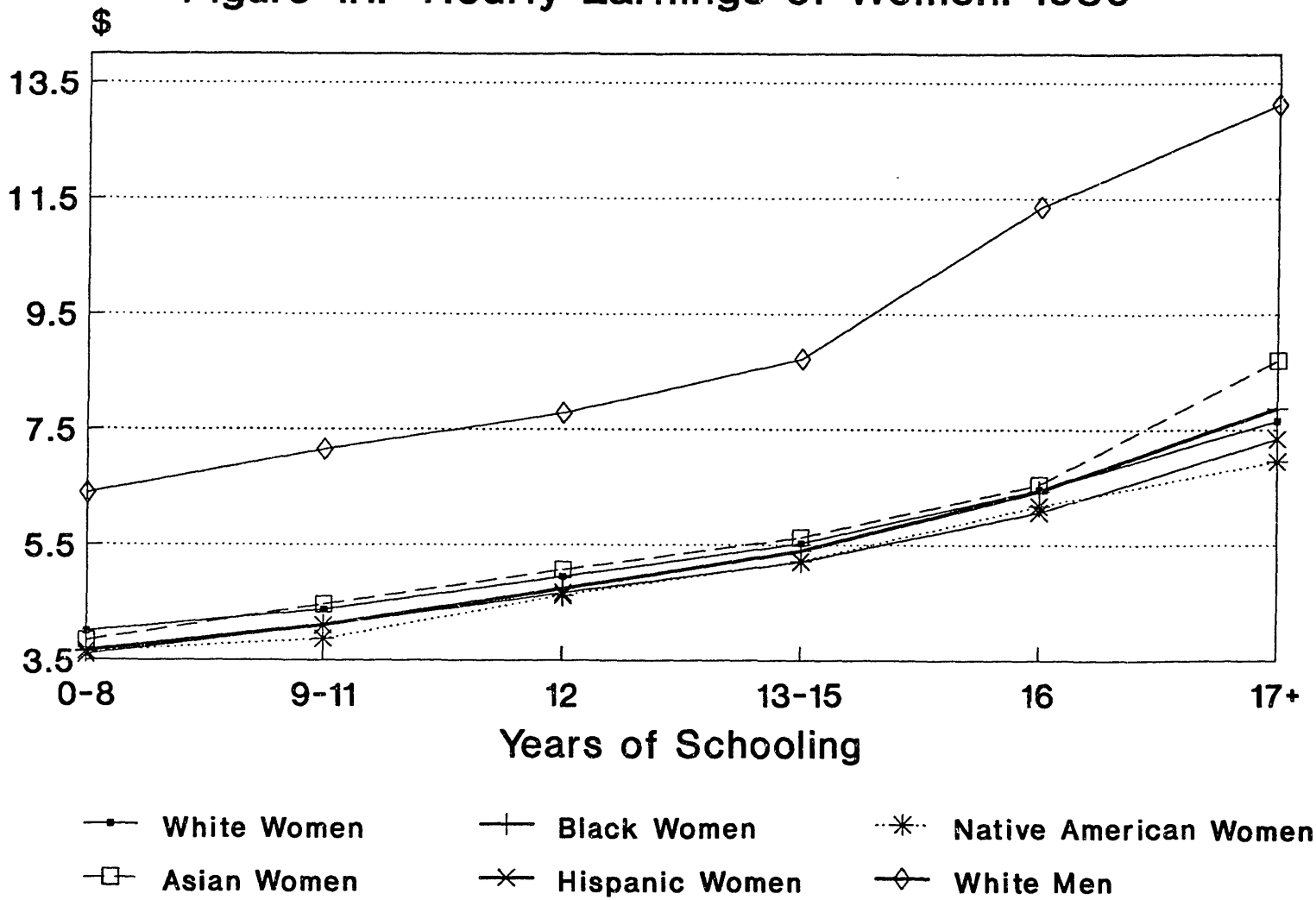
The labor force status and social characteristics of women do vary considerably across minority groups, as is shown in table 1.2. Black and Asian women are more likely to participate in the labor force than white women and women from other minority groups. Yet black women, like Native American and Hispanic women, experience high unemployment rates in comparison to white and Asian women. As a result, roughly the same percentages of black and white women are employed. In comparison, Asian women are considerably more likely and Native American and Hispanic women slightly less likely to be employed. Roughly equal percentages (ranging from 53 to 56 percent) of women in all groups except for Asians had worked at some point during 1979, but fully 71 percent of Asian women had worked during 1979.

Whereas Asian women have the highest labor force participation rate overall, black women have the highest labor force participation rate among married women: 61 percent. Asians follow with a participation rate of 59 percent, and the three other groups all have participation rates of roughly 48 percent. Similarly, black women have the highest labor force participation rate among married women with children under 6. In fact, unlike women from other groups, married black women with young children are more likely to participate in the labor force than married black women as a group.

Among unmarried women, on the other hand, black women have labor force participation rates that are comparable to those of most other groups, with the exception of

[6]U.S. Commission on Civil Rights, *The Economic Status of Americans of Asian Descent: An Exploratory Investigation* (1988).

Figure 1.1. Hourly Earnings of Women: 1980



Sample Includes Full-time Workers 18 and Over

unmarried Asian women, whose labor force participation rate is relatively high. Compared to unmarried white and Asian women with children under 6 unmarried black women with young children are less likely to participate in the labor force, but they are more likely to participate in the labor force than unmarried Native American and Hispanic women with children under 6.

Black women's family situations are markedly different from those of the other groups. The percentage of black women who are married is substantially lower than the percentage for any of the other groups. Only 35 percent of black women are married, compared with 49 percent of Native Americans, the group with the next lowest percentage married, and 60 percent of Asians, the group with the highest percentage married. Moreover, unmarried black women are much more likely to have children under 6 than women from any other group: 25 percent of unmarried black women have children under 6. The rates are 11 percent for Native Americans and Hispanics and roughly 3 to 4 percent for Asian and white women.

In sum, black women earn more than Hispanics and Native Americans and less than Asians. Like Asians, they have high labor force participation rates (except among unmarried women), but like Hispanics and Native Americans, they have high unemployment rates as well. Finally, black women are much less likely to be married, and unmarried black women are much more likely to have young children than women from the other minority groups.

Yet, despite the diversity in labor force status and social characteristics and the differences in earnings patterns of women from different ethnic and racial groups noted above, the earnings of women are much more similar across groups than the earnings of women are to those of white men. This point is illustrated in figure 1.1, which shows the hourly earnings of full-time workers at different educational levels for white and minority women and for white men. White men earn substantially more than women from any group, including white women, at all educational levels. This finding suggests that in addition to studies that compare minority women with white women such as the one undertaken in this and other U.S. Commission on Civil Rights reports,[7] future research should investigate issues relating to labor market discrimination against women in general in comparison to men.

Black Women's Economic Status: Issues and Outline

Black and white women's economic situations are quite different. Later chapters of this report show that black women's current economic status is well below white women's. Black women's average family income is less than two-thirds and black women's median family net worth less than one-fifth as high as white women's. Black women are also five times more likely to be in poverty, five times more likely to be on welfare, and three times more likely to be unemployed than white women.[8]

Many factors, some related to labor market discrimination and others not, may combine to lower black women's economic status. One factor that may be partly responsible for black women's lower economic status is the large differences in the family situations of black and white women noted in the preceding section. Black women are much less likely to be married than white women, and unmarried black women are considerably more likely to have children than their white counterparts. These differences in family structure mean that black women are more likely than white women to be the only earners in their families, and if they are, to be responsible for children.

A second factor that might lower black women's economic status is the relatively lower incomes of other family members, especially the lower labor market earnings of their husbands: on average black husbands earn roughly two-thirds as much as white husbands.[9] It should be remembered in this regard that labor market discrimination against black men may be partially responsible

[7]Labor market discrimination against Asian women is discussed in a 1988 U.S. Commission on Civil Rights Report, *The Economic Status of Americans of Asian Descent: An Exploratory Investigation.*

[8]See chap. 8 for a more detailed overview of black women's current economic status.

[9]See table 9.2 for a comparison of the earnings of black and white husbands.

for black men's lower labor market earnings.[10]

Because other family members contribute relatively less to family income, black women's labor market earnings constitute a higher proportion of their families' incomes than white women's. Overall, black women contribute one-third of their family's income, whereas white women contribute one-fourth.[11] Consequently, factors that lower black women's labor market earnings can have substantial adverse effects on their economic status and on that of their families.

Factors that lower black women's labor market earnings can be divided into those that affect their hourly wages and those that affect the number of hours they work. Part II of this report analyzes the former, and part III deals with the latter. Part II compares the wages and occupations of black and white women with comparable skills and characteristics to determine how much black women's earnings and occupational attainment are lowered by racial discrimination in the labor market. Part II also considers whether black women's relative labor market status differs by region, age, or educational level. Census data are used to look at the time period from 1940 to 1980. The current status of black women is studied using data taken from Current Population Surveys (CPS) and the Survey of Income and Program Participation (SIPP).

In seeking to ascertain the extent to which labor market discrimination on the basis of race is responsible for trends in black women's wages, part II distinguishes between two types of labor market discrimination. The first is "wage discrimination," or employment practices that result in black women earning less than equally skilled white women working in identical jobs. The second is "occupational discrimination," or employment practices that restrict the types of jobs available to black women. Both of these types of discrimination could lower black women's hourly wages: wage discrimination directly, and occupational discrimination by preventing black women from working in better paying jobs or occupations.

Chapter 3 begins part II of this report by developing a conceptual framework for studying black women's wages.

Chapters 4 and 5 use census data to consider possible reasons for the black and white female wage gap and sources of black women's wage increases over the 1940–80 period. Chapter 4 explores differences in the educational levels and geographic location of black and white women. Chapter 5 traces the history of black and white women's occupations over the period and considers reasons for occupational differences between black and white women, including occupational discrimination.

Chapter 6 measures the combined effects of the increased education and the changing occupational, industrial, and regional distribution of black women on their wages relative to those of white women. It then considers other possible reasons for trends in black women's relative wages over the 1940–80 period, one of which is wage discrimination on the basis of race.

Chapter 7 takes a closer look at the reasons for black women's continued low relative wages today. Using the more sophisticated data sources available for the contemporary period, the SIPP and the CPS, it improves upon the measures of skill derived from census data. Most notably, it considers the role of previous work experience in determining wages.

Where part II focuses on the determinants of black women's hourly wages, part III explores the factors that influence the number of hours they work and discusses differences in the overall economic status of black and white women. It uses CPS and SIPP data to compare the economic status of black and white women, to look at the importance of black women's earnings in determining their overall economic status, and to analyze racial differences in women's unemployment rates and labor force participation rates.

Part III begins, in chapter 8, with an overview comparing the economic status of black and white women and highlighting the crucial relationship between work and economic status for black women. Chapter 9 investigates reasons for differences in the labor force participation and unemployment rates of black and white women.

Part IV concludes the report with a summary of results, including an assessment of the effect of labor market discrimination on black women's economic status, and makes recommendations.

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[10]See U.S. Commission on Civil Rights, *The Economic Progress of Black Men* (1986) for a study of labor market discrimination against black men.

[11]See table 10.2.

Chapter 2

Determinants of Black Women's Economic Status: 1940 to the Present

Black women have long been among the most poorly paid groups in the United States. In 1940 black women earned less than one-third as much per hour as white men and less than two-thirds as much as black men. Since then, black women's wages have grown at a faster rate than those of most other groups: black women's hourly wages have grown at an average rate of 45 percent per decade, more than twice the white male growth rate of 21 percent and a third higher than the black male growth rate of 33 percent. Despite this rapid growth, black women's wages continue to be lower than those of other groups. In the mid-1980s, black women earned only about 57 percent as much as white men, 83 percent as much as black men, and 88 percent as much as white women.

Wages are one important determinant of a group's economic status. Another is the group's hours of work. Black women have historically exhibited comparatively high levels of labor force participation. In 1940 44 percent of black women were in the labor force, compared with only 29 percent of white women. Since 1940, however, white women's labor force participation rates have grown much more quickly than black women's. By 1987 approximately the same percentage (65 percent) of black and white women were in the labor force, and because black women experience higher unemployment rates than white women, a smaller percentage of black women were actually working.

A third important determinant of economic status for women is their family situation. Historically, smaller percentages of black than of white women have been married with husband present and larger percentages have been unmarried (either never married or previously married) with children. These historical differences have increased considerably in recent decades. In 1980 fewer than one-half of black women between the ages of 25 and 54 were married with husband present, compared with over three-quarters of white women. Fully 40 percent of black women were unmarried with children, compared with fewer than 15 percent of white women.

This chapter uses data from the decennial Censuses of Population from 1940 to 1980 and from the March Current Population Surveys (CPS) for more recent years to trace the evolution of black women's wages, labor force participation, and marital status from 1940 to the present. To highlight the unique character of black women's recent economic history and to place black women's economic progress in context, black women are frequently compared with other groups. Black women's wages are compared with those of white men, the most economically successful group and the group least likely to experience labor market discrimination. Black women's wages are also compared with those of white women.

Black Women's Wages: 1939–86

The story of black women's wages from 1939 to the present day is a story of remarkable rates of growth. Black women's wages began at an extremely low level, increased rapidly, and by 1986 had almost reached parity with white women's wages. Yet, in spite of this high rate of growth, black women's wages are still lower than those of most other socioeconomic groups.

In 1939 black women earned 30 percent as much per hour as white men. This was much less than half the white women's relative wage of 67 percent and less than two-thirds the relative wage of black men, which was 48 percent.

After 1939 black women's wages grew very quickly. Table 2.1 reports the decennial growth rates from 1939 to 1986 of real (i.e.,

TABLE 2.1
Decennial Growth Rates in Real Hourly Wages: 1939–86[a]

	Black women	White women	Black men	White men
1939–49	101.8	38.2	77.2	29.3
1949–59	27.0	26.8	35.1	40.4
1959–69	57.5	24.0	37.4	28.2
1969–79[b]	21.0	–1.8	14.7	–0.6
1979–86	3.3	4.9	–6.7	–0.1
Average 1939–86	44.7	20.3	33.4	21.0

Sources: U.S. Censuses of the Population and, for 1979–86, March Current Population Surveys.
[a] Sample includes all workers between the ages of 18 and 64 except students, unpaid family workers, self-employed workers, and members of the armed forces.
[b] 1969–79 growth rates reported above rely on census data. CPS data yield the following growth rates: white women: –1.2; black women: +14.1; black men: +5.1, white men: –2.1.

TABLE 2.2
Hourly Wages of Black Women, White Women, and Black Men as a Percentage of the Hourly Wage of White Men: 1939–86[a]

	Black women		White women		Black men	
	Census	CPS	Census	CPS	Census	CPS
1939	29.6	–	7.0	–	47.5	–
1949	46.1	–	71.6	–	65.1	–
1959	41.7	–	64.7	–	62.6	–
1969	51.2	45.9[b]	62.6	58.0[b]	67.1	67.4[b]
1970	–	46.9	–	58.3	–	65.3
1979	61.2	53.5	61.8	60.0	77.4	72.3
1982	–	6.8	–	63.2	–	71.3
1985	–	59.1	–	65.7	–	69.1
1986	–	55.7	–	63.5	–	68.1

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 18 and 64 except students, unpaid family workers, self-employed workers, and members of the armed forces.
[b] The 1970 Current Population Survey did not identify Hispanics. The 1970 CPS figure for whites, thus, includes Hispanics. Data from the 1971 CPS, which does permit the exclusion of Hispanics, are shown for comparison.

TABLE 2.3
Black-White Female Wage Ratios: 1939–86[a]

	Hourly wage ratio		Weekly wage ratio		Annual wage ratio	
	Census	CPS	Census	CPS	Census	CPS
1939	44.2	–	3.8	–	43.0	–
1949	64.4	–	63.2	–	55.7	–
1959	64.3	–	62.4	–	58.5	–
1969	81.9	79.1[b]	84.6	80.1[b]	81.0	77.2[b]
1970	–	80.4	–	82.3	–	81.5
1979	99.3	89.3	101.4	94.7	98.2	95.2
1982	–	89.7	–	94.1	–	92.7
1985	–	89.9	–	94.2	–	90.7
1986	–	87.8	–	90.7	–	89.6

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 18 and 64 except students, unpaid family workers, self-employed workers, and members of the armed forces.
[b] The 1970 Current Population Survey did not identify Hispanics. The 1969 CPS figure for whites, thus, includes Hispanics. Data from the 1971 CPS, which does permit the exclusion of Hispanics, are shown for comparison.

adjusted for inflation) hourly wages of black women, white women, black men, and white men. During this period, black women's wages grew at an average rate of 44.7 percent per decade. This figure is much higher than the 33.4 percent growth rate experienced by black men, whose wages grew at the next fastest pace. White women and white men each experienced average decennial growth rates of around 20 percent.

The pace of growth of black women's wage rates was by no means uniform during the almost 50-year period. Black women's wages more than doubled during the 1940s, far outstripping the wage growth of the other groups. The rate of growth of black women's wages slowed down considerably during the 1950s, when it was lower than for any other group except white women. In the 1960s black women's wage growth rates increased again, and again, they were much higher than for the other groups. Although the growth of black women's wages slowed somewhat during the 1970s, it still remained at a level substantially above that of other groups: in fact, the real wages of both white men and white women actually declined slightly during the decade. Black women's wage growth appears to have almost stopped during the 1980s, and for the first time since 1940, white women's wages have increased faster than black women's. The 1980s have also seen very slow wage growth for white men and sizable wage losses for black men.

How have the high wage growth rates for black women affected their wages relative to other groups over the 1939–86 period? Table 2.2 reports the hourly wages of black women, white women, and black men relative to the hourly wages of white men for selected years between 1939 and 1986. As noted above, in 1939 black women earned much less per hour than the other three groups. Over the subsequent decades, black women's wages increased substantially relative to those of white men: from 29.6 percent of white men's wages in 1939 to 56.9 percent of white men's wages in 1986. By far the largest relative increase in black women's wages occurred during the 1940s, when their relative wage jumped from 29.6 percent to 46.1 percent. The 1950s witnessed a relative decline in black women's wages. Black women's relative wages jumped again during the 1960s, but have shown much slower increases since then.

Table 2.3 reports black women's wages relative to those of white women. Relative hourly, weekly, and annual wage rates are all shown. Since many women do not work full time year round, differences in weekly and annual wages reflect, in part, differences in the hours women work. Differences in hourly wages are a purer measure of differences in pay. However, since annual wages are reported directly whereas weekly and hourly wages are calculated, the measure of annual wages may be more accurate.[1] The figures in table 2.3 reveal an overall pattern of increasing wages for black women relative to white women during the 1939–86 period. However, there appears to have been a slight relative decline in black women's wages during the 1980s. This decline relative to white women is consistent with evidence presented in table 2.1 which shows that white women's hourly wages grew faster during the 1980s than did black women's.

Both table 2.2 and table 2.3 reveal substantial discrepancies between relative wages calculated using census data and relative wages calculated using CPS data. The census data show higher wages for both black women and black men relative to white men and higher wages for black women relative to white women than do the CPS data. The discrepancies between the census data and the CPS data are discussed in detail in appendix A, but it should be noted here that these discrepancies cause particularly serious problems for researchers who wish to determine the relative wages of black women. While the Census data imply that black women had reached some sort of wage parity with white women by 1980, the CPS data imply that black women earned somewhat less: between 90 and 95 percent as much as white women, depending on whether hourly, weekly, or annual wages are compared. The two data sets, thus, give slightly conflicting impressions of the relative economic positions of black and white women.

One way to resolve the conflict between the census and the CPS data is to limit the comparisons to workers who are firmly ensconced

[1]See app. E for notes on the construction of the wage variables used in this report.

in the labor market: workers between the ages of 25 and 64 who work full time year round. As noted in appendix A, the discrepancies between the census and the CPS data appear limited to workers who work either part time, or part year, or both. Eliminating these workers from the samples provides a consistent picture of the trends in the relative wages of black women, albeit at the expense of limiting the comparisons to a considerably smaller percentage of the work force.[2]

Table 2.4 reports the wages of black women, white women, and black men relative to those of white men for full-time, year-round workers between the ages of 25 and 64. It is the counterpart of table 2.2, which includes all workers between the ages of 18 and 64. Table 2.4 shows no major discrepancy between the relative wages calculated from the census data and those calculated from the CPS data for black women or for black men. Both data sets show black women earning about 55 percent and black men earning about 72 percent as much as white men in 1980. Moreover, the basic trends found for all workers in table 2.2 appear to hold up in table 2.4. Among full-time, year-round workers, black women earned less than one-quarter as much per hour as white men in 1939, but by 1986 their hourly wages had risen to 57 percent of white men's wages.

Table 2.5 reports the wages of black women relative to those of white women for full-time, year-round workers between the ages of 25 and 64 and is the counterpart of table 2.3. Both the census and the CPS data show that, at least among these workers, black women earned only 90 percent as much as white women in 1979. In all other ways, the trends apparent in table 2.5 are very similar to those found in table 2.3. Among full-time, year-round workers between the ages of 25 and 64, black women's wages rose from about 40 percent of white women's in 1939 to about 90 percent in 1979, and then fell slightly between 1979 and 1986.

The increase in the black-white female wage ratio over the 1939–79 period does not appear to have been limited to any particular age segment of the population, but the relative decline experienced by black women between 1979 and 1986 appears to have been confined primarily to women under 45. Table 2.6 reports the black-white female wage ratios for all workers, and table 2.7 reports the black-white female wage ratios for full-time, year-round workers by age for the years 1939 to 1986. These tables show that the black-white female wage ratio increased for virtually every age group in every decade between 1939 and 1979. Between 1979 and 1986, the black-white female wage ratio fell for women under 45 and remained constant or increased for women in older age groups.

A comparison of the black-white female wage ratio for different age groups within any given year shows that, in cross sections, older black women have tended to earn less relative to older white women than younger black women relative to younger white women. However, a comparison of the black-white wage ratio for the same group of women as they age from decade to decade (moving along diagonals in tables 2.6 and 2.7) reveals that black women's wages relative to white women born at the same time have generally increased as they got older. Thus, it appears that the economic progress made by black women between 1939 and 1979 occurred along two fronts. Each generation of black women improved its position over time relative to white women of the same generation, and each successive generation of black women did better relative to white women than the preceding generation.

The rapid real wage growth experienced by black women between 1939 and 1979 combined with the relatively slow wage growth experienced by white women during the same period resulted in large increases in black women's relative wages. However, in 1979 black women still earned less than white women, and after 1979 the slow real wage growth experienced by black women combined with the relatively high wage growth experienced by white women resulted in a small decline in black women's relative wages.

[2] If patterns of part-time/full-time employment or part-year/full-year employment differ by race, eliminating part-time and part-year workers from the sample might yield biased estimates of the black-white female wage ratio. However, for the Current Population Survey data, the black-white female wage ratio is the same whether or not part time and part year workers are included in the sample.

TABLE 2.4
Hourly Wages of Black Women, White Women, and Black Men as a Percentage of the Hourly Wage of White Men: 1939–86
(Full-Time, Year-Round Workers Ages 25–64)[a]

	Black women		White women		Black men	
	Census	CPS	Census	CPS	Census	CPS
1939	24.1	–	61.6	–	44.1	–
1949	40.6	–	67.1	–	60.2	–
1959	38.7	–	60.9	–	60.0	–
1969	46.3	47.1[b]	58.7	60.4[b]	64.8	64.9[b]
1970	–	49.0	–	60.2	–	65.2
1979	53.5	55.5	58.5	58.4	73.3	72.8
1982		55.7	–	61.5	–	70.0
1985	–	57.1	–	63.6	–	71.2
1986	–	56.7	–	63.9	–	69.2

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 25 and 64 working at least 35 hours per week, 50 weeks per year, except students, unpaid family workers, self-employed workers, and members of the armed forces.
[b] The 1970 Current Population Survey did not identify Hispanics. The 1970 CPS figure for whites, thus, includes Hispanics. Data from the 1971 CPS, which does permit the exclusion of Hispanics, are shown for comparison.

TABLE 2.5
Black-White Female Wage Ratios: 1939–86
(Full-Time, Year-Round Workers Ages 25–64)[a]

	Hourly wage ratio		Weekly wage ratio		Annual wage ratio	
	Census	CPS	Census	CPS	Census	CPS
1939	39.1	–	40.0	–	40.1	–
1949	60.4	–	60.6	–	60.5	–
1959	63.5	–	62.9	–	62.9	–
1969	78.7	78.1[b]	78.6	78.3[b]	78.6	78.3[b]
1970	–	81.3	–	81.1	–	81.1
1979	92.0	91.9	90.5	90.5	90.4	90.5
1982	–	90.5	–	88.8	–	88.8
1985	–	87.8	–	86.1	–	86.2
1986	–	88.8	–	86.6	–	86.6

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 25 and 64 working at least 35 hours per week, 50 weeks per year, except students, unpaid family workers, self-employed workers, and members of the armed forces.
[b] The 1970 Current Population Survey did not identify Hispanics. The 1970 CPS figure for whites, thus, includes Hispanics. Data from the 1971 CPS, which does permit the exclusion of Hispanics, are shown for comparison.

TABLE 2.6
Black-White Female Hourly Wage Ratios by Age: 1939–86[a]

	1939	1949	1959	1969		1979		1986
	Census	Census	Census	Census	CPS	Census	CPS	CPS
18–24	46.7	66.4	70.6	91.9	89.9	96.9	89.4	87.1
25–35	41.2	69.4	66.6	84.2	85.1	100.0	89.8	86.5
35–44	42.9	60.8	66.1	84.7	81.5	101.8	90.9	87.8
44–54	44.5	55.5	59.3	76.1	71.9	95.0	88.3	96.0
55–64	38.3	58.8	57.4	69.3	60.0	94.1	79.4	79.5

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 18 and 64 except students, unpaid family workers, self-employed workers, and members of the armed forces.

TABLE 2.7
Black-White Female Hourly Wage Ratios by Age (Full-Time, Year-Round Workers Ages 25–64)[a]

	1939	1949	1959	1969		1979		1986
	Census	Census	Census	Census	CPS	Census	CPS	CPS
18–24	41.2	66.9	73.0	87.5	86.5	94.7	101.2	86.7
25–35	38.1	64.9	68.0	83.0	82.1	92.3	91.9	87.0
35–44	36.2	60.5	65.6	80.0	84.2	94.8	93.2	88.1
44–54	45.8	53.8	58.3	75.6	74.5	90.6	93.5	92.0
55–64	43.0	55.2	55.9	70.8	65.9	87.1	85.0	90.3

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all workers between the ages of 25 and 64 working at least 35 per week, 50 weeks per year, except students, unpaid family workers, self-employed workers, and members of the armed forces.

TABLE 2.8
Labor Force Participation Rates for Black and White Women: 1940–87[a]

	Black		White	
	Census	CPS	Census	CPS
1940	43.6	–	28.9	–
1950	43.5	–	32.9	–
1960	49.9	–	40.3	–
1970	55.7	57.3	48.8	49.1[b]
1971	–	56.4	–	49.7
1980	56.7	60.8	59.9	61.1
1983	–	63.7	–	63.1
1986	–	66.0	–	66.7
1987	–	66.4	–	67.6

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Percentage of all women between the ages of 18 and 64 who were in the labor force during the week before the survey week.
[b] The 1970 Current Population Survey did not identify Hispanics. The 1970 CPS figure for whites, thus, includes Hispanics. Data from the 1971 CPS, which does permit the exclusion of Hispanics, are shown for comparison.

TABLE 2.9
Hours Worked Per Week, Weeks Worked Per Year, and Percentage Working Full Time: 1940–87 (Employed Black and White Women)[a]

	Black			White		
	Hours per week	Weeks per year	Percent full time	Hours per week	Weeks per year	Percent full-time
1940 Census	37.5	39.3	64.6	40.4	40.4	76.8
1950 Census	35.7	35.6	65.5	37.6	38.1	79.8
1960 Census	34.8	35.7	62.6	36.4	37.2	73.2
1970 Census	35.7	38.8	69.3	35.4	38.4	68.3
CPS[b]	36.2	37.9	62.9	35.6	38.6	63.8
1980 Census	35.7	40.5	74.4	35.0	40.6	69.4
CPS	36.1	41.1	67.3	34.8	41.1	62.0
1987 CPS	36.2	42.4	69.5	35.2	43.2	64.2

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all women between the ages of 18 and 64 who were employed during the week before the survey.
[b] Hispanics are not excluded from the 1970 CPS sample.

The Labor Force Participation of Black Women: 1940–87

Since women's earnings depend on the number of hours they work as well as on their hourly wage, tracing the evolution of black women's labor force participation is as important as following trends in their relative wages in developing an understanding of the economic status of black women. At the beginning of the 1940–87 period, black women had much higher labor force participation rates than white women. The 1940–87 period witnessed a significant increase in white women's labor force participation rates, an increase that was not matched by a corresponding increase for black women. By 1987 the average labor force participation rates for the two groups were very close. However, the patterns of labor force participation rates by age and marital status for black and white women continued to be very different.

Table 2.8. shows labor force participation rates for white and black women between the ages of 18 and 64 for 1940–87. The data in table 2.8 show that, although at the beginning of the period a much larger percentage of black women than of white women were in the labor force, by 1987 the labor force participation rates of white and black women were virtually identical.

In 1940, 44 percent of black women were in the labor force, compared with less than 30 percent of white women. In the decades that followed, the percentage of white women participating in the labor force increased steadily and substantially. By 1987, 68 percent of white women were in the labor force. Black women's labor force participation rates also grew, but less steadily and at a much slower overall pace. Between 1940 and 1970, a period during which white women's labor force participation rates grew by 20 percentage points, black women's labor force participation rates increased by only 10 percentage points. After 1970, however, black women's labor force participation rates increased almost as fast as white women's.

A group's labor force participation rate is an imperfect measure of the number of hours worked by members of the group, because it shows the percentage of the group who are in the labor force at all at a given point in time, but nothing about the extent or the continuity of their labor force participation. To provide a more complete picture of number of hours worked by black and white women, table 2.9 reports the hours per week and weeks per year worked by employed women separately for blacks and whites. Table 2.9 also shows the percentages of women who were working full time (35 or more hours per week).

The data in table 2.9 reveal that at the beginning of the 1940–87 period, black women who were employed worked fewer hours per week and fewer weeks per year than white women who were employed. Among women who were employed, black women were also less likely than white women to work full time. After 1960, however, the weeks worked per year by employed black women and the percent of black women working full time began to rise. The proportion of employed black women working full time increased steadily through 1987. In contrast, the average number of hours worked per week by employed white women fell as more and more white women entered the labor force over the 1940–87 period, and the percentage of employed white women working full time also fell. By 1987, employed black women worked more hours per week than employed white women and almost as many weeks per year. Also, a larger percentage of employed black women than of employed white women were working full time.

Thus, although the labor force participation rates of white women rose over the 1940–87 period, the hours worked per year by working white women fell slightly. The labor force participation rates of black women increased much less than those of white women, but unlike for white women, the hours worked by working black women also increased.

Black women have historically had higher labor force participation rates than white women, but they have also tended to experience higher unemployment rates. As a result, the employment-to-population ratios of black and white women have always been much closer than their labor force participation rates. Table 2.10 shows unemployment rates (percentage of women in the labor force who were unemployed) and employment-to-population ratios (percentage of all women who were employed) for black and white women for the years 1940–87. Black women have historically been more likely to be employed than white women, but by 1980 the employment-to-population ratio became higher

TABLE 2.10
Employment and Unemployment Rates for Black and White Women: 1940–87

	Black		White	
	Employment rate[a]	Unemployment rate[b]	Employment rate[a]	Unemployment rate[b]
1940 Census	38.7	11.2	26.3	9.0
1950 Census	40.4	7.1	31.9	3.3
1960 Census	45.6	8.6	38.5	4.7
1970 Census	51.4	7.7	46.6	4.5
CPS[c]	49.2	8.4	46.8	4.7
1980 Census	55.2	11.1	56.7	5.3
CPS	53.0	12.8	57.9	5.2
1987 CPS	57.2	14.0	64.3	4.9

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Number of women employed as a percentage of all women between the ages of 18 and 64.
[b] Number of women unemployed as a percentage of all women between the ages of 18 and 64 in the labor force.
[c] Hispanics are not excluded from the 1970 CPS sample.

TABLE 2.11
Labor Force Participation Rates for Black and White Women by Age: 1940–87

	1940 Census	1950 Census	1960 Census	1970 Census	1970 CPS[a]	1980 Census	1980 CPS	1987 CPS
Black								
18–24	45.7	37.7	42.0	51.2	50.8	54.6	52.4	57.8
25–34	46.1	45.7	49.0	59.7	62.5	71.5	71.6	73.3
35–44	44.9	49.5	57.0	61.3	62.4	70.7	69.7	77.9
45–54	42.0	44.7	55.7	58.0	59.4	62.3	59.6	67.1
55–64	29.1	32.6	40.9	45.1	48.5	44.0	42.7	44.3
White								
18–24	45.2	45.3	46.0	54.0	54.9	66.8	67.5	72.1
25–34	31.7	30.3	33.1	43.5	43.6	64.5	66.3	73.7
35–44	24.7	33.6	41.8	49.8	49.8	64.4	66.2	75.5
45–54	21.4	32.4	45.8	53.5	53.7	58.3	60.0	67.7
55–64	15.8	23.1	35.7	42.7	43.0	42.3	41.6	41.6

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Hispanics are not excluded from the 1970 CPS sample.

for white women than for black women. In 1987 the employment-to-population ratio was 7 percent higher for white women than for black women: 64 percent of white women between the ages of 18 and 64 were working in 1987 compared with only 57 percent of black women in the same age group.

Despite their almost identical overall labor force participation rates, black and white women have different patterns of labor force participation by age and by marital status. Table 2.11 reports labor force participation rates by age for black and white women over the 1940–87 period, and figure 2.1 traces the pattern of labor force participation rates by age for black and white women for the years 1940, 1960, and 1987. Table 2.11 and figure 2.1 show remarkable changes over the 1940–87 period in the age pattern of labor force participation for both white and black women.

In 1940 the 45-percent labor force participation rate of young white women between the ages of 18 and 24 was about the same as the labor force participation rate of black women in the same age group. The labor force participation rate for white women fell steadily with age, however, whereas the labor force participation rate for black women remained approximately at the 45-percent level up until the age of 45–54 and then fell only for women in the oldest age group. The labor force participation rates of black women were greater than those of white women at every age.

FIGURE 2.1
Labor Force Participation by Age for Black and White Women: 1940, 1960, and 1987

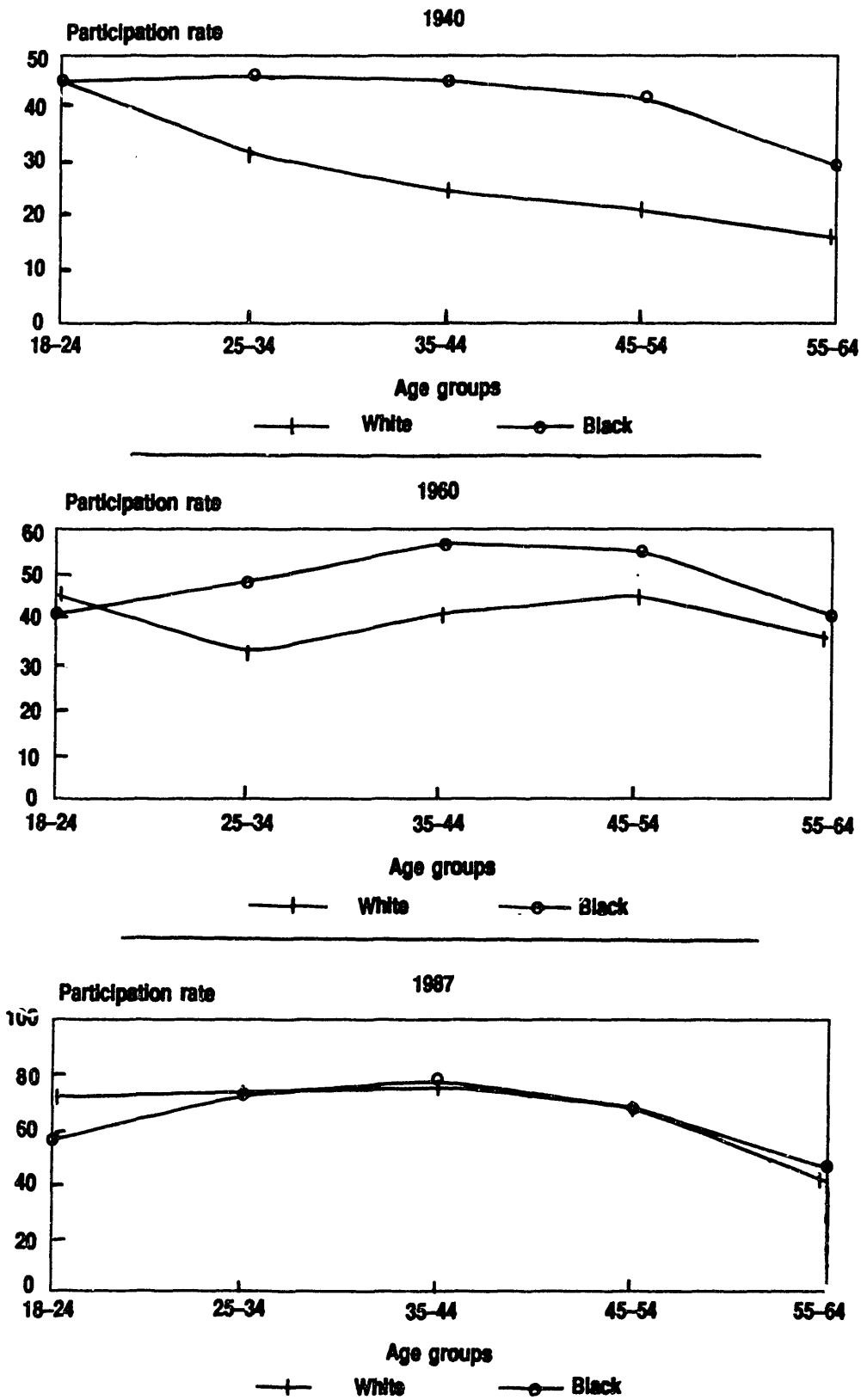

TABLE 2.12
Labor Force Participation Rates of Black and White Women by Marital Status: 1940–87[a]

	1940 Census	1950 Census	1960 Census	1970 Census	1970 CPS[b]	1980 Census	1980 CPS	1987 CPS
Black								
Never-married	73.7	69.7	67.1	63.9	65.5	67.5	69.0	66.7
Married	27.8	35.2	44.4	54.6	57.6	65.2	64.6	72.3
Other marital statuses	64.4	58.6	61.3	58.9	60.2	62.3	60.3	65.7
White								
Never-married	74.9	77.5	81.4	78.2	78.4	82.4	82.6	85.2
Married	12.7	21.2	31.9	41.5	42.4	52.7	54.4	62.2
Other marital statuses	45.5	53.4	61.2	65.5	66.0	71.2	71.4	74.8

Sources: U.S. Censuses of Population and March Current Population Surveys.
[a] Sample includes women between the ages of 25 and 64.
[b] Hispanics are not excluded from the 1970 CPS sample.

By 1960 new patterns had emerged for both races. As in 1940, the labor force participation rate for the youngest group of white women was about 45 percent, and the labor force participation rates of white women fell for women in the prime childbearing years of 25–34. Then, rather than falling further as they had in 1940, they increased again for older white women. White women's participation rate at the ages of 45–54 was 46 percent, identical to their participation rate at the ages of 18–24. The labor force participation rate of white women declined again for women in the oldest age group. As in 1940, in 1960 the labor force participation rates of white women were lower than those of black women at every age with the exception of the 18–24-year-old age group, where white women had slightly higher participation rates than black women.

The relatively flat labor force participation pattern of black women in 1940 gave way to an inverted-U-shaped labor force participation pattern in 1960. Labor force participation rates of black women increased with age up until the 45–54 age group, then fell for the oldest age group.

By 1987 the labor force participation patterns of both white and black women had the inverted-U shape. There was no longer an observable decline in labor force participation rates for white women in their childbearing years. The gap between the labor force participation rates of the youngest group of white and black women that was observed in 1960 had widened substantially by 1987: the labor force participation rate for black women between the ages of 18 and 24 was 14 percentage points lower than the rate for white women in the same age group. At older ages, on the other hand, the higher participation rates of black women had disappeared, and the labor force participation patterns of white and black women were virtually indistinguishable.

Table 2.12 reports labor force participation rates for white and black women by marital status. As with the pattern of labor force participation by age, the pattern of participation by marital status has changed considerably for both races over the 1940–87 period. At the beginning of the period, married women of both races were much less likely than unmarried women to be in the labor force. Since then, however, the labor force participation rates of married women have increased sharply for both races. For white women, the labor force participation rates of separated, divorced, and widowed women also increased, but less markedly, and the labor force participation rates of never-married women also increased slightly. For black women, the labor force participation rates of separated, divorced, and widowed women were approximately the same in 1987 as in 1940, but the labor force participation rates of never-married women fell by almost 10 percentage points over the 1940–87 period. As a result of these changes, the differences in labor force participation rates across marital statuses in 1987 were much smaller than they had been in 1940.

In 1987 striking racial differences existed in the pattern of labor force participation by marital status. Married white women con-

tinued to be less likely to be in the labor force than unmarried white women; married black women, however, were more likely to be in the labor force than unmarried black women. Unmarried white women had higher labor force participation rates than unmarried black women, and married white women had lower labor force participation rates than married black women.

The story of the evolution of black women's labor force participation over the 1940–87 period is, thus, very different from the story of white women's labor force participation. Black women had much higher labor force participation rates than white women at the beginning of the period, and their labor force participation rates grew more slowly. On the other hand, the degree of participation for working women, as measured by hours worked or the percentage working full time, increased over the period for black women and fell slightly for white women. The labor force participation rates grew at all ages for both races except for black women in the youngest age group. By the end of the period, the age patterns of labor force participation for white and black women were identical, except for the youngest age group, where black women had much lower labor force participation rates. Although white married women still have lower labor force participation rates than white unmarried women, the opposite is true for blacks.

The Family Status of Black Women: 1940–87

Marriage and children each have important effects on women's economic status. Not only does marriage increase the number of potential earners in the family, but husbands generally earn more than their wives. Children, on the other hand, do not increase the number of potential earners, but do increase the number of mouths to be fed. Moreover, women's family situations have important effects on their labor force participation as well as on their wages. Married women and women with children are generally less likely to work than their unmarried counterparts. As a result, they acquire fewer productive skills and accumulate less work experience, and hence earn lower wages.

The years 1940–87 witnessed striking changes in black women's family status. At the beginning of the period, black women, like white women, tended to get married, have children, and stay married. By the end of the period, black women were unlikely to get married, and if they married, were very likely to get divorced. In 1950 married black women were almost three times as likely to have children as unmarried black women. In 1980 the proportions of married and unmarried black women with children were almost identical. This section outlines briefly the changes in black women's marital status over the 1940–87 period.

Table 2.13 reports the proportions of black and white women who were never married, married, divorced, and widowed for the years 1940–87. The figures in table 2.13 show that even at the beginning of the period, the marital status distributions were different for black and white women. In 1940 black women were less likely than white women to be currently married and more likely to be divorced or widowed. They were also less likely than white women never to have married.

The marital status distribution changed for both black and white women over the 1940–87 period, but there were important differences in the patterns of change. While the proportion of white women who never married remained roughly constant over the 1940–87 period, the proportion of black women who never married more than doubled, from 16 to 36 percent. The proportion of white women who were currently married increased substantially during the baby boom years of the 1950s and 1960s and then fell slightly during the 1970s and 1980s. On the other hand, the proportion of black women who were married increased only slightly during the baby boom years and then fell substantially in the 1970s and 1980s. The proportions of women who were divorced doubled for white women and almost doubled for black women, and the proportions of women who were widows fell by two-thirds for both races between 1940 and 1987.

By 1987 the differences in the marital status distribution of black and white women were much larger than they had been in 1940. Just over one-third of black women were currently married, compared with almost two-thirds of white women. Well over one-third of black women had never married, compared with less than one-fifth of white women. Almost 30 percent of black women

TABLE 2.13
Distribution of Black and White Women by Marital Status: 1940–87[a]

	1940 Census	1950 Census	1960 Census	1970 Census	1970 CPS[b]	1980 Census	1980 CPS	1987 CPS
Black								
Never-married	15.7	12.3	14.6	20.2	18.7	31.4	30.6	35.7
Married	53.6	59.0	56.5	50.0	52.9	41.0	38.8	36.3
Divorced[c]	13.7	17.1	18.9	[d]	19.4	20.4	22.6	22.1
Widowed	17.0	11.6	10.0	[d]	9.0	7.2	8.0	5.9
White								
Never-married	21.7	14.0	12.2	14.7	13.9	17.9	17.0	18.8
Married	63.5	73.6	75.6	71.9	74.2	67.6	68.3	65.2
Divorced[c]	6.0	5.8	6.3	[d]	6.3	10.4	10.2	12.2
Widowed	8.8	6.5	5.9	[d]	5.6	4.6	4.6	3.8

Sources: U.S. Censuses of the Population and March Current Population Surveys.
[a] Sample includes all women between the ages of 18 and 64.
[b] Hispanics were not excluded from the 1970 CPS sample.
[c] "Divorced" includes women who were "separated" or "married, spouse absent."
[d] Due to an error in data preparation, it was not possible to determine percentages divorced and widowed for the 1970 census.

TABLE 2.14
Distribution of Black and White Women by Marital Status and Presence of Children: 1950–80[a]

	1950	1960	1970	1980
Black				
Not married	33.0	33.9	39.9	51.2
without children	14.9	14.2	9.1	10.9
with children	18.1	19.7	30.8	40.3
Married	67.0	66.1	60.1	48.8
without children	19.7	14.0	8.3	5.6
with children	47.3	52.1	51.8	43.2
White				
Not married	17.8	15.1	16.7	23.1
without children	10.9	8.3	7.3	10.5
with children	6.9	6.8	9.4	12.6
Married	82.2	84.9	83.4	76.9
without children	15.1	11.0	8.5	9.8
with children	67.1	73.9	74.9	67.1

Source of data: U.S. Censuses of the Population.
[a] Sample includes all women between the ages of 25 and 54.

were either divorced or widowed, compared with 16 percent of white women.

Not only did the proportion of black women who were unmarried increase dramatically over the 1940–87 period, but the proportion of unmarried women who had children also increased substantially. Table 2.14 shows that in 1980, 80 percent of unmarried black women between the ages of 25 and 54 had children, up from 55 percent in 1950.[3] (In 1980, 55 percent of unmarried white women between the ages of 25 and 54 had children, up from about 40 percent in 1950.)

In sum, not only has the family status of black women changed considerably in the past half-decade, but the family statuses of black and white women bear little resemblance to each other. These differences between black and white women have important implications for their relative economic status.

[3]The percentage of unmarried black women with children (80 percent) is calculated as 40.3 (the percentage unmarried black women with children are of all black women) divided by 51.2 (the percentage all unmarried black women are of all black women).

Part II
The Black-White Female Wage Differential: Reasons for the Black-White Wage Gap and Sources of the Increase in Black Women's Relative Wages

Chapter 3

Determinants of Black-White Female Wage Differentials: A Conceptual Framework

Black women have historically earned lower wages than white women. This chapter lays out various possible explanations for why black women and white women might receive different wages. The chapter provides a conceptual framework for the study of black-white female wage differences carried out in the rest of part II.

A gap between the wages of black and white women can arise from two distinct, but not mutually exclusive, sources: racial differences in productivity (or skills) and racial differences in the degree of discrimination suffered in the marketplace. Each of these factors can independently cause black women to earn less than white women. Interactions between these two factors could further lower the relative wages of black women.

Human Capital Theory: Productivity and Wages

According to a well-established economic doctrine called "human capital theory," workers' wages are related to their investments in "human capital," or skills that raise their labor productivity. Workers who make larger human capital investments receive higher pay than other workers. An important example of a productivity-increasing human capital investment is a worker's investment in education. Typically, the more education the worker has, the more productive the worker is, and the higher the wage received. Another common form of human capital investment is on-the-job training, or time spent learning skills on the job. Because many skills are acquired on the job, workers with more work experience generally receive higher wages.

Even if there were no employment or wage discrimination against black women, black women could receive lower pay than white women if they made smaller human capital investments. What, then, could lead black women to make smaller human capital investments than white women?

One reason black women might acquire less education and other forms of human capital than white women is that they typically come from poorer families. Because human capital investments are costly, low-income people generally acquire less human capital than high-income people.[1] Thus, black women might be expected to invest less in human capital on average than white women because of family income differences.

On the other hand, there are strong reasons to believe that black women might choose greater human capital investments than white women. The higher labor force participation rates of black women mean that the typical black female worker probably spends a larger portion of her life working than the typical white female worker and thus has a longer period for her human capital investments to pay off. As for any other form of investment, the longer the payoff period, the greater the amount invested. To the extent that black women anticipate spending more years working than white women, black women would be expected to make larger human capital investments, both in education and in on-the-job training.

Becker's Theory of Discrimination

A well-known economic theory developed by Gary Becker suggests that labor market discrimination could cause black women to receive lower wages than white women even if there were no racial differences in human capital investment patterns.[2]

[1]This can happen if poor persons face borrowing constraints, termed "imperfect capital markets," that prevent them from borrowing to finance their education. It can also happen if wealthier families provide their children with more education for reasons unrelated to their future earnings (e.g., they want their children to be "well-rounded").

[2]Gary S. Becker, *The Economics of Discrimination* (Chicago: Univ. of Chicago Press, 1957).

According to Becker, labor market discrimination against black women arises if employers have "tastes for discrimination"; that is, they dislike hiring black women and only hire them if they can pay them less than white women. If discrimination is sufficiently widespread, then black women will receive lower wages than white women. The more intense and widespread employers' dislike of hiring black women, the lower black women's wages will be.

This discriminatory behavior is costly to employers. An individual employer could hire only black women and lower his overall costs below what they would be if he were hiring a mix of black women and other workers. Thus, by practicing discrimination against black women, employers are foregoing potential profit opportunities.

Since discriminatory behavior is costly to employers according to Becker's theory, it may not persist for long in highly competitive markets. Employers who do not discriminate will have higher profits than those who do and will have a tendency to expand and possibly to drive discriminatory employers out of business. In noncompetitive markets, however, employer discrimination can be a long-term phenomenon.

Discrimination against black women can also arise when employers do not have tastes for discrimination, but black women's potential co-workers do. Co-workers have tastes for discrimination against black women if they demand a higher wage to work with black women than they would ask to work with other workers. When profit-maximizing employers are faced with a situation where discriminatory co-workers have the same skills as black women, they will react by separating black women from other workers (for instance, by placing them in different plants), but wage differences between black women and other workers will not necessarily arise.

On the other hand, when the discriminatory co-workers have skills that complement the skills of black women (for instance, when the discriminatory co-worker is a floor manager and black women are applying for jobs as floor workers), segregation of the work force is not practical. Black women will be paid less than other workers with the same skills because they are more costly to hire: in order to hire black women, employers must raise the wages of the discriminatory co-workers above what they would have to pay them if they hired other workers in place of the black women.

A similar result occurs when firms have discriminatory customers. Customers have tastes for discrimination if they are willing to pay less for goods and services produced by black women than for the identical goods and services produced by other workers. This type of discrimination is believed to be more frequent in the service sector than in other sectors of the economy because in the service sector customers come into direct contact with workers. When employers face customer discrimination, it is again more costly for them to hire black women than other workers, and as a result they pay black women lower wages.

Unlike the case of employer tastes for discrimination, when the tastes for discrimination lie with co-workers or with customers, it is in the financial interest of employers to discriminate against black women by paying them less than they pay identical workers who are not black women. Moreover, there are no plausible mechanisms akin to competition for discriminatory firms for purging discriminatory workers or customers. It is, thus, possible for wage differentials due to discrimination from these sources to persist for a long time even in competitive markets.

Even when it is in the employer's direct financial interest not to discriminate against black women, social and legal barriers can be erected to prevent employers from treating black women and other workers equally. A discriminatory society can socially ostracize nondiscriminatory employers or impose legal sanctions on them that are sufficiently high to alter their calculus and cause them to go along with discrimination against black women.

Labor market discrimination by employers, co-workers, and customers can take other forms besides lowering black women's wages. Hiring discrimination by firms or managerial employees can make it difficult for black women to find employment, raising their unemployment rate in comparison to similarly qualified white women. If discriminatory employers, co-workers, or customers believe that some jobs or occupations are not appropriate for black women, black women may experience "occupational discrimination."

Black women may be crowded into "acceptable" occupations or jobs. If this crowding results in an oversupply of workers to these occupations or jobs, wages in these occupations or jobs may become depressed, and black women will not only be in different jobs than their white counterparts, but they also will receive lower pay.[3]

Alternative Theories of Discrimination: Statistical Discrimination and Efficiency Wages

Alternative theories of discrimination point to possible reasons why black women might be paid less than other workers even if employers are strictly motivated by profit maximization, i.e., they do not have "tastes for discrimination" and are not prejudiced.

The theory of "statistical discrimination" shows how differences in the average skill levels of black and white women can lead to differences in pay for black and white women with the same skills if employers have imperfect knowledge of their workers' individual skill levels.[4] Suppose that for some reason, unrelated to discrimination, black women on average invest less than white women in certain skills that employers find desirable, and also suppose that it is not possible for employers to ascertain an applicant's skill level at the time of making hiring decisions and wage offers. It is in the employers' financial interest to base their assessments of applicants on the available statistics and to treat each applicant as though she were average for her race. Employers will, thus, offer all black applicants lower wages than all white applicants (or alternatively refuse to hire them at all) based on their expectation that black applicants are likely to be less skilled than white applicants. Because pay is based on statistical average skill levels for each race, highly skilled black women will be offered lower wages than white women with low skills. This phenomenon is known as "statistical discrimination." In sum, racial differences in human capital investment patterns can cause otherwise nondiscriminatory employers to discriminate by paying black women less than equally (and even less) skilled white women.

Another theory thought to explain black-white wage differentials when employers are not prejudiced, the "efficiency wage theory," is usually developed in the context of a "dual labor market," i.e., under the assumption that jobs fall into two categories: primary sector jobs, in which workers' levels of effort are difficult to monitor, and secondary sector jobs, in which workers' levels of effort are easily discernible.[5] An example of a primary sector job might be a middle-level management position in a large company. An example of a secondary sector job might be working in a fast-food enterprise. Since employers find it difficult to monitor workers' effort in primary sector jobs, they cannot adjust individual workers' wages to their individual levels of effort. Instead, they adopt the following strategy to minimize shirking by their workers: they pay their workers more than for secondary sector jobs and fire any worker they discover shirking. This provides workers with an incentive not to shirk, because they do not want to be fired (if they were fired they would have to turn to the lower paying secondary sector for a job). In choosing the wage premium to pay their workers, primary sector employers choose an "efficient wage," or one that just balances out the extra wage costs from paying higher wages and the lower costs from reduced worker shirking.

The efficiency wage theory might account for black women being paid less and working primarily in secondary sector jobs in the following way. Suppose that black women

[3]See Barbara Bergmann, "Occupational Segregation, Wages and Profits When Employers Discriminate by Race or Sex," *Eastern Economic Journal*, vol. 1 (1974), pp. 103–10.

[4]See E.S. Phelps, "The Statistical Theory of Racism and Sexism," *American Economic Review*, vol. 62 (1972), pp. 659–61; Kenneth J. Arrow, "Models of Job Discrimination," in *Racial Discrimination in Economic Life*, ed. Anthony H. Pascal (Lexington, Mass: Health & Co., 1972, pp. 83–102; Arrow, "Some Mathematical Models of Race in the Labor Market," in *Racial Discrimination in Economic Life*, pp. 187–204; Arrow, "The Theory of Discrimination," in *Discrimination in Labor Markets*, ed. Orley Ashenfelter and Albert Rees (Princeton, N.J.: Princeton Univ. Press, 1973), pp. 3–33; and D. J. Aigner and G.C. Cain, "Statistical Theories of Discrimination in the Labor Market," *Industrial and Labor Relations Review*, vol. 30 (1977), pp. 175–89.

[5]See Jeremy I. Bulow and Lawrence H. Summers, "A Theory of Dual Labor Markets with Application to Industrial Policy, Discrimination, and Keynesian Unemployment," *Journal of Labor Economics*, vol. 4 (1986), pp. 376–414.

have higher job turnover rates than other workers. Since they are more likely to quit their job anyway than other workers, their benefit from a lifetime of higher wages in the primary sector is lower, and as a result to get them to shirk less employers would have to offer them even higher efficiency wages than for other workers. This makes it more costly for employers to hire black women than other workers for primary sector jobs and might explain why black women are only hired in the lower paying secondary sector.

Interactions Between Discrimination and Human Capital Investment

There are possible interactions between discrimination and human capital investment. The theories of statistical discrimination and efficiency wages show how racial differences in human capital investment patterns or in turnover rates can lead to discriminatory behavior on the part of unprejudiced employers.

In turn, discrimination in the labor market can cause black women to acquire less human capital than white women. It can affect their human capital investment directly by impeding black women's human capital investment opportunities or indirectly by lowering black women's returns to human capital investment. Discrimination in the educational system can directly limit black women's access to quality schooling, making it difficult or even impossible for black women to acquire an education comparable to white women's. Discrimination in the labor market can directly limit black women's access to on-the-job training, preventing black women from augmenting their skills. In a discriminatory environment, both informal training by co-workers and mentoring by superiors may be more difficult for black women to obtain.

Moreover, wage discrimination of the type considered above can have an indirect, but important, negative effect on black women's human capital investment. If wage discrimination against black women is more severe at higher skill levels, then black women will have a lower return to human capital investment than other workers, and they will acquire less human capital. Similarly, if black women face occupational discrimination, they are unlikely to invest in skills useful only in jobs they cannot obtain. Thus, not only may the existence of discrimination cause black women to earn less than equally skilled white women, but it may also be responsible for black women being less skilled.

Measuring the Effect of Discrimination on Black Women's Wages

The discussion above indicates that the black-white female wage gap can be thought of as resulting from the joint effects of discrimination against black women and racial differences in women's human capital investment patterns. Moreover, racial differences in women's human capital investment patterns may themselves be partly caused by discrimination against black women. Thus, to measure the overall effect of racial discrimination on the black-white female wage gap, it is useful to distinguish between the direct effect of discrimination on wages and the indirect effect of discrimination on wages through its effect on skill formation.

Part II attempts to measure the direct effect of labor market discrimination on black women's wages by measuring women's skills as carefully as possible and then comparing the wages of black and white women with the same skills. The direct effect of discrimination on black women's wages can be approximated by the extent that black women earn less than white women with the same skills. A limitation of this approach is that its accuracy depends on the extent to which women's skills can be measured. If important dimensions of skill are unmeasured, then this approach provides only an imperfect measure of the direct effects of labor market discrimination.

Although the primary focus of part II is on measuring the direct effect of discrimination, part II also looks at discrimination's indirect effect by considering wherever possible whether discrimination is responsible for differences in the skill levels of black and white women. The indirect effect of discrimination, however, is much harder to quantify than the direct effect, and part II generally does not attempt to do so.

Chapter 4

Determinants of Black-White Female Wage Differentials: Education and Geographic Location

This chapter and chapter 5 use data from the U.S. Censuses of Population to document a substantial convergence in the skills and characteristics of black and white women between 1940 and 1980. The censuses provide fairly consistent information on a wide array of characteristics for the entire U.S. population at 10-year intervals for the 1940–80 period. Unfortunately, they provide data on only some of the many dimensions of skill that are relevant to the labor market. The census data do allow documentation of trends in the education, occupations, regional distributions, and urban-rural mixes of black and white women over the 1940–80 period. In all of these factors, black women became more similar to white women between 1940 and 1980, and all of these factors are important determinants of wages. This chapter looks at the educational levels, regional distributions, and urban-rural mix of black and white women. Chapter 5 looks at their occupations.

Education

In 1940 the gap between the education of black women and the education of white women was enormous. On average, black women had completed 3 fewer years of school than white women. Almost two-thirds of black women had not completed the eighth grade, but more than three-quarters of white women had more than an eighth grade education. Only one-tenth of black women had graduated from high school, compared with one-third of white women.

Tables 4.1 and 4.2 document trends in the years of school completed by black and white women between 1940 and 1980. Table 4.1 shows average educational levels by race for all women between the ages of 25 and 64 (by the age of 25 virtually all women have completed their schooling) and also for women in the 25–64 age group who were in the labor force. Table 4.2 shows the distribution of women by the number of years of schooling completed.

Between 1940 and 1980, schooling levels increased substantially for both black and white women: the average years of school completed increased by over 3 years for white women and by over 5 years for black women. The proportion of women who had not finished eighth grade fell substantially for both groups. By 1980 over half of both black and white women had graduated from high school, and sizable proportions of both groups (15 percent of whites and 9 percent of blacks) had completed 4 years of college or more.

Black women made even larger gains than white women over the period, and racial differences in schooling declined considerably. The 3-year difference between black and white women's average schooling levels in 1940 had shrunk to a difference of 1 year in 1980. The distributions of black and white women by years of school completed were markedly more similar in 1980 than they were in 1940.

The timing of the racial convergence in educational levels is also of interest. While increases in schooling levels progressed fairly smoothly over the entire period for both black and white women, black women gained very little relative to white women before 1950. Between 1940 and 1950, black women gained one-tenth of a year on white women. In each of the decades following 1950, black women gained at least half a year on white women.

The larger relative increase in black women's schooling levels after 1950 was not due to a sudden improvement in black education at that time. Rather, it was caused by older black women who had been educated before 1920 progressively leaving the sample after 1950, and thus, it reflects much earlier increases in black schooling levels. In fact, table 4.3 shows that the relative schooling levels of black women between the ages of 25 and 34 began to increase in 1940, reflecting relative improvements in black schooling starting around 1920. The relative education-

TABLE 4.1
Average Years of Schooling Completed by Race: 1940–80

	1940	1950	1960	1970	1980
All women aged 25–64					
Black	6.2	7.1	8.4	9.7	11.3
White	9.1	9.9	10.6	11.4	12.3
White-black	2.9	2.8	2.2	1.7	1.0
Women in the labor force aged 25–64					
Black	6.5	7.6	8.9	10.3	11.9
White	10.1	10.6	11.1	11.7	12.8
White-black	3.6	3.0	2.2	1.4	0.9

Source: U.S. Censuses of Population 1940–80.

TABLE 4.2
Distribution of Black and White Women by Years of Schooling Completed: 1940–80[a]

	1940	1950	1960	1970	1980
Black					
0–7	64.9	51.7	35.8	21.1	9.6
8–11	24.8	30.9	37.4	37.8	28.5
12–15	9.0	15.0	23.4	36.1	53.4
16+	1.4	2.4	3.4	4.9	8.6
White					
0–7	22.3	17.6	11.8	6.8	3.6
8–11	44.7	37.9	35.7	27.8	18.2
12–15	28.8	38.6	45.9	55.9	63.7
16+	4.3	5.8	6.6	9.5	14.5

Source: Grouped data from the U.S. Censuses of Population 1940–80.
[a] Sample includes all women between the ages of 25 and 64.

TABLE 4.3
Average Years of Schooling Completed by Black and White Women Between the Ages of 25 and 34: 1940–80

	Black	White	White-Black
1910	4.7	8.0	3.3
1920	5.5	8.4	2.9
1930	6.1	9.2	3.1
1940	7.0	10.1	3.1
1950	8.2	10.8	2.6
1960	9.7	11.5	1.8
1970	10.9	12.2	1.3
1980	12.3	13.1	0.8

Source: Except for 1910–30, U.S. Censuses of Population conducted for the same year. For 1910–30, 1940 Census of Population.

al levels of black women in the 25–34 age group increased smoothly over the entire 1940–80 period. Black women in this age group gained about half a year of schooling on white women in every decade between 1940 and 1980.

Because of the secular increase in women's educational levels, younger women, both black and white, were more educated than older women in each of the census years 1940–80, as can be seen in table 4.4. Moreover, because black women's educational levels were gaining on white women's, the difference in educational levels between black and white women was less at younger ages. In 1940 this difference ranged from 2.9 years for women aged 18–24 to 3.3 years for women aged 55–64. By 1980 the schooling gap for women aged 18–24 was .4, compared with a 1.9 year schooling gap for women aged 55–64.

Thus, the schooling levels for all black and white women converged considerably between 1940 and 1980, because less educated older black women progressively left the sample and the young black women entering the sample had progressively more education. The black-white convergence in schooling levels is even more pronounced when only women in the labor force are considered, as the lower panel of table 4.1 reveals. In 1940 black women in the labor force had an average of 3.6 fewer years of school than white women in the labor force. By 1980 this difference had narrowed to less than 1 year. Thus, in 1940 schooling differences between black and white women were greater for women in the labor force than for women in general. By 1980 schooling levels were closer for black and white women in the labor force than for women in general. Further, the convergence in schooling levels for black and white women in the labor force began by 1940, earlier than the convergence for women in general.

The reason the schooling levels of women in the labor force are generally not the same as for the population as a whole is that labor force participation rates tend to differ by educational level. Table 4.5 shows labor force participation rates by educational level for black and white women between the ages of 25 and 64 for the 1940–80 period. Labor force participation rates of both black and white women increased with education throughout the period. There were, nevertheless, important differences between black and white women's labor force participation trends over the period. In 1940 black women with less than a 12th grade education were twice as likely as white women at the same educational level to participate in the labor force, and the difference between the labor force participation rates of black and white women declined with increased years of school. By 1980, on the other hand, the difference between the labor force participation rates of black and white women increased with years of school.

Thus, the census data show an impressive convergence in the number of years of school completed by black and white women. Other researchers have found that the actual black-white convergence in schooling levels may have been even more pronounced than the census data suggest. Robert Margo and others have argued that the 1940 census overstates the actual time spent in school by older blacks.[1] Before 1920 the schools attended by blacks tended to be ungraded and for the most part held classes many fewer days per year than schools attended by whites. As a result, a black woman may have attended school for 8 years and only completed the equivalent of 5 years. The difference in the time spent in school by black and white women was, thus, probably substantially more than the 3 years reported in the 1940 census. Since later censuses more accurately reflected actual schooling levels of blacks, taking the 1940 census data at face value probably understates the degree to which black-white schooling levels actually converged over the 1940–80 period.

Census data require measuring educational attainment by years of school completed (unadjusted for time spent in school per year) and provide no information on schooling quality, another important dimension of educational attainment. Using various other sources of information, other researchers have concluded that the average quality of education (including the length of the school year)

[1]See Robert A. Margo, "Race, Educational Attainment, and the 1940 Census," *Journal of Economic History*, vol. 46 (1986), pp. 189-98, and "Race and School Attendance in the American South: Evidence from the 1900 Census Sample" (Mimeo. Philadelphia: Univ. of Pennsylvania, 1986); and James P. Smith, "Race and Human Capital," *American Economic Review*, vol. 77 (1974), pp. 685-98.

TABLE 4.4
Average Years of Schooling Completed by Black and White Women by Age: 1940–80

	1940		1950		1960		1970		1980	
	Black	White	Black	White	Black	White	Black	White	Black	White
A. Average years of schooling completed										
18–24	7.6	10.5	8.9	11.1	10.3	11.5	11.2	12.2	12.0	12.4
25–34	7.0	10.1	8.2	10.8	9.7	11.5	10.9	12.2	12.3	13.1
35–44	6.1	9.2	7.2	10.2	8.8	11.0	10.2	11.6	11.6	12.5
45–54	5.5	8.4	6.1	9.4	7.5	10.3	9.0	11.1	10.6	11.9
55–64	4.7	8.0	5.5	8.4	6.2	9.2	7.8	10.4	9.3	11.4
B. White minus black										
18–24	2.9		2.2		2.2		1.0		0.4	
25–34	3.1		2.6		1.8		1.3		0.8	
35–44	3.1		3.0		2.2		1.4		0.9	
45–54	2.9		3.3		2.8		2.1		1.3	
55–64	3.3		2.9		3.0		2.6		1.9	

Source: U.S. Censuses of Population 1940–80.

TABLE 4.5
Labor Force Participation Rates of Black and White Women by Years of School Completed: 1940–80[a]

	1940	1950	1960	1970	1980
Black					
0–11	41.4	42.9	48.6	50.2	50.0
12–15	56.5	52.5	57.6	66.2	72.8
16+	64.0	74.0	81.9	86.1	86.6
White					
0–11	20.5	26.0	35.6	42.8	43.3
12–15	32.3	34.6	40.9	48.9	60.4
16+	48.3	48.9	55.9	58.8	71.7

Source: U.S. Censuses of Population 1940–80.
[a] Sample includes all women between the ages of 25 and 64.

received by blacks of working age probably increased both absolutely and relative to the quality of education received by whites over the 1940–80 period. Both the resources devoted to black education and the academic achievement (as measured by literacy rates, test scores, and so on) of black students appear to have improved steadily from the turn of the century at least into the 1960s.[2] Thus, the census data presented in this chapter do not capture the full measure of the increase in educational attainment of black women over the 1940–80 period. The true increase in black women's relative educational attainment was probably even more substantial than that suggested by the census figures on years of school completed.

A preliminary look[3] at the relationship between wages and educational attainment over the period is shown in table 4.5, using census data on the years of school completed as the measure of educational attainment. Table 4.5 reports the average hourly wages for black and white women at different schooling levels for the years 1940–80. It also reports the ratio of black women's to white women's wages at each educational level.

The narrowing of the black-white differential in the number of years of schooling completed over the 1940–80 period was undoubtedly responsible for part of the increase in black women's relative wages over the same period. The hourly wages received by both black and white women were higher the more years of schooling completed.[4] Moreover, the ratio of black women's wages to white women's wages also increased with the number of years of school completed: in 1940, for instance, black women with less than a 12th grade education earned only half as much as white women with the same amount of schooling, but college-educated black women earned 80 percent as much as college-educated white women. Thus, black women's wages probably would have increased relative to white women's over the 1940–80 period due to their increased relative schooling amounts, even if there had been no other changes over the same period.

It is also apparent from the data in table 4.6 that the convergence in the number of years of school of black and white women cannot by itself explain the entire increase in black women's relative wages over the period. Over the years 1940–80 black women's wages increased relative to white women's at all three educational levels. The relative wage of black women with less than a 12th grade education increased from 48 percent to approximately 90 percent; the relative wage of black women with a high school education increased from 60 percent to more than 95 percent; and the relative wage for college-educated black women increased from 80 percent to more than 100 percent. Thus, the overall relative wage of black women would have increased over the 1940–80, period even if their relative educational attainment had not increased at all. One possible explanation for the increased relative wages of black women within schooling levels is that the quality of schooling increased at each level over the period. It is likely that other factors, such as a decline in discrimination and increases in other skills possessed by black women, also played a role.

In sum, the 40-year period between 1940 and 1980 witnessed an impressive increase in the relative educational attainment of black women. Although the census data only allow documentation of increases in relative schooling levels, the relative quality of black women's education probably improved as well. The increased educational attainment of black women was probably responsible for some but not all of the decrease in the black-white female wage gap over the period.

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[2]See U.S. Commission on Civil Rights, *The Economic Progress of Black Men in America* (1986), pp. 54–72 for a thorough discussion of racial differences in schooling quantity and quality.

[3]See chap. 6 for a more thorough evaluation of the impact of the increased educational attainment of black women on the black-white female wage gap.

[4]Freeman has also found that black women's earnings increase relative to white women's as education rises. Richard B. Freeman, "Decline of Labor Market Discrimination and Economic Analysis," *American Economic Review*, vol. 63, no. 2 (973), pp. 280–86; and "Labor Market Discrimination: Analysis, Findings and Problems," in *Frontiers of Quantitative Economics*, ed. Michael D. Intriligator and David A. Kendrik (Amsterdam: North-Holland, 1974), chap. 9.

TABLE 4.6
Hourly Wages of Black and White Women by Years of Schooling Completed: 1940–80[a]

	1940 Census	1950 Census	1960 Census	1970 Census	1970 CPS	1980 Census	1980 CPS
All women							
Black							
0–11	0.99	2.04	2.39	3.56	2.95	4.51	3.48
12–15	1.59	2.63	3.31	4.82	4.49	5.18	4.59
16+	3.76	4.74	6.42	9.24	7.60	8.34	7.16
White							
0–11	2.06	3.12	3.79	4.50	4.14	4.67	3.97
12–15	2.70	3.56	4.43	5.34	4.95	5.08	4.85
16+	4.80	5.10	7.31	9.04	7.31	7.39	6.99
Black-white ratio[b]							
0–11	48.1	65.4	63.1	79.1	65.7	96.6	87.7
12–15	58.9	73.9	74.7	90.3	90.7	102.0	94.6
16+	78.3	92.9	87.8	102.2	104.0	112.9	102.4
Women working full time, year round							
Black							
0–11	0.91	1.81	2.35	3.40	3.21	4.42	3.77
12–15	1.33	2.71	3.62	4.86	4.77	5.44	5.15
16+	3.03[c]	3.73	5.04	7.57	7.44	7.60	7.14
White							
0–11	2.11	2.96	3.88	4.55	4.40	4.66	4.22
12–15	2.80	3.62	4.72	5.54	5.45	5.78	5.34
16+	3.78	4.36	6.07	8.17	7.84	7.55	7.05
Black-white ratio[b]							
0–11	43.1	61.1	60.6	74.7	73.0	94.8	89.3
12–15	47.5	74.9	76.7	87.7	86.1	94.1	96.4
16+	80.2	85.6	83.0	92.7	94.9	100.7	101.3

Sources: U.S. Censuses of Population 1940–80 and March Current Population Surveys.
[a] Sample includes all women between the ages of 25 and 64. Hourly wages expressed in 1979 dollars.
[b] (Black wage/white wage) X 100.
[c] Based on only 21 observations.

TABLE 4.7
Geographic Location of Black and White Women: 1940–80[a]

	1940	1950	1960	1970	1980
Percent living in the South					
Black	73.4	64.6	56.1	51.4	52.0
White	25.4	26.3	27.2	28.4	31.1
Percent living in a rural area					
Black	51.0	41.7	30.4	23.7	19.2
South	65.9	60.4	49.6	41.9	34.0
Non-South	9.9	7.5	6.0	4.5	3.3
White	41.7	39.4	36.4	31.9	31.8
South	65.8	59.5	50.6	45.6	40.7
Non-South	33.5	32.2	31.0	26.5	27.8

Source: U.S. Censuses of Population 1940–1980.
[a] Sample includes all women between the ages of 18 and 64.

Region and Urban or Rural Location

Black women have always been much more likely to live in the South[5] than white women. Since wages have historically been lower in the South than elsewhere, the different regional distributions of black and white women are one factor that has contributed to black women's lower relative earnings. Similarly, in the past, black women were more likely than white women to live in low-wage rural areas, another factor contributing to their lower relative earnings. This section examines the changing regional distributions and urban-rural mixes of black and white women over the years 1940–80.

Table 4.7 shows that there was a substantial convergence in the regional distributions and a major shift in the urban-rural mixes of black and white women from 1940 to 1980. In 1940 almost three-quarters of black women and only one-quarter of white women lived in the South. Over the following years, especially between 1940 and 1960, there was a large northward migration of black women, so that by 1980 the proportion of black women living in the South had declined to just over one-half. At the same time, there was a much smaller white migration to the South, so that by 1980 almost one-third of white women lived in the South. Thus, the geographic distributions of black and white women were much more similar in 1980 than they had been in 1940.

In 1940 black women were somewhat more likely than white women to live in rural areas. Over the years following, the proportion of black women living in rural areas decreased considerably, from more than 50 percent to less than 20 percent, compared with a much smaller decline (from 40 to 30 percent) in the proportion of white women living in rural areas. Thus, by 1980 black women were less likely than white women to live in rural areas.

The shift in urban-rural patterns by race was partially due to the northward migration of blacks over the 1940–80 period and partially due to a movement by black women from rural to urban areas within the South. Throughout the period, black women living outside of the South were extremely unlikely to live in rural areas: between 90 and 97 percent of black women living outside of the South lived in urban areas. By contrast, about two-thirds of southern black women in 1940 lived in rural areas. Thus, for many black women, northward migration meant a rural to urban move as well. At the same time, the proportion of southern women, both black and white, who lived in rural areas was declining. About two-thirds of southern women of both races lived in rural areas in 1940. By 1980 the fraction of southern women living in rural areas had shrunk to less than one-third for black women and to 40 percent for white women. Thus, not only did black women move from the predominately rural South to the heavily urban (at least for blacks) non-South over the 1940–80 period (compared with a small reverse migration among white women), but at the same time, the black women who remained in the South moved to urban areas to a greater extent than white women.

Table 4.8 presents estimates derived from census data of the average hourly wages of black and white women by region for the years 1940–80. Not only did wages outside of the South exceed those in the South for both races throughout the period, but black women earned more relative to white women outside of the South than in the South. Thus, the northward migration of black women combined with the more stable regional distribution of white women over the years 1940–80 may have contributed to black women's increased relative earnings over this period. On the other hand, black-white wage ratios increased within both regions of the country (more in the South than in the non-South), indicating that changes in living patterns were not solely responsible for black women's increased relative wages over the period.

Table 4.9 presents the hourly wages of black and white women by whether or not they lived in rural areas. As expected, the hourly wages of both black and white women living in rural areas were lower than those of their counterparts living in urban areas. Moreover, black women's wages were lower relative to white women's wages in rural areas than in urban areas. Thus, black women's shift from being a more rural population than white women in 1940 to being a more urban population than white women in 1980 may

[5]The South is defined in this report as the States of Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, West Virginia, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Texas, and Oklahoma and the District of Columbia.

TABLE 4.8
Hourly Wages of Black and White Women by Region: 1940–80[a]

	1940	1950	1960	1970	1980
Black women					
South	0.94	1.82	2.25	3.83	5.62
Non-South	1.62	2.96	3.63	5.29	7.01
(South/non-South) X 100	58.0	61.5	62.0	72.4	80.2
White women					
South	2.35	3.33	4.03	5.07	5.33
Non-South	2.59	3.55	4.60	5.70	5.79
(South/non-South) X 100	90.7	93.8	87.6	88.9	92.1
Black women's wage as a percentage of white women's wage					
South	40.0	54.7	55.8	75.5	105.4
Non-South	62.5	83.4	78.9	92.8	121.1

Source: U.S. Censuses of the Population, 1940–80.
[a] All wages are expressed in 1979 dollars. Sample includes all women between the ages of 18 and 64 who reported wage and salary income in the previous calendar year except for students, the self-employed, unpaid family workers, and members of the armed forces.

TABLE 4.9
Hourly Wages of Black and White Women by Urban/Rural Residence and Region: 1940–80[a]

	1940	1950	1960	1970	1980
All regions					
Black women					
Rural	0.81	1.66	2.01	3.32	5.15
Urban	1.33	2.53	3.18	4.86	6.53
(Rural/urban) X 100	60.9	65.6	63.2	68.3	78.9
White women					
Rural	2.14	3.13	3.91	4.72	5.09
Urban	2.71	3.66	4.70	5.85	5.88
(Rural/urban) X 100	79.0	85.5	83.2	80.7	86.6
South					
Black women					
Rural	0.78	1.62	1.90	3.18	5.10
Urban	1.11	2.01	2.52	4.22	5.86
(Rural/urban) X 100	70.2	80.6	75.4	75.4	87.0
White women					
Rural	2.15	3.04	3.57	4.43	4.87
Urban	2.55	3.59	4.41	5.54	5.62
(Rural/urban) X 100	84.3	84.7	81.0	80.0	86.7
Non-South					
Black women					
Rural	1.26	2.16	2.96	4.63	5.73
Urban	1.66	3.02	3.67	5.32	7.06
(Rural/urban) X 100	75.9	71.5	80.7	87.0	81.2
White women					
Rural	2.14	3.19	4.11	4.93	5.24
Urban	2.74	3.68	4.78	5.93	5.98
(Rural/urban) X 100	78.1	86.7	86.0	83.1	87.6

Source: U.S. Censuses of the Population, 1940–1980.
[a] All wages are expressed in 1979 dollars. Sample includes all women between the ages of 18 and 64 who reported wage and salary income in the previous calendar year except for students, the self-employed, unpaid family workers, and members of the armed forces.

TABLE 4.10
Average Years of Schooling Completed by Black and White Women by Region: 1940–80[a]

	1940	1950	1960	1960	1980
Black					
South	5.9	6.8	8.1	9.5	11.1
Non-South	8.0	8.8	9.5	10.5	11.8
Non-South minus South	2.1	2.0	1.4	1.0	0.7
White					
South	9.0	9.6	10.4	11.1	12.1
Non-South	9.5	10.3	10.9	11.7	12.5
Non-South minus South	0.5	0.7	0.5	0.6	0.4
White minus black					
South	3.1	2.8	2.3	1.6	1.0
Non-South	1.5	1.5	1.4	1.2	0.7

Source: U.S. Censuses of Population 1940–80.
[a] Sample includes all women between the ages of 18 and 64.

also have contributed to their increased relative wages over these years.

Since black women living in rural areas also lived predominately in the South (table 4.7), it is possible that black women's relatively low wages in rural areas were simply a reflection of the southern residence of black women living in rural areas. Thus, the figures presented in tables 4.8 and 4.9 do not allow full identification of the separate effects of region and urban or rural residence on black women's relative wages. Similarly, the figures in table 4.10 point to a problem in using the evidence presented so far to distinguish the separate effects on wages of region and education.

Table 4.10 presents the average education of black and white women living in the South and the non-South for the years 1940–80. Women in the South were on average less educated than their counterparts elsewhere. Moreover, southern black women were less educated relative to their white counterparts than were black women living elsewhere. In 1940 southern black women had completed 3 fewer years of school than southern white women; the black-white schooling gap outside of the South was only 1½ years. The black-white schooling gap decreased in both regions (more in the South than in the non-South) over the 1940–80 period. In 1980 southern black women still had completed 1 year less of school than their white counterparts, compared with seven tenths of a year less of school for black women living outside of the South.

The schooling trends observed in table 4.10 are one possible explanation for the regional patterns in the wages of black and white women noted in table 4.8. Women's wages in the South may have been lower simply because southern educational levels were lower than in the rest of the country. Black women may have had lower relative wages in the South simply because the black-white schooling gap was larger in the South. The increasing black-white wage ratio within the South and the increasing earnings for black women in the South relative to the non-South may have been caused by the increasing southern black schooling levels over the years 1940–80. Thus, although the figures presented in table 4.8 suggest that region played an important role in determining racial wage patterns for women over the years 1940–80, they do not

disentangle the separate effects of education and region.

Summary

Schooling and geographical location (region and urban-rural residence) patterns of black and white women are potential explanations for black-white female wage trends over the years 1940–80. The relatively low educational levels of black women and their heavy representation in low-wage southern and rural areas could each be partially responsible for the relatively low wages earned by black women. The convergence in black-white schooling levels, regional distributions, and urban-rural mixes over the years 1940–80 could each be partially responsible for black women's increasing relative wages over the period. The next chapter considers another possible determinant of women's wages: their occupations.

Chapter 5

Determinants of Black-White Female Wage Differentials: Occupations

There are two kinds of females in this country—colored women and white ladies. Colored women are maids, cooks, taxi drivers, crossing guards, schoolteachers, welfare recipients, bar maids and the only time they become ladies is when they are cleaning ladies.

Louise D. Stone, "What It's Like to Be a Colored Woman," *Washington Post*, November 13, 1966

Throughout history, black and white women have worked in different jobs. Statistical analysis of census data cannot provide a full measure of the extent of work force segregation by race, nor can it fully capture the differences in working conditions and employer treatment experienced by black and white women. Nevertheless, the study of racial differences in occupations over the years 1940–80 in this chapter provides a more complete picture of racial differences in economic status than would a study focusing on wages alone. The analysis of racial differences in occupations is particularly important because occupations are often a basis for discrimination.

The convergence in black and white women's occupations between 1940 and 1980 was perhaps even more striking than the convergence in their levels of educational attainment and in their regional distributions. In 1940 black women were confined to a small number of low-status occupations. Seventy percent of black women were employed in just two occupations: domestic servant and farm laborer. Fewer than 10 percent of black women worked in middle- or high-status occupations. By contrast, white women worked in a variety of occupations, and more than one-half of white women worked in middle- and high-status occupations. By 1980 black women had made major inroads into occupations, such as clerical work, in which they were virtually unrepresented in 1940. However, important differences in the occupational distributions of black and white women remained, and black women continued to be overrepresented in low-status occupations and underrepresented in middle- and high-status occupations.

Occupational Distributions of Black and White Women: 1940–80

Table 5.1 shows the occupational distributions of black and white women for the years 1940, 1960, and 1980.[1] In 1940 black women's and white women's occupations were almost completely distinct. Black women were almost exclusively employed in low-status occupations, whereas white women were largely employed in middle- and high-status occupations. Almost 60 percent of

[1]For a similar description of trends in the occupations held by blacks and whites see R. Farley and W. Allen, The Color Line and the Quality of Life in America (New York: Russell Sage Foundation, 1987), pp. 256–82.

TABLE 5.1
Occupational Distributions of Black and White Women: 1940, 1960, and 1980[a]

	1940		1960		1980	
	Black	White	Black	White	Black	White
Professional and technical workers	4.6	18.8	7.7	15.8	16.1	20.1
Doctors, lawyers, engineers, etc.[b]	0.0	0.4	0.1	0.3	0.4	0.7
Teachers	3.6	8.9	4.4	7.1	6.3	7.2
Nurses	0.4	5.1	1.5	3.6	2.6	3.6
Librarians, social workers, religious workers	0.2	1.4	0.5	1.0	1.6	1.2
Other	0.4	3.0	1.3	3.8	5.2	7.4
Managers	0.9	4.9	1.1	4.3	2.5	6.4
Manufacturing	0.0	0.3	0.0	0.3	0.2	0.7
Wholesale	0.0	0.1	0.0	0.1	0.1	0.4
Financial, insurance, real estate	0.1	0.6	0.1	0.4	0.4	1.0
Retail, personal service, entertainment, recreation	0.7	3.1	0.7	2.2	0.9	2.8
Other	0.0	0.8	0.2	1.2	0.8	1.3
Clerical workers	1.3	24.2	8.0	34.1	29.0	36.5
Secretaries, typists, stenographers	0.4	10.1	2.3	11.7	7.5	13.0
Other	0.9	14.1	5.7	22.4	21.5	23.5
Sales workers	0.7	7.8	1.5	8.7	2.8	6.9
Financial, insurance, real estate	0.0	0.5	0.1	0.8	0.4	1.7
Other	0.6	7.3	1.3	8.0	2.4	5.2
Crafts workers	0.5	1.5	0.8	1.4	3.1	3.3
Operatives	8.0	18.7	14.7	17.7	11.9	7.2
Textile	2.3	8.5	3.1	6.1	3.7	2.2
Manufacturing	1.5	6.1	5.2	8.8	6.3	4.1
Other	4.1	4.0	6.3	2.7	1.9	1.0
Transportation workers	0.1	0.0	0.1	0.2	1.0	0.8
Laborers	1.4	0.8	1.2	0.5	1.2	0.7
Service workers	10.2	13.7	23.6	12.6	25.6	15.4
Cleaning and food	7.5	7.2	10.5	7.1	12.5	7.7
Protection	0.0	0.1	0.1	0.1	0.7	0.4
Other	2.7	6.5	12.9	5.4	12.4	7.4
Private household workers	58.4	7.9	37.7	3.2	6.2	1.9
Farmers	2.8	1.0	0.6	0.5	0.1	0.4
Farm laborers	11.2	0.7	3.1	1.0	1.1	0.8

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

black women worked as domestic servants (compared with 8 percent of white women). Another 11 percent of black women were farm laborers (compared with less than 1 percent of white women). Two other occupational categories that employed sizable percentages of black women were service occupations (about 10 percent) and operatives (8 percent), but both of these categories employed larger percentages of white than of black women.

Black women were virtually unrepresented in the middle-status clerical and sales occupations, which together employed almost one-third of white women. Clerical work, employing almost one-quarter of white women, was the largest single occupational category for white women but employed less than 2 percent of black women. Eight percent of white women were employed in sales occupations, compared with less than 1 percent of black women.

Only 1 in 20 black women was employed in the high-status professional, technical, and managerial occupational categories, compared with 1 in 4 white women. Fewer than 5 percent of black women, but almost 20 percent of white women, were in professional and technical occupations. Furthermore, whereas white women were spread across a number of professional occupations, black women professionals were almost exclusively teachers. (Four-fifths of black women professionals were teachers, compared with one-half of white women.) Moreover, although nursing was a sizable profession for white women, there were almost no black nurses in 1940. Similarly, although almost 5 percent of white women were employed in managerial occupations, there were very few black women managers.

Some changes in black women's occupations were visible by 1960, but the large majority (80 percent) of black women continued to be employed in low status occupations. The proportion of black women working as domestic servants declined by 20 percentage points between 1940 and 1960, to 38 percent. The proportion of black women employed as farm laborers also declined considerably, to just over 3 percent. Over the same years, the proportion of black women employed as service workers more than doubled, from 10 to 24 percent, and the proportion employed as operatives almost doubled, from 8 to 15 percent. These changes reflected the large northward migration of blacks and a decline in the demand for domestic servants after World War II. They also represented a small improvement in the occupational status of black women.[2]

At the same time, black women were beginning to make small inroads into a few middle- and high-status occupations. The proportion of black women doing clerical work increased from 1.3 percent to 8.0 percent over the 20-year period between 1940 and 1960. However, the proportion of black women who were clerical workers remained well below that of white women, which increased from one-quarter to one-third over the same 20-year period. The proportion of black women employed as professional and technical workers increased by two-thirds, from 4.6 percent to 7.7 percent. Although much of this increase occurred among teachers, the proportions of black women in nursing and in other professional and technical occupations increased noticeably (but remained small). In addition, black women continued to be unrepresented in both managerial and sales occupations.

The slight gains in occupational status made by black women between 1940 and 1960 gave way to major improvements between 1960 and 1980. The proportion of black women working as domestic servants decreased dramatically from 38 to 6 percent. Unlike the 1940 to 1960 period, this decline was not accompanied by an increase in the proportions of black women employed in other low-status occupations, such as service workers and operatives. Instead, the proportions of black women employed in middle- and high-status occupations increased considerably: the proportion of black women employed as clerical workers increased almost four-fold to 29 percent, only 7 percentage points below the comparable figure for white women. The proportion of black women employed in professional and technical occupations doubled from about 8 percent to 16 percent, only 4 percentage points below the comparable figure for white women. The movement of black women into professions other than teaching, first apparent in 1960, continued between 1960 and 1980. Almost 3 percent of black

[2]The job content of domestic service jobs and other service jobs may have been very similar. For blacks, however, household service may have had a connotation of their work under slavery and hence have had lower status.

TABLE 5.2
Indices of Occupational Dissimilarity: 1940, 1940, and 1980

	1940	1960	1980
White women-black women	64.0	51.9	20.4
White women-white men	57.9	57.0	54.6
Black women-black men	62.1	57.0	50.6
Black men-white men	44.1	41.6	28.8

Sources: 1940, 1960, and 1980 Censuses of Population.

women were nurses in 1980 and more than 5 percent were in other professional and technical occupations.

Black women made major occupational gains over the 1940 to 1980 period, but differences remained between the occupations held by black and white women in 1980. Black women continued to be less well represented in high status occupations than white women. Black women were less likely to be professionals than white women, and female black professionals were slightly more likely to be teachers than female white professionals. Black women were less than half as likely as white women to be in managerial occupations.

Black women also continued to be underrepresented in middle-status occupational categories. Black women were less likely to be clerical workers than white women. In particular, they were much less likely to be in secretarial jobs. Although some black women had succeeded in entering sales occupations, black women were less than half as likely to be sales workers as white women.

Black women in 1980 also continued to be more likely than white women to be employed in low-status occupational categories, especially as operatives, service workers, and domestic servants.

One way to assess the extent of the differences in the occupational distributions of black and white women in a given year is to calculate the "index of occupational dissimilarity," which represents the percentage of black women (or white women) who would have to change occupations in order for black and white women's occupational distributions to be the same.[3] Values of the index that are closer to zero, thus, correspond to more equal occupational distributions for the two groups, and values of the index that are closer to 100 correspond to more unequal occupational distributions. Table 5.2 reports the values of the index of occupational dissimilarity for black and white women for the years 1940, 1960, and 1980. To provide benchmarks for comparison, values of the index for white women and white men, for black women and black men, and for black men and white men are also shown. The 1940 value of the index of occupational dissimilarity for black and white women was 63.1, indicating that almost two-thirds of black (or white) women would have had to switch occupations in 1940 to equalize the occupational distributions of the two groups. The occupational distributions of black and white women were even more dissimilar than were the occupational distributions of white men and white women. They were also considerably more dissimilar than the occupational distributions of white men and black men.

[3]The index of dissimilarity is defined as:

$$\frac{1}{2} \sum_{i} w_i - b_i$$

where b_i is the proportion of black women who work in occupation i, and w_i is the proportion of white women who work in occupation i. If black and white women were distributed equally across occupations, $b_i - w_i$ would be zero for all occupations, and the value of the index would be zero. If black women and white women were in completely separate occupations, then for each occupation i, either b_i or w_i would be equal to zero, and thus the value of the index would be 1.

Between 1940 and 1960, the index of occupational dissimilarity for black and white women declined only slightly, but between 1960 and 1980, there was a large decrease in the index. By 1980 the occupational distributions of black and white women had become much more similar than the occupational distributions of white men and white women. Moreover, unlike in 1940, the occupational distributions of black women and white women were closer than those of black men and white men.

Black women's relative wage over the 1940–80 period was closely tied to their occupational status. Chapter 6 shows that the different occupational distributions of black and white women account for much of the black-white female wage gap during this period and that black women's improving occupational status between 1940 and 1980 was responsible for much of their increased relative wages during these years. Thus, in order to evaluate the effect of discrimination on the economic status of black women, it is important to consider the sources of black-white occupational differences. Were black women in low-status occupations because they were unskilled, uneducated, and lived in the rural South, or were they in low-status occupations because they were barred by discriminatory employment practices from working in middle- and high-status occupations? The remainder of this chapter addresses this important issue.

Occupational Distributions of Black and White Women by Education: 1940–80

Since higher status occupations tend to require more education, the large differences in the educational attainment of black and white women noted earlier might account for the differences in their occupations. Tables 5.3, 5.4, and 5.5 show the occupational distributions of black and white women by educational level for 1940, 1960, and 1980, and table 5.6 shows the values of the index of occupational dissimilarity for black and white women by educational level for the same years. These tables reveal that even within educational levels black and white women had very different occupational distributions in all 3 years. Thus, black women's lower occupational status was not simply a reflection of their lower educational attainment. The difference between the occupations of black and white women was greater for less educated women in all 3 years. The occupational distributions of black and white women within educational levels became more similar over time at all education levels, and this happened earlier for highly educated black women than for less educated black women.

There were striking differences in the occupations of black and white women at all educational levels in 1940 (see table 5.3). Although some of these differences might reflect the lower quality of the education received by blacks or artificially high black schooling levels reported in the 1940 census, the differences are far too large to be fully accounted for by these factors. Black women were not domestic servants in 1940 simply because they were uneducated: almost one-quarter of black women with some post-high school education and even 13 percent of black women with a college degree were employed as domestic servants. Similarly, the low educational attainment of black women was not the reason for their almost total absence from the field of clerical work. Whereas 40 percent of white women with a 12th grade education and 30 percent of white women with some post-high school education were employed as clerical workers, the comparable figures for black women were 7 and 6 percent, respectively. Moreover, white women with low levels of education found employment in occupations, such as operatives and service work, in which black women, regardless of education, were unlikely to be employed.

Highly educated black women appear to have found some opportunities that were unavailable to black women with less education. Indeed, the value of the index of occupational dissimilarity for black and white women with a college degree was 28, and the value for women with some post-high school education was 48, compared with values of the index between 55 and 60 at lower educational levels (see table 5.6), and black women with more than a high school education were just as likely as white women to be employed in professional and technical occupations. However, within the professional and technical occupational category, black women were

TABLE 5.3
Occupational Distributions of Black and White Women by Education: 1940[a]

	Black					White				
Education:	0–7	8–11	12	13–15	16+	0–7	8–11	12	13–15	16+
Professional and technical workers	0.4	2.1	9.0	45.6	72.0	2.2	4.9	15.8	46.7	73.0
Doctors, lawyers, engineers, etc.[b]	0.0	0.0	0.0	0.2	0.6	0.1	0.1	0.3	0.5	1.8
Teachers	0.2	1.2	5.8	40.7	60.6	0.5	0.7	2.4	28.4	49.7
Nurses	0.1	0.3	1.8	2.8	2.2	0.5	2.1	9.7	10.3	3.3
Librarians, social workers, religious workers	0.0	0.1	0.5	0.6	3.4	0.3	0.6	0.9	2.3	6.6
Other	0.1	0.5	0.9	1.3	5.2	0.8	2.4	2.4	5.3	11.6
Managers	0.6	1.1	1.7	1.5	2.2	4.9	5.4	4.3	4.7	4.5
Manufacturing	0.0	0.0	0.2	0.2	0.0	0.1	0.3	0.3	0.4	0.3
Wholesale	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Financial, insurance, real estate	0.0	0.2	0.0	0.0	0.0	0.5	0.6	0.5	0.8	0.4
Retail, personal service, entertainment, recreation	0.5	0.8	1.4	1.3	1.5	3.9	3.9	2.4	2.3	2.0
Other	0.0	0.0	0.2	0.0	0.6	0.2	0.6	1.0	1.2	1.8
Clerical workers	0.2	1.2	7.1	6.3	4.3	4.1	18.1	41.4	31.5	14.2
Secretaries, typists, stenographers	0.1	0.1	2.6	2.2	2.5	0.9	5.1	19.3	16.3	7.3
Other	0.1	1.1	4.6	4.1	1.8	3.1	13.0	22.1	15.2	6.9
Sales workers	0.4	0.9	2.2	2.0	0.6	4.6	8.3	10.7	6.0	3.0
Financial, insurance, real estate	0.0	0.1	0.4	0.6	0.3	0.1	0.3	0.6	0.8	0.6
Other	0.3	0.8	1.8	1.5	0.3	4.4	7.9	10.1	5.2	2.4
Crafts workers	0.4	0.7	0.6	0.6	0.0	2.0	2.2	1.1	0.8	0.8
Operatives	7.2	10.2	9.6	5.6	2.2	40.7	27.5	9.4	2.4	1.5
Textile	1.7	3.6	3.4	2.2	0.6	24.3	11.5	3.5	0.6	0.4
Manufacturing	1.6	1.6	1.4	0.6	0.0	9.6	10.0	3.5	0.7	0.2
Other	3.8	5.0	4.7	2.8	1.5	6.8	6.0	2.4	1.1	0.9
Transportation workers	0.1	0.2	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Laborers	1.7	1.0	1.0	0.0	0.0	1.9	1.0	0.6	0.2	0.0
Service workers	7.9	13.7	16.9	12.8	4.3	16.5	19.3	12.1	5.7	2.1
Cleaning and food	6.2	10.0	11.0	7.2	2.2	10.6	11.0	5.2	1.5	0.5
Protection	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0
Other	1.7	3.8	5.8	5.6	2.2	5.8	8.3	6.9	4.1	1.6
Private household workers	61.2	62.8	49.2	23.9	12.9	18.0	11.3	4.0	1.5	0.7
Farmers	3.9	1.4	0.5	0.2	0.3	3.1	1.2	0.3	0.4	0.2
Farm laborers	16.0	4.9	1.8	1.7	1.2	2.0	0.8	0.3	0.1	0.1

Source: 1940 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.4
Occupational Distributions of Black and White Women by Education: 1960[a]

	Black					White				
Education:	0–7	8–11	12	13–15	16+	0–7	8–11	12	13–15	16+
Professional and technical workers	0.5	1.5	5.2	20.5	83.4	1.8	2.9	7.3	33.5	79.8
Doctors, lawyers, engineers, etc.[b]	0.0	0.0	0.0	0.3	0.6	0.0	0.1	0.1	0.1	2.1
Teachers	0.1	0.1	1.0	7.7	64.1	0.2	0.3	0.8	13.3	51.0
Nurses	0.2	0.8	2.4	7.5	4.0	0.7	1.1	3.2	12.0	5.7
Librarians, social workers, religious workers	0.0	0.1	0.2	1.5	5.6	0.2	0.1	0.4	1.0	6.7
Other	0.2	0.5	1.5	3.5	9.1	0.6	1.3	2.9	7.2	14.3
Managers	0.8	1.0	1.4	2.3	1.6	3.4	4.0	4.9	5.1	2.9
Manufacturing	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.5	0.4	0.3
Wholesale	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.4	0.1
Financial, insurance, real estate	0.1	0.0	0.0	0.4	0.2	0.3	0.3	0.7	0.5	0.1
Retail, personal service, entertainment, recreation	0.7	0.7	1.0	0.7	0.8	2.3	2.5	2.4	2.1	0.6
Other	0.0	0.2	0.4	1.1	0.7	0.5	0.9	1.3	1.6	1.8
Clerical workers	0.7	4.4	19.3	31.7	8.3	6.8	22.4	54.0	42.3	12.9
Secretaries, typists, stenographers	0.0	0.6	6.0	12.0	3.2	0.4	4.2	19.9	19.3	6.5
Other	0.6	3.9	13.3	19.7	5.1	6.4	18.2	34.1	23.0	6.4
Sales workers	0.5	1.6	2.6	2.9	0.8	7.5	11.7	9.1	6.3	1.7
Financial, insurance, real estate	0.0	0.1	0.2	0.6	0.3	0.3	0.7	0.9	1.1	0.3
Other	0.5	1.5	2.4	2.3	0.5	7.2	10.9	8.2	5.2	1.4
Crafts workers	0.5	1.0	1.1	0.8	0.2	1.8	2.2	1.2	0.9	0.5
Operatives	12.7	18.1	17.2	8.8	1.3	43.3	29.8	10.3	3.1	0.5
Textile	2.0	3.9	4.4	2.0	0.3	21.3	9.5	2.8	0.8	0.1
Manufacturing	4.0	6.4	7.0	3.4	0.5	16.4	15.9	5.6	1.5	0.1
Other	6.6	7.7	5.8	3.4	0.5	5.6	4.4	1.8	0.9	0.2
Transportation workers	0.1	0.1	0.2	0.1	0.0	0.2	0.3	0.2	0.2	0.1
Laborers	1.5	1.2	1.2	0.9	0.1	1.6	0.7	0.3	0.2	0.1
Service workers	19.9	27.9	28.5	20.4	2.8	19.7	19.2	10.2	6.5	1.3
Cleaning and food	10.2	13.0	10.4	7.1	0.6	13.1	11.2	5.4	2.4	0.2
Protection	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1
Other	9.6	14.8	17.8	13.0	1.9	6.5	7.8	4.7	4.0	1.0
Private household workers	55.0	40.5	22.7	11.4	1.4	9.7	4.9	1.6	1.2	0.1
Farmers	1.2	0.4	0.1	0.1	0.0	1.6	0.7	0.3	0.3	0.1
Farm laborers	6.7	2.3	0.5	0.1	0.0	2.6	1.2	0.7	0.4	0.1

Source: 1960 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.5
Occupational Distributions of Black and White Women by Education: 1980[a]

	Black					White				
Education:	0–7	8–11	12	13–15	16+	0–7	8–11	12	13–15	16+
Professional and technical workers	4.5	5.0	7.9	18.4	68.2	4.7	3.6	6.8	22.8	65.8
Doctors, lawyers, engineers, etc.[b]	0.0	0.1	0.2	0.4	2.2	0.1	0.0	0.2	0.3	2.9
Teachers	1.2	0.9	1.4	4.2	40.2	1.7	0.4	1.2	2.8	34.3
Nurses	1.1	1.5	1.8	4.7	4.7	0.5	0.8	1.0	8.9	6.0
Librarians, social workers, religious workers	0.4	0.5	0.8	1.9	6.8	0.1	0.0	0.5	0.9	4.7
Other	1.8	2.0	3.7	7.4	14.3	2.3	2.2	3.9	9.9	17.9
Managers	1.4	1.6	2.3	3.5	3.5	3.7	5.2	6.3	7.6	6.1
Manufacturing	0.1	0.1	0.2	0.4	0.4	0.4	0.4	0.6	0.9	0.8
Wholesale	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.5	1.3
Financial, insurance, real estate	0.2	0.1	0.4	0.8	0.6	0.2	0.5	1.1	1.4	1.0
Retail, personal service, entertainment, recreation	0.6	0.7	1.0	1.1	1.1	2.8	2.8	2.9	3.1	2.2
Other	0.3	0.3	0.7	1.2	2.1	0.1	0.7	1.2	1.4	2.0
Clerical workers	6.5	13.6	35.9	46.3	17.2	8.9	21.4	47.4	42.4	16.1
Secretaries, typists, stenographers	0.9	2.2	9.2	13.8	4.5	2.2	4.1	16.9	17.8	5.0
Other	5.6	11.4	26.7	32.5	12.7	6.7	17.3	30.5	24.6	11.1
Sales workers	1.0	2.1	2.9	4.2	2.4	4.0	7.1	7.4	7.3	5.2
Financial, insurance, real estate	0.0	0.2	0.3	0.8	0.9	0.5	0.8	1.5	2.3	2.3
Other	0.9	1.9	2.6	3.3	1.5	3.5	6.2	5.9	5.1	2.8
Crafts workers	2.6	3.8	4.0	2.2	0.9	7.3	7.2	3.7	1.8	0.8
Operatives	14.8	18.2	14.5	5.3	1.0	33.0	20.2	7.1	1.9	0.7
Textile	4.6	5.6	4.7	1.3	0.2	17.3	6.6	1.8	0.4	0.1
Manufacturing	6.0	9.2	8.0	3.2	0.7	10.9	11.3	4.4	1.1	0.4
Other	4.2	3.5	1.8	0.7	0.1	4.8	2.4	0.9	0.4	0.3
Transportation workers	1.0	1.4	1.2	0.8	0.2	1.4	1.7	1.0	0.5	0.1
Laborers	2.0	2.1	1.4	0.4	0.1	2.3	2.3	0.7	0.3	0.1
Service workers	41.0	39.9	25.3	17.3	5.0	27.3	26.4	16.9	13.8	3.8
Cleaning and food	29.4	24.0	10.6	4.4	1.2	21.0	17.1	8.1	4.6	1.4
Protection	0.3	0.6	0.8	1.0	0.4	0.1	0.5	0.4	0.4	0.3
Other	11.3	15.3	13.8	11.9	3.3	6.1	8.8	8.4	8.8	2.2
Private household workers	21.9	10.7	4.3	2.8	1.1	4.5	3.1	1.9	1.9	0.9
Farmers	0.3	0.1	0.0	0.0	0.0	0.5	0.6	0.4	0.3	0.2
Farm laborers	2.4	2.1	1.1	0.4	0.2	2.3	1.6	1.0	0.4	0.2

Source: 1980 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.6
Indices of Occupational Dissimilarity for Black and White Women by Education: 1940, 1960, and 1980[a]

Education	1940	1960	1980
0–7	58.1	54.7	32.5
8–11	55.5	50.0	24.4
12	59.2	43.7	21.3
13–15	47.3	31.2	18.8
16+	27.5	17.1	11.6

Sources: 1940, 1960 and 1980 Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.

much more likely than white women to be employed as teachers and less likely to be employed in any other occupation. Moreover, if highly educated black women did not find employment as teachers, they were more likely to be employed as domestic servants than as clerical workers, the second largest occupational category for white women with more than a high school education. Thus, the greater degree of occupational equality experienced by highly educated black women was probably due to the demand for black school teachers generated by segregated school systems. Like their less educated counterparts, highly educated black women in 1940 were excluded from many occupations open to white women with the same amount of education.

From 1940 to 1960, the differences between the occupational distributions of black and white women narrowed considerably within higher educational levels but barely changed within lower educational levels (see table 5.6). New employment opportunities opened up for highly educated black women during this period. For the first time, large proportions of black women with a high school education or more (almost 20 percent of black women with 12 years of school and more than 30 percent of black women with 13 to 15 years of school) found jobs in the clerical sector. Professional occupations such as nursing and library, social, and religious work, among others, also began to employ noticeable proportions of educated black women.

On the other hand, there was a large decline in the proportion of black women with 13 to 15 years of education who were teachers, probably because of increased standards for teachers in black schools, and this decline was not completely offset by increases in the proportion who were in other professional occupations or in the clerical sector. Moreover, black women with a high school education or more continued to be much more likely than white women to work in the service sector or as domestic servants.

Black women with less than a 12th grade education found many fewer new opportunities in the 1940–60 period. Decreases in the proportions of these women employed as farm laborers and as domestic servants were largely offset by increases in the proportion employed as service workers. Although the proportion of these women hired as operatives increased some, black women with low levels of education remained much less likely than comparable white women to be employed as operatives.

Between 1960 and 1980, the occupational distributions of black and white women became more similar at all educational levels (see table 5.6). In contrast to the changes that occurred between 1940 and 1960, the changes between 1960 and 1980 were greater for less educated women, largely because less educated black women left jobs as domestic servants for jobs held by white women, such as service work or jobs as operatives, and for high school graduates, clerical work. Despite these changes, the occupational distributions of black and white women remained more dissimilar at lower educational levels than at higher educational levels in 1980. A possible reason for the greater occupational dissimilarity among the less educated is that on

average these women are older[4] and may have made their occupational choices prior to the opening up of new job opportunities for black women.

Although black women's lower educational attainment in 1940 would undoubtedly have limited their occupational opportunities somewhat in any case, the extreme dissimilarity of black and white women's occupations at that time implies that other factors, such as discrimination against black women, played a far greater role than racial differences in educational attainment in keeping black women out of occupations commonly held by white women. In fact, occupational simulations show that even if black women had been as educated as white women in 1940, the occupations held by black and white women would have been almost as different as they actually were.[5] Indeed, if black women in 1940 had had white women's educational attainment instead of their own, the percentage of black women who were domestic servants would have been reduced by only 10 percentage points to 50 percent (8 percent of white women were domestic servants in 1940).

Factors other than education continued to be important in limiting black women's occupational opportunities in 1960, especially for less educated black women. However, the increasing occupational similarity of black and white women within education groups between 1960 and 1980 suggests that the role of other factors, such as discrimination, diminished considerably after 1960. Nonetheless, there continued to be noticeable occupational differences within education groups between black and white women in 1980, particularly among less educated women. This suggests that race-based occupational discrimination against black women may not have entirely disappeared by 1980, although to the extent that the less educated are also older, occupational dissimilarities for them may be due instead to past labor market discrimination.

Occupational Distributions of Black and White Women by Region: 1940–80

To determine the extent to which the large black-white differences in occupational distribution over the 1940–80 period resulted from occupational discrimination against black women, it is necessary to explore the possibility that black-white differences in characteristics other than education may have been partially responsible. As noted above, there were important differences in the regional distributions of black and white women during the years 1940–80, particularly at the beginning of the period. If regional economies differed, causing job opportunities for women to be different in the South than in the rest of the country, then the high proportion of black women living in the South could account for some of the observed occupational differences between black and white women.

Tables 5.7, 5.8, and 5.9 show the occupational distributions of black and white women by region (South and non-South) for 1940, 1960, and 1980, and table 5.10 shows the values of the index of occupational dissimilarity for black and white women by region for the same years. The figures in these tables indicate that black women's limited occupational opportunities over the 1940–80 period cannot be explained by their predominately southern residence. White women had virtually the same occupational distributions whether they lived in the South or not, implying that the distribution of job opportunities for women as a group was not markedly different in the South than in the rest of the country. Moreover, the black-white differences in occupational distributions within regions were comparable in magnitude to the overall differences in black-white occupational distributions, indicating that the regional distributions of black and white women account for little of their occupational differences over the 1940–80 period.

The indices of occupational dissimilarity shown in table 5.10 were greater in the South than in the non-South in all 3 years, suggesting that black women generally had better occupational opportunities relative to white women outside of the South. Black-white occupational differences decreased over time both in the South and in the non-South, but these decreases happened earlier and were

[4]See table 5.4.

[5]U.S. Commission on Civil Rights, "Technical Appendix," tables B.28–B.31.

TABLE 5.7
Occupational Distributions of Black and White Women by Region: 1940[a]

	Black		White	
	South	Non-South	South	Non-South
Professional and technical workers	4.7	4.2	19.1	18.7
Doctors, lawyers, engineers, etc.[b]	0.0	0.0	0.4	0.4
Teachers	4.1	2.1	9.7	8.7
Nurses	0.3	0.8	5.0	5.2
Librarians, social workers, religious workers	0.1	0.5	1.2	1.4
Other	0.2	0.9	2.7	3.1
Managers	0.7	1.4	5.3	3.1
Manufacturing	0.0	0.1	0.2	0.3
Wholesale	0.0	0.1	0.1	0.1
Financial, insurance, real estate	0.0	0.3	0.4	0.6
Retail, personal service, entertainment, recreation	0.6	0.9	3.5	3.0
Other	0.0	0.1	1.1	0.8
Clerical workers	0.7	3.0	23.0	24.5
Secretaries, typists, stenographers	0.2	0.9	10.1	10.2
Other	0.5	2.0	13.0	14.3
Sales workers	0.5	1.2	8.2	7.6
Financial, insurance, real estate	0.1	0.1	0.4	0.5
Other	0.4	1.1	7.8	7.2
Crafts workers	0.4	0.8	1.4	1.6
Operatives	5.7	14.5	19.8	18.4
Textile	0.9	6.6	12.8	7.4
Manufacturing	1.4	2.0	3.3	6.9
Other	3.5	5.9	3.7	4.1
Transportation workers	0.1	0.2	0.0	0.1
Laborers	1.5	0.9	0.8	0.8
Service workers	8.7	14.3	12.6	14.1
Cleaning and food	6.5	10.4	5.8	7.6
Protection	0.0	0.0	0.1	0.1
Other	2.2	3.9	6.7	6.4
Private household workers	58.1	59.4	5.8	8.5
Farmers	3.8	0.0	2.0	0.7
Farm laborers	15.1	0.1	1.9	0.3

Source: 1940 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.8
Occupational Distributions of Black and White Women by Region: 1960[a]

	Black		White	
	South	Non-South	South	Non-South
Professional and technical workers	8.0	7.3	15.9	15.7
Doctors, lawyers, engineers, etc.[b]	0.0	0.1	0.3	0.3
Teachers	5.8	2.4	8.0	6.7
Nurses	0.9	2.3	3.1	3.8
Librarians, social workers, religious workers	0.3	0.7	0.9	1.0
Other	1.0	1.7	3.7	3.9
Managers	1.0	1.2	4.9	4.1
Manufacturing	0.0	0.0	0.2	0.4
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.0	0.2	0.4	0.5
Retail, personal service, entertainment, recreation	0.8	0.7	2.8	2.0
Other	0.2	0.4	1.4	1.1
Clerical workers	3.8	13.7	33.6	34.3
Secretaries, typists, stenographers	1.1	3.9	11.6	11.8
Other	2.7	9.8	22.0	22.6
Sales workers	1.1	2.0	9.6	8.4
Financial, insurance, real estate	0.2	0.1	0.8	0.7
Other	1.0	1.9	8.8	7.7
Crafts workers	0.5	1.2	1.3	1.5
Operatives	9.6	21.5	18.5	17.3
Textile	0.9	6.1	10.7	4.4
Manufacturing	2.7	8.6	5.1	10.2
Other	6.0	6.8	2.7	2.7
Transportation workers	0.1	0.1	0.1	0.2
Laborers	1.0	1.4	0.5	0.5
Service workers	22.4	25.2	11.2	13.1
Cleaning and food	11.1	9.8	5.8	7.5
Protection	0.1	0.3	0.1	0.1
Other	11.2	15.1	5.3	5.4
Private household workers	46.4	26.0	2.7	3.3
Farmers	1.0	0.0	0.6	0.5
Farm laborers	5.1	0.4	0.5	1.0

Source: 1960 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.9
Occupational Distributions of Black and White Women by Region: 1980[a]

	Black		White	
	South	Non-South	South	Non-South
Professional and technical workers	15.4	16.9	19.6	20.3
Doctors, lawyers, engineers, etc.[b]	0.3	0.5	0.7	0.7
Teachers	7.2	5.3	7.6	7.1
Nurses	2.1	3.2	3.1	3.8
Librarians, social workers, religious workers	1.3	2.0	1.1	1.3
Other	4.5	6.0	7.2	7.5
Managers	2.1	2.9	6.5	6.3
Manufacturing	0.1	0.3	0.6	0.7
Wholesale	0.0	0.1	0.3	0.4
Financial, insurance, real estate	0.3	0.6	1.1	1.0
Retail, personal service, entertainment, recreation	0.9	1.0	3.2	2.7
Other	0.7	1.0	1.2	1.3
Clerical workers	23.2	35.3	37.1	36.2
Secretaries, typists, stenographers	6.1	9.1	13.5	12.7
Other	17.2	26.2	23.6	23.5
Sales workers	2.7	2.9	6.8	6.9
Financial, insurance, real estate	0.4	0.5	1.8	1.7
Other	2.3	2.4	4.9	5.3
Crafts workers	3.4	2.9	3.8	3.1
Operatives	14.0	9.6	8.2	6.8
Textile	5.8	1.3	3.9	1.4
Manufacturing	5.9	6.8	3.5	4.3
Other	2.3	1.5	0.9	1.0
Transportation workers	1.1	0.9	0.8	0.8
Laborers	1.6	0.8	0.8	0.7
Service workers	27.7	23.3	13.9	16.1
Cleaning and food	15.9	8.7	6.6	8.1
Protection	0.6	0.9	0.4	0.3
Other	11.3	13.7	6.8	7.7
Private household workers	7.6	4.5	1.6	2.1
Farmers	0.1	0.0	0.3	0.4
Farm laborers	1.5	0.8	0.7	0.9

Source: 1980 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.10
Indices of Occupational Dissimilarity for Black and White Women by Region: 1940, 1960, and 1980[a]

Region	1940	1960	1980
South	68.8	63.4	27.6
Non-South	55.8	41.6	16.0

Sources: 1940, 1960 and 1980 Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.

larger outside of the South. There was a noticeable convergence in the occupations held by black and white women outside of the South between 1940 and 1960, and almost no convergence in the South. Both regions experienced substantial black-white convergence in occupations between 1960 and 1980, but black-white occupational differences remained greater in the South than in the rest of the country in 1980.

Black women in the South faced greater occupational barriers than black women in the non-South in 1940. In both regions of the country about 60 percent of black women (and fewer than 10 percent of white women) were domestic servants (see table 5.7). In the non-South, black women who were not domestic servants found employment as operatives and service workers. In the South, on the other hand, black women found many fewer opportunities in these occupations and instead became farm laborers. By contrast, white women were equally likely to be operatives and service workers in both regions, and almost no white women worked as farm laborers in either the South or the non-South.

The textile industry provides a particularly compelling example of the degree to which black women in the South faced more limited job opportunities than black women in the rest of the country. Fewer than 1 percent of southern black women worked as textile operatives, compared with 13 percent of southern white women. Whereas white women were almost twice as likely to be employed as textile operatives in the South as in the non-South, black women were 6 times as likely to be employed as textile operatives in the non-South as in the South.

These figures reflect a pattern of extremely strong discrimination against black women in the southern textile industry. Jim Crow laws formalized the discrimination against black women in the southern textile industry. A South Carolina law passed in 1915 and still in effect in the 1960s forbade employers to allow black and white employees to "labor and work together within the same room or to use the same doors of entrance and exit at the same time, . . . or to use at any time the same lavatories, toilets, drinking water buckets, pails, cups, dippers or glasses. . . ." Laws such as this made it very costly for employers to hire black and white workers in the same capacity. Even absent Jim Crow laws, employers were under strong pressure not to hire black workers. If employers were to hire a black worker, their white workers would quit en masse, and "it became almost impossible to get whites to use a mill house formerly occupied by the Negro."[6]

Teaching was the one exception to the rule that black women had fewer occupational opportunities in the South than the rest of the country in 1940. Black women were almost twice as likely to be teachers in the South than in the non-South, whereas white women were about equally likely to be teachers in the two regions. Throughout the South there were usually two separate school sys-

[6] Richard L. Rowan, *The Negro in the Textile Industry* (Philadelphia: Industrial Research Unit, Wharton School of Finance and Commerce, Univ. of Pennsylvania, 1970), pp. 61-64.

tems, one white and one black. Either by custom or by law, most of the school teachers in black schools were blacks.[7]

As a result there was greater demand for black school teachers in the South than in the rest of the country.

Between 1940 and 1960, more new opportunities opened up for black women outside of the South than in the South. Most notably, the field of clerical work began to employ a sizable proportion (13.7 percent) of black women outside of the South, but continued to employ very few southern black women (3.8 percent). Black women in the non-South also substantially increased their employment as operatives (from 14.5 percent in 1940 to 21.5 percent in 1960) and as service workers (from 14.3 percent in 1940 to 25.2 percent in 1960). The new job opportunities outside of the South were accompanied by a large drop in the proportion of black women employed in very low-status occupations. The proportion of black women outside of the South employed as domestic servants dropped from 59.4 percent in 1940 to 26.0 percent in 1960. In the South the proportion of black women employed in very low-status occupations also dropped between 1940 and 1960, but to a much lesser extent. The proportion of southern black women who were domestic servants dropped from 58.1 percent to 46.4 percent, and the proportion of black women employed as farm laborers dropped from 15.1 percent to 5.1 percent. These changes were accompanied by a large increase in the proportion of southern black women who were service workers (from 8.7 percent in 1940 to 22.4 percent in 1960) but by only small increases in the proportions who were operatives (from 5.7 percent to 9.6 percent) and clerical workers (from 0.7 percent to 3.8 percent). As in 1940, the southern textile industry employed extremely few black women.

The occupational barriers faced by black women were further reduced between 1960 and 1980 in both regions of the country. However, despite significant improvements in black women's opportunities in the South (for instance, the southern textile industry, which had employed virtually no black women in 1940 and 1960, employed a larger percentage of black women than of white women in 1980), black women in the South continued to have relatively more restricted opportunities than black women in the rest of the country.[8] Most notably, black women in the South continued to be underrepresented in the clerical sector. Whereas approximately equal proportions of white women were clerical workers in the South and in the non-South (37 percent in the South and 36 percent in the non-South), black women were much less likely to be clerical workers in the South than in the rest of the country (23 percent in the South and 35 percent in the non-South).

The greater occupational dissimilarity of black and white women in the South than the non-South during the years 1940–80 indicates that discrimination against black women was greater in the South than in the rest of the country. On the other hand, at least some of the regional differences in black-white occupational dissimilarity might also be accounted for by factors other than occupational discrimination. Black women in the South lived predominately in rural areas, and black women outside of the South lived almost exclusively in urban areas, whereas the urban-rural mix for white women was fairly similar across regions. Thus, the regional differences in relative job opportunities for black and white women found above could be the result of differences in the types of jobs available in urban and rural areas. Similarly, since black women had lower educational attainment in the South than in the non-South, and white women had fairly equal educational attainment across regions, differences in the types of jobs open to women at different educational levels could show up as regional differences in job opportunities. However, even if black women had the same educational attainment and urban-rural mix as white women within each region, large

[7]An example of a law preventing whites from teaching black pupils is one passed by the Atlanta city council in 1915 "stating that blacks were not to teach whites and whites were not to teach blacks." See S. Harley and R. Terborg-Penn, eds. *The Afro-American Woman: Struggles and Images* (Port Washington, N.Y.: National Univ. Publications, 1978) p. 47.

[8]Heckman and Payner attribute black women's breakthrough into the textile industry to the implementation of Title VII of the 1964 Civil Rights Act and to Executive Order 11246. See James J. Heckman and Brook S. Payner, "Determining the Impact of Federal Antidiscrimination Policy on the Economic Status of Blacks: A Study of South Carolina," *American Economic Review*, vol. 79, no. 1 (1989), pp 38–77.

regional differences in the relative occupational opportunities of black women would have existed throughout the 1940–80 period.[9]

Another possible explanation for the greater occupational dissimilarity of black and white women in the South is that the education received by black women may have been of lower quality relative to the education received by white women in the South than in the rest of the country. Unfortunately, the quality of education cannot be measured from census data. Other data sources do provide some evidence about the quality of the education received by black women in the South, at least for the contemporary period. In a nationally representative sample, black women with 12 years of education and above were found to have lower scores on achievement tests relative to white women with comparable educational attainment in the South than in the rest of the country.[10] This suggests that at higher educational levels (12 years of education and above) the relative quality of the education received by black women in the South may, indeed, be worse than in the rest of the country. This might account for part of southern black women's relatively low representation in the clerical sector, since clerical workers generally have relatively high educational levels.

On the other hand, the relative test performance of black women who are less educated appears to be no worse in the South than in the rest of the country.[11] Consequently, regional differences in the relative quality of the education received by black women are unlikely to account for their historically lower representation among operatives in the South, since operatives generally have relatively low levels of education.

Thus, the relatively more limited occupational opportunities of southern black women in 1980 might be caused by the relatively low quality of black education in the South. It is unlikely, however, that the relatively low quality of southern black education is primarily responsible for the limited opportunities of southern black women in 1940 and 1960, because in these years black women were excluded even from occupations requiring very little education. Greater discrimination in the South than in the rest of the country was probably the most important factor limiting southern black women's relative occupational opportunities in those years.

In sum, differences in the regional distributions of black and white women cannot account for the differences in their occupations over the years 1940–80, because there were large black-white occupational differences within regions during this period. Black-white occupational differences declined over the period both in the South and in the rest of the country, but black-white occupational differences were larger in the South throughout the period. The greater black-white occupational differences in the South cannot be accounted for by regional differences in measurable characteristics, such as the educational attainment and urban-rural mix, of black and white women. In 1940 and 1960, greater black-white occupational differences in the South were probably primarily due to greater occupational discrimination against black women in the South than in the rest of the country. By 1980 regional differences in occupational discrimination appear to have diminished, and greater black-white occupational differences in the South may have been due primarily to the lower relative quality of education received by black women in the South.

Occupational Distributions of Black and White Women Controlling for Characteristics: 1940–80

To assess the combined effect of racial differences in characteristics such as educational attainment, regional distribution, urban-rural residence, and age (all characteristics readily available from census data) on black-white occupational differences, this section asks the following questions: What would black women's occupational distributions in the years 1940–80 have looked like if they had had white women's characteristics? What would white women's occupational distributions have looked like if they had had black women's characteristics? Hypothetical occupational distributions were generated for black and white women assuming that each

[9]App. B, tables B.10–B.12 show hypothetical occupational distributions for southern and nonsouthern black and white women assuming each group had the other group's characteristics.

[10]See app. C.

[11]See app. C.

group had the other group's characteristics.[12] Comparisons of these hypothetical occupational distributions with the actual occupational distributions of black and white women help clarify whether black women's lower occupational status was due to racial differences in characteristics or instead to discrimination limiting black women's access to occupations.

Tables 5.11–5.13 show hypothetical distributions for black and white women assuming that they had the other group's characteristics for the years 1940, 1960, and 1980. For comparison, black and white women's actual occupational distributions for these years are also shown. Table 5.14 shows values of the index of occupational dissimilarity for various comparisons of the hypothetical occupational distributions with the actual occupational distributions of black and white women. These tables show that differences in the characteristics of black and white women account for only a small portion of the black-white occupational differences over the years 1940–80.

In 1940, for instance, even if black women had had white women's educational attainment, regional distribution, urban-rural mix, and age distribution, the index of occupational dissimilarity would have been reduced only from 64.0 to 47.7. More than 50 percent of black women would have been domestic servants.[13] Giving black women white women's characteristics would have increased their employment as textile operatives from 2.3 to 4.5 percent (primarily because a higher proportion of white women lived outside of the South and black women were more likely to be hired as textile operatives outside of the South), but giving white women black women's characteristics would have almost tripled their employment as textile operatives, from 8.5 to 24.3 percent. These figures appear to confirm that the textile industry discriminated against black women, particularly in the South.

In 1980 black-white differences in characteristics continued to explain only a small portion of their occupational differences, primarily because black women's and white women's educational attainment, regional distributions, urban-rural mix, and age distribution were much closer in 1980 than they had been in 1940. If black women had had white women's characteristics, their occupational distribution would have been fairly close to that of white women. However, black women would still have been underrepresented among managers (2.7 percent of black women would have been managers if black women had white women's characteristics, compared with 6.4 percent of white women); in the clerical sector (30.1 percent of black women would have been clerical workers, compared with 36.5 percent of white women), and among sales workers (3.0 percent of black women would have been sales workers, compared with 6.9 percent of white women). Black women would have been overrepresented among operatives and service workers (10.6 percent of black women would have been operatives compared with 7.2 percent of white women, and 22.5 percent of black women would have been service workers compared with 15.4 percent of white women).

In sum, very little of the occupational differences between black and white women over the years 1940–80 can be accounted for by racial differences in the characteristics that can be measured using census data (educational attainment, regional distribution, urban-rural mix, and age distribution). Even if black women had white women's characteristics, they would have been more likely to work in low-status occupations (as domestic servants early in the period, then as service workers and operatives later on) and less likely to work in middle- and high-status occupations (particularly clerical occupations) than white women.

What do these results imply about the degree to which occupational discrimination against black women limited their occupational opportunities during the years 1940–80? In the early years of the period (1940–60), the differences between the hypothetical occupational distributions for black women assuming that they had white women's characteristics and white women's actual occupational distributions were so large that it is clear that occupational discrimination had a sizable effect on black women's occupations.

There may well have been black-white differences in characteristics that were omit-

[12]For details on how these hypothetical occupational distributions were generated, see app. B.

[13]If white women had had black women's characteristics, the index of occupational dissimilarity would have been 56.0. Fewer than 12 percent of white women would have been domestic servants.

TABLE 5.11
Occupational Distributions of Black and White Women Controlling for Characteristics: 1940[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	4.6	12.8	6.7	18.8
Doctors, lawyers, engineers, etc.[b]	0.0	0.0	0.2	0.4
Teachers	3.6	9.3	2.7	8.9
Nurses	0.4	1.1	2.1	5.1
Librarians, social workers, religious workers	0.2	0.8	0.6	1.4
Other	0.2	1.6	1.1	3.0
Managers	0.9	1.9	4.1	4.9
Manufacturing	0.0	0.1	0.2	0.3
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.1	0.2	0.3	0.6
Retail, personal service, entertainment, recreation	0.7	1.3	3.1	3.1
Other	0.0	0.2	0.4	0.8
Clerical workers	1.3	4.6	12.4	24.2
Secretaries, typists, stenographers	0.4	1.5	4.5	10.1
Other	0.9	3.1	7.9	14.1
Sales workers	0.7	1.5	6.1	7.8
Financial, insurance, real estate	0.1	0.2	0.2	0.5
Other	0.6	1.3	5.9	7.3
Crafts workers	0.5	0.6	1.8	1.6
Operatives	8.0	10.1	36.2	18.7
Textile	2.3	4.5	24.3	8.5
Manufacturing	1.5	1.5	6.9	6.1
Other	4.1	4.1	5.0	4.0
Transportation workers	0.1	0.2	0.1	0.1
Laborers	1.4	0.7	1.4	0.8
Service workers	10.2	14.4	13.9	13.7
Cleaning and food	7.5	9.9	8.2	7.2
Protection	0.0	0.0	0.1	0.1
Other	2.7	4.5	5.6	6.5
Private household workers	58.4	50.9	11.5	7.9
Farmers	2.8	0.5	2.8	1.0
Farm laborers	11.2	1.9	3.1	0.7

Source: 1940 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.12
Occupational Distributions of Black and White Women Controlling for Characteristics: 1960[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	7.7	12.9	9.7	15.8
Doctors, lawyers, engineers, etc.[b]	0.1	0.1	1.5	2.6
Teachers	4.4	7.0	3.8	7.1
Nurses	1.5	2.4	2.4	3.6
Librarians, social workers, religious workers	0.5	0.9	0.6	1.0
Other	1.3	2.4	2.6	3.8
Managers	1.1	1.7	3.8	4.3
Manufacturing	0.0	0.1	0.2	0.3
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.1	0.1	0.3	0.4
Retail, personal service, entertainment, recreation	0.7	0.9	2.3	2.2
Other	0.2	0.7	0.2	1.2
Clerical workers	8.0	12.5	26.9	34.1
Secretaries, typists, stenographers	2.3	3.6	8.2	11.7
Other	5.7	8.9	18.8	22.4
Sales workers	1.5	1.9	8.5	8.7
Financial, insurance, real estate	0.1	0.2	0.7	0.8
Other	1.3	1.7	7.9	8.0
Crafts workers	0.8	0.9	1.7	1.4
Operatives	14.7	15.1	27.2	17.7
Textile	3.1	3.7	12.9	6.1
Manufacturing	5.2	6.2	10.9	8.8
Other	6.3	5.2	3.3	2.7
Transportation workers	0.1	0.1	0.2	2.2
Laborers	1.2	1.1	0.8	0.5
Service workers	23.6	24.3	14.7	12.6
Cleaning and food	10.5	10.0	8.9	7.1
Protection	0.1	0.2	0.1	0.1
Other	12.9	14.1	5.7	5.4
Private household workers	37.7	27.9	4.5	3.2
Farmers	0.6	0.2	0.6	0.5
Farm laborers	3.1	1.2	1.3	1.0

Source: 1960 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.13
Occupational Distributions of Black and White Women Controlling for Characteristics: 1980[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	16.1	20.6	16.0	20.1
Doctors, lawyers, engineers, etc.[b]	0.4	0.7	0.5	0.7
Teachers	6.3	8.2	5.1	7.2
Nurses	2.6	3.2	3.0	3.6
Librarians, social workers, religious workers	1.6	2.1	0.8	1.2
Other	5.2	6.4	6.6	7.4
Managers	2.5	2.7	6.4	6.4
Manufacturing	0.2	0.3	0.7	0.7
Wholesale	0.1	0.1	0.4	0.4
Financial, insurance, real estate	0.4	0.5	1.0	1.1
Retail, personal service, entertainment, recreation	0.9	1.0	3.0	2.8
Other	0.8	1.0	1.1	1.3
Clerical workers	29.0	30.1	36.4	36.5
Secretaries, typists, stenographers	7.5	7.7	12.7	13.0
Other	21.5	22.4	23.6	23.5
Sales workers	2.8	3.0	6.7	6.9
Financial, insurance, real estate	0.4	0.4	1.7	1.7
Other	2.4	2.6	5.1	5.2
Crafts workers	3.1	3.1	4.0	3.3
Operatives	11.9	10.6	9.5	7.2
Textile	3.7	2.5	3.6	2.2
Manufacturing	6.3	6.6	4.7	4.1
Other	1.9	1.5	1.2	1.0
Transportation workers	1.0	0.8	1.0	0.8
Laborers	1.2	1.0	0.9	0.7
Service workers	25.6	22.5	16.6	15.4
Cleaning and food	12.5	9.5	8.9	7.7
Protection	0.7	0.8	0.4	0.4
Other	12.4	12.3	7.5	7.4
Private household workers	6.2	5.2	2.0	1.9
Farmers	0.1	0.0	0.2	0.4
Farm laborers	1.1	1.0	0.7	0.8

Source: 1980 Census of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.14
Indices of Occupational Dissimilarity for Black and White Women Controlling for Characteristics: 1940, 1960, and 1980*

	1940	1960	1980
Actual black occupational distribution: actual white occupational distribution	64.0	51.9	20.4
Simulated black occupational distribution assuming blacks had white characteristics: actual white occupational distribution	47.7	40.0	16.0
Simulated white occupational distribution assuming whites had black characteristics: actual white occupational distribution	27.8	14.1	4.9
Simulated black occupational distribution assuming blacks had white characteristics: actual black occupational distribution	20.9	13.5	6.3
Simulated white occupational distribution assuming whites had black characteristics: actual black occupational distrbution	56.0	47.7	18.0

Sources: 1940, 1960 and 1980 Censuses of Population.
* Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region urban/rural residence, and age.

ted from the analysis because they could not be measured using census data. For instance, the lower quality of education received by black women might account for some of the black-white occupational gap. Another omitted characteristic, previous work experience, however, was probably greater for black women than for white women and works to narrow the gap. Thus, it is extremely unlikely that differences in omitted characteristics, however substantial, could fully account for differences as large as those that existed between the hypothetical black occupational distributions and the actual white occupational distributions in the years 1940 and 1960.

By 1980, however, the differences between the hypothetical black occupational distribution and white women's actual occupational distribution had narrowed considerably. Thus, in 1980 it is possible that racial differences in unmeasured characteristics, such as the quality of education, might account for the remaining black-white occupational gap. On the other hand, it is also possible that some residual occupational discrimination against black women continued to exist even in 1980.[14]

Changes in Black Women's Occupational Distribution 1940–80: Discrimination or Characteristics?

As shown above, black women's occupations changed considerably between 1940 and 1980.[15] To determine whether black women's improving occupational status was due to changes in their characteristics—increased educational attainment, changing geographical distribution, movement away from rural areas, and so on—or rather to a decrease in the extent of occupational discrimination against

[14]This chapter has only analyzed racial differences across relatively broad occupational categories. It is possible that the distributions across different types of jobs within broad occupational categories also varies by race. Furthermore, work places might also be segregated by race, either because there exist predominately black and predominately white firms or because there is physical segregation within firms. Thus, these measures of occupational segregation are underestimates of the true extent of segregation in the work place.

[15]The value of the index of occupational dissimilarity comparing black women's 1940 occupational distribution with their 1980 occupational distribution is 68.3. See table 5.16.

TABLE 5.15
Hypothetical Occupational Distributions for Black Women in 1940 and 1980 Assuming that They Had the Other Year's Characteristics[a]

	1940 distribution	1940 distribution with 1980 characteristics	1980 distribution with 1940 characteristics	1980 distribution
Professional and technical workers	4.6	18.0	6.7	16.1
Doctors, lawyers, engineers, etc.[b]	0.0	0.1	0.1	0.4
Teachers	3.6	13.6	2.5	6.3
Nurses	0.4	1.9	1.3	2.6
Librarians, social workers, religious workers	0.2	1.0	0.5	1.6
Other	0.4	1.5	2.3	5.2
Managers	0.9	1.9	1.3	2.5
Manufacturing	0.0	0.2	0.1	0.2
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.1	0.1	0.2	0.4
Retail, personal service, entertainment, recreation	0.7	1.4	0.6	0.9
Other	0.0	0.3	0.5	0.8
Clerical workers	1.3	5.6	13.7	29.0
Secretaries, typists, stenographers	0.4	1.9	2.5	7.5
Other	0.9	3.7	11.2	21.5
Sales workers	0.7	1.7	1.9	2.8
Financial, insurance, real estate	0.0	0.3	0.2	0.4
Other	0.6	1.4	1.7	2.4
Crafts workers	0.5	0.6	3.9	3.1
Operatives	8.0	9.0	19.5	11.9
Textile	2.3	3.4	7.6	3.7
Manufacturing	1.5	1.1	8.5	6.3
Other	4.1	4.5	3.4	1.9
Transportation workers	0.1	0.2	1.4	1.0
Laborers	1.4	0.6	3.3	1.2
Service workers	10.2	14.3	33.2	25.6
Cleaning and food	7.5	8.9	22.2	12.5
Protection	0.0	0.0	0.5	0.7
Other	2.7	5.4	10.6	12.4
Private household workers	58.4	45.1	10.7	6.2
Farmers	2.8	0.8	0.2	0.1
Farm laborers	11.2	2.1	3.3	1.1

Sources: 1940 and 1980 Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region, urban/rural residence and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE 5.16
Indices of Occupational Dissimilarity: Black Women in 1940 and Black Women in 1980[a]

Actual 1940 occupational distribution: actual 1980 occupational distribution	68.3
Simulated 1940 occupational distribution assuming black women had 1980 characteristics: actual 1980 occupational distribution	51.1
Simulated 1980 occupational distribution assuming black women had 1940 characteristics: actual 1980 occupational distribution	28.1
Actual 1940 occupational distribution: simulated 1980 distribution assuming black women had 1940 characteristics	60.6
Actual 1940 occupational distribution: simulated 1940 occupational distribution assuming black women had 1980 characteristics	26.5

Sources: 1940 and 1980 Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, region, urban/rural residence, and age.

black women, hypothetical occupational distributions were generated to answer the following questions: What would the occupational distribution of black women in 1940 have looked like if they had had the characteristics of black women in 1980? What would the occupational distribution of black women in 1980 have looked like if they had had the characteristics of black women in 1940? Table 5.15 shows these hypothetical occupational distributions and, for comparison, black women's actual occupational distributions in 1940 and 1980. Table 5.16 shows values of the index of occupational dissimilarity for comparisons of the hypothetical occupational distributions and black women's actual occupational distributions in 1940 and 1980.

Tables 5.15 and 5.16 show that black women's changing characteristics were responsible for only a small portion of their improved occupational status over the period 1940–80. For instance, giving black women in 1940 the characteristics of black women in 1980 would have decreased the proportion of black women working as domestic servants only slightly, from 58.4 percent to 45.1 percent, whereas the actual 1980 proportion was 6.2 percent. Similarly, it would have increased the proportion of black women working in the clerical sector only slightly, from 1.3 percent to 5.6 percent, whereas the actual 1980 proportion was 29.0 percent. If black women in 1940 had had the same characteristics as black women in 1980, their overall occupational distribution would have changed slightly, but the difference would have been nowhere near as large as the actual difference between black women's 1940 and 1980 occupations.[16] Thus, black women would have experienced only a slight improvement in occupational status in 1940 if the only thing that changed between 1940 and 1980 had been black women's characteristics.

The changing characteristics of black women can account for only a small part of the improved occupational status experienced by black women between 1940 and 1980. Declining occupational discrimination against

[16]The value of the index of occupational dissimilarity comparing the hypothetical distribution with the actual 1940 distribution is 26.5, whereas the value of the index of occupational dissimilarity comparing the actual 1940 and 1980 distributions is 68.3.

black women was, thus, probably responsible for most of their improved occupational status over the period.

Summary

Black women's and white women's occupations converged substantially over the years 1940–80. At the beginning of the period, black women were confined to extremely low-status occupations. By the end of the period, black women were better represented in middle- and high-status occupations, and their overall occupational status was only slightly lower than white women's.

Although racial differences in educational attainment, regional distribution, urban-rural mix, and age can partially account for black women's lower occupational status over the period, it is likely that occupational discrimination against black women played a far greater role in limiting black women's access to occupations commonly held by white women, particularly in 1940 and 1960. Indications were found that occupational discrimination against black women was more severe in the South than in the rest of the country and more severe for less educated women than for women with a high school degree or beyond.

Diminishing occupational discrimination against black women appears to have been responsible for most of black women's improved occupational status over the period. However, the characteristics of black and white women converged substantially over the period, also contributing to the convergence in the occupations held by black and white women.

Chapter 6

Accounting for Black-White Female Wage Differentials 1940–80: A Multivariate Analysis

Chapters 4 and 5 identified several potential sources of the historical black-white wage gap and of the convergence in black and white women's wages in recent decades: racial differences in education, regional distribution, urban-rural mix, and occupations. In this chapter the statistical technique known as multiple regression is used to quantify the effects of these and other characteristics on the relative wages of black and white women over the 1940–80 period. Multiple regression permits the researcher to isolate the individual effects of various measured characteristics, such as education or region, on women's wages. Multiple regression results can be used to predict the wage that would be received by a woman with any given combination of measured characteristics.

This chapter uses data from the 1940, 1960, and 1980 censuses. Separate regressions are estimated for black and white women for each year, because black and white women likely have different pay structures: for instance, in the presence of labor market discrimination against black women, black women probably receive lower wages than white women with the same characteristics. The regression results are then used to predict the wages black women would receive if they were paid according to the white pay structure and vice versa. Thus, the regression results allow comparisons between the wages earned by black women and the wages earned by white women with the same characteristics. They also allow comparisons between white women's wages and the wages black women would earn if black and white women had the same pay structures.

The statistical analysis undertaken in this chapter, thus, provides the basis for answering the following questions central to uncovering the role played by racial differences in characteristics and hence the role played by labor market discrimination in determining the relative wages of black women:

How much less did black women earn than white women with the same characteristics in each of the years 1940, 1960, and 1980?

How much less than white women would black women have earned on the basis of their characteristics alone? Which characteristics of black women would have contributed to their lower earnings?

Were there regional differences or differences across age groups or educational levels in black women's pay relative to comparable white women?

What were the contributions of converging characteristics and converging pay structures to the increase in black women's relative pay between 1940 and 1980?

Accounting for Black-White Wage Differentials: 1940, 1960, and 1980

This section looks at the extent to which wage differences between black and white women in 1940, 1960, and 1980 can be accounted for by racial differences in characteristics measurable with census data. The analysis is based on the results of estimating separate wage regressions for black and white women for each of the 3 years. Characteristics considered in the regression analysis include the following measurable factors thought to affect productivity: age, education, region, urban-rural residence, marital status, presence of children, full-time/part-time status, and (in some cases) occupation and industry of employment.[1]

The Effect of Racial Differences in Characteristics and Pay

Table 6.1, which reports results from wage regressions incorporating all of the charac-

[1]The regressions used in this chapter are shown in app. D.

teristics enumerated above except for occupation and industry, allows consideration of the relative importance of racial differences in all measured characteristics taken together and of racial differences in pay structures as sources of the black-white wage gaps in 1940, 1960, and 1980.

Panel A of table 6.1 shows the predicted hourly wages (in 1979 dollars) of black and white women with average characteristics for their group for 1940, 1960, and 1980. The first two lines of panel A show the wages the average black and white woman would have earned if they were paid according to the estimated black pay structure; the second two lines show the wages they would have earned if they were paid according to the estimated white pay structure. Thus, in 1940 the average black woman earned $0.87 an hour, and the average white woman earned $2.38 an hour. If the average black woman had been paid according to the white pay structure, she would have earned $1.73 an hour; if the average white woman had been paid according to the black pay structure, she would have earned $1.46 an hour.

Panel B, line 1, reports the ratio of the average black woman's actual wage to the average white woman's actual wage.[2] In 1940 the average black woman earned only 37 percent as much as the average white woman. This ratio increased to 55 percent in 1960 and reached 94 percent in 1980.

Line 2 reports the ratio of the average black woman's wage to the average white woman's wage if both black and white women had been paid according to the white pay structure. Thus, line 2 shows the wage ratio that would prevail if black and white women had the same pay structure, or the ratio resulting from racial differences in measured characteristics alone. The lower the ratio in line 2, the larger the overall effect of racial differences in characteristics on the black-white wage ratio.

Line 3 reports the ratio of the average black woman's wage to the wage she would have earned if she were paid according to the white pay structure (or the wage paid a white woman with the same measured characteristics). Thus, line 3 shows the wage ratio that would prevail if black and white women had the same characteristics, or the ratio resulting from differences in the pay structures facing black and white women alone. The lower the ratio in line 3, the larger the effect of racial differences in pay structures on the black-white wage ratio.

In 1940 the average black woman earned only half as much as a comparable white woman.[3] Thus, differences in black and white women's pay structures were very large. Yet, even if black women had been paid according to white women's pay structure, the black-white wage ratio would have been substantially less than 1: 72 percent. Thus, black women's characteristics would have prevented them from earning on a par with white women even if black and white women had been paid comparably.

Differences in the pay received by comparable black and white women appear to have diminished slightly between 1940 and 1960. Black women in 1960 earned almost two-thirds as much as comparable white women. Nevertheless, differences in black and white women's pay structures continued to be an important source of the black-white wage gap. The characteristics of black and white women also became more similar between 1940 and 1960. In 1960 black women would have earned 86 percent as much as white women if there were no differences in black and white women's pay structures.

Although racial differences in characteristics lowered black women's relative wages in 1940 and 1960, differences in black and white women's pay structures appear to have been the more important source of the black-white wage gap. The black-white wage ratios due to differences in pay structures alone (51 percent in 1940, 65 percent in 1960) were much lower than the black-white wage ratios due to differences in characteristics alone (72 percent in 1940, 86 percent in 1960).

In 1980, however, differences in the pay structures for black and white women appear to have disappeared, leaving differences in characteristics as the sole source of the black-white wage gap. The average black woman in 1980 was paid 100 percent as much as a comparable white woman.

[2]"Actual" wage for each group here refers to the predicted wage for the average woman from the group using the estimated pay scale for that group.

[3]The term "comparable white woman" refers here and throughout the report to a white woman with the same measured characteristics as the average black woman.

TABLE 6.1
Predicted Hourly Wages and Black-White Wage Ratios: 1940, 1960, and 1980[a]

	1940	1960	1980
A. Predicted hourly wages[b]			
Black regression			
Average black woman	0.87	2.14	4.55
Average white woman	1.46	2.83	5.07
White regression			
Average black woman	1.72	3.31	4.54
Average white woman	2.38	3.87	4.84
B. Predicted wage ratios			
Actual black-white wage ratio[c]	36.7	55.3	94.0
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)[d]	71.8	85.5	93.8
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)[e]	50.6	64.7	100.2

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.1. Characteristics included in the regressions include: age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay structure to the wage she would earn if she were paid according to the white pay structure, multiplied by 100.

TABLE 6.2
The Effects of Selected Characteristics on the Black-White Female Hourly Wage Ratio: 1940, 1960, and 1980[a]

	1940	1960	1980
Actual hourly wage ratio[b]	36.7	55.3	94.0
Predicted black-white wage ratio due to differences in all characteristics (eliminates differences in pay structures)[c]	71.8	85.5	93.8
Predicted black-white wage ratio due to differences in selected characteristics (eliminates differences in pay and differences in other characteristics)[d]			
Education	80.6	89.9	95.6
Regional distribution	95.5	97.2	98.9
Urban/rural residence	96.7	100.9	101.4
Age	100.4	99.2	99.3
Marital status	97.8	99.2	99.5
Children	96.4	99.5	98.6
Part-time/full-time status	103.0	99.6	100.3

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.3. Characteristics included in the regressions include: age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[c] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[d] Ratio of the hourly wage of a woman with the black average for the selected characteristic and the white average for all other characteristics to that of the average white women, assuming that both were paid according to the white pay structure, multiplied by 100.

Black-white differences in characteristics declined between 1960 and 1980, but black women's characteristics continued to lower their relative earnings in 1980. In 1980 differences in characteristics by themselves would have produced a black-white wage ratio of 94 percent. Since the actual black-white wage ratio in 1980 was 94 percent, differences in measured characteristics accounted for the entire black-white wage gap in 1980.

In sum, there were large unexplained differences in the pay received by comparable black and white women in 1940 and 1960, suggesting that racial discrimination in the labor market may have been very important in limiting black women's earnings in those years. In 1980, however, there were virtually no differences in the pay received by comparable black and white women, and thus the census data do not by themselves provide evidence that labor market discrimination on the basis of race had a negative effect on black women's pay in 1980. Of course, if the average black woman had more work experience, a characteristic unmeasured by the census, than her white counterpart, she should have earned more than 100 percent as much. Thus, even though no difference between black women's pay and that of comparable white women can be detected using census data, it is possible that labor market discrimination continued to have adverse effects on black women's wages in 1980.[4]

Racial differences in characteristics also contributed to black women's low relative earnings in all 3 years, but appear to have played a lesser role than differences in pay in 1940 and 1960. Both the characteristics of black and white women and the pay structures facing black and white women appear to have converged over the 1940–80 period.

The Effect of Selected Characteristics on Black-White Wage Differentials

Table 6.2 shows the separate effects of racial differences in selected characteristics on the black-white wage ratio. The first line of table 6.2 reports the actual hourly wage ratio for black and white women with average characteristics for their group.[5] The second line shows the ratio that would have existed if black women had been paid according to the white pay structure and represents the effect of racial differences in all characteristics taken together on the black-white wage ratio.[6] The lower the ratio in line two, the larger the combined effect of characteristics as a group.

Lines 3 through 8 show the black-white ratio that would have existed if black women had been paid according to the white pay structure and had average white values for all characteristics except for the selected characteristic but retained their own average value for the selected characteristic. This ratio measures the separate effect of racial differences in the selected characteristic on the black-white wage ratio. The lower this ratio, the larger the effect of the selected characteristic.

Education

As suggested by the analysis in chapter 4, black women's lower education had a substantial effect on the black-white wage ratio. Education was by far the most important characteristic limiting black women's wages in all 3 years. In 1940 black-white differences in education alone would have reduced black women's earnings by 19 percent. Consistent with the convergence in black-white schooling levels found in chapter 4, the effect of education diminished over time. In 1960 racial differences in education decreased black women's earnings by only 10 percent, and by 1980 by only 4 percent. The effect of education remained, however, larger than that of any other individual characteristic through 1980.

Region

Racial differences in regional distribution (the higher proportion of black women living in the South) had a small influence on the black-white wage ratio in 1940 and 1960 and virtually none in 1980: differences in regional distribution alone lowered black women's relative wage by 4 percent in 1940, by 3 percent in 1960, and by 1 percent in 1980. The small measured impact of region arises because the white pay structure was used to

[4]The next chapter uses a different data source, the Survey on Income and Program Participation, to look at the effect of racial differences in labor market experience on measures of labor market discrimination against black women.

[5]This line is the same as line 1, panel B, in table 7.1.

[6]This line is the same as line 2, panel B, in table 7.1.

evaluate the effects of differences in characteristics on the black-white wage ratio. Had the black pay structure been used to evaluate the effect of differences in characteristics, regional distribution would have appeared to have had a much larger influence on the black-white wage ratio.[7] This is because whites in the South were paid only slightly less than identical whites in the rest of the country (9 percent less in 1940 and 1960, and 5 percent less in 1980), whereas blacks in the South were paid much less than identical blacks outside of the South (45 percent less in 1940, 44 percent less in 1960, and 18 percent less in 1980).[8] The large wage penalty associated with living in the South for blacks may well be due primarily to greater labor market discrimination against blacks in the South than in the rest of the country. Since the goal here is to evaluate the effects of racial differences in characteristics separately from the effects of discrimination, it is preferable to use the white pay structure to evaluate the influence of racial differences in regional distribution alone on the black-white wage gap.

Urban or Rural Location

Racial differences in proportions living in urban areas accounted for a small portion of the wage gap in 1940, lowering black women's relative wage by roughly 3 percent, but had no effect on the black-white wage ratio in the later years. This is consistent with the findings in chapter 4 that a higher proportion of black women lived in rural areas in 1940, but that by 1960 the reverse was true. Moreover, urban wages were much higher than rural wages at the beginning of the period, but that wage advantage declined steadily over the period. Urban women earned 29 percent more than their rural counterparts in 1940, 19 percent more in 1960, and 13 percent more in 1980.[9]

Other Characteristics

Racial differences in demographic factors (marital status and number of children) had a small effect on the black-white wage ratio in 1940, but none in 1960 and 1980. The higher proportion of black women working part time actually raised the black-white wage ratio in 1940, but had no effect in the later years.

The Role of Occupation and Industry

Occupation and industry were omitted in the regressions on which table 6.1 and 6.2 are based, because, unlike the other characteristics considered, the occupations and industries in which women are employed can be directly affected by labor market discrimination. Indeed, chapter 5 argues that, at least in 1940 and 1960, labor market discrimination probably substantially limited occupational opportunities for black women. As a result, including occupation and industry among the characteristics incorporated in a wage regression could lead to a false conclusion that black-white wage differences are "explained" by differences in characteristics, and hence to underestimation of the extent of labor market discrimination.

It is useful, however, also to consider wage regressions incorporating occupation and industry, because these regressions can yield important information about the nature of the differences in the pay structures of black and white women. Using results from these regressions to determine the influence of racial differences in occupations and industries on the black-white wage ratio makes it possible to answer the following question: Did black women earn less than white women within occupations and industries, or did they earn less than white women because they were in low-paying occupations and industries?

The discussion here is based on tables 6.3 and 6.4. Table 6.3 is similar to table 6.1 but is based on regressions that include occupation and industry in addition to the charac-

[7] See app. table D.3, which reproduces table 7.2 using the black pay structure instead of the white pay structure to evaluate the effect of differences in characteristics.

[8] The wage differences between southern and non-southern women cited here hold constant other differences between southern and nonsouthern women. They are the coefficients on a dummy variable for living in the south in the census wage regressions for black and white women reported in app. D, table D.1.

[9] These figures hold constant other differences between urban and rural women. They are the coefficients on an urban dummy variable in the census wage regressions for white women. See app. D, table D.1.

TABLE 6.3
Predicted Hourly Wages and Black-White Wage Ratios: 1940, 1960, and 1980 (Regressions Including Occupation and Industry)[a]

	1940	1960	1980
A. Predicted hourly wages[b]			
Black regression			
Average black woman	0.87	2.14	4.55
Average white woman	2.00	3.39	5.15
White regression			
Average black woman	1.11	2.48	4.51
Average white woman	2.38	3.87	4.84
B. Predicted wage ratios			
Actual black-white wage ratio[c]	36.7	55.3	94.0
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)[d]	46.6	64.1	93.2
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)[e]	78.4	86.3	100.8

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.2. Characteristics included in the regressions include occupation and industry in addition to age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay structure to the wage she would earn if she were paid according to the white pay structure, multiplied by 100.

TABLE 6.4
The Effects of Selected Characteristics on the Black-White Female Hourly Wage Ratio: 1940, 1960, and 1980 (Regressions Including Occupation and Industry)[a]

	1940	1960	1980
Actual hourly wage ratio[b]	36.7	55.3	94.0
Predicted black-white wage ratio due to differences in all characteristics (eliminates differences in pay structures)[c]	46.6	64.1	93.2
Predicted black-white wage ratio due to differences in selected characteristic (eliminates differences in pay and differences in other characteristics)[d]			
Education	90.7	93.9	97.1
Regional distribution	96.1	97.5	98.4
Urban/rural residence	97.2	100.8	101.4
Age	100.0	99.0	99.6
Marital status	99.7	100.0	99.9
Children	97.1	99.4	99.1
Part-time/full-time status	103.0	100.8	99.3
Occupation and industry	57.2	70.0	95.8

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.4. Characteristics included in the regressions include occupation and industry in addition to age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[c] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[d] Ratio of the hourly wage of a woman with the black average for the selected characteristic and the white average for all other characteristics to that of the average white women, assuming that both were paid according to the white pay structure, multiplied by 100.

teristics included in the regressions used in table 6.1. Table 6.4 corresponds to table 6.2.

Comparisons of tables 6.3 and 6.4 with tables 6.1 and 6.2 suggest that a major reason why black women were paid less than white women was that they worked in occupations and industries that paid less than those that employed comparable white women. When occupation and industry are included among the characteristics in the regression analysis, a much larger portion of the black-white wage gap appears to be "explained" by racial differences in characteristics. In 1940, for instance, when occupation and industry are omitted from the regression analysis, characteristics can explain very little of the black-white differences in pay. Compared to the actual 37 percent black-white wage ratio, racial differences in all characteristics taken together would have produced the much higher wage ratio of 72 percent if there were no racial differences in pay structures. When occupation and industry are included among the regression characteristics, however, characteristics explain most of the wage gap, producing a ratio of 47 percent.

Moreover, racial differences in occupation and industry alone would have produced a black-white wage ratio of 57 percent in 1940 (see table 6.4), indicating that occupation and industry were by far the most important "characteristic" limiting black women's earnings in that year. Racial differences in occupation and industry continued to be important factors limiting black women's earnings in 1960, when they would have been responsible for a black-white wage ratio of 70 percent, but their importance had declined substantially by 1980, when they would have produced a wage ratio of 96 percent.

Incorporating occupation and industry in the regression analysis reduces (but does not entirely eliminate) the apparent effect of education on the black-white wage ratio: in 1940, for instance, the wage ratio produced by black-white differences in education alone increases from 81 percent to 91 percent when occupation and industry are added to the regression characteristics. Similar results are obtained in the other years. Thus, it appears that the negative effect of racial differences in education on black women's relative wages observed in table 6.2 occurs partly because black women's lower education causes them to enter lower paying occupations and industries and partly because their lower education causes them to earn less than white women within occupations and industries.

Regressions incorporating occupation and industry leave much less of the black-white pay gap "unexplained" than regressions that omit them, and thus they appear to imply a much smaller potential role for labor market discrimination. However, since the occupations and industries women work in can themselves be affected by labor market discrimination—indeed, chapter 5 suggests that labor market discrimination may have severely limited black women's occupational opportunities—it is probable that labor market discrimination played a much more important role than suggested by table 6.3. It seems likely that the estimates of discrimination derived from table 6.1 better reflect the true extent of discrimination.

Pay Differences by Age, Education, and Region

Earlier, this chapter noted that black women earned considerably less than comparable white women in 1940 and 1960 and about the same amount in 1980. Here the analysis is refined to consider whether black women's pay differs relative to comparable white women's across age groups, educational levels, and regions.

Age

To determine whether black women's pay relative to comparable white women differed for younger and older women, black and white wage equations were estimated separately for women under 40 years old and over 40 years old in 1940, 1960, and 1980. Table 6.5 presents predicted wages and black-white wage ratios for younger and older women derived from regressions that do not include occupation and industry among the regression characteristics.[10]

In 1940 and in 1960 racial differences in characteristics lowered the relative wages of younger black women less than they did those of older black women. This result suggests that at least with respect to measured characteristics younger black women had

[10]Predicted wages and black-white wage ratios by age for regressions that do include occupation and industry are reported in app. D, table D.5.

TABLE 6.5
Predicted Hourly Wages and Black-White Wage Ratios by Age: 1940, 1960, and 1980[a]

	1940		1960		1980	
Age:	25–39	40–64	25–39	40–64	25–39	40–64
A. Predicted hourly wages[b]						
Black regression						
Average black woman	0.85	0.90	2.24	2.04	4.67	4.38
Average white woman	1.34	1.45	2.87	2.80	5.29	4.87
White regression						
Average black woman	1.71	1.34	3.31	3.25	4.51	4.53
Average white woman	2.25	1.99	3.76	3.91	4.84	4.83
B. Predicted wage ratios						
Actual black-white wage ratio[c]	37.8	45.1	59.5	52.2	96.5	90.6
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)[d]	76.1	67.3	87.9	83.1	93.2	93.8
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics[e]	49.7	67.0	67.8	62.8	103.6	96.6

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The results presented in this table are based on regressions using census data estimated separately for each age level. Regression results are reported in U.S. Commission on Civil Rights, "Technical Appendix," tables D.8, D.9, and D.10.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay structure to the wage she would earn if she were paid according to the white pay structure, multiplied by 100.

TABLE 6.6
Predicted Hourly Wages and Black-White Wage Ratios by Education: 1940, 1960, and 1980[a]

	1940			1960			1980		
Education:	0–11	12	13+	0–11	12	13+	0–11	12	13+
A. Predicted hourly wages[b]									
Black regression									
Average black woman	0.78	1.25	2.06	1.79	2.67	4.38	3.53	4.45	6.10
Average white woman	1.14	1.38	2.28	2.21	2.82	4.64	3.69	4.64	6.58
White regression									
Average black woman	1.36	2.29	3.19	2.94	3.82	5.06	3.73	4.46	5.76
Average white woman	1.75	2.41	3.30	3.24	3.90	5.38	3.90	4.49	5.88
B. Predicted wage ratios									
Actual black-white wage ratio[c]	44.6	51.7	62.0	55.4	68.5	81.5	90.4	99.2	103.8
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)[d]	77.5	95.0	95.9	90.7	72.1	94.1	95.7	99.4	98.0
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics[e]	57.6	54.5	64.6	61.1	69.1	86.7	94.5	99.8	105.9

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The results presented in this table are based on regressions using Census data estimated separately for each education level. Regression results are reported in U.S. Commission on Civil Rights, "Technical Appendix," tables D.14, D.15, and D.16.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay structure to the wage she would earn if she were paid according to the white pay structure, multiplied by 100.

better relative skill levels than older black women and is consistent with findings in chapter 4 that black-white education differentials were lower among younger women. By 1980, however, there were no apparent age differences in the relative skill levels of black women.

In 1960 and 1980 younger black women earned more relative to white women in their age group than did older black women. One reason why younger women earned relatively more in 1960 and 1980 is that they were better paid relative to comparable white women (panel B, line 3). When occupation and industry are included in the regressions (app. D, table D.5), on the other hand, the relative advantage of younger black women disappears, indicating that within occupations they were paid the same as their older counterparts. Thus, the main reason why younger black women earned more relative to comparable white women is that they had relatively better occupational opportunities than their older counterparts.

These results suggest that older black women may have fared worse because they continued to feel the effects of greater past discrimination: they may have been in relatively lower paying occupations because they had made their initial occupational choices at a time when labor market discrimination was more severe and black women's access to occupations more limited.

Additionally, older black women's occupational opportunities may have been limited because they differed more from their white counterparts in unmeasured characteristics, such as the quality (as opposed to quantity) of education. This explanation is consistent with the trend of increasing quality of black schooling noted in chapter 4.

Education

Table 6.6 presents results by educational attainment instead of by age. The results in table 6.6 are based on black and white wage equations estimated separately for women with 11 years of education or less, for women with exactly 12 years of education, and for women with 13 or more years of education in each of the years 1940, 1960, and 1980.[11]

[11]App. D, table D.6, presents comparable results for regressions including occupation and industry.

In all 3 years, black women earned more relative to white women at higher educational levels. In 1940 this effect showed up only for women with some college education, but in 1960 and 1980, black women's relative wages rose continuously with education. The main reason why more educated black women earned relatively more is that there were smaller racial differences in pay at higher educational levels. These results suggest that labor market discrimination may have had a larger negative effect on the wages of less educated black women.

One possible explanation is that highly educated black women had relatively wider occupational opportunities, such as the possibility of entering the teaching profession (see chapter 5). Indeed, when occupation and industry are included in the wage regressions (appendix D, table D.6), the relative advantage of educated black women disappears. This implies that within occupations and industries, highly educated black women were just as poorly paid relative to white women as less educated black women were, but that they had better occupational opportunities relative to equally educated white women than did their less educated counterparts.

A second possible explanation for the relative success of highly educated black women is the following. Because comparatively few black women obtain a college education, those who do may be particularly able individuals and earn more for this reason.

A third possibility is that highly educated white women themselves faced a greater degree of sex discrimination in the labor market than white women with less education. The more similar wages and occupations of educated black and white women could, then, be an indication of greater discrimination against white women at higher educational levels rather than of lesser discrimination against black women at higher educational levels.

The racial differences in pay structures diminished over time at all three educational levels. Between 1940 and 1960, educated black women made larger gains, and after 1960 less educated black women made larger gains. Thus, the effects of discrimination may have abated first for highly educated black women and later for less educated black women. This is consistent with the finding in chapter 5 that occupational oppor-

tunities opened up for educated black women first, and for less educated black women later on.

Region

Table 6.7 presents the results by region (South/non-South).[12] In all 3 years, black women earned considerably less relative to white women in the South than in the rest of the country. In 1940 the average black woman earned just over one- third as much as the average white woman in the South, but in the rest of the country she earned more than two-thirds as much. Regional differences in pay declined over time but did not entirely disappear: in 1980 the average southern black woman earned only 87 percent as much as southern white women, whereas outside of the south black women earned 105 percent as much as white women.

One reason for southern black women's lower relative pay was that, particularly in 1940, they were relatively less skilled than black women in the rest of the country. Even if black women had been paid according to the white pay structure in 1940, southern black women would have earned only 71 percent as much as southern white women, whereas black women outside of the South would have earned 91 percent as much as white women outside of the South (panel B, line 2). The regional skill differential narrowed over time. By 1960 southern black women's relative wages would have increased from 71 to 87 percent if they had been paid according to the white pay structure, compared with a much smaller increase from 91 to 94 percent outside of the South. However, even in 1980, southern black women were relatively less skilled than black women in the rest of the country.

Even more important than their relatively low skills, unexplained racial differences in pay structures were greater in the South than in the rest of the country. In 1940 southern black women earned only 53 percent as much as comparable white women, whereas black women outside of the South earned 71 percent as much as their white counterparts (panel B, line 3). Between 1940 and 1960, black women's wage did not increase relative to comparable white women in the South, but they did increase in the rest of the country. By 1980 black women's wage relative to comparable white women had increased in the South as well, but southern black women continued to earn less than white women with the same characteristics, whereas, outside of the South, black women had achieved wage parity with comparable white women.

The relative disadvantage of black women in the South does not disappear when the analysis is repeated using regressions incorporating occupation and industry (see appendix D, table D.7). Thus, not only did black women in the South have more restricted occupational opportunities than black women in the rest of the country (see chapter 5), but they were also paid less relative to identical white women within occupations and industries than were black women in the non-South.

These results suggest that labor market discrimination may have had and may continue to have a greater negative effect on black women living in the South than on black women living in the rest of the country, although regional differences in black women's unmeasured characteristics, such as quality of education, could be partially responsible. The effects of labor market discrimination against black women also appear not to have begun to diminish in the South until after 1960, whereas they began to diminish earlier in the rest of the country.

The analysis in this section suggests that the effect of discrimination was not felt evenly by black women. Older black women have generally fared worse than younger black women, probably because they cannot entirely overcome the legacy of past discrimination. Highly educated black women appear to have experienced less wage discrimination on the basis of race than black women at lower educational levels. This may have been because of the relatively wider occupational opportunities open to the few black women who were highly educated, or alternatively because of greater sex discrimination against educated white women. Black women in the South appear to have suffered greater wage discrimination than black women in the rest of the country.

[12]Results for regressions including occupation and industry are shown in app. D, table D.7.

TABLE 6.7
Predicted Hourly Wages and Black-White Wage Ratios by Region: 1940, 1960, and 1980[a]

	1940		1960		1980	
	South	Non-South	South	Non-South	South	Non-South
A. Predicted hourly wages[b]						
Black regression						
Average black woman	0.71	1.44	1.62	3.01	4.00	5.22
Average white woman	0.96	1.46	2.00	3.16	4.31	5.38
White regression						
Average black woman	1.34	2.04	3.03	3.74	4.26	4.90
Average white woman	1.90	2.25	3.50	4.00	4.58	4.96
B. Predicted wage ratios						
Actual black-white wage ratio[c]	37.3	64.2	46.3	75.6	87.4	105.3
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)[d]	70.6	90.8	86.7	93.7	93.0	98.8
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)[e]	52.8	70.7	53.5	80.4	94.0	106.6

Sources: 1940, 1960, 1980 Censuses of Population.
[a] The results presented in this table are based on regressions using census data estimated separately for each region. Regression results are reported in U.S. Commission Civil Rights, "Technical Appendix," tables D.20, D.21, and D.22.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay structure, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay structure to the wage she would earn if she were paid according to the white pay structure, multiplied by 100.

TABLE 6.8
Accounting for the Convergence in the Black-White Female Wage Ratio Between 1940 and 1980[a]

	Black wage	White wage	Black-white wage ratio
Actual value for 1940	0.87	2.38	36.7
Actual value for 1980	4.55	4.84	94.0
Predicted value due to changes in pay structures (eliminates changes in characteristics)[b]	3.46	4.50	76.9
Predicted value due to changes in characteristics (eliminates changes in pay structures)[c]	1.46	2.74	53.3
Predicted value due to changes in selected characteristics (eliminates changes in pay and changes in other characteristics)[d]			
Education	1.25	2.82	44.3
Regional distribution	0.95	2.35	40.4
Urban/rural residence	0.94	2.36	39.8
Age	0.88	2.39	36.8
Marital status	0.88	2.41	36.5
Children	0.86	2.26	38.1
Part-time/full-time status	0.84	2.42	34.7

Sources: 1940 and 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.1. Characteristics included in the regressions include: age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children. All dollar figures are expressed in 1979 dollars.
[b] Predicted wages and wage ratios for women with the 1940 average value for their group of all characteristics, paid according to the 1980 pay structure for their group.
[c] Predicted wages and wage ratios for women with the 1980 average value for their group of all characteristics, paid according to the 1940 pay structure for their group.
[d] Predicted wages and wage ratios for women with the 1980 average value for their group of the selected characteristic; the 1940 average value for their group of all other characteristics; paid according to the 1940 pay structure for their group.

Accounting for the Convergence in the Black-White Female Wage Ratio: 1940 to 1980

Between 1940 and 1980, the black-white female hourly wage ratio increased from 37 percent to 94 percent. This section investigates the extent to which convergence in the characteristics of black and white women can account for this remarkable increase. To do so, the 1940 and 1980 regressions were used to predict the wages black and white women would have earned in 1940 if they had had their 1980 characteristics, and the wages they would have earned in 1980 if they had had their 1940 characteristics. The results for regressions that do not include occupation and industry are presented in table 6.8.

Line 3 of table 6.8 measures the impact of changing pay structures on women's wages and on the black-white wage ratio. Even if the characteristics of black and white women had not changed between 1940 and 1980, the black-white female wage ratio would have more than doubled, increasing from 37 percent to 77 percent. Line 4 measures the impact of changing characteristics on women's wages and on the black-white wage ratio. If pay structures had not changed between 1940 and 1980, the black-white wage ratio would have increased by 16 percentage points, from 37 percent to 53 percent, due to changing characteristics. Thus, although the converging characteristics of black and white women contributed to the increased black-white wage ratio between 1940 and 1980, converging pay structures were much more important as a source of black women's increasing relative wages.

Lines 5 through 11 measure the effects of changes in individual characteristics on wages and on the black-white wage ratio. For example, a black woman in 1940 who had the 1940 black average for all characteristics except for education and the 1980 black average education would have earned $1.25 an hour instead of the $0.87 an hour she would have earned if she had had the 1940 black average education. If both black and white women in 1940 had their group's 1940 average for all characteristics except for education and their group's 1980 average education, the black-white wage ratio would have been 44 percent instead of the actual value of 37 percent.

Of the characteristics shown, the only ones that can account for more than 1 percentage point of the increase in the black-white wage ratio between 1940 and 1980 were education, regional distribution, and urban/rural residence. Of these, education accounts for the largest increase.

Table 6.9 is similar to table 6.8, but it is derived from the regressions that include occupation and industry. When occupation and industry are included among the regression characteristics, convergence in the characteristics of black and white women accounts for more of the increase in the black-white wage ratio than when they are not, and indeed, it accounts for more of the increase than does convergence in the pay structures for black and white women. Occupation and industry by themselves account for an increase in the black-white wage ratio from 37 percent to 54 percent, or more than one-half of the increase. Education, regional distribution, and urban-rural mix also continue to have small effects.

Overall, the racial convergence in characteristics other than occupation and industry over the 1940–80 period accounts for less of the increase in the black-white wage ratio than does convergence in the pay structures for black and white women. The pay structures for black and white women appear to have converged partially because the occupational and industrial distributions of black and white women became more similar and partly because black women's relative wages increased within occupations and industries. Since declining discrimination over the 1940–80 period was likely responsible for much of both the convergence in the black-white pay structures and the convergence in the occupational and industrial distributions of black and white women, these results appear to indicate that it was declining labor market discrimination and not changes in the characteristics of black women that caused most of the increase in their relative wage between 1940 and 1980.

TABLE 6.9
Accounting for the Convergence in the Black-White Female Wage Ratio Between 1940 and 1980 (Regressions Including Occupation and Industry)[a]

	Black wage	White wage	Black-white wage ratio
Actual value for 1940	0.87	2.38	36.7
Actual value for 1980	4.55	4.84	94.0
Predicted value due to changes in pay structures (eliminates changes in characteristics)[b]	2.47	4.37	56.5
Predicted value due to changes in characteristics (eliminates changes in pay sturctures)[c]	1.78	2.67	66.7
Predicted value due to changes in selected characteristics (eliminates changes in pay and changes in other characteristics)[d]			
Education	0.99	2.39	41.4
Regional distribution	0.92	2.35	39.1
Urban/rural residence	0.94	2.36	39.8
Age	0.87	2.23	39.0
Marital status	0.88	2.41	36.5
Children	0.86	2.27	37.9
Part-time/full-time status	0.84	2.42	34.7
Occupation and industry	1.34	2.50	53.6

Sources: 1940 and 1980 Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.2. In addition to occupation and industry, characteristics included in the regressions include: age, education, region, urban/rural residence, full-time/part-time status, marital status and presence of young children. All dollar figures are expressed in 1979 dollars.
[b] Predicted wages and wage ratios for women with the 1940 average value for their group of all characteristics, paid according to the 1980 pay structure for their group.
[c] Predicted wages and wage ratios for women with the 1980 average value for their group of all characteristics, paid according to the 1940 pay structure for their group.
[d] Predicted wages and wage ratios for women with the 1980 average value for their group of the selected characteristic, the 1940 average value for their group of all other characteristics, paid according to the 1940 pay structure for their group.

Summary and Conclusions

Although characteristics not including occupation and industry can account for some of the black-white wage gap in 1940 and 1960, differences in the pay structures for black and white women were a far more important cause of black women's low relative wage in those years. In 1940 the average black woman earned just half as much as she would have if she were white, and in 1960 she earned two-thirds as much. In 1980, on the other hand, differences in pay structures appear to have been unimportant: the average black woman earned the same wage she would have if she were white. The small black-white wage gap that remained in 1980 can be fully accounted for by racial differences in characteristics. In all 3 years, education was the most important among the characteristics limiting black women's earnings.

Black-white differences in occupations and industries accounted for much of their differences in pay structures in 1940 and 1960. Black women earned less than white women with the same characteristics both because they entered low-paying occupations and industries and because they were paid less than identical white women within occupations and industries. The black-white differences in occupations and industries that remained in 1980 had only a very small effect on the black-white wage ratio.

The results suggest that racially motivated labor market discrimination against black women probably lowered their earnings substantially in 1940 and 1960, both by lowering their occupational attainment and by lowering their pay within occupations and industries. The effects of current racial discrimination most likely had diminished considerably by 1980. However, black women over 40 may have continued to suffer the effects of past discrimination: their current occupational status and hence their wages may have continued to be lowered because they had experienced limited occupational opportunities at the outset of their labor market careers.

Labor market discrimination appears to have affected black women unevenly. Black women with low educational levels and black women living in the South earned less relative to comparable white women than did more educated black women and black women living outside of the South.

Both racial convergence in characteristics and convergence of the pay structures of black and white women contributed to the significant increase in the black-white female wage ratio from 37 percent in 1940 to 94 percent in 1980. Convergence of the pay structures appears to have been the more important of the two. Thus, declining labor market discrimination against black women was probably the most important reason for their increased relative wage over the period, although changes in characteristics, such as educational attainment and region of residence, also played a role. Labor market discrimination appears to have declined along two fronts: the relative occupational opportunities for black women improved significantly over the 1940–80 period and the relative pay received by black women within occupations and industries also increased.

It should be remembered, however, that the conclusions in this chapter are based on regression analysis of census data and thus are only as good as that data. For several reasons, census data may permit only an incomplete analysis of black-white wage differentials.

First, the census wage and salary data reported do not include any in-kind payments a worker may have received. Yet, large fractions of black women (and almost no white women) in 1940 and in 1960 were employed either as domestic servants or as farm laborers (many on family farms), both of which are occupations in which in-kind payment has traditionally represented a sizable portion of total compensation. If in-kind payments were incorporated in the wage and salary data used in this analysis, the estimated relative wages of black women in 1940 and 1960 would undoubtedly have been higher and the estimated degree of discrimination lower than those derived in this chapter. Consequently, the degree of wage improvement experienced by black women over the years 1940–80 may have been less than census wage data indicate, since this was a period during which black women left agricultural and domestic service jobs for jobs less likely to provide in-kind pay.[13]

[13]Claudia Goldin (unpublished) has suggested that taking in-kind payments into account might increase the 1940 black-white female annual earnings ratio for full-time (continued...)

Second, just as census measures of wages might be inaccurate, so might census measures of the characteristics included in the regression analysis. In particular, as we indicated in chapter 5, the census data on years of schooling completed might not reflect accurately women's actual educational achievement. The census data probably overestimate the relative educational attainment of black women, particularly in 1940 and 1960, making it appear closer to that of white women than it actually was. If so, the analysis in this chapter might overstate the degree of labor market discrimination against black women in those years.

Third, the censuses do not collect data on the previous work experience of workers. Many researchers have found that workers with more work experience have acquired better labor market skills and earn higher wages as a result. Moreover, it is likely that during the 1940–80 period black women worked more continuously than otherwise similar white women and hence accumulated more work experience (and more labor market skills). If this is the case, then in the absence of discrimination, a black woman would earn more than a white woman with the same characteristics (not including experience). Excluding work from the characteristics incorporated in the regressions in this chapter could, thus, lead to underestimation of the degree of discrimination against black women.

The regression analysis used in this chapter only yields estimates of the direct effect of labor market discrimination on black-white wage differentials. It is likely that labor market discrimination also has indirect effects on black-white wage differentials. For instance, black women might be discouraged by the prospect of discrimination and as a result acquire fewer skills or less education than white women. The analysis used in this chapter would attribute this type of indirect effect to racial differences in characteristics and not to discrimination. Moreover, discrimination not directly related to the labor market may well affect the characteristics of black women and hence lower their relative wages. For instance, discrimination in the provision of schooling may limit the education received by black women. Again, the methodology used in this chapter attributes the effects of this type of discrimination to racial differences in characteristics. As a result, it is possible that the overall effect of discrimination on black women's relative wages is much larger than the direct effect of labor market discrimination estimated in this chapter.

Finally, it should be remembered that white women, too, are subject to labor market discrimination. The methodology employed in this chapter only allows measurement of the added effects of discrimination faced by black women.

Despite its shortcomings, the census is the only source of consistent data on the wages and characteristics for a representative sample of the population going back to 1940. Although the estimates of discrimination derived from the census data may not be precise, the census data do provide a broad picture of trends between 1940 and 1980 that is unavailable from any other data source.

For the contemporary period, fortunately, data sources exist that overcome many of the deficiencies of the census data. The next chapter relies on the Survey of Income and Program Participation (SIPP) to generate estimates of labor market discrimination against black women for the contemporary period. The main advantage of the SIPP over census data for this purpose is that the SIPP provides information on women's work experience and, thus, more accurate measures of women's labor market skills. In addition, the SIPP data are collected by trained interviewers, which most likely improves the accuracy of the data on other characteristics.

[13](...continued)
year-round workers from 37 percent to 49 percent. If so, the situation of black women in 1940 may have been substantially better than suggested by the unadjusted census figures. On the other hand, the pace of the post-1940 growth of black women's earnings would then be slower than implied by the unadjusted census figures.

Chapter 7

Accounting for the Black-White Female Wage Differential in the 1980s: A Multivariate Analysis

This chapter updates to the 1980s and extends the 1940–80 wage analysis of chapter 6 by using the Survey of Income and Program Participation (SIPP). To make intertemporal comparisons, the SIPP data are supplemented with data from the March 1980, March 1985, and March 1987 Current Population Surveys. The SIPP contains information on a large nationally representative sample of men, women, and children. The SIPP data have several advantages over the census data employed in chapters 4 through 6. The SIPP is an extremely rich source of data on all aspects of persons' economic and demographic status. It provides detailed information on persons' wages, income, labor force status, and family structure on a monthly basis for 32 months. It also provides rich information on a number of topics, including family assets, and retrospective information on persons' education and work force, marital, and fertility histories. All members of a household are included in the sample, allowing data on women to be merged with data on their husbands, their children, and other persons living with them. Particularly useful for analyzing racial differences in wages is the SIPP's information on the previous work experience of women. In addition, the SIPP wage data cover a more recent period than currently available through the census data: July through November 1984. Because they are based on data from a different source, however, the results obtained from SIPP data cannot be compared directly with results for earlier years and thus are of limited value in making intertemporal comparisons.

To supplement the SIPP data, this chapter also uses data from the March 1980, March 1985, and March 1987 Current Population Surveys (CPS). The March 1980 CPS covers approximately the same period as the 1980 census; the March 1985 CPS covers the same period as the SIPP; and the March 1987 CPS covers an even more recent period (1986). Because the CPS data are directly comparable across years, they allow intertemporal comparisons to assess the degree of change during the 1980s. Moreover, the March 1980 CPS data can be compared with data from the 1980 census, and the March 1985 CPS data can be compared with data from the SIPP, allowing comparison of results from the three data sources. The CPS data share the main drawback of the census data, however, which is that they do not provide information on women's previous work experience.

Accounting for Black-White Wage Differentials in the 1980s

This section reports the general results of the statistical analysis of women's wages in the 1980s using the SIPP. As in Chapter 6, the approach is to measure the separate effects of racial differences in characteristics and of racial differences in pay structures on the black-white wage ratio. Black-white wage differentials due to racial differences in characteristics alone can be assumed not to be the direct result of labor market discrimination against black women.[1] On the other hand, black-white wage differentials due to racial differences in pay structures may reflect labor market discrimination against black women. (The reader is referred to chapter 6 for a detailed discussion of the statistical methodology employed in this chapter.)

This section highlights the importance of including variables pertaining to women's previous work experience among the characteristics considered in the regression analysis of wages. Many researchers have found that persons with more overall work experience command higher wages, probably because they have accumulated more job-related skills.

[1]Labor market discrimination may lower black women's skills indirectly, however. If black women are paid less for their skills or if they are barred from using their skills at all because of labor market discrimination, they will have a lesser incentive to acquire them.

Similarly, persons with greater seniority on their current job (job tenure) have also been found to command higher wages, possibly due to their accumulation of skills relevant to their specific job. Some researchers have found that intermittent work causes labor market skills to atrophy, and hence persons who have spent more years out of the work force receive lower pay than others with similar characteristics.[2]

Table 7.1, showing means of work experience variables by race for the SIPP data, confirms that black women have more overall work experience and greater seniority in their current jobs as well as less time out of the work force (home time) than white women. As a result, it is important to include variables pertaining to work experience, job seniority, and time out of the work force in a statistical analysis of black-white female wage differentials.[3]

The analysis here is based on wage regressions estimated separately for black and white women using the SIPP data. Wage regressions were estimated both with and without variables pertaining to women's work experience to assess the effect of racial differences in work experience on black-white women's wage differentials. A third specification, which statistically corrects for "selectivity bias," or the possibility that the wages of women who are actually working are biased indicators of the wage that would be received by women as a group, including women who are not currently working, was also implemented.[4] Besides variables pertaining to women's work experience, the characteristics included in the SIPP wage regressions are: education, full-time/part-time status, urban or rural residence, region, marital status, and presence and number of young children, and in some cases, occupation and industry. The SIPP regression results are presented in appendix F, tables F.1 and F.2.

Following the methodology developed in chapter 6, predicted wages for black and white women and predicted black-white wage ratios are presented for the SIPP regressions. Table 7.2 shows results for regressions that do not include occupation and industry, and table 7.3 shows results for regressions that do include occupation and industry. For both tables column (1) shows results when work experience variables are not included and selectivity bias is not corrected for, column (2) shows the results when work experience variables are added, and column (3) shows results when, in addition, selectivity bias is corrected for.

According to the SIPP data, the average black woman earns approximately 90 percent as much as the average white woman. When women's occupations and industries are not taken into account (table 7.2), the SIPP regressions that do not include variables pertaining to women's work experience (column (1)) suggest that differences in the characteristics of black and white women are partially responsible for black women's lower wages—the average black woman is predicted to earn approximately 3 percent less than the average white woman even if both groups were paid according to the white pay structure. However, contrary to results from the 1980 census, differences in the pay structures facing black and white women appear to be an equally important source of their lower earnings: the average black woman earns approximately 5 percent less than a comparable white woman.

When work experience variables are entered into regressions using the SIPP data, whether or not the regressions control for selectivity bias (columns (2) and (3)), racial differences in characteristics account for even less of the wage differential—the average black woman is

[2]Examples of previous research on the wage effects of labor force experience, job tenure, and intermittent work include Jacob Mincer and Solomon Polachek, "Family Investments in Human Capital and the Earnings of Women," *Journal of Political Economy*, vol. 82, no. 2 (1974), pp. S76–108; Steven Sandell and David Shapiro, "An Exchange: the Theory of Human Capital and the Earnings of Women," *Journal of Human Resources*, vol. 13, no. 1 (1978), pp. 103–17; and Jacob Mincer and Haim Ofek, "Interrupted Work Careers: Depreciation and Restoration of Human Capital," *Journal of Human Resources*, vol. 7, no. 1 (1982), pp. 3–24.

[3]It should be noted that years of work experience do not necessarily reflect labor market skills accurately. If black women are denied access to on-the-job training, then their skill levels may not be commensurate with their years of work experience. Moreover, wages may increase with years of work experience because of seniority systems rather than because of increased skill levels.

[4]The statistical procedure adopted here was developed by James J. Heckman, "Sample Bias as a Specification Error," *Econometrica*, vol. 47 (1979), pp. 153–62.

TABLE 7.1
Means of Work Experience Variables by Race: Results from the Survey of Income and Program Participation

	All women 18–64		Working women 18–64	
	Black	White	Black	White
Age	36.0	38.2	36.0	36.7
Education	11.8	12.6	12.4	13.0
Years of work experience	13.5	13.0	14.4	14.4
Years at current job	7.6	7.1	7.7	7.2
Years of home time	2.3	5.4	1.1	3.2
Number of observations	1,882	13,235	890	6,394

Source: Survey of Income and Program Participation.

TABLE 7.2
Predicted Hourly Wages and Black-White Wage Ratios: Results from the Survey of Income and Program Participation[a]

	(1)[b]	(2)[c]	(3)[d]
A. Predicted hourly wages			
Black regression			
Average black woman	5.60	5.84	5.84
Average white woman	5.92	6.16	6.16
White regression			
Average black woman	5.90	6.43	6.43
Average white woman	6.09	6.52	6.52
B. Predicted wage ratios			
Actual black-white wage ratio	91.8	89.6	89.6
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	96.9	98.7	98.6
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	94.8	90.8	90.8

Source: Survey of Income and Program Participation.
[a] The results presented in this table are based on regression results reported in app. F, table F.1.
[b] Characteristics included are: age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence and number of young children.
[c] Characteristics included are the same as in [b] except that variables pertaining to age are replaced with variables pertaining to work experience: See (2) of table F.1.
[d] Characteristics included are the same as in [c], but the results here are derived from regressions reported in (3) of table F.1, which correct for possible selectivity bias.

predicted to earn only 1 percent less than the average white woman if both groups were paid comparably. Differences in the pay structures for black and white women appear to account for most of the wage differential—the average black woman earns only 9 percent less than a white woman with the same characteristics.

When women's occupations and industries are taken into account (table 7.3), a larger portion of the black-white wage differential is accounted for by characteristics and less is unexplained. The SIPP regression that excludes work experience variables predicts that the average black woman earns almost 100 percent as much as a comparable white woman. When work experience variables are included, this figure drops to 96 percent.

These results imply that a major reason why black women continue to earn less than white women is that they work in lower paying occupations and industries. Why black and white women continue to work in different jobs is an important issue that remains to be explored. The explanation may lie in part with the lingering effects for older black women of occupational discrimination in the decades before to the 1964 Civil Rights Act. Another possible explanation is that racial differences in unmeasured productivity-related characteristics restrict black women's relative job opportunities. Finally, it is possible that many black women continue to face occupational discrimination in today's labor market.

The results in tables 7.2 and 7.3 point to the importance of including variables pertaining to work experience when analyzing black-white female wage differentials. In each case, including these variables lowers by around 4 percentage points the estimates of what the average black woman earns relative to a comparable white woman. This suggests that analyses of the black-white female wage gap that do not take into account racial differences in work experience may underestimate the degree of labor market discrimination against black women. In particular, the results in chapter 6 should be reevaluated in this light. Fortunately, these results suggest that, at least for the current period, the bias produced by not including data on work experience is relatively small.

The results in tables 7.2 and 7.3 suggest that the characteristics of black women (other than occupation and industry) no longer lower their relative earnings significantly: estimates based on the SIPP data suggest that if there were no racial differences in pay structures, black women would earn almost 99 percent as much as white women.[5] Despite the significant progress made by black women between 1940 and 1980, however, the results suggest that lingering racial discrimination in the labor market may continue to lower the relative earnings of black women: the average black woman is estimated to earn only 91 percent as much as she would if she were white. When occupations and industries are included in the analysis, this figure rises to 96 percent, indicating that slightly over half of the wage differential between identical black and white women arises because the black women work in lower paying occupations and industries.

It is necessary, however, to temper these conclusions slightly. Although the wage regressions using the SIPP data improve on the regressions using the census data by including variables pertaining to work experience, the SIPP wage regressions themselves may omit other productivity-related characteristics that vary by race. To the extent that productivity-related characteristics are omitted, this chapter may either underestimate or overestimate the direct effect of discrimination. Furthermore, as discussed above, the methodology used in this chapter does not quantify any indirect effects of labor market discrimination.

Pay Differences by Age, Region, and Education

This section investigates whether black women fare differently by age group, across regions of the country, and by educational level. Separate regressions are estimated for each age group, for each region, and for each education level. All of these regressions use SIPP data, include variables pertaining to work experience, and correct for selectivity bias. Regressions were estimated both with and without occupation and industry.

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[5]These results using SIPP data are contrary to the results obtained using 1980 census data, which imply that racial differences in characteristics can account for the entire wage differential and that no differences in pay structures remain.

TABLE 7.3
Predicted Hourly Wages and Black-White Wage Ratios: Results from the Survey of Income and Program Participation (Regressions Including Occupation and Industry)[a]

	(1)[b]	(2)[c]	(3)[d]
A. Predicted hourly wages			
Black regression			
Average black woman	5.60	5.84	5.84
Average white woman	6.02	6.31	6.31
White regression			
Average black woman	5.61	6.09	6.09
Average white woman	6.09	6.52	6.52
B. Predicted wage ratios			
Actual black-white wage ratio	91.8	89.6	89.6
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	92.0	93.3	93.4
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	99.8	96.0	95.9

Source: Survey of Income and Program Participation.
[a] The results presented in this table are based on regression results reported in app. F, table F.2.
[b] In addition to occupation and industry, characteristics included are: age, education, region, urban/rural residence, full-time/part-time status, marital status, and the presence and number of young children.
[c] Characteristics included are the same as in [b] except that variables pertaining to age are replaced with variables pertaining to labor market experience: See (2) of table F.2.
[d] Characteristics included are the same as in [c], but the results here are derived from regressions reported in (3) of table F.2, which correct for possible selectivity bias.

TABLE 7.4
Predicted Hourly Wages and Black-White Wage Ratios by Age: Results from the Survey of Income and Program Participation[a]

	Regressions without occupation & industry		Regressions with occupation & industry	
	18–39	40–64	18–39	40–64
A. Predicted hourly wages				
Black regression				
Average black woman	5.86	5.81	5.86	5.81
Average white woman	6.20	6.25	6.16	6.73
White regression				
Average black woman	6.27	6.57	6.19	5.87
Average white woman	6.52	6.52	6.52	6.52
B. Predicted wage ratios				
Actual black-white wage ratio	89.8	89.2	89.8	89.2
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	96.1	100.9	94.8	90.1
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	93.5	88.4	94.8	99.0

Source: Survey of Income and Program Participation.
[a] The results presented in this table are based on regressions estimated separately for each age group and corrected for selectivity bias. Regression results are reported in U.S. Commission on Civil Rights, "Technical Appendix," tables F.16 and F.17.

Age

Whereas older black women were educated in impoverished, segregated black school systems, younger black women are likely to have benefited from attending better schools. In addition, older black women are likely to have faced greater discrimination when they started their labor market careers. By constraining their early career choices, this early discrimination may have continued to lower the relative earnings of older black women later in life. To address this issue, separate regressions are estimated for women under and over 40 years of age.[6]

Table 7.4 presents the results. Both older and younger black women earn approximately 90 percent as much per hour as their white counterparts when characteristics are not taken into account. After adjusting for characteristics, however, older black women are found to be at a greater disadvantage than younger black women: black women over 40 earn 88 percent as much as comparable white women, 6 percentage points below the corresponding figure for younger black women (94 percent).

When occupation and industry are included among the regression characteristics, however, older black women's relative disadvantage disappears. Older black women actually earn more relative to identical white women than younger black women do: 99 percent versus 95 percent. Taken together, these results imply that, compared to similar white women, older black women are in lower paying occupations and industries than are younger black women, but within occupations and industries, older and younger black women earn comparably or even more.

One possible explanation for these findings is that older black women have not entirely overcome the discriminatory constraints they faced in their early careers: having started working in lower paying occupations and industries because of limited opportunities early on, they have not entirely succeeded in leaving them. Yet within these occupations and industries, they earn almost as much as comparable white women. Thus, in addition to current discrimination, older black women may suffer from the lingering effects of past occupational discrimination.

Region

Previous chapters showed persistently larger black-white wage and occupational differentials in the South than in the rest of the country. Table 7.5, which presents results by region (South and non-South), indicates that southern black women do indeed continue to face a relative disadvantage. In the South, the average black woman earns 83 percent as much as the average white woman, compared to 101 percent for the rest of the country. This result persists even after racial differences in characteristics are taken into account: the average black woman earns 87 percent as much as a comparable white woman in the South compared with 96 percent for the rest of the country.

When women's occupations and industries are taken into account, however, black women in the South appear to earn as much as comparable white women. This result implies that the reason southern black women are paid less than southern white women is not because of racial differences in measured characteristics other than occupation and industry and not because black women are paid less than white women within occupations and industries but because they work in lower paying occupations and industries than their southern white counterparts.[7]

Indeed, as indicated in chapter 5, the relative occupational status of black women remains lower in the South than in the rest of the country. Southern black women are underrepresented among professional and clerical workers, and overrepresented among operatives, service workers, and domestic servants to a much greater degree than black women outside of the South. The extent to which Southern black women are underrepresented among clerical workers is particularly striking: according to the SIPP data, 18 percent of southern black women are

[6]Women over 40 years old at the time of the SIPP (in 1984) would have been over 20 years old in 1964. Thus, they received all of their education and entered the labor market before the major thrust of school integration in the 1960s and 1970s and before the passage of the 1964 Civil Rights Act.

[7]Estimating separate regressions by region and by age group confirms that this result holds true both for younger and for older black women in the South. However, the occupational disparities between black and white women in the South are greater for older women.

TABLE 7.5
Predicted Hourly Wages and Black-White Wage Ratios by Region: Results from the Survey of Income and Program Participation[a]

	Regressions without occupation & industry		Regressions with occupation & industry	
	South	Non-South	South	Non-South
A. Predicted hourly wages				
Black regression				
Average black woman	5.21	6.69	5.21	6.69
Average white woman	5.56	6.18	5.79	6.36
White regression				
Average black woman	6.28	6.94	5.17	6.80
Average white woman	6.02	6.64	6.28	6.64
B. Predicted wage ratios				
Actual black-white wage ratio	83.0	100.7	83.0	100.7
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	95.8	104.6	82.4	102.5
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	86.6	96.3	100.7	98.3

Source: Survey of Income and Program Participation.
[a] The results presented in this table are based on regressions estimated separately for the South and the non-South and corrected for selectivity bias. Regression results are reported in U.S. Commission on Civil Rights, "Technical Appendix", tables F.12 and F.13.

TABLE 7.6
Predicted Hourly Wages and Black-White Wage Ratios by Education: Results from the Survey of Income and Program Participation[a]

	Regressions without occupation & industry			Regressions with occupation & industry		
Education:	0–11	12	13+	0–11	12	13+
A. Predicted hourly wages						
Black regression						
Average black woman	4.52	5.44	7.61	4.52	5.44	7.61
Average white woman	4.70	5.35	7.53	5.27	5.47	7.75
White regression						
Average black woman	4.80	6.16	7.99	4.30	5.94	7.74
Average white woman	5.05	5.99	7.66	5.05	5.98	7.66
B. Predicted wage ratios						
Actual black-white wage ratio	89.6	90.9	99.3	89.6	90.9	99.3
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	95.1	102.9	104.3	85.1	99.2	101.1
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	94.2	88.3	95.2	105.3	91.6	98.3

Source: Survey of Income and Program Participation.
[a] The results presented in this table are based on regressions estimated separately for each education level and corrected for selectivity bias. Regression results are reported in U.S. Commission on Civil Rights, "Technical Appendix," tables F.14 and F.15.

clerical workers, compared with 32 percent of southern white women and 32 percent of black women and 34 percent of white women in the rest of the country.

As discussed in chapter 5, the relatively low occupational status of southern black women cannot be explained by measured characteristics. A possible explanation, which needs to be investigated, is that there continue to exist discriminatory obstacles for southern black women in some occupations, most notably in the clerical sector. An alternative possibility is that racial differences in unmeasured productivity-related characteristics limit black women's relative occupational status in the South.

Whereas the relatively low occupational status of southern black women appears to be the source of black women's low relative wages in the South, racial differences in occupations and industries appear to play a much lesser role in the rest of the country. Nevertheless, even though black women earn on a par with white women outside of the South, their earnings may be lowered by discrimination: The average black woman would earn somewhat more than, not the same amount as, the average white woman if she were paid according to the white pay structure.

In sum, black women continue to fare worse in the South than in the rest of the country. This research suggests that this is primarily because they work in lower paying occupations and industries than their white counterparts. Further research needs to be undertaken to determine whether black women's lower occupational status in the South is the result of labor market discrimination or whether it is due to some other cause. While black women outside of the South fare relatively better, they, too, earn less than predicted on the basis of their characteristics and thus might suffer from racial discrimination.

Education

Chapter 6 found that black women fared better relative to white women at higher education levels during the 1940–80 period. Table 7.6 shows separate regressions for women who are not high school graduates, for women with exactly 12 years of education and for women with at least some postsecondary schooling.

Following the historical trend, black women continue to earn more relative to white women at higher educational levels: the average black woman with some college education earns 97 percent as much as her white counterpart, compared with 90 percent for women in the two lower educational groups. Contrary to results obtained using the 1980 census data, however, black women earn less than white women at all educational levels.

Table 7.6 suggests that based on their characteristics, black women with 12 years or more of school should earn more than white women in their educational category, and black women with less than 12 years of school should earn almost as much when occupation and industry are not included among the regression characteristics. Yet, at all schooling levels black women earn less than comparable white women. Earning only 88 percent as much as comparable white women, black women with exactly 12 years of schooling appear to fare particularly poorly.

When occupation and industry are included among the regression characteristics, black women's predicted relative wages based on their characteristics are lower. They also appear to earn more relative to comparable white women at all schooling levels, indicating that, at all schooling levels, black women work in lower paying occupations and industries than comparable white women. This is particularly true for black women with less than 12 years of school: when occupation and industry are included among the regression characteristics, black women in the lowest educational group actually earn more than white women with the same characteristics.

Thus, two findings emerge from table 7.6. First, black women with exactly 12 years of school fare worse relative to similar white women than black women in the other educational groups. Whether this is due to differences in unmeasured characteristics, such as quality of education, or greater discrimination against these women is a matter for further research. Second, while the lower pay of black women in the two higher education groups is primarily due to lower pay within occupations and industries, this is not the case for black women with less than 12 years of education. Black women at the lowest educational level earn less than similar white women because they work in lower paying

occupations and industries, not because they are paid less within occupations and industries.[8]

The results in this section show that black women earn less than white women, both before and after taking racial differences in characteristics into account, both in the South and in the rest of the country, at all educational levels, and in both age groups.[9] Southern black women, black women over 40 years of age, and black women with exactly 12 years of education appear to fare particularly poorly relative to their white counterparts. The lower relative wage of women with exactly 12 years of education results from differences in pay within occupations and industries. The lower relative wages of southern black women, of black women with less than 12 years of education, and of older black women appear to be due to racial differences in occupations and industries in which women work. For older black women, this appears to be the result of past rather than of current labor market discrimination. The reasons why black women in the South and black women with less than a high school education work in lower paying occupations and industries than comparable white women are not as readily apparent. Current labor market discrimination may continue to limit the job opportunities of southern black women and of black women with low educational attainment.

Trends in Black-White Female Wage Differentials over the 1980s

Although the SIPP provides better information about women's characteristics at a single point in time (1984) than other data sources, it does not allow consideration of trends in women's wage differentials over time during the 1980s. For this purpose March Current Population Survey (CPS) data for the years 1980, 1985, and 1987 (covering the years 1979, 1984, and 1986, respectively) were used.

Tables 7.7 and 7.8 report predicted wages and wage ratios for black and white women derived from regressions using the 1980, 1985, and 1987 CPS. Since the CPS does not provide information on women's work experience, women's ages were included in the regressions as a proxy for their work experience.[10] Other characteristics included in the regression analysis are: education, full-time/part-time status, urban-rural residence, region, and marital status. For each year, regressions incorporating occupation and industry in addition to the characteristics enumerated above were also estimated.[11]

The CPS data suggest that the black-white wage ratio was constant at around 96 percent during the early part of the 1980s but fell to around 93 percent between 1984 and 1986. This was not due merely to a relative deterioration in the labor market skills of black women, although the predicted black-white wage ratio due to characteristics alone fell slightly between 1984 and 1986 (from 98 to 97 percent). Instead, there appears to have been a larger decrease in the ratio of the wage earned by the average black woman to that earned by a comparable white woman, whether or not occupation and industry are included among the regression characteristics. Thus, it appears that less of the black-white wage differential could be accounted for by racial differences in characteristics in 1986 than in 1984. It remains possible, however, that the 1984–86 decrease in black women's relative wages can be accounted for by changes in their levels of work experience, job tenure, and time out of the work force compared to those of white women. Unfortunately, until later panels of the SIPP are released, it is not possible to investigate this hypothesis.

[8]Since older women are more heavily represented among black women with low educational levels, it seems reasonable to suppose that the reason poorly educated black women are in lower paying occupations than similarly educated white women is that they are predominantly older women who were educated and began working before 1960. Estimating separate regressions by age group and education does not confirm this hypothesis. Younger black women with less than a 12th grade education are also found to be in lower paying occupations than equally qualified white women.

[9]These results are contrary to the results obtained in chap. 8 using census data, which suggested that highly educated black women and black women outside of the South earned more than comparable white women.

[10]The same approach was adopted in chap. 7 for the Census of Population data.

[11]Regression results for the March 1980 CPS data are reported in app. F, tables F.3 and F.4. Results for the March 1985 data are reported in tables F.5 and F.6, and results for the March 1987 data are reported in tables F.7 and F.8.

TABLE 7.7
Black-White Wage Differentials during the 1980s: Results from the 1980, 1985, and 1987 Current Population Surveys[a]

	1980	1985	1987
A. Predicted hourly wages			
Black regression			
Average black woman	3.72	5.28	5.58
Average white woman	4.00	5.58	6.15
White regression			
Average black woman	3.80	5.37	5.82
Average white woman	3.88	5.48	6.02
B. Predicted wage ratios			
Actual black-white wage ratio	95.9	96.4	92.8
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	97.9	98.1	96.6
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	97.9	98.2	96.0

Sources: 1980, 1985, and 1987 March Current Population Surveys.
[a] The results presented in this table are based on regression results reported in app. F, tables F.3, F.5, and F.7. Characteristics included are: age, education, region, urban/rural residence, full-time/part-time status, and marital status.

TABLE 7.8
Black-White Wage Differentials during the 1980s: Results from the 1980, 1985, and 1987 Current Population Surveys (Regressions Including Occupation and Industry)[a]

	1980	1985	1987
A. Predicted hourly wages			
Black regression			
Average black woman	3.72	5.28	5.58
Average white woman	4.07	5.59	6.24
White regression			
Average black woman	3.67	5.26	5.66
Average white woman	3.88	5.48	6.02
B. Predicted wage ratios			
Actual black-white wage ratio	96.0	96.4	92.8
Predicted black-white wage ratio due to differences in characteristics (eliminates differences in pay structures)	95.1	96.1	94.0
Predicted black-white wage ratio due to differences in pay structures (eliminates differences in characteristics)	101.0	100.3	98.7

Sources: 1980, 1985, and 1987 Current Population Surveys.
[a] The results presented in this table are based on regression results reported in app. F, tables F.4, F.6, and F.8. In addition to occupation and industry, characteristics included are: age, education, region, urban/rural residence,full-time/part-time status, and marital status.

This apparent decrease in black women's relative wages occurred at around the same time that the female-male wage ratio for whites began to rise noticeably for the first time since World War II. Some have argued that the increase in the white female-male wage ratio is the result of declining gender discrimination in the labor market. If so, it would appear that black women have not benefited to the same extent as white women from the decline in gender discrimination. An alternative explanation for the increase in the female-male ratio is that the labor market skills of white women improved during this period. For instance, following the long term increase in labor force participation by white women, it is likely that the work experience of the average working white woman may have begun to increase between 1984 and 1986.

The CPS results point to the possibility that the long term trend of increasing black women's relative wages due to declining discrimination against black women and improved labor market skills of black women may have ended at precisely the time that white women were beginning to feel the benefits of declining sex discrimination and improved labor market skills. Because these observations are based on a very small change in numbers between the 1985 and 1987 CPS, however, it is important to see if this result persists over several years before accepting that black women's wage growth has indeed stagnated.

It should be noted that the CPS results do not coincide perfectly with the results obtained using the 1980 census and the Survey of Income and Program Participation (SIPP). For instance, the CPS data suggest that the average black woman earned 96 percent as much as the average white woman in 1980, whereas the 1980 census suggests a figure of 94 percent. Similarly, the CPS suggests a wage ratio of 96 percent for 1984, whereas the SIPP yields a figure of 91 percent. Moreover, the 1984 CPS finds a much smaller unexplained wage differential than the SIPP.

Given the degree of variation among these three data sets, it is not possible come to firm conclusions about the precise level of the black-white female wage ratio. Similarly, it is not possible to pinpoint precisely the degree to which black women earn less than white women with the same characteristics. Yet, broad conclusions are possible: all three data sets agree that, depending on the characteristics considered, black women today earn between 90 percent and 100 percent as much as comparable white women. Compared to the ratios of 50–66 percent found for earlier years, this is a relatively small range of variation.

The CPS results presented in this section have served two purposes. First, they have provided evidence concerning trends in black-white wage differentials over the 1980s. They suggest that the long term trend of increasing relative wages and decreasing discrimination for black women may have stopped, possibly even reversed. Second, because the CPS results overlap with both the 1980 census and the SIPP, they allow assessment of the overall reliability of these results. Given the degree of disagreement of different data sets covering the same years, it appears that it is possible to provide only a broad picture of black women's labor market status. The general trends appear to be correct, but no single number can be accepted uncritically.

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Part III
Employment, Unemployment, and the Economic Status of Black Women

Chapter 8

The Economic Status of Black Women: Overview

This chapter compares black women's economic status with that of white women and shows the relationship between employment and economic status for black women. For this purpose the primary source is the Survey of Income and Program Participation (SIPP) which contains monthly data on persons' employment, marital status, family income, and many other characteristics over a 32-month period beginning in October 1984. To obtain information on husband's income, married women were matched with their husbands. In addition to this monthly data, the SIPP also provides rich data on household assets at one point in time and retrospective information on education and work experience.

Overview

To provide an overview of racial differences in economic status among women, this section contrasts various measures of economic status for black and white women both as a group and separated by marital status.

Table 8.1 compares the family income of black and white women. A woman's family income includes her own labor market earnings, the labor market earnings of her husband (if she is married), the labor market earnings of other family members, and the unearned income (such as interest on bank accounts, rent on investment properties, etc.) of all family members. Overall, the average family income of black women is roughly three-fifths that of white women. Married black women fare relatively better than unmarried black women: their average family income is almost three-quarters as much as that of married white women, whereas unmarried black women's average family income is less than two-thirds that of unmarried white women.[1] Black women are 3 times more likely to have family incomes of less than $10,000 and 7 times less likely to have family incomes over $60,000. These disparities are partially due to racial differences in marital status, but the same general pattern holds within marital status groups: black women are overrepresented among women with low family incomes and underrepresented among women with high family incomes.

Table 8.2 compares the annual earnings of black and white women. Both working and nonworking women are included in table 8.2. On average, black women earn somewhat less than white women, and white women are considerably more likely than black women to earn more than $20,000 a year. Overall, however, the earnings distributions of black and white women are much more similar than their family income distributions.

When black and white women are compared within marital status groups, a slightly different pattern emerges. Overall, when earners and nonearners are considered together, married black women earn 12 percent more than married white women, but unmarried black women earn substantially less than their white counterparts: roughly two-thirds as much. Married white women are slightly more likely than married black women to earn less than $5,000 a year, primarily because fewer married white women work. On the other hand, married white women are also more likely than their black counterparts to earn more than $20,000 a year.

Among unmarried women, blacks are much more likely to earn under $10,000 a year, and whites are much more likely to earn over $20,000 a year. A particularly striking racial difference is that approximately one-quarter of unmarried black women have no annual earnings (i.e., they do not work), compared with 14 percent of unmarried white women.

[1]Black women have higher average family income relative to white women when marital status is controlled for than when it is not, because unmarried women generally (continued...)

[1](...continued)
have lower family incomes than married women, and more black women are unmarried.

TABLE 8.1
Family Income of Black and White Women by Marital Status

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Mean family income	19,887	32,581	26,294	35,974	16,224	25,384
Percent distribution						
0–4,999	11.7	2.7	2.4	0.1	17.0	6.6
5,000–9,999	17.5	7.9	9.1	4.1	22.4	15.9
10,000–14,999	14.7	8.3	12.0	6.1	16.3	13.0
15,000–19,999	14.9	11.1	14.9	10.0	14.9	13.6
20,000–29,999	21.3	24.1	27.8	25.4	17.5	21.4
30,000–44,999	14.0	24.9	24.0	29.1	8.3	15.9
45,000–59,999	4.6	11.8	6.9	13.7	3.3	7.7
60,000+	1.3	9.3	2.9	10.9	0.4	5.9
Number of observations	1,237	9,280	450	6,307	787	2,973

Source: Survey of Income and Program Participation.

TABLE 8.2
Annual Earnings of Black and White Women by Marital Status

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Mean earnings	6,663	7,443	7,516	6,660	6,174	9,104
Percent distribution						
0	23.6	23.9	22.0	28.4	24.5	14.4
1–4,999	27.3	26.2	22.7	26.8	30.0	25.0
5,000–9,999	23.1	20.3	25.6	18.3	21.7	24.6
10,000–14,999	12.6	12.6	14.2	11.4	11.7	15.2
15,000–19,999	8.2	8.8	9.1	8.0	7.6	10.4
20,000–29,999	4.1	6.4	4.9	5.7	3.7	7.8
30,000+	1.1	1.8	1.6	1.3	0.8	2.7
Percent of family income	34.1	26.3	27.1	18.4	38.1	43.0
Number of observations	1,237	9,280	450	6,307	787	2,973

Source: Survey of Income and Program Participation.

TABLE 8.3
Family Assets of Black and White Women by Marital Status

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
A. Percent with asset type						
Home	42.8	62.0	54.7	68.2	36.0	48.7
Business	2.7	11.4	4.9	14.0	1.4	6.1
Vehicles	60.1	81.3	75.1	84.1	51.5	75.3
Other savings & investments	51.9	78.4	61.8	80.7	46.3	73.5
Stocks & mutual funds	4.4	19.0	6.9	20.4	2.9	16.0
Interest-earning money in banks	39.6	66.5	49.1	69.3	34.2	60.5
Interest-earning money not in banks	1.7	8.2	22.2	8.7	1.4	7.1
Other assets, incl. checking acc't	33.1	60.7	42.4	62.6	27.7	56.7
Other real estate	6.2	17.5	9.3	19.7	4.4	12.8
IRA or KEOGH accounts	4.9	24.4	6.4	26.1	3.9	20.7
B. Average value of assets, if positive						
Home	32,586	51,840	31,207	51,771	33,785	52,045
Business	14,601	58,559	18,151	56,661	7,500	67,787
Vehicles	3,632	6,176	4,129	6,558	3,216	5,269
Other savings & investments	5,222	31,007	8,075	23,536	3,386	2,953
Stocks & mutual funds	2,986	19,335	3,263	20,434	2,612	16,358
Interest-earning money in banks	2,524	11,130	3,186	11,350	1,981	10,595
Interest-earning money not in banks	3,274	18,611	4,940	19,260	1,759	16,916
Other assets, incl. checking acc't	1,345	5,012	1,935	5,878	829	2,980
Other real estate	37,153	50,577	41,347	50,990	32,121	49,229
IRA or KEOGH accounts	3,383	7,501	3,988	7,903	2,816	6,428
C. Average household wealth, debt, and net worth						
Household wealth	26,205	82,530	32,931	91,126	21,786	63,713
Debt	11,803	31,622	16,025	36,448	9,086	21,057
Secured	9,545	28,140	13,307	32,801	7,124	17,938
Unsecured	2,258	3,481	2,718	3,647	1,962	3,119
Household net worth	23,947	78,558	30,213	86,962	19,914	60,162
D. Median household wealth, debt, and net worth						
Household wealth	10,900	48,960	18,263	57,350	5,779	30,782
Debt	3,800	11,727	7,100	16,800	2,671	5,600
Secured	1,200	8,220	4,000	14,000	0	2,700
Unsecured	963	850	1,283	900	740	800
Household net worth	8,335	45,659	15,650	54,427	4,563	27,670
Number of observations	1,237	9,280	450	6,307	787	2,973

Source: Survey of Income and Program Participation.

TABLE 8.4
Labor Force Participation, Unemployment, Welfare, and Poverty Rates of Black and White Women by Marital Status

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Labor force participation rate	68.6	64.7	67.3	59.0	69.3	76.7
Average number of weeks in labor force	88.4	88.7	89.4	81.0	87.7	102.0
Unemployment rate	15.6	7.1	10.3	6.4	18.5	8.2
Percent who are ever unemployed	38.2	25.4	25.6	21.7	45.4	33.4
Average number of weeks unemployed, if any	10.9	4.6	5.7	3.5	13.9	6.8
Employment rate	57.9	60.1	60.4	55.3	56.4	70.4
Percent who ever work	76.7	77.5	78.4	73.4	75.7	86.0
Average number weeks working	77.4	83.1	83.7	77.4	73.8	95.2
Poverty rate[a]	25.5	5.9	9.3	3.2	34.8	11.5
Welfare rate[b]	22.6	4.4	8.0	2.0	31.0	9.4
Number of observations	1,237	9,280	450	6,307	787	2,973

Source: Survey of Income and Program Participation.
[a] A woman is defined as in poverty if her mean family income over the 32-month period falls below the poverty cutoff for her family type.
[b] A woman is defined as on welfare if she ever received AFDC or general assistance during the 32-month period.

On average, black women's earnings constitute approximately one-third of their family income, whereas white women's earnings constitute roughly one-quarter of their family income. Married black women contribute a substantially higher percentage of their family income than married white women, but unmarried black women actually contribute a smaller percentage than unmarried white women.

Table 8.3 compares the family wealth of black and white women by marital status. Overall, black women's families have considerably less wealth than white women's families. For instance, 62 percent of white women's families own their own homes, compared with 43 percent of black women's families. The average equity in homes is also less for black women's families if they own a home: $33,000, compared with $52,000 for white families. Just over one-half of black women's families have any savings other than in their homes, business, or vehicles, compared with almost four-fifths of white women's families. The median net worth (wealth minus debts) of black women's families is less than one-fifth that of white women's families.

Within marital status groups, black women's families are also less wealthy than white women's families. However, married black women fare relatively better than unmarried black women. For instance, the median net worth for married black women's families is almost 30 percent that of married white women's families, whereas the comparable figure for unmarried black women is just over 15 percent.

Besides family income and earnings, other indicators of a group's economic status include their unemployment, poverty, and welfare rates. Table 8.4 shows that, overall, black women are slightly more likely than white women to be in the labor force at a given point in time, but because they experience unemployment at twice the rate of white women, they are less likely than white women to be employed. Married black women are more likely to be in the labor force and, despite higher unemployment rates, more likely to be employed than married white women. Unmarried black women, on the other hand, are less likely to be in the labor force and less likely to be employed than their white counterparts. They also have a much higher unemployment rate.

TABLE 8.5
Family Income of Black and White Women by Employment Status

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Employed						
Mean family income	22,972	34,684	29,885	39,122	18,755	27,289
Percent distribution						
0–4,999	5.9	1.2	1.1	0.3	8.8	2.6
5,000–9,999	13.0	5.9	5.2	1.9	17.8	12.6
10,000–14,999	14.8	7.2	9.2	4.0	18.2	12.5
15,000–19,999	16.1	10.1	12.5	7.1	18.2	15.2
20,000–29,999	24.0	24.1	27.6	23.7	21.9	24.7
30,000–44,999	19.0	27.5	32.4	33.4	10.8	17.8
45,000–59,999	5.7	14.1	8.5	17.4	4.1	8.7
60,000+	1.5	9.9	3.7	12.2	0.2	6.0
Number of observations	715	5,578	272	3,486	444	2,092
Not employed						
Mean family income	15,648	29,413	20,853	32,083	12,947	20,862
Percent distribution						
0–4,999	19.8	4.9	4.5	1.4	27.7	16.1
5,000–9,999	23.8	10.9	15.2	6.9	28.3	23.7
10,000–14,999	14.6	9.9	16.3	8.6	13.7	14.1
15,000–19,999	13.2	12.7	18.5	13.6	10.5	10.0
20,000–29,999	17.5	24.1	28.1	27.4	12.0	13.4
30,000–44,999	7.1	20.9	11.2	23.8	5.0	11.6
45,000–59,999	3.1	8.2	4.5	9.1	2.3	5.3
60,000+	1.0	8.4	1.7	9.2	0.1	5.8
Number of observations	521	3,702	178	2,821	343	881

Source: Survey of Income and Program Participation.

TABLE 8.6
Annual Earnings of Black and White Working Women

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Mean earnings	10,380	11,329	11,270	10,967	18,755	27,289
Percent distribution						
0–4,999	23.4	24.8	19.1	26.8	26.0	21.5
5,000–9,999	34.1	28.2	33.5	27.5	34.5	29.3
10,000–14,999	20.3	19.7	22.4	19.3	18.9	20.3
15,000–19,999	13.3	14.1	14.3	14.0	12.6	14.2
20,000–29,999	7.1	10.4	8.1	10.2	6.5	10.9
30,000+	1.8	2.8	2.6	2.3	1.4	3.8
Percent of family income	51.3	39.1	39.7	29.3	58.5	55.3
Number of observations	716	5,578	272	3,486	444	2,092

Source: Survey of Income and Program Participation.

Over one-quarter of black women had mean family income below the poverty cutoff for their family type, and more than one-fifth of black women were on welfare (Aid to Families with Dependent Children or general assistance) at some point during the 32-month period covered by SIPP. For both races, unmarried women are more likely to be in poverty and on welfare than married women, but poverty and welfare rates are three times higher for black women regardless of marital status.

The above results indicate that black women have considerably lower economic status than white women. In particular, their family income and wealth are much lower, and they have much higher unemployment, welfare, and poverty rates than white women. Although the earnings distributions of black and white women are similar overall, married black women earn more than married white women—primarily because many married white women do not work; and unmarried black women earn less than unmarried white women. The earnings of black women make up a much larger fraction of their family income than do those of white women, especially among married women.

Employment and the Economic Status of Black and White Women

These results suggest that work may be crucial to elevating black women's economic status. This section compares the economic status of black and white women by employment status (whether or not they are employed).

Table 8.5 compares the family income of employed and unemployed women for each race and marital status. Generally, employed women of both races have higher family incomes than women who are not employed. However, being employed increases black women's family incomes more than white women's family incomes, both overall and within marital status groups. As a result, the family incomes of employed black women are two-thirds as high as the family incomes of employed white women, whereas the average family income of black women who are not employed are barely half that of white women who are not employed. Employed black women also have higher family incomes relative to their white counterparts within marital status groups than do black women who are not employed.

Table 8.6 compares the earnings of black and white women who are employed. Thus table 8.6 is similar to table 8.2 except that table 8.6 includes only working women in the sample. Overall, employed black women earn 90 percent as much as employed white women[2] and contribute a larger fraction of family income (over one-half). Among married employed women, blacks earn more than whites and contribute a much larger percentage of family income. Among unmarried employed women, however, blacks earn less than whites and contribute roughly the same percentage of family income.

Table 8.7 compares the family wealth of black and white women by employment status. Black women who work have higher family wealth than those who do not. For white women, on the other hand, the relationship between work status and family wealth is the reverse. For instance, a considerably higher percentage of working than of nonworking black women own their own homes (46 compared with 39 percent), whereas for white women roughly the same percentage own their own homes whether or not they work. Similarly, the median family net worth is higher for working than for nonworking black women ($9,236, compared with $7,134). Among white women, on the other hand, it is those who are not working who have the higher family net worth. These results also hold within marital status groups: black women who work have greater family wealth than those who do not.

Table 8.8 shows that, both across and within marital status groups, working black women are also much less likely to be in poverty or to receive welfare (Aid for Dependent Children or general assistance) than their counterparts who are not working.

This discussion highlights the importance of working for black women. Much more than for white women, the economic well-being of black women and their families depends on whether or not they work. Working black women have higher family incomes than those who are not working. Black women's earn-

[2]Since employed black and white women work roughly the same number of hours, this result is consistent with the result in chapter 7 that the black-white hourly wage ratio is roughly 90 percent.

TABLE 8.7
Family Assets of Black and White Women by Employment Status

	EMPLOYED					
	All		Married		Unmarried	
	Black	White	Black	White	Black	White
A. Percent with asset type						
Home	45.8	61.1	55.5	68.3	39.9	49.1
Business	2.5	12.5	5.1	15.9	0.9	6.8
Vehicles	67.0	82.5	75.7	85.0	61.7	78.4
Other savings & investments	61.0	80.8	68.4	82.6	56.5	77.8
Stocks & mutual funds	4.9	19.2	8.1	20.5	2.9	17.1
Interest-earning money in banks	47.3	69.7	54.0	72.5	43.2	65.0
Interest-earning money not in banks	1.8	8.2	1.8	8.9	1.8	7.1
Other assets, incl. checking acc't	41.1	64.1	50.4	65.4	35.4	62.0
Other real estate	6.4	17.4	8.8	20.1	5.0	12.9
IRA or KEOGH accounts	6.0	26.1	7.0	27.9	5.4	23.0
B. Average value of assets, if positive						
Home	32,973	49,662	31,580	49,298	34,161	50,507
Business	10,657	55,124	11,488	52,914	7,750	68,615
Vehicles	3,822	6,126	4,402	6,564	3,386	5,336
Other savings & investments	5,381	27,552	7,862	31,079	3,790	21,580
Stocks & mutual funds	2,438	13,822	2,473	14,516	2,380	12,442
Interest-earning money in banks	2,429	9,164	2,915	9,085	2,058	9,312
Interest-earning money not in banks	2,692	13,371	3,430	15,038	2,231	9,890
Other assets, incl. checking acc't	956	4,805	1,228	5,917	719	2,846
Other real estate	39,378	48,460	44,308	48,634	34,000	48,009
IRA or KEOGH accounts	3,713	7,225	4,862	7,779	2,804	6,106
C. Average household wealth, debt, and net worth						
Household wealth	26,997	77,132	33,012	86,466	23,142	61,324
Debt	13,765	32,854	19,156	39,357	10,311	21,841
Secured	11,181	29,203	15,784	35,257	8,230	18,949
Unsecured	2,585	3,651	3,372	4,100	2,080	2,892
Household net worth	24,412	72,894	29,640	81,433	21,061	58,432
D. Median household wealth, debt, and net worth						
Household wealth	11,775	45,892	18,369	21,00	17,032	30,449
Debt	5,100	14,100	9,851	17,813	3,296	6,800
Secured	2,200	10,000	6,047	1,100	581	3,675
Unsecured	1,303	1,000	2,000	51,638	1,000	900
Household net worth	9,236	42,213	15,927	30,449	4,896	26,900
Number of observations	716	5,578	272	3,486	444	2,092

Source: Survey of Income and Program Participation.

TABLE 8.7 (continued)
Family Assets of Black and White Women by Employment Status

	NOT EMPLOYED					
	All		Married		Unmarried	
	Black	White	Black	White	Black	White
A. Percent with asset type						
Home	38.6	63.2	53.4	68.0	30.9	47.8
Business	2.9	9.8	4.5	11.5	2.0	4.3
Vehicles	50.5	79.5	74.2	83.1	38.2	68.0
Other savings & investments	39.3	74.7	51.7	78.3	32.9	63.1
Stocks & mutual funds	3.6	18.7	5.1	20.4	2.9	13.4
Interest-earning money in banks	29.0	61.7	41.6	65.4	22.4	49.9
Interest-earning money not in banks	1.5	8.2	2.8	8.6	0.9	7.2
Other assets, incl. checking acc't	22.1	55.6	30.3	59.2	17.8	44.2
Other real estate	6.0	17.6	10.1	19.2	3.8	12.6
IRA or KEOGH accounts	3.3	21.7	5.6	23.8	2.0	15.1
B. Average value of assets, if positive						
Home	31,955	55,013	30,613	54,840	33,157	55,799
Business	19,333	63,257	29,813	63,091	7,357	64,672
Vehicles	3,284	6,253	3,704	6,552	2,862	5,086
Other savings & investments	4,973	36,292	8,406	38,568	2,750	28,467
Stocks & mutual funds	3,994	27,841	5,194	27,760	2,913	28,236
Interest-earning money in banks	2,738	14,473	3,723	14,541	1,790	14,567
Interest-earning money not in banks	4,219	26,463	6,450	24,651	500	33,422
Other assets, incl. checking acc't	2,341	5,372	3,731	5,826	1,110	3,427
Other real estate	33,851	53,724	37,398	54,038	28,940	52,194
IRA or KEOGH accounts	2,547	8,001	2,328	8,081	2,859	7,600
C. Average household wealth, debt, and net worth						
Household wealth	24,964	90,787	32,806	96,912	19,885	69,735
Debt	8,728	29,736	11,150	32,836	7,159	19,081
Secured	6,982	26,515	9,450	29,751	5,383	15,392
Unsecured	1,747	32,211	1,701	3,085	1,777	3,689
Household net worth	23,218	87,223	31,105	93,827	18,108	64,522
D. Median household weath, debt, and net worth						
Household wealth	9,850	54,175	18,224	60,041	4,758	33,687
Debt	2,029	8,561	3,300	11,600	1,488	2,863
Secured	0	6,000	0	9,000	0	0
Unsecured	564	551	700	600	500	500
Household net worth	7,134	51,626	15,388	57,658	3,296	30,408
Number of observations	521	3,702	178	2,821	343	881

Source: Survey of Income and Program Participation.

TABLE 8.8
Welfare and Poverty Rates of Black and White Women by Employment Status[a]

	All		Married		Unmarried	
	Black	White	Black	White	Black	White
Employed						
Poverty rate[b]	14.0	2.6	4.4	1.3	19.8	4.8
Welfare rate[c]	11.3	2.4	3.3	1.2	16.2	4.4
Number of observations	3,702	5,578	272	3,486	444	2,092
Not Employed						
Poverty rate[b]	41.5	10.8	16.9	5.6	54.2	27.4
Welfare rate[c]	38.2	7.4	15.2	3.1	50.1	21.2
Number of observations	521	3,702	178	2,821	343	881

Source: Survey of Income and Program Participation.
[a] A woman is defined as in poverty if her mean family income over the 32-month period falls below the poverty cutoff for her family type.
[b] A woman is defined as on welfare if she ever received AFDC or general assistance during the 32-month period.

ings constitute a substantial proportion of their family income. As a consequence, it is important to understand the factors that affect black women's chances of working. A preliminary investigation of factors affecting black women's decision to participate in the labor force and ability to find work is undertaken in the next chapter. In particular, the chapter considers whether racial discrimination in the labor market directly or indirectly reduces black women's chances of working.

Chapter 9

Employment and Unemployment Patterns of Black Women

This chapter seeks to determine whether differences in the work status of black and white women—the higher labor force participation rates of married black women, the lower labor force participation rates of unmarried black women, and the generally higher unemployment rate of black women—can be accounted for by such factors as age, education, husband's earnings, and the number of young children at home. The data source used is the March 1988 Current Population Survey, which provides up-to-date information on the labor force status of black and white women and has sufficient sample size to undertake an analysis that considers the combined effect of marital status, age, education, husband's earnings, and children on women's work status.

Racial Differences in Employment and Unemployment Patterns

Black and white women have very different labor force participation, employment, and unemployment rates, as shown in table 9.1. Overall, black women's labor force participation rate is very close to white women's: 68 percent compared with 69 percent. Black women experience a much higher unemployment rate, however (11 percent versus 4 percent). As a result, the proportion of women who are actually working is less for blacks than for whites: 60 percent compared with 66 percent. Among employed black women, however, the proportion working full time is higher than for their white counterparts. Overall, three-quarters of employed black women work full time, compared with two-thirds of employed white women.

The similarity of the labor force participation rates of black and white women overall disappears when women are compared within marital status groups (see table 9.1). Married black women have much higher labor force participation rates than their white counterparts (73 percent versus 64 percent). Unmarried black women, on the other hand, have much lower labor force participation rates than their white counterparts (56 percent versus 73 percent). Moreover, among whites, married women are less likely than unmarried women to participate in the labor force, but among blacks, the reverse is true.

Although they have higher unemployment rates than their white counterparts, married black women are more likely to be employed than married white women. Unmarried black women have extremely high unemployment rates (14 percent) and are much less likely to work than their white counterparts. Whereas roughly three-quarters of unmarried white women work, just over one-half of unmarried black women work.

Among married women, working black women are much more likely to work full time than their white counterparts. Among unmarried women, the black and white proportions working full time are almost identical, however.

Black and white women also have very different employment and unemployment patterns by age. Up until age 50, black women's labor force participation and employment rates increase sharply with age, compared with a much more gradual increase for white women. Both groups exhibit similar drops in labor force participation and employment rates after age 50.

Differences are greatest for black and white women under the age of 24. Young black women have a much lower labor force participation rate (59 percent versus 72 percent) and a much higher unemployment rate (24 percent versus 7 percent) than young white women. Young black women's lower labor force participation rate combined with their higher unemployment rate means that only 44 percent of black women 24 years old and younger work, compared with 66 percent of white women.

TABLE 9.1
Labor Force Participation, Employment, and Unemployment Rates and Percentage Working Full Time for Black and White Women by Marital Status and Age

	Number of observations		Labor force participation rate		Employment rate		Unemployment rate		% working full time*	
	Black	White	Black	White	Black	White	Black	White	Black	White
All	4,998	37,243	67.7	68.9	60.0	66.1	11.4	4.0	73.7	65.1
18–24	1,003	5,935	58.6	71.7	44.4	66.2	24.2	7.4	58.0	56.0
25–34	1,456	10,370	73.5	74.5	64.2	71.5	12.6	4.0	77.0	68.3
35–49	1,572	12,143	77.0	75.8	71.7	73.4	6.9	3.2	78.4	67.7
50–64	967	8,795	53.3	50.9	50.8	49.8	4.7	2.3	70.7	62.4
Married	1,751	24,238	73.2	64.4	68.1	62.3	6.9	3.3	74.8	62.0
18–24	131	1,632	68.7	66.9	53.4	60.7	22.2	9.3	70.0	63.2
25–34	524	7,007	80.2	69.3	73.5	66.8	8.3	3.6	74.5	61.8
35–49	686	9,156	79.2	72.3	75.4	70.3	4.8	2.8	79.5	63.6
50–64	410	6,443	55.6	47.2	53.7	46.3	3.5	1.9	65.9	58.4
Unmarried	3,247	13,005	64.7	77.2	55.6	73.3	14.1	5.0	72.9	70.0
18–24	872	4,303	57.0	73.0	43.0	68.3	24.5	6.8	55.7	53.6
25–34	932	3,363	69.7	85.2	59.0	81.2	15.4	4.7	78.7	79.5
35–49	886	2,987	75.4	86.5	68.8	82.8	8.7	4.3	77.5	78.3
50–64	557	2,352	51.5	61.1	48.7	59.2	5.6	3.0	74.5	70.9

Source: March 1988 Current Population Survey.
* Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.

Like their labor force participation and employment rates, black women's overall proportion working full time increases much more with age than white women's. The same is true for married women. Among working women who are not married, however, the proportions of blacks and whites working full time are almost identical at every age.

In sum, young and unmarried black women are much less likely to work than their white counterparts. Married black women are much more likely to work than married white women. Black women of all ages and all marital statuses, especially young and unmarried black women, experience higher unemployment rates than white women.

Accounting for Racial Differences in Employment and Unemployment Patterns

This section seeks to determine whether the racial differences in employment and unemployment patterns documented above can be accounted for by differences in background characteristics, such as education, husband's earnings, or number of young children. Separate analyses are undertaken for married and unmarried women.

Married Women

Table 9.2 shows that married black and white women differ in several ways that could affect their relative labor force participation and unemployment rates. Married black women are on average slightly younger than their white counterparts. A larger proportion of black wives than of white wives are between the ages of 25 and 50, the ages for which women's labor force participation rates are the highest. Thus, differences in the age distributions of black and white women might contribute to black wives' higher labor force participation rates.

Black wives have about half a year less education on average than their white counterparts. They are considerably more likely not to have graduated from high school and somewhat less likely to have graduated from college. Since women's labor force participation rates generally increase with their education, the educational differences between married black and white women cannot account for black wives' higher labor force participation rate. On the other hand, they might contribute to black wives' higher un-

TABLE 9.2
Characteristics of Black and White Married Women

	Black	White
Age		
Average	39.7	40.8
% 18–24	7.5	6.7
% 25–34	29.9	28.9
% 35–49	39.2	37.8
% 50–64	23.4	26.6
Education		
Average	12.3	12.9
% 0–11	21.4	13.3
% 12	44.9	47.5
% 13–15	19.9	20.2
% 16+	13.8	19.1
Husband's earnings		
Average	$18,013	$26,417
% 0–4,999	19.7	15.1
% 5,000–9,999	10.3	5.5
% 10,000–14,999	15.0	8.5
% 15,000–24,999	26.6	21.7
% 25,000–39,999	20.9	28.3
% 40,000–59,999	6.0	14.1
% 60,000+	1.5	6.8
Children		
Average number	1.2	1.0
% with any	59.3	52.9
% with youngest child 0–2	16.7	15.4
% with youngest child 3–5	11.0	10.0
% with youngest child 6–11	17.4	14.2
% with youngest child 12–17	14.3	13.4
Sample size	1,751	24,238

Source: March 1988 Current Population Survey.

TABLE 9.3
Labor Force Participation, Employment, and Unemployment Rates and Percentage Working Full Time for Married Black and White Women

	Number of observations		Labor force participation rate		Employment rate		Unemployment rate		% working full time[a]	
	Black	White	Black	White	Black	White	Black	White	Black	White
All	1,751	24,238	73.2	64.4	68.1	62.3	6.9	3.3	74.8	62.0
Age										
18–24	116	1,501	68.1	66.3	50.9	59.8	25.3	9.8	72.9	63.3
25–34	447	6,576	80.5	69.0	74.0	66.4	8.1	3.7	77.0	61.2
35–49	585	8,630	78.8	71.7	75.2	69.8	4.6	2.8	78.0	62.9
50–64	353	6,157	56.9	47.1	54.7	46.3	4.0	1.8	66.3	58.5
Education										
0–11	309	3,035	49.5	42.0	45.0	42.0	9.2	7.5	64.7	59.0
12	674	10,940	68.4	60.3	68.4	60.3	9.8	3.4	77.7	61.4
13–15	305	4,609	78.7	67.2	78.7	67.2	4.8	3.0	69.2	59.4
16+	213	4,280	85.9	73.9	85.9	73.9	1.1	1.8	84.7	64.7
Husband's earnings										
0–4,999	296	3,449	58.8	45.1	52.0	43.0	11.5	4.6	66.2	60.9
5,000–9,999	154	1,247	74.7	65.2	63.6	61.5	14.8	5.7	74.5	62.2
10,000–14,999	225	1,953	70.7	71.0	64.4	67.3	8.8	5.1	72.4	64.9
15,000–24,999	400	4,960	77.0	72.9	73.5	70.4	4.5	3.4	74.1	65.2
25,000–39,999	313	6,480	82.4	68.3	78.6	66.6	4.7	2.6	83.3	60.6
40,000–59,999	90	3,219	76.7	61.9	76.7	60.5	0.0	2.1	78.3	58.1
60,000+	23	1,556	78.3	53.3	73.9	52.1	5.6	2.3	70.6	53.3
Age of youngest child										
No children	602	10,697	67.9	62.1	64.1	60.6	5.6	2.5	72.3	67.3
Youngest 0–2	250	3,505	73.2	54.8	64.0	51.5	12.6	5.9	73.7	49.4
Youngest 3–5	168	2,296	73.8	62.2	65.5	59.8	11.3	3.9	80.0	53.8
Youngest 6–11	263	3,285	82.9	71.7	79.8	69.1	3.7	3.7	72.9	55.8
Youngest 12–17	218	3,081	76.6	73.9	72.0	71.7	6.0	3.0	83.4	65.0

Source: March 1988 Current Population Survey.
[a] Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.

TABLE 9.4
Hypothetical Labor Force Participation, Employment, and Unemployment Rates and Percentage Working Full Time for Married Black and White Women Assuming Each Group Had the Other Group's Characteristics

	Labor force participation rate	Employment rate	Unemployment rate	% working full time[a]
Actual black	73.2	68.1	6.9	74.8
Hypothetical black[b]	75.0	71.0	5.6	75.0
Hypothetical white[b]	64.7	61.9	4.7	61.0
Actual white	64.4	62.3	3.3	62.0

Source: March 1988 Current Population Survey.
[a] Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.
[b] Assumes each group has the other group's distribution across age, education, husband's earnings, and children categories, but their own labor force participation rates, employment rates, unemployment rates, and percentages working full time within categories.

employment rate, since less-educated women generally have higher unemployment rates.

Black women's husbands earn an average of $18,013 per year, much less than white women's husbands, who earn $26,417 on average. Forty-five percent of black wives have husbands earning less than $15,000 per year, compared with 29 percent of white wives. Fewer than 8 percent of black wives have husbands earning over $40,000 per year, compared with over 20 percent of white wives. The lower average husband's earnings for black women might contribute to their higher labor force participation rate, since, other things being equal, women's labor force participation rates decline as their husbands' earnings increase.

Married black women have more children on average and are more likely to have at least one child than their white counterparts. Since women with more children are generally less likely to participate in the labor force, black women's greater number of children is unlikely to account for their higher labor force participation rate. However, black wives are more likely only to have children who are school age or older, ages at which children deter women's working less.

None of these factors can by itself explain differences in married black and white women's employment and unemployment patterns. Table 9.3 shows that married black women have higher labor force participation rates and are more likely to work full time than their white counterparts even when they are grouped by age, education, husband's earnings, or age of their youngest child. Similarly, they also have higher unemployment rates within age, education, husband's earnings, or age of youngest child categories.

Several important differences in the labor force participation patterns of black and white married women should be noted. First, black wives' labor force participation rate is much less sensitive to their husbands' earnings levels than white wives'. Where white wives' labor force participation rate falls steadily as their husbands' earnings rise above $25,000 a year, black wives' rate continues to increase until their husbands' earnings reach $40,000 a year and declines only slightly at income levels above $40,000.

Second, in contrast to white wives, who are less likely to be in the labor force if they have children under 3 than if they have no children, black wives are more likely to be in the labor force if they have very young children than if they have none at all. Black wives with very young children have a very high unemployment rate, however, so they are equally likely to be employed as black wives without children. Also, white wives' labor force participation rates rise continuously as the age of the youngest child increases, but black wives' do not.

To determine whether racial differences in employment and unemployment patterns among married women result from differences in all these characteristics taken together, table 9.4 presents hypothetical labor force participation rates, employment rates, unemployment rates, and percentages working full time for married black and white women assuming that each group had the other group's distribution across the age, education, husband's earnings, and age of youngest child categories shown in table 9.3. For comparison, the actual figures for each group are also shown.

The differences between black and white women's employment and unemployment patterns do not narrow when differences in characteristics are taken into account. The hypothetical and the actual figures are extremely close for both black and white women. In fact, the hypothetical labor force participation and employment rates for married black women are higher than their actual rates. These results indicate that differences in characteristics cannot account for the racial differences in employment and unemployment patterns among married women.

Unmarried Women

The background characteristics of unmarried women are shown in table 9.5. The table distinguishes never-married women and women who are married spouse absent, separated, divorced, or widowed, termed "previously married."

Black women who have never been married are a year and a half older on average than their white counterparts. Previously married black and white women are roughly the same average age. Where married black women have half a year less education than their white counterparts, the education gap between unmarried black and white women is over 1 year.

TABLE 9.5
Characteristics of Black and White Unmarrried Women

	All		Never married		Previously married	
	Black	White	Black	White	Black	White
Age						
Average	34.9	34.2	27.9	26.4	43.7	43.4
% 18–24	26.9	33.1	45.2	57.3	4.0	4.9
% 25–34	28.7	25.9	36.2	28.4	19.3	22.9
% 35–49	27.3	23.0	14.7	9.7	43.1	38.4
% 50–64	17.2	18.1	4.0	4.6	33.6	33.7
Education						
Average	11.8	12.9	12.0	13.2	11.6	12.5
% 0–11	32.2	15.3	28.9	11.5	36.2	19.6
% 12	41.7	40.9	43.6	37.5	39.4	44.9
% 13–15	17.2	25.1	19.7	28.3	14.1	21.2
% 16+	8.9	18.7	7.8	22.6	10.3	14.2
Children						
Average number	0.8	0.3	0.8	0.1	0.8	0.6
% with any	44.2	20.2	44.2	6.2	44.2	36.4
% with youngest child 0–2	12.3	3.9	16.7	3.1	6.7	4.7
% with youngest child 3–5	9.0	3.9	10.7	1.5	6.9	6.8
% with youngest child 6–11	11.8	6.3	11.1	1.2	12.8	12.3
% with youngest child 12–17	11.1	6.1	5.7	0.4	18.0	12.6
Sample size	3,247	13,005	1,805	6,990	1,442	6,015

Source: March 1988 Current Population Survey.

TABLE 9.6
Labor Force Participation, Employment, and Unemployment Rates and Percentage Working Full Time for Never-Married Black and White Women

	Number of observations		Labor force participation rate		Employment rate		Unemployment rate		% working full time[a]	
	Black	White	Black	White	Black	White	Black	White	Black	White
All	1,805	6,990	63.4	78.3	52.5	74.4	17.3	5.0	70.2	66.2
Age										
18–24	815	4,006	56.8	73.2	43.2	68.4	24.0	6.6	54.5	52.8
25–34	653	1,984	68.6	88.4	58.3	85.1	15.0	3.7	79.0	81.6
35–49	265	676	72.5	86.8	65.3	85.7	9.9	1.4	78.0	81.0
50–64	72	324	58.3	61.7	56.9	59.9	24.0	3.0	90.2	77.8
Education										
0–11	522	806	39.3	55.7	27.0	50.0	31.2	10.2	60.3	33.5
12	787	2,623	69.1	79.5	56.5	73.7	18.2	7.2	71.0	69.7
13–15	355	1,980	74.9	74.4	66.8	72.1	10.9	3.1	64.6	54.0
16+	141	1,581	92.2	92.7	87.9	90.8	4.6	2.0	89.5	82.9
Age of youngest child										
No children	1,007	6,558	70.0	79.8	61.1	76.0	12.8	4.4	70.2	66.1
Youngest 0–2	302	218	39.1	50.9	25.5	40.8	34.7	19.8	58.4	74.2
Youngest 3–5	194	102	56.2	62.7	42.3	51.0	24.8	18.8	75.6	63.5
Youngest 6–11	200	81	69.0	69.1	54.5	63.0	21.0	8.9	70.6	60.8
Youngest 12–17	102	31	73.5	77.4	62.7	71.0	14.7	8.3	76.6	81.8

Source: March 1988 Current Population Survey.
[a] Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.

TABLE 9.7
Labor Force Participation, Employment, and Unemployment Rates and Percentage Working Full Time for Previously Married Black and White Women

	Number of observations		Labor force participation rate		Employment rate		Unemployment rate		% working full time[a]	
	Black	White	Black	White	Black	White	Black	White	Black	White
All	1,442	6,015	66.4	75.8	59.6	72.0	10.2	5.1	75.9	74.4
Age										
18–24	57	297	59.6	74.1	40.4	66.7	32.4	10.0	73.9	64.6
25–34	279	1,379	72.4	80.5	60.6	75.5	16.3	6.2	78.1	76.2
35–49	621	2,311	76.7	86.4	70.4	81.9	8.2	5.2	77.3	77.4
50–64	485	2,028	50.5	60.9	47.4	59.1	6.1	3.0	71.7	69.8
Education										
0–11	522	1,179	48.1	52.8	40.8	48.0	15.1	9.0	62.4	63.4
12	568	2,702	71.1	78.0	63.4	73.7	10.9	5.5	77.5	75.9
13–15	204	1,278	82.4	82.7	75.5	79.3	8.3	4.2	84.4	74.5
16+	148	856	90.5	90.7	89.2	88.8	1.5	2.1	83.3	78.8
Age of youngest child										
No children	804	3,826	62.9	74.5	58.1	71.5	7.7	4.1	74.9	74.1
Youngest 0–2	96	284	63.5	56.0	45.8	50.7	27.9	9.4	72.7	66.0
Youngest 3–5	99	409	64.6	75.1	52.5	68.9	18.8	8.1	76.7	75.5
Youngest 6–11	184	739	74.5	79.7	68.5	74.3	8.0	6.8	77.0	74.1
Youngest 12–17	259	757	73.0	86.8	65.6	82.2	10.1	5.3	78.2	77.5

Source: March 1988 Current Population Survey.
[a] Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.

TABLE 9.8
Hypothetical Labor Force Participation, Employment and Unemployment Rates, and Percentage Working Full Time for Unmarried Black and White Women Assuming Each Group Had the Other Group's Characteristics

	Labor force participation rate	Employment rate	Unemployment rate	% working full time[a]
Actual black	64.7	55.6	14.1	72.9
Hypothetical black[b]	72.7	65.1	11.7	71.8
Hypothetical white[b]	69.6	64.6	8.2	67.0
Actual white	77.2	73.3	5.0	70.0

Source: March 1988 Current Population Survey.
[a] Percentage of women who were employed during the week preceding the survey who worked 35 or more hours that week.
[b] Assumes each group has the other group's distribution across age, education, marital status, and children categories, but their own labor force participation rates, employment rates, unemployment rates, and percentages working full time within categories.

Unmarried black women are considerably more likely to have children than their white counterparts. Forty-four percent of black women who have never been married have at least one child under 18, compared with 6 percent of white women. Never-married black women are over five times as likely to have a child under the age of 3. Similar, but less pronounced, differences exist between previously married black and white women.

The lower educational levels and greater frequency of children for unmarried black women could contribute to both their lower labor force participation rates and their higher unemployment rates. To see whether they do, tables 9.6 and 9.7 compare the labor force participation rates, employment rates, and unemployment rates of never-married (table 9.6) and previously married (table 9.7) black and white women by age, education, and age of youngest child.

Like for married women, racial differences in background characteristics cannot individually account for black-white differences in labor force status. Black women generally continue to have lower labor force participation rates and higher unemployment rates than their white counterparts even when grouped according to separate characteristics.

Highly educated unmarried women are an exception to this generalization: the racial gap in labor force participation and unemployment rates is quite small among highly educated unmarried women. Among the highly educated, unmarried black and white women have almost identical labor force participation rates. Although unmarried black women's unemployment rates are higher at all educational levels (considerably higher at low educational levels), the racial employment gap among highly educated unmarried women is not large. It should be noted, however, that the highly educated make up only 9 percent of unmarried black women.

As was done for married women in table 9.4, table 9.8 presents hypothetical labor force participation rates, employment rates, unemployment rates, and percentages working full time for unmarried black and white women assuming that each group had the other group's distribution across age, education, and age of youngest child categories. Table 9.8 also assumes that each group had the other group's distribution across the two marital status categories, never-married and previously married. For comparison, the actual figures for each group are also shown.

Unlike for married women, for unmarried women racial differences in characteristics appear to account for a large part of the black-white differences in employment and unemployment patterns. If unmarried black women had white women's distributions across age, education, age of youngest child and marital status categories, their labor force participation rate would be 73 percent as opposed to their actual rate of 65 percent, or 8 percentage points higher. Thus, almost three-quarters of the 12.5-percentage-point gap in the labor force participation rates of unmarried black and white women can be accounted for by differences in their characteristics. Less of the gap in unmarried women's unemployment rates is accounted for.[1]

Conclusion

This chapter has considered whether differences in the employment and unemployment patterns of black and white women can be accounted for by differences in their background characteristics. Taking racial differences in characteristics into account does not narrow the racial gap in labor force participation rates, unemployment rates, employment rates, and the proportion working full time for married women. For unmarried women, taking racial differences in characteristics into account narrows the gap in labor force participation rates substantially but has only a slight effect on the unemployment gap.

Thus, it appears that, especially for married women, black and white women's decisions about whether to work and how much to work follow different patterns that cannot be explained by simple differences in background characteristics. Similarly, black women's considerably higher unemployment rates cannot be explained by their characteristics.

[1]Hypothetical employment and unemployment patterns giving each group the other group's value for each of the characteristics separately were also performed for unmarried women. Racial differences in education, children and marital status each appear to account for an equal share of the black-white differences in labor force participation rates among unmarried women. On the other hand, racial differences in the presence and number of children for unmarried women are the only characteristic that can even partially account for unmarried black women's higher unemployment rates.

The only exception to this general pattern of racial differences in work status is highly educated single women. Among these women, blacks and whites have indistinguishable labor force participation rates. Highly educated black women do have slightly higher unemployment rates, however.

This chapter highlights three major racial differences in work patterns. First, regardless of age, educational level, husband's earnings, or age of youngest child, married black women are much more likely to work and to work full time than married white women. Unlike white mothers, black mothers of very young children are actually more likely to participate in the labor force than black wives with no children.

Second, unmarried black women, particularly those who have never married, are much less likely to participate in the labor force than their white counterparts. On the other hand, if they do work, they are equally likely to work full time. Black-white differences in the educational levels, marital statuses (never-married versus previously married) and age (and existence) of youngest child do account for a large portion of the difference in labor force participation rates. Even when racial differences in characteristics are taken into account, however, unmarried black women are less likely to participate in the labor force than their white counterparts.

Third, black women experience much higher unemployment rates than white women with comparable characteristics. Young black women and black women who have not graduated from high school, particularly unmarried mothers, have extremely high unemployment rates compared to their white counterparts. Over one-third of never-married black mothers of children under 2 who are in the labor force are unemployed, compared with just under 20 percent of comparable white women. In general, black-white differences in characteristics do not account for black women's higher unemployment rates. For unmarried women, however, the higher proportion of black women with children does account for part of the gap in unemployment rates.

Given chapter 10's finding that working leads to significant improvements in black women's economic status, the lower labor force participation rates of unmarried black women and the higher unemployment rates of all black women are cause for concern. From the perspective of the U.S. Commission on Civil Rights, the across-the-board higher unemployment rates of black women are especially disturbing, since they could be caused by discriminatory hiring practices. It should be noted that the lower labor force participation rates of unmarried black women could themselves be the indirect result of labor market discrimination. For instance, their greater difficulty in finding jobs might cause unmarried black women to become "discouraged workers" and drop out of the labor force.

Unfortunately, the research reported in this chapter is insufficient to pinpoint the underlying causes of racial differences in work patterns. That simple differences in background characteristics cannot explain married black women's higher labor force participation rates and can only partially explain unmarried black women's lower labor force participation rates suggests that the economic circumstances of black and white women with similar background characteristics may be somewhat different. Although the failure of racial differences in background characteristics to account for black-white differences in unemployment rates is suggestive, it does not allow the determination of whether black women's higher unemployment rates are the result of discriminatory hiring practices or of some other cause.

Other researchers have not resolved these issues either. For instance, economists have paid much attention to the greater labor force participation rates of married black women in comparison to their white counterparts.[2] Despite their interest, the reasons why black wives work more than white wives are poorly understood. Some have suggested that one reason for black wives' high labor force participation rates may be the greater variability

[2]Glen. G. Cain, *Married Women in the Labor Force: An Economic Analysis* (Chicago: Univ. of Chicago Press, 1966); William G. Bowen and T. Aldrich Finegan, *The Economics of Labor Force Participation* (Princeton, N.J.: Princeton Univ. Press, 1969), pp. 88–269; D. Bell, "Why Participation Rates of Black Wives Differ," *Journal of Human Resources*, vol. 9 (1974), pp. 465–79; Claudia Goldin, "Female Labor Force Participation: The Origins of Black and White Differences, 1870 and 1880," *Journal of Economic History*, vol. 37 (1977), pp. 87–112; and Phyllis. A. Wallace, ed., *Black Women in the Labor Force* (Cambridge, Mass.: MIT Press, 1980).

of their husbands' earnings.[3] Black wives may participate in the labor force to cushion their families when their husbands' earnings take unexpected dips. Alternatively, extreme economic necessity may have impelled black wives to work in the past and this may have led to a culture of work among black wives.[4]

The lower labor force participation rates of young and unmarried black women are not the comparatively recent phenomena assumed by many. The historical analysis in chapter 2 shows that young and unmarried black women had lower labor force participation rates than their white counterparts as early as 1950.[5] Despite this long-standing trend, the question of why young and unmarried black women choose not to work has not been addressed adequately in the social science literature. The most common hypothesized explanation, the ease of obtaining welfare, seems at odds with the finding here that young and unmarried black women had lower labor force participation rates than their white counterparts long before most welfare programs were instituted. The possibility that labor market discrimination causes young and unmarried black women to become discouraged and drop out of the work force remains.

Finally, the social science literature's treatment of black women's higher unemployment rates has been extremely limited. Black women's unemployment rates have most often been discussed secondarily to black men's, and the discussions are almost completely confined to descriptive analyses. Little research has been undertaken into the reasons for black women's high unemployment rates. One exception is Ehrenberg, who suggests that black women's higher unemployment rates may stem from their frequent transitions into and out of the work force.[6] If persons reentering the work force after a period of absence experience particularly high unemployment rates, and black women reenter the work force frequently, then this could contribute to their higher unemployment rate.

There are other possible explanations for black women's high unemployment rates. Black women may be less likely than white women to become discouraged and drop out of the labor force when they experience unemployment. To the extent that their finding a job is crucial to their family's economic survival, black women may be more persistent in continuing to look for a job when they face employment difficulties. To the extent that their earnings are less essential for their family's economic survival, white women may give up looking sooner than black women. Consequently, even if black and white women experienced the same unemployment difficulties, black women might be more likely to report themselves as "unemployed," whereas white women might be more likely to report themselves as "out of the labor force."

An alternative explanation is that black women do in fact experience greater difficulty in finding jobs, but for reasons not directly related to current labor market discrimination. They may be less skilled in ways that are not measured in the Current Population Survey. Residential segregation may mean that they may live further away from employment opportunities. If so, it may be both more difficult for them to find jobs and, because they have higher transportation costs, less likely for them to accept jobs they are offered. Similarly, black women may find working more costly in other ways—for instance, they may find that quality day care is more expensive in their neighborhoods—and as a result keep looking longer for better paying jobs. Similar factors may play a role in causing young and unmarried black women's lower labor force participation rates.

To understand the reasons underlying the racial differences in work patterns highlighted in this chapter, further social science research investigating these issues in depth should be undertaken.

[3]James S. Cunningham and Nadja Zalokar, "Racial Differences in the Labor Force Participation of Wives and the Variability of Other Family Income: Evidence from the SIPP." Paper presented at the annual meetings of the American Economic Association, New York, N.Y., 1988.

[4]Goldin, "Female Labor Force Participation," argues that black women's higher labor force participation rates may stem from the historical legacy of slavery and its effects on black women's expectations about work. Woodman, "Comment," however, is critical of Goldin's interpretation of the census data.

[5]See tables 2.11 and 2.12.

[6]See Ronald G. Ehrenberg, "The Demographic Structure of Unemployment Rates and Labor Market Transition Probabilities," *Research in Labor Economics*, vol. 3 (1980), pp. 241-93.

Part IV
Conclusion

Chapter 10
Conclusion

This report contains both heartening and disheartening findings with respect to black women's economic status. On the one hand, the pay of black women has increased substantially, both relatively and absolutely, over the past half-century. A primary cause of black women's increased relative pay appears to have been a substantial decline in the effects of racial discrimination in the labor market. In 1940 black women's hourly wages were barely one-half those earned by comparable white women. Today, black women earn roughly 90 percent as much as comparable white women. The occupational distributions of black and white women with similar characteristics have undergone an equally large convergence between 1940 and the present.

On the other hand, despite these increases in relative pay and occupational status, black women still earn less than white women, and black women's economic status continues to be far below white women's. Black women's average family income is less than two-thirds that of white women. Black women are three times more likely to have family incomes of less than $10,000, and seven times less likely to have family incomes of more than $60,000. Black women's median family net worth is $8,335, less than one-fifth as high as white women's, which is $45,659. Black women are five times more likely to be in poverty, five times more likely to be on welfare, and three times more likely to be unemployed than white women.

Many factors, some related to current labor market discrimination and others not, combine to lower black women's economic status. Differences in the family structures of black and white women are a major reason why black women's economic circumstances are worse than white women's. Whereas roughly two-thirds of white women are married, roughly the same proportion of black women are not married. Unmarried black women are considerably more likely to have children than their white counterparts. For instance, 44 percent of black women who have never been married have at least one child under 18, compared with 6 percent of white women. These differences in family structure mean that black women are more likely than white women to be the only earners in their families, and if they are, to be responsible for children.

A second important factor lowering black women's economic status is the lower incomes of other family members, especially Othe lower earnings of their husbands. Black women's husbands earn an average of $18,013 per year, much less than white women's husbands, who earn $26,417 on average. Forty-five percent of black wives have husbands earning less than $15,000 per year, compared with 29 percent of white wives, and fewer than 8 percent of black wives have husbands earning over $45,000 per year, compared with over 20 percent of white wives.[1] It should be remembered in this regard that current racial discrimination in the labor market may be partially responsible for black men's lower earnings.[2]

Because other family members contribute relatively less to family income, black women's earnings constitute a higher proportion of their family income than white women's. Overall, black women contribute one-third of their family income, whereas white women contribute one-fourth.[3] Consequently, factors that lower black women's earnings can have substantial adverse effects on their economic status and on that of their families.

Factors that lower black women's earnings can be divided into those that affect their hourly wages and those that affect the number of hours they work. Part II of this report concentrates on analyzing the former, and part III focuses on the latter. This chapter

[1]See table 9.2.

[2]See U.S. Commission on Civil Rights, *The Economic Progress of Black Men* (1986) for a study of labor market discrimination against black men.

[3]See table 8.2.

summarizes the major results of parts II and III and evaluates the effects of labor market discrimination on black women's economic status. It also develops an agenda for future research to improve understanding of the nature and effects of labor market discrimination.

Black Women's Economic Status: A Summary of Results

This report has traced the gap in wages earned and occupations held by black and white women from 1940 to the present and assembled statistical evidence pertaining to the sources of the gap. The report has also considered other factors affecting black women's relative economic status in the 1980s. Here, the evidence presented in earlier chapters is summarized and assessed for its implications concerning the nature and degree of race-based labor market discrimination against black women.

Trends in Wages and Occupations

Evidence on the trends in wages and occupations from the U.S. Censuses of Population and the Current Population Surveys leaves no doubt that black women's relative wages increased substantially and that black-white occupational differences narrowed considerably over the period from 1940 to the present. In 1940 black women earned only 40 percent as much per hour as white women. In the 1980s, black women have achieved something close to wage parity with white women: depending on the data source used, black women's relative wage has risen to between 89 and 100 percent.[4]

Paralleling the increase in black women's relative wage has been an equally large improvement in the relative occupational status of black women. In 1940 close to 60 percent of black women were domestic servants, and another 11 percent were farm laborers. Only 9 percent of white women worked in these two occupational categories combined. Black women were barred from many blue-collar and service sector jobs (other than in private households) and from virtually all clerical, sales, and professional jobs (except for teaching). By 1980 black women had left their jobs as farm laborers and domestic servants and made substantial inroads into all of these occupations. Whereas the occupational distributions of black and white women in 1940 were almost completely distinct, they were very similar in 1980.

Because black women in 1940 were heavily represented among farm laborers and domestic servants, both jobs in which some compensation may be received in the form of in-kind payments, black women's 1940 relative wage may have been somewhat larger in real terms than the 40 percent figure cited above, which was calculated on the basis of monetary wage payments only. Since black women had largely left these jobs by 1980, the 1940–80 growth in black women's relative wages may have been somewhat less than appears when only monetary wages are taken into consideration. Nevertheless, black women's wages have undoubtedly increased substantially relative to white women's since 1940.

Younger black women experienced stronger relative improvements in wages and occupations than older black women, and the pace of the improvement also varied by region and by level of education. The South lagged behind the rest of the country. Whereas black women's relative wage and occupational status began to rise in the rest of the country before 1960, it was after 1960 before any noticeable improvement occurred in the South. Similarly, black women with low levels of education saw their relative wages and occupational attainment improve only after more educated black women did. This occurred partly because less educated black women tended to be older than their more educated counterparts and because they were more likely to live in the South.

Despite the major improvements in black women's wages and occupations since 1940, there is strong evidence suggesting that the wages and occupational status of black women continue to lag behind those of white women. Wage data for the 1980s taken from the Current Population Surveys suggest that the relative hourly wage of black women reached 89 percent in 1980 and did not continue to increase during the 1980s. When only full-time year-round workers are con-

[4]The 1980 census suggests a figure of 100 percent, whereas the 1980–87 March Current Population Surveys and the Survey of Income and Program Participation suggest figures closer to 90 percent. Appendix A discusses the discrepancies between the census and the Current Population Survey data.

sidered, the relative wage of black women appears even to have fallen slightly during the 1980s. In addition to having lower wages than white women, black women are still less likely than white women to be in professional, managerial, clerical, and sales occupations, and more likely to work as operatives, service workers, and domestic servants. Black-white wage and occupational differentials continue to be wider in the South than in the rest of the country, and wider for older and less educated black women.

Accounting for Trends in Wages and Occupations

To investigate the reasons for trends in black women's relative wages and occupational status, this report took into account black-white differences in factors known to affect women's wages and occupations, such as education, work experience, marital status, and the presence of children.[5] Census data for the years 1940 to 1980 and data from the Current Population Surveys and the Survey of Income and Program Participation for the 1980s show that even after racial differences in characteristics were taken into account, black women on the whole earned less than comparable white women[6] during the entire period under consideration. In 1940 black women earned barely 50 percent as much as comparable white women. This ratio increased to 65 percent in 1960 and to somewhere between 90 and 100 percent in the 1980s.

This report also evaluated the separate effects of the following individual factors on black women's relative wages: education, regional distribution, urban or rural residence, part time or full time work status, children, marital status, and age. Although black and white women differed substantially in all of these characteristics, only racial differences in education were found to lower noticeably black women's relative wages. Black women's lower educational levels did account for a small portion of the black-white wage gap throughout the period.[7]

The report has found that racial differences in occupations played a central role in limiting black women's relative wages over the entire period. Racial differences in occupational distributions alone accounted for most of the large black-white wage gaps in 1940 and 1960.[8] Both the wage gap and occupational differences have diminished considerably since 1960, but racial differences in occupations continue to account for a large share of the remaining wage gap.[9]

Diminishing occupational differences between black and white women also appear to have been a central factor in the improvement of black women's relative pay since 1940. The black-white wage gap declined in tandem with racial differences in occupations. Occupational differences diminished slightly between 1940 and 1960, and so did the black-white wage gap. Between 1960 and 1980, occupational differences diminished substantially, and the black-white wage gap did the same. Throughout the period, occupational differences diminished first among educated women and outside of the South—and so did the black-white wage gap. Chapter 6 finds that almost one-half of the increase in black women's relative wage between 1940 and 1980 was due to their improved relative occupational status.[10] The increasing similarity of black and white wo-

[5]Other factors considered included age, region of residence, urban or rural residence, and part time or full time work status.

[6]The term "comparable white women" refers to white women with the same measured characteristics as the average black woman.

[7]When racial differences in occupation and industry were not considered, racial differences in education by themselves accounted for black women earning 19 percent less than white women in 1940, or roughly one-third of the black-white wage differential. For 1960, differences in education accounted for black women earning 10 percent less than white women, or roughly one-quarter of the differential. In 1980, differences in education accounted for black women earnings 10 percent less, roughly two-thirds of the gap. See table 6.2.

[8]In 1940, when black women earned 63 percent less than white women, occupational differences between black and white women by themselves accounted for black women earning 43 percent less, or roughly two-thirds of the black-white wage differential; in 1960, black women earned 45 percent less than white women, and occupational differences accounted for black women earning 30 percent less, roughly two-thirds of the differential. See table 6.4.

[9]In 1980 black women earned roughly 6 percent less than white women, and occupational differences accounted for their earning 4 percent less, or roughly two-thirds of the black-white differential. See table 6.4.

[10]See table 6.9.

men's educational levels, regional distributions, and proportions living in urban areas also each accounted for a small part of the increase.[11]

Given the central importance of occupations in determining black women's relative wages, it is essential to understand the reasons for black women's historically low occupational status and for the improvements that came about, before 1960 for some black women, but for the most part, after 1960. The analysis reported in chapter 5 finds that racial differences in education, age, region, and urban-rural distribution can account for only small portions of the racial differences in occupations in the years 1940, 1960, and 1980.[12]

One factor that may have limited black women's occupational opportunities (and also their wages) throughout the period is the lower quality of the education received by black women. As noted in chapter 4, black women who were educated in the first half of this century were likely to have received considerably fewer days of schooling than white women who reported the same grade level. Up until the 1960s, black women were educated, for the most part, in poorly funded, racially segregated schools. There is substantial evidence that even in the 1980s black women have lower educational achievement (as measured by test scores on various achievement tests) than white women who have completed the same number of years of school.[13]

Occupational differences between black and white women had narrowed considerably by 1980. Nevertheless, in 1980 black women continued to be underrepresented in certain occupations, most notably clerical occupations.[14] Since clerical work does require a fair amount of schooling, it is possible that lower quality education impedes black women's entry into clerical jobs.

Differences in the quality of education are not a full explanation for the historical differences between the occupations of black women and those of comparable white women. For instance, differences in the quality of education are unlikely to explain southern black women's almost total exclusion from jobs as operatives in the textile industry, since these jobs do not require much education.

Differences Across Age, Region, and Education Levels

As indicated above, chapters 6 and 7 found that younger black women generally have fared better relative to similarly qualified white women than have older black women. In the 1980s black women over 40 earn only 88 percent as much as comparable white women, whereas black women under 40 earn 94 percent as much as comparable white women. Older black women's lower relative earnings appear to be because they are in lower status occupations relative to their white counterparts. This result suggests that, in addition to the effects of current discrimination, older black women have not overcome the effects of past labor market discrimination. They grew up in a time when educational and occupational opportunities for black women were severely restricted. Thus, past discrimination reduces older black women's economic status today, because it has a lasting impact on their educational attainment and occupational status.

Similarly, southern black women have fared worse relative to similar whites than black women in the rest of the country. Not only did occupational opportunities begin to open up and relative wages begin to increase later in the South than in the rest of the country, but they also continue to lag behind. Black women at all ages earn less relative to similarly qualified white women in the South than they do in the rest of the country. Southern black women earn 87 percent as much per hour as comparable southern white women, whereas black women outside of the South earn 96 percent as much as comparable white women. Southern black women earn relatively less because they are underrepresented in middle- and high-status occupations compared with their white counterparts. In

[11]Black women's increased relative education accounted for roughly 13 percent of their increased relative wage. Changes in regional distribution and urban-rural residence accounted for 6 and 5 percent of black women's increased relative wage, respectively. See table 6.8.

[12]See table 5.14.

[13]See app. C.

[14]Twenty-nine percent of black women are clerical workers, compared with 36 percent of comparable white women. As discussed below, black women's underrepresentation among clerical workers is particularly prominent in the South.

particular, given their measured qualifications, black women are considerably underrepresented among southern clerical workers. Twenty-three percent of southern black women are clerical workers compared with 36 percent of comparable southern white women.[15] The research in this report suggests that this may be due partially to a North-South differential in the relative quality of education received by black women at middle and higher education levels.[16]

Highly educated black women have always fared better relative to similarly qualified white women than their less educated counterparts.[17] In the past, this may have been due to the demand for black school teachers to staff black schools in segregated school systems. This explanation is less likely to account for educated black women's relative success in today's labor market. Another possibility is that highly educated white women themselves face greater discrimination than their less educated counterparts. If this is the case, highly educated black women may appear to be doing better when in fact highly educated white women are doing worse.

Labor Market Discrimination and Trends in Wages and Occupations

Labor market discrimination against black women exists if employers, co-workers, or customers treat black women differently from white women with identical labor market skills solely on the basis of their race. Thus, if a black woman is paid less, promoted less quickly, denied access to the same job or occupation, or avoided or harassed more by her co-workers than an identical white woman simply because she is black, then she has suffered from labor market discrimination. A central concern of this report is to ascertain the extent to which labor market discrimination against black women has lowered their relative wages and limited their occupational opportunities, both now and in the past. The extent to which black women earn less and are in different occupations than white women with the same characteristics measures the possible effect of labor market discrimination on black women's wages and occupations.

This report has found that differences in the measured characteristics of black and white women were able to account for only a small portion of the differences in their wages and occupations. Although differences in unmeasured characteristics, such as the quality of education undoubtedly contributed to the gap in black and white women's wages and occupations, this result suggests that labor market discrimination has played an important part in depressing the wages and occupational status of black women throughout the period from 1940 to the present. Similarly, the report's finding that southern black women had and continue to have lower wages and occupational attainment relative to comparable white women than black women in the rest of the country supports the view that labor market discrimination against black women has been and may continue to be worse in the South than elsewhere.

This report has also found that very little of the increase in black women's relative wages and occupational attainment after 1940 can be accounted for by changes in their characteristics. This result suggests that diminishing labor market discrimination, especially declining occupational discrimination, was a major factor responsible for the economic progress experienced by black women over the period.

The evidence concerning the present day is less conclusive, because contemporary differences in the wages, occupations, and measured characteristics of black and white women are small by historical standards. There remain, however, portions of the wage and occupational gaps that cannot be explained by differences in the measured characteristics of black and white women, suggesting that current racial discrimination in the labor market may continue to reduce black women's wages and occupational attainment today.

This report has focused on uncovering the effects of current racial discrimination on black women's economic status. It should be remembered that, like all women, black women are also subject to gender discrimination, which also lowers their economic status. Furthermore, in addition to current dis-

[15]See app. B., table B.10. Outside of the south 35 percent of black women are clerical workers, compared with 37 percent of comparable white women. See app. B., table B.11.

[16]See app. C for an analysis of educational achievement by region for black and white women.

[17]See table 6.6.

crimination, the legacy of past discrimination also limits black women's economic status. Whereas, as discussed above, past discrimination certainly continues to restrict opportunities for older black women, younger black women as well may suffer from its legacy. Since social and economic status are generally influenced by upbringing, hardships visited upon their parents and upon the black community by discrimination in the past continue to hinder the progress of young black women today.

Employment and Unemployment Patterns

This report has found that black and white women have very different labor force participation and unemployment patterns. Regardless of marital status or age, black women have much higher unemployment rates than their white counterparts. Overall, 11 percent of black women who are in the labor force are unemployed, compared with 4 percent of white women. The black-white unemployment rate differential is greatest for women under 24 years old (24 percent for blacks versus 7 percent for whites) and for unmarried women (14 percent for blacks versus 5 percent for whites).[18]

Although black and white women's average labor force participation rates are very close (68 percent and 69 percent, respectively), they have very different labor force participation patterns by marital status and by age. Married black women have much higher labor force participation rates than their white counterparts (73 percent versus 64 percent). Unmarried black women, on the other hand, have much lower labor force participation rates than their white counterparts (56 percent versus 73 percent). Moreover, among whites, married women are less likely than unmarried women to participate in the labor force, but among blacks, the reverse is true.

Although older black and white women have similar labor force participation rates, black women under 24 years old are much less likely to participate in the labor force than their white counterparts: 59 percent versus 72 percent. Young black women's lower labor force participation rate combined with their higher unemployment rate means that only 44 percent of black women 24 years old and younger work, compared with 66 percent of white women.

To determine whether black-white differences in unemployment and labor force participation rates can be accounted for by racial differences in background characteristics, this report controlled for differences in age, education, presence and age of children, and, for married women, husband's income. Controlling for these characteristics only slightly narrowed the black-white unemployment gap: the report found that black women had substantially higher unemployment rates than white women with the same characteristics.

On the other hand, racial differences in characteristics, especially education, presence and age of children, and percentage never-married (as opposed to widowed, separated or divorced), accounted for almost three-quarters of the gap between the labor force participation rates of black and white unmarried women. For married women, however, none of the gap in labor force participation rates could be accounted for by characteristics.

The result that the black-white unemployment gap persists after differences in characteristics are controlled for points to the possibility that black women's higher unemployment rates might be caused by employment discrimination rather than by legitimate differences between black and white women. Further, labor market discrimination might lower black women's hours of work indirectly by discouraging their labor force participation. To the extent that labor market discrimination depresses black women's wages and decreases their likelihood of working in the occupation of their choice or their chances of finding a job at all, some black women may respond by choosing not to enter the labor market.

Labor Market Discrimination and Black Women's Economic Status

The evidence presented in this report suggests that labor market discrimination, although it has abated considerably since 1940, may continue to have adverse effects on black women's economic status today. Wage and occupational discrimination in the labor market may lower black women's average hourly wage in comparison to white women's by as much as 10 percent. Labor market discrimination may also reduce the hours worked by black women: directly by making

[18]See table 9.1.

it difficult for black women to find work and indirectly by reducing their incentive to enter the work force. In addition to current discrimination, past discrimination continues to have a negative effect on black women's economic status. Other factors, such as differences in the family situations of black and white women and the lower earnings of black men (themselves partially the result of labor market discrimination) also have important effects on black women's economic status.

Discrimination is reprehensible whenever it occurs. However, since black families are heavily dependent on the earnings of black women, any discrimination experienced by black women can be especially burdensome.

Recommendations

This report investigates the effect of racial discrimination in the labor market on black women's economic status. A comprehensive assessment of the effect of all forms of discrimination on black women's economic status requires further research. An especially important topic for future research is the effect of gender discrimination on black women's economic status. Also, to complement the statistical analysis contained in this report, new, more refined data sources and research methodologies need to be developed.

The findings with respect to black women's economic status and discrimination against black women contained in this report are based upon statistical analysis of data on individuals taken from the 1940–80 Censuses of Population, the 1970–88 March Current Population Surveys (CPS), and the 1984 Panel of the Survey of Income and Program Participation (SIPP). This report has encountered serious inconsistencies among these three data sets that make it difficult to arrive at firm conclusions about the precise level of black women's wages compared to white women's. The census data suggest that black women earn on a par with white women, whereas the CPS and SIPP data suggest that they earn roughly 10 percent less than white women. Research needs to be done to understand the reasons for these inconsistencies and to ascertain black women's relative wage levels with more precision.

Perhaps a more serious problem encountered in this report is the difficulty in obtaining accurate measures of women's labor market skills from existing data sources. Accurate measures of women's skills are essential to determining conclusively how much of the wage gap is due to labor market discrimination.

One important indicator of women's skills is previous work experience. Of the data sources used in the report, only the SIPP data contain information on women's previous work experience. Because of their historically higher labor force participation rates, black women generally have more work experience than their white counterparts. Using the SIPP data, this report finds that when women's work experience is included in the wage analysis for the 1980s, the unexplained gap in wages, which is often interpreted as encompassing the effects of racial discrimination, increases. When work experience is omitted, black women appear to earn 95 percent as much per hour as comparable white women, and when it is included, they are found to earn 91 percent as much. This result indicates that it is important to include accurate measures of work experience in wage analyses to obtain true estimates of discrimination against black women.

Another important dimension of skill omitted from all three data sources used in this report is the quality of education. If black women obtain, on average, an inferior education, then measures of educational attainment based on the years of schooling women have completed may overstate black women's true educational achievement relative to white women's. Data sources that do provide information on educational quality would enhance future research into sources of the black-white wage gap.

Statistical studies on large national data sets are extremely useful in providing comprehensive information about the likely effects of discrimination and pinpointing problem areas. They have inherent limitations, however. These studies cannot reach definitive conclusions about the existence and extent of labor market discrimination. Furthermore, they yield only modest insight into the nature of labor market discrimination, in particular, the mechanisms through which it operates. Future research can complement statistical studies such as the one in this report by exploring alternative avenues of inquiry.

Other data sources may be able to provide more insight into the nature of labor market

discrimination. For instance, the Equal Employment Opportunity Commission and State equal opportunity commissions gather information on specific instances of discrimination when complaints are filed. To improve our understanding of the nature of discrimination, it may be fruitful to assemble and analyze information in their files.

Another possible avenue for future research is to set up "experiments" to test for employment discrimination by sending black and white women to apply for jobs and monitoring employers' responses. Such experiments would allow researchers to control fully for skill differences by choosing black and white women with very similar skills. They would also have the advantage of providing additional insight into the mechanisms through which labor market discrimination operates. For instance, do employers refuse to interview black applicants? At what points in the hiring process are black women treated differently from their white counterparts? This type of question could be answered by careful monitoring of employers' responses to the black and white job applicants. Experiments might also be useful in antidiscrimination enforcement efforts. By sending carefully matched black and white women to seek jobs, enforcement agencies could obtain direct evidence of illegal discrimination.[19]

Although experiments can provide much new information about labor market discrimination, they, too, are limited in their ability to capture fully all aspects of employment discrimination. Although experiments can often be set up to detect discrimination in hiring, it will seldom be practical to set up experiments to detect discrimination in promotions. Furthermore, it is unlikely that experimental evidence can be used to detect hiring discrimination for complex jobs, such as professional jobs and high-level management jobs, that require considerable specialized training and personal contacts. Yet, because of the subjective nature of promotion decisions and hiring decisions for high-level jobs, it is possible that the greatest effect of labor market discrimination in the 1980s is precisely in these areas. Indeed, blacks, women, and other minorities often cite an invisible "glass ceiling" that prevents them from reaching the top of the job ladder.[20]

An avenue of research that allows researchers to learn more about discrimination in hiring into top-level jobs and discrimination in promotions is to conduct specialized surveys of individuals or case studies of firms or industries. Specialized surveys could allow researchers to follow the careers of similarly qualified individuals over time and to obtain specific information about their qualifications, their job applications, the times when they were up for promotion, and so on. Case studies could allow researchers to look closely at employers' decisionmaking processes when choosing whom to hire or whom to promote. Both of these types of studies would add significantly to the current understanding of labor market discrimination.

Several of the findings in this report would benefit from further scrutiny using one or more of the approaches outlined above. First, the report finds that black women experience higher unemployment rates than comparable white women, but it does not determine whether the black-white unemployment gap among women is caused by racial discrimination in the labor market. Given the importance of working for black women's economic well-being, further study of this issue seems warranted. A more detailed statistical study of the sources of the black-white unemployment gap, taking into account such factors as labor market turnover and residential location in comparison to the location of jobs could be complemented with the experimental approach—sending black and white women with similar qualifications to apply for jobs—to determine whether black women are denied jobs with greater frequency. In addition, specialized surveys could be undertaken to address questions related to whether workers become discouraged when they face high unemployment rates as well as to determine whether there are differences in the job search strategies of black and white women.

[19]Of course, such experiments would not necessarily be limited to black and white women. White men, black men, and men and women from other minority groups could also be used in the experiments. Discrimination in other areas besides the labor market could also be addressed with experiments. For instance, housing discrimination and discrimination in lending might be easily detected from experimental evidence.

[20]Statistical evidence of discrimination at the top was found in U.S. Commission on Civil Rights, *The Economic Status of Americans of Asian Descent: An Exploratory Investigation* (1988).

Similarly, the report's finding that black women are underrepresented among clerical workers in the South could be further investigated using all of the above approaches. Specialized surveys could provide better evidence pertaining to racial differences in the quality of education in the South. Experiments could be set up to determine whether equally qualified black and white women had different chances of finding clerical work. The alternative employment opportunities for black and white women could also be compared.

This report provides evidence supporting the view that racial discrimination continues to affect black women in today's labor market and pinpoints several problem areas. On the whole, the evidence presented in this report suggests that the main effect of labor market discrimination on the basis of race today is to limit black women's occupational opportunities, particularly in management and sales jobs. In the South, black women appear also to have substantially fewer employment opportunities in clerical occupations than comparable white women. Thus, a major problem facing black women today appears to be discrimination in hiring, referrals and promotions.

Since discrimination in hiring, referrals and promotions can be extremely subtle, identifying and combatting employment discrimination in these areas is inherently difficult. Often the victims of discrimination may not even be aware that it has occurred. Consequently, new and aggressive enforcement methods may be needed to eradicate discrimination against black women. One such method, audits of firms and employment agencies, might be useful in antidiscrimination enforcement efforts: By sending carefully matched individuals of different races and genders to apply for jobs, enforcement agencies could obtain direct evidence of illegal discrimination in hiring or referrals. Such direct evidence would not only be useful in prosecuting discrimination cases, but could also provide a valuable informational basis for guiding antidiscrimination enforcement policy. As an example, the New York City Human Rights Commission is currently using evidence gathered by Commission employees posing as job applicants in prosecuting four employment agencies for discriminating against blacks, Hispanics, women, and the elderly.[21] Other agencies in charge of enforcing equal opportunity legislation, such as the Equal Employment Opportunity Commission, should consider using audits to ferret out discrimination in employment and should search actively for other innovative means of enforcing antidiscrimination laws.

[21] "New York Sues 4 Work Firms in Bias Case," *New York Times*, Sept. 29, 1989.

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APPENDIX A
A Comparison of the Wage and Salary Income Data from the 1980 Census of Population and the March 1980 Current Population Survey

Two of the most important contemporary sources of data on the wage and salary income of Americans are the 1980 Census of Population and the annual Current Population Surveys. A comparison of the 1980 census and the March 1980 Current Population Survey (CPS) reveals that these two data sets yield very different estimates of the average wage and salary income for different socioeconomic groups. This appendix examines these discrepancies and considers the implications for attempts to determine the relative wages of different socioeconomic groups.

Both the 1980 census and the March 1980 CPS ask the respondent's total wage and salary income during the previous calendar year. Since both data sets record the number of weeks worked and the "usual" number of hours worked by the respondent during 1979, it is also possible to calculate weekly and hourly wage rates for respondents from both data sets. This appendix compares the estimates of annual, weekly, and hourly wages derived from the 1980 Census of Population with those derived from the March 1980 CPS.

The census estimates in this report are based on a 1/1000 sample of whites and a 1/100 sample of blacks. The CPS data are based on the entire March 1980 Annual Demographic File. The final samples from both data sets include only non-Hispanic whites and blacks between the ages of 18 and 64 who reported positive wage and salary income in the previous year. Students, unpaid workers, self-employed workers, and members of the armed forces were excluded from both samples. The final census sample contains: 48,191 white women, 68,248 black women, 41,000 white men, and 52,848 black men. The final CPS sample contains: 41,360 white women, 4,914 black women, 39,614 white men, and 3,682 black men.

Table A.1 reports mean annual, weekly, and hourly wages for white women, black women, white men, and black men for the census and CPS samples. Average weeks worked last year and average usual hours worked per week are also shown. Although the 1980 census and the March 1980 CPS cover the same time period and were collected a month apart, the average annual wage and salary incomes calculated from the 1980 census data range from 5 to 10 percent higher than those derived from the March 1980 CPS. The difference is larger for women than for men and larger for blacks than for whites. Comparisons between the two data sets reveal even larger differences when weekly and hourly wages are considered. There are small discrepancies between the average numbers of weeks worked and the average numbers of hours worked per week calculated from the census data and those calculated from the CPS data. For all groups, the average weeks and hours worked are higher in the census than in the CPS.

Further examination of the data reveals that the discrepancies between the two data sets disappear almost entirely if the sample is restricted to workers who work full time year round. Table A.2 reports average annual, weekly, and hourly wage rates and weeks and hours worked by group for full-time, year-round workers only. For full-time, year-round workers the census and CPS wage rates, hours, and weeks are remarkably close for all four groups. Although the discrepancies are slightly larger for blacks than for whites, this can probably be explained by the small sample size of the CPS for blacks.

The discrepancies between the two data sets are very large, however, for workers who did not work full time year round (see table A.3). The average wage and salary incomes of part time or part year workers calculated from the census data are over 15 percent higher for whites (both men and women) and over 25 percent higher for blacks (both men and women) than the comparable figures calculated from the CPS data. In addition, the average hours and weeks for these workers calculated from the census data are quite a bit higher than those calculated from the CPS data. The census data show weekly and hourly wage rates that are much larger than those derived from the CPS data. The average hourly wage of black women who did not work full time year round calculated from

TABLE A.1
Average Annual, Weekly, and Hourly Wage Rates for Different Demographic Groups Calculated from 1980 Census and March 1980 Current Population Survey Data[a]

	1980 census	March 1980 CPS	Percent difference[b]
Black women			
Annual wages	$7,816.73	$7,400.25	5.3
Weekly wages	191.82	166.71	13.1
Hourly wages	6.27	4.54	27.6
Weeks worked	40.9	40.0	2.2
Hours worked	35.8	35.7	0.3
White women			
Annual wages	$7,963.56	$7,776.79	2.3
Weekly wages	189.08	176.05	6.9
Hourly wages	5.64	5.09	9.8
Weeks worked	40.6	40.3	0.7
Hours worked	35.0	34.2	2.3
Black men			
Annual wages	$11,689.89	$11,107.13	5.0
Weekly wages	268.36	247.19	7.9
Hourly wages	7.97	6.14	23.0
Weeks worked	43.4	42.6	1.8
Hours worked	39.3	0.8	
White men			
Annual wages	$17,987.77	$17,524.84	2.6
Weekly wages	377.16	361.68	4.1
Hourly wages	9.31	8.49	8.8
Weeks worked	45.9	45.5	0.9
Hours worked	42.2	41.6	1.4

[a] Includes all workers between the ages of 18 and 64 except students, unpaid workers, self-employed workers, and members of the armed forces.
[b] Census – CPS/Census X 100

TABLE A.2
Average Annual, Weekly, and Hourly Wage Rates for Full-Time Year-Round Workers by Demographic Group Calculated from 1980 Census and March 1980 Current Population Survey Data[a]

	1980 census	March 1980 CPS	Percent difference[b]
Black women			
Annual wages	$10,193.59	$10,385.30	–1.9
Weekly wages	196.64	199.98	–1.7
Hourly wages	4.89	4.99	–2.0
Weeks worked	51.8	51.9	0.2
Hours worked	40.6	40.2	1.0
White women			
Annual wages	$11,124.20	$11,203.75	–0.7
Weekly wages	214.23	215.81	–0.7
Hourly wages	5.28	5.30	–0.4
Weeks worked	51.8	51.9	0.2
Hours worked	40.8	40.9	0.2
Black men			
Annual wages	$13,972.57	$13,871.10	–0.7
Weekly wages	268.42	267.14	0.4
Hourly wages	6.44	6.43	0.2
Weeks worked	51.8	51.9	0.2
Hours worked	42.4	41.9	1.2
White men			
Annual wages	$20,550.29	$20,379.55	0.8
Weekly wages	392.02	392.51	–0.1
Hourly wages	8.95	8.96	–0.1
Weeks worked	51.8	51.9	0.2
Hours worked	44.6	44.4	0.4

[a] Includes all workers between the ages of 18 and 64 except students, unpaid workers, self-employed workers, and members of the armed forces.
[b] Census – CPS/Census X 100

census data is more than twice the hourly wage calculated from CPS data.[1]

Controlling for whether work is full-time, year-round significantly reduces the difference between men and women in the census-CPS discrepancies. The difference between men and women disappears entirely for full-time, year-round workers (table A.2) and is much less for part-time, part-year workers (table A.3). On the other hand, the racial differences in the census-CPS discrepancies observed in table A.1 persist in tables A.2 and A.3. Even when full-time, year-round status is controlled for, the gap between census and CPS wages is larger for blacks than for whites.

Although the census produces much higher wage estimates for all groups than the CPS, the two data sets might, nonetheless, yield similar estimates of relative wages across groups. Table A.4 shows that the two data sets yield very similar relative wages for full-time, year-round workers, but that there are important discrepancies in the relative wages implied by the two data sets when all workers are considered. These discrepancies are larger for hourly and weekly wage ratios than for annual wage ratios. Most affected are estimates of the ratio of black women's to white women's wages. The census data show a relative hourly wage for black women of 111.2 percent[2], whereas the CPS data show the much smaller figure of 89.2 percent. Large differences between the census and CPS ratios of black women's to white men's and to black men's wages and of black men's to white men's wages are also observed.

What factors might explain the observed discrepancies between the 1980 census and the March 1980 CPS? Since the discrepancies appear to be limited to part-time or part-year workers, it is natural to suppose that, unlike full-time, year-round workers, workers who do not work full time year round find it difficult to recall accurately their annual wage and salary income and the number of weeks and hours they worked during the year. It is not apparent, however, how this can explain why the wage and salary, hours, and weeks figures calculated from the census are systematically higher than those calculated from the CPS, nor does it explain why the size of the discrepancies varies by race and by gender. There are several differences between the census and the CPS that might cause the systematic discrepancies between the wage and salary incomes, weeks, and hours reported in the two data sets. For one, the census is a much larger data set than is the CPS. In particular, the CPS sample used in the report contained only about 10 percent as many blacks as the census sample. Thus, sample variance could be a problem in the case of the CPS. It is not clear, however, how sample variance could lead to the systematic differences observed between the two data sets.

A more promising possible explanation for the systematic differences between the two data sets is that the CPS questions were asked in March, before most people filled out their income tax forms, whereas the census data were collected in April, at a time when people were filling out or had just recently completed their forms. This suggests that wage and salary income and perhaps weeks and hours reported in the census are more accurate than those reported in the CPS.

On the other hand, the census data were largely self-reported, whereas the CPS data were collected by trained enumerators, which should lead to more accurate reporting. For both data sets, nonresponses to wage and salary income questions were common, and in both cases values were imputed for missing data. This factor, too, could conceivably lead to the observed discrepancies.[3] In the absence of research comparing the two data sets and evaluating their accuracy, it is impossible to know which, if any, of the above factors

[1]The remarkable similarities between the census and the CPS for full-time, year-round workers and the remarkable differences between the two data sets for part-time or part-year workers held up when age and education were controlled for in addition to full-time, year-round status. The discrepancies between the census and the CPS were equally large and exhibited the same patterns for part-time workers and for part-year workers when these two groups were considered separately.

[2]The discrepancy between the 1980 census black-white wage ratio reported here and the one reported in the body of the report arises because different measures of hours per week worked last year are used. In the body of the report, predicted usual hours last year were used (see the discussion in app. E), but in this appendix, reported usual hours last year are used.

[3]Eliminating persons with imputed values from our sample, does not get rid of the census-CPS discrepancies, however.

contributed to the discrepancies between the two data sets.[4]

For researchers concerned with the relative economic positions of various demographic groups, the discrepancies in wage and salary data between the 1980 census and the 1980 CPS are serious. Not only are the levels of wage and salary income implied by the two data sets inconsistent, but the two data sets give a very different picture of the relative economic positions of the different social groups. The researcher who relies on the 1980 census finds that black women have hourly wages that are substantially higher than those of white women. Yet the March 1980 CPS data imply that black women still earn only 90 percent as much as white women per hour.

The 1980 census and the March 1980 CPS provide very different answers to questions of great importance to labor economists and to the society at large. It is important to look carefully at both data sets to determine which, if either, is the more accurate, and to understand the sources and extent of biases in the wage and salary data as well as the data on hours and weeks worked for both data sets. A thorough study comparing the two data sets is necessary if an answer is to be found to even the most basic questions concerning the relative economic position of different social groups in the United States today.

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[4]One study comparing the census and the CPS personal income data found that, compared to an independent benchmark, the census data overreported wage and salary income by 3 percent and the CPS underreported wage and salary income by 1 percent. No effort was made to look at misreporting by race or sex group or by full-time, year-round status. See George Patterson, "Quality and Comparability of Personal Income Data from Surveys and the Decennial Census." Paper presented at the Plenary Session of the Joint Advisory Committee Meeting, Apr. 25–26, 1985, in Rosslyn, Virginia.

TABLE A.3
Average Annual, Weekly, and Hourly Wage Rates for Non-Full-Time Year-Round Workers by Demographic Group Calculated from 1980 Census and March 1980 Current Population Survey Data[a]

	1980 census	March 1980 CPS	Percent difference[b]
Black women			
Annual wages	$5,655.70	$4,111.63	27.3
Weekly wages	187.38	127.99	30.6
Hourly wages	7.54	4.06	46.2
Weeks worked	31.8	29.1	8.5
Hours worked	31.8	31.5	0.9
White women			
Annual wages	$5,209.10	$4,405.25	15.4
Weekly wages	166.94	136.93	18.0
Hourly wages	5.96	4.88	18.1
Weeks worked	31.9	31.0	2.8
Hours worked	30.6	28.8	5.9
Black men			
Annual wages	$8,293.71	$6,174.20	25.6
Weekly wages	268.28	208.72	22.2
Hourly wages	10.28	5.59	45.6
Weeks worked	32.1	28.1	12.5
Hours worked	35.1	34.6	1.4
White men			
Annual wages	$11,426.05	$9,452.69	17.3
Weekly wages	339.12	267.91	21.0
Hourly wages	10.22	7.05	31.0
Weeks worked	33.6	31.7	5.7
Hours worked	37.4	35.6	4.8

[a] Includes all workers between the ages of 18 and 64 except students, unpaid workers, self-employed workers, and members of the armed forces.
[b] Census – CPS/Census X 100

TABLE A.4
Annual, Weekly, and Hourly Wage Ratios for All Workers and for Full-Time Year-Round Workers Calculated from 1980 Census and March 1980 Current Population Survey Data[a]

	Annual		Weekly		Hourly	
	Census	CPS	Census	CPS	Census	CPS
All workers						
White women-white men	44.3	44.3	50.1	48.7	60.6	60.0
Black women-white men	43.5	42.2	50.1	46.1	67.3	53.5
Black men-white men	65.0	63.4	71.2	68.3	85.6	72.3
Black women-white women	98.2	95.2	101.4	94.7	111.2	89.2
Black women-black men	66.9	66.6	71.5	67.4	78.7	73.9
Full-time year-round workers						
White women-white men	54.1	55.0	54.6	55.0	59.0	59.2
Black women-white men	49.6	51.0	50.2	50.9	54.6	55.7
Black men-white men	68.0	68.1	68.5	68.1	72.0	71.8
Black women-white women	91.6	92.7	91.8	92.7	92.6	94.2
Black women-black men	73.0	74.9	73.3	74.9	75.9	77.6

[a] Includes all workers between the ages of 18 and 64 except students, unpaid workers, self-employed workers, and members of the armed forces.

APPENDIX B
Occupations—Appendix to Chapter 5

This appendix provides supplementary material for chapter 5 on women's occupations from 1940 to 1980. The first section defines and discusses the index of occupational dissimilarity used throughout chapter 5 as a measure of occupational segregation[5] by race. The second section supplies a more detailed description of the method of generating the hypothetical occupational distributions discussed in chapter 5. The final section presents supplementary tables.

Index of Occupational Dissimilarity

To measure the degree of occupational segregation by race, this report calculates an index of occupational dissimilarity, S, defined by:

$$S=1/2 \sum_i |b_i-w_i|$$

where i refers to occupation, and b_i and w_i are the percentages of black and white women in occupation i, respectively. Possible values of S range from 0, which indicates no racial differences in occupations, to 100, which indicates complete occupational segregation.

For example, if there are two occupations and 30 percent of both blacks and whites are employed in occupation 1, and 70 percent of both groups work in occupation 2, the value of the index of occupational dissimilarity would be:

$$S=1/2[(30-30) + (70-70)] = 0$$

showing no dissimilarities. If, however, all blacks work in occupation 1 and all whites work in occupation 2, the value of the index would be:

$$S=1/2[|100-0| + |0-100|] = 100$$

showing complete occupational segregation by race.

It is important to note that, for a given distribution of persons across jobs, the value of the index of occupational dissimilarity depends on how jobs are grouped into occupational categories. In general, broader categories yield lower values of S, and narrower categories yield higher values of S. For instance, if all jobs are grouped into three occupational categories, professional, other white collar, and blue collar, then occupations such as doctor and nurse, or operative and servant, would not be differentiated. The index of dissimilarity would not capture racial differences in distribution across the more narrowly defined occupations and, thus, would find a lower degree of occupational segregation than if more narrowly defined categories were used. Because the occupational categories used usually differ from one study to another, generally it is not possible to compare values of the index of occupational dissimilarity across studies.

In choosing the occupational categories used in this report, care was taken to find categories that could be defined consistently across census years, so that trends in the degree of occupational segregation over time could be observed. The resulting occupational categories are relatively broad. One advantage of broad categories is that they are more likely to reflect a person's job accurately.[6] On the other hand, they may lead to underestimation of the true extent of racial segregation in jobs.

Generation of the Hypothetical Occupational Distributions used in Chapter 5

Chapter 5 refers to hypothetical occupational distributions for black and white women assuming each group had the other's characteristics. The purpose of these generating these hypothetical occupational distributions is to determine the extent to which occupa-

[5]Throughout this appendix, following standard social science terminology, the term "occupational segregation" refers to differences in two groups' occupational distributions. The term is not intended to imply anything about the cause of racial differences in occupations.

[6]When occupations are defined very narrowly, distinctions between them become unclear, and persons working in the same job may be coded in different occupations.

tional segregation by race can be accounted for by racial differences in characteristics.

A first step in generating these hypothetical occupational distributions was to classify women of each race into various cells according to their educational level (0–7, 8–11, 12, 13–15, 16+), region of residence (South, non-South), urban or rural residence (urban, rural) and age (20–24, 25–34, 35–44, 45–54, 55–64). The proportion of women in each cell and the occupational distribution of women within each cell (i.e., the proportion of women in the cell who were in each occupation) were then determined separately for black and white women.

The hypothetical occupational distributions reported in tables 5.11–5.13 giving black women white women's characteristics were generated by determining the overall occupational distribution that would exist in each year if women had the black occupational distribution within cells and the white distribution across cells. Similarly, the hypothetical occupational distributions giving white women black women's characteristics were generated by determining the overall occupational distribution that would exist if women had the white occupational distribution within cells and the black distribution across cells.

The hypothetical occupational distribution reported in table 5.15 giving black women in 1940 their 1980 characteristics was generated by determining the occupational distribution that would exist if women had black women's 1940 occupational distribution within cells but their 1980 distribution across cells. The hypothetical occupational distribution giving black women in 1980 their 1940 characteristics was generated in a similar manner, as were the corresponding hypothetical occupational distributions for white women reported in this appendix, table B.4.

Finally, the hypothetical occupational distributions by region reported in tables B.6–B.7 are generated by separating women according to their region of residence (South/non-South) and then generating hypothetical occupational distributions for each region for the remaining characteristics in a similar manner to those described above.

Supplementary Tables for Chapter 5

TABLE B.1
Occupational Distributions of Black and White Women by Age: 1940[a]

	Black					White				
Age:	20–24	25–34	35–44	45–54	55–64	20–24	25–34	35–44	45–54	55–64
Professional and technical workers	4.6	5.6	4.3	3.5	2.7	16.6	20.4	19.6	18.5	16.9
Doctors, lawyers, engineers, etc.[b]	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.5	0.4
Teachers	3.3	4.5	3.4	2.9	1.8	5.8	9.8	10.3	9.2	8.3
Nurses	0.6	0.4	0.4	0.3	0.1	8.0	5.8	3.9	3.5	3.3
Librarians, social workers, religious workers	0.2	0.2	0.2	0.0	0.2	0.7	1.4	1.5	1.8	1.9
Other	0.4	0.5	0.3	0.3	0.5	2.0	3.0	3.5	3.5	3.0
Managers	0.1	0.4	1.4	1.5	1.6	0.9	2.8	5.9	8.7	9.9
Manufacturing	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.3	0.5	0.4
Wholesale	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Financial, insurance, real estate	0.0	0.0	0.1	0.1	0.2	0.1	0.3	0.6	1.0	1.7
Retail, personal service, entertainment, recreation	0.1	0.4	0.1	1.2	1.2	0.4	1.7	3.9	5.7	6.1
Other	0.9	1.4	3.1	5.4	8.5	0.3	0.7	1.7	3.5	5.2
Clerical workers	2.3	1.4	0.8	0.8	0.9	29.6	29.7	24.8	16.1	10.5
Secretaries, typists, stenographers	0.9	0.4	0.3	0.1	0.1	14.2	13.2	9.6	5.4	2.7
Other	1.4	1.0	0.6	0.7	0.8	15.4	16.5	15.2	10.6	7.8
Sales workers	0.3	0.8	0.9	0.7	0.5	8.8	7.6	7.8	7.7	6.4
Financial, insurance, real estate	0.0	0.1	0.3	0.0	0.0	0.3	0.3	0.5	0.7	0.7
Other	0.3	0.7	0.6	0.6	0.5	8.5	7.3	7.3	7.0	5.6
Crafts workers	0.4	0.5	0.8	0.3	0.3	0.8	1.6	1.6	2.2	1.5
Operatives	5.8	8.4	9.7	7.1	6.5	20.0	19.5	18.3	17.3	16.5
Textile	1.8	2.0	3.0	2.3	2.5	8.6	9.2	8.6	7.5	7.7
Manufacturing	1.4	1.7	1.8	1.0	0.9	8.7	7.2	5.6	4.2	2.5
Other	2.5	4.7	4.9	3.7	3.1	2.7	3.1	4.1	5.6	6.3
Transportation workers	0.0	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1
Laborers	1.3	1.4	1.6	1.1	0.7	1.0	0.8	1.0	0.6	0.7
Service workers	9.2	11.4	10.0	9.7	8.0	13.7	11.8	13.2	15.4	18.0
Cleaning and food	7.0	8.7	7.2	7.0	4.6	8.0	6.6	7.2	7.6	6.9
Protection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Other	2.2	2.7	2.7	2.7	3.5	5.7	5.2	6.0	7.6	10.9
Private household workers	58.2	57.8	58.8	58.9	58.8	7.6	5.0	6.6	10.6	15.2
Farmers	0.9	1.4	3.1	5.3	8.3	0.1	0.2	0.7	2.1	3.6
Farm laborers	16.7	10.6	8.5	11.1	11.7	0.8	0.6	0.4	0.7	0.8

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.2
Occupational Distributions of Black and White Women by Age: 1960[a]

	Black					White				
Age:	20–24	25–34	35–44	45–54	55–64	20–24	25–34	35–44	45–54	55–64
Professional and technical workers	7.6	9.8	7.9	6.1	5.3	16.6	16.7	13.9	16.1	16.6
Doctors, lawyers, engineers, etc.,[b]	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.1	0.3	0.2
Teachers	3.9	5.5	4.2	4.0	3.4	6.2	6.5	5.4	8.6	8.8
Nurses	2.0	2.1	1.6	0.9	0.7	5.1	4.4	3.4	3.0	3.0
Librarian, social workers, religious workers	0.3	0.6	0.6	0.4	0.3	0.8	0.8	0.8	1.2	1.3
Other	1.4	1.5	1.5	0.9	0.9	4.4	4.4	4.2	3.1	3.3
Managers	0.3	0.7	1.2	1.8	1.7	0.8	2.6	4.6	5.8	6.4
Manufacturing	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.8	1.3
Wholesale	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	0.3
Financial, insurance, real estate	0.0	0.0	0.1	0.1	0.2	0.1	0.5	0.4	0.4	0.7
Retail, personal service, entertainment, recreation	0.2	0.4	0.8	1.2	1.1	0.4	1.0	2.3	3.3	3.3
Other	0.4	0.5	0.8	1.2	1.4	0.3	0.8	1.7	2.4	3.0
Clerical workers	14.7	11.4	7.5	4.0	2.6	50.7	40.5	34.0	27.7	23.8
Secretaries, typists, stenographers	5.5	3.5	2.0	0.7	0.3	22.5	13.7	11.4	8.4	6.6
Other	9.2	7.9	5.5	3.3	2.3	28.2	26.8	22.6	19.2	17.3
Sales workers	1.8	1.6	1.5	1.3	1.1	4.6	6.2	9.3	10.2	11.8
Financial, insurance, real estate	0.0	0.2	0.1	0.2	0.2	0.3	0.8	1.0	0.7	0.9
Other	1.8	1.5	1.4	1.1	0.9	4.3	5.4	8.4	9.5	10.9
Crafts workers	1.0	0.8	0.9	0.7	0.8	0.6	1.3	1.6	1.6	1.6
Operatives	15.6	16.7	16.4	12.4	9.2	12.2	17.4	19.8	18.9	16.5
Textile	3.0	3.6	3.6	2.5	1.9	4.4	5.9	6.4	7.1	5.4
Manufacturing	6.0	6.4	5.9	3.9	2.9	6.5	9.5	10.8	8.7	6.7
Other	6.5	6.6	7.0	6.0	4.4	1.2	2.0	2.6	3.1	4.4
Transportation workers	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.3	0.4	0.0
Laborers	1.3	1.1	1.2	1.2	1.2	0.6	0.4	0.3	0.6	0.6
Service workers	25.4	24.2	24.4	22.7	19.9	11.3	11.3	12.7	13.3	13.9
Cleaning and food	11.9	11.5	10.7	9.3	8.8	5.9	6.8	7.4	7.4	7.0
Protection	0.0	0.1	0.2	0.2	0.0	0.1	0.1	0.2	0.1	0.1
Other	13.4	12.5	13.5	13.3	11.1	5.3	4.4	5.0	5.8	6.8
Private household workers	28.4	30.3	35.7	45.6	53.3	2.2	2.1	2.2	3.5	6.5
Farmers	0.4	0.3	0.5	0.8	1.0	0.0	0.2	0.3	0.8	1.3
Farm laborers	3.4	3.0	2.7	3.3	3.6	0.5	1.1	0.9	1.2	0.9

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.3
Occupational Distributions of Black and White Women by Age: 1980[a]

	Black					White				
Age:	20–24	25–34	35–44	45–54	55–64	20–24	25–34	35–44	45–54	55–64
Professional and technical workers	9.7	17.9	19.0	17.3	13.3	15.7	25.9	20.4	18.1	15.3
Doctors, lawyers, engineers, etc.,[b]	0.2	0.7	0.3	0.2	0.1	0.3	1.3	0.5	0.5	0.4
Teachers	2.7	6.8	7.7	7.4	5.7	3.7	9.7	8.1	6.7	5.9
Nurses	1.5	2.4	3.4	3.5	2.3	2.5	4.0	3.8	4.1	3.0
Librarians, social workers, religious workers	0.9	1.8	1.9	1.5	1.7	0.8	1.5	1.2	1.2	1.0
Other	4.4	6.1	5.7	4.7	3.5	8.4	9.3	6.8	5.6	5.0
Managers	2.1	2.9	2.6	2.4	1.7	4.8	6.3	7.1	7.3	6.1
Manufacturing	0.2	0.3	0.3	0.2	0.0	0.3	0.8	0.9	0.6	0.6
Wholesale	0.0	0.1	0.0	0.1	0.0	0.1	0.5	0.4	0.4	0.3
Financial, insurance, real estate	0.3	0.6	0.5	0.3	0.3	0.6	1.1	1.2	1.1	1.3
Retail, personal service, entertainment, recreation	1.1	1.0	0.9	1.1	0.6	2.9	2.5	2.9	3.3	2.7
Other	0.5	1.1	1.0	0.9	0.7	0.8	1.5	2.0	2.1	2.1
Clerical workers	40.9	35.6	24.1	18.1	13.5	41.5	35.0	36.1	36.2	33.9
Secretaries, typists, stenographers	11.0	9.9	6.0	3.8	2.5	14.5	13.0	13.6	12.2	11.3
Other	29.9	25.8	18.1	14.3	11.0	27.3	22.0	22.6	24.0	22.6
Sales workers	4.8	2.8	2.4	1.9	1.7	6.8	5.8	6.5	7.6	8.8
Financial, insurance, real estate	0.4	0.7	0.4	0.2	0.2	0.8	2.0	2.0	2.0	1.5
Other	4.4	2.1	2.1	1.7	1.5	6.0	3.9	4.5	5.6	7.2
Crafts workers	2.8	3.5	3.5	2.9	2.2	2.5	3.0	3.4	4.2	3.8
Operatives	12.4	12.6	12.6	10.8	9.0	6.1	5.8	7.7	8.2	9.6
Textile	4.5	4.1	3.7	2.6	2.4	1.5	1.6	2.4	2.6	3.3
Manufacturing	6.5	7.1	6.9	5.5	3.4	3.9	3.5	4.6	4.2	4.7
Other	1.3	1.4	2.0	2.6	3.2	0.8	0.7	0.7	1.4	1.7
Transportation workers	0.8	1.1	1.2	0.9	0.9	0.5	0.9	1.1	0.7	0.7
Laborers	1.6	1.0	1.2	1.3	0.9	0.7	0.7	0.7	0.8	0.8
Service workers	21.7	18.9	27.3	33.6	38.4	18.4	14.5	14.3	14.2	17.1
Cleaning and food	11.4	8.0	12.2	17.4	22.0	10.1	6.0	6.6	8.1	9.4
Protection	0.6	0.8	0.9	0.7	0.4	0.3	0.4	0.4	0.4	0.4
Other	9.7	10.2	14.2	15.5	16.0	8.0	8.1	7.3	5.8	7.3
Private household workers	2.4	2.7	5.6	10.5	18.4	1.6	2.0	2.1	1.7	2.5
Farmers	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.8
Farm laborers	1.3	1.1	1.1	1.2	1.0	0.9	0.7	0.9	0.9	0.9

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.4
Hypothetical Occupational Distributions for White Women in 1940 and 1980 Assuming that They Had The Other Year's Characteristics[a]

	1940 distribution	1940 distribution with 1980 characteristics	1980 distribution with 1940 characteristics	1980 distribution
Professional and technical workers	18.8	30.1	12.7	20.1
Doctors, lawyers, engineers, etc.,[b]	0.4	0.6	0.3	0.7
Teachers	8.9	15.1	4.5	0.7
Nurses	5.1	7.5	2.1	3.6
Librarians, social workers, religious workers	1.4	2.4	0.7	1.2
Other	3.0	4.5	5.0	7.4
Managers	4.9	5.7	5.3	6.4
Manufacturing	0.3	0.4	0.5	0.7
Wholesale	0.1	0.1	0.3	0.4
Financial, insurance, real estate	0.6	0.7	0.7	1.0
Retail, personal service, entertainment, recreation	3.1	3.2	2.6	2.1
Other	0.8	2.4	0.9	1.3
Clerical workers	24.2	30.2	29.4	36.5
Secretaries, typists, stenographers	10.1	14.0	9.4	13.0
Other	14.1	16.2	20.0	23.5
Sales workers	7.8	8.0	6.2	6.9
Financial, insurance, real estate	0.5	0.6	1.3	1.7
Other	7.3	7.3	4.9	5.2
Crafts workers	1.6	1.2	4.8	3.3
Operatives	18.7	9.0	14.5	7.2
Textile	8.5	3.7	4.6	2.2
Manufacturing	6.1	2.6	7.8	4.1
Other	4.0	2.7	1.8	1.0
Transportation workers	0.1	0.0	1.3	0.8
Laborers	1.8	0.4	1.4	0.7
Service workers	13.7	10.2	20.8	15.4
Cleaning and food	7.2	4.0	21.7	7.7
Protection	0.1	0.1	0.3	0.4
Other	6.5	6.1	7.7	7.4
Private household workers	7.9	4.2	2.6	1.9
Farmers	1.0	0.7	0.4	0.4
Farm laborers	0.7	0.4	1.2	0.8

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who re[illegible]ed an occupation.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.5
Indices of Occupational Dissimilarity: White Women in 1940 and White Women in 1980

Actual 1940 occupational distribution: actual 1980 occupational distribution	23.9
Simulated 1940 occupational distribution assuming white women had 1980 characteristics: actual 1980 occupational distribution	22.7
Simulated 1980 occupational distribution assuming white women had 1940 characteristics: actual 1980 occupational distribution	16.2
Actual 1940 occupational distribution: simulated 1980 distribution assuming white women had 1940 characteristics	24.0
Actual 1940 occupational distribution: simulated 1940 occupational distribution assuming white women had 1980 characteristics	18.2

TABLE B.6
Occupational Distributions of Black and White Women Controlling for Characteristics: South, 1940[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	4.7	19.5	6.0	19.1
Doctors, lawyers, engineers, etc.,[b]	0.0	0.1	0.2	0.4
Teachers	4.1	17.2	2.6	9.7
Nurses	0.3	0.9	1.9	5.0
Librarians, social workers, religious workers	0.1	0.2	0.5	1.2
Other	0.2	1.0	0.8	2.7
Managers	0.7	1.1	4.1	5.3
Manufacturing	0.0	0.0	0.1	0.2
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.0	0.0	0.2	0.4
Retail, personal service, entertainment, recreation	0.6	1.0	3.2	3.5
Other	0.0	0.1	0.4	1.1
Clerical workers	0.7	2.3	10.1	23.0
Secretaries, typists, stenographers	0.2	0.9	3.6	10.1
Other	0.5	1.5	6.5	13.0
Sales workers	0.5	1.0	5.8	8.2
Financial, insurance, real estate	0.1	0.3	0.1	0.4
Other	0.4	0.7	5.7	7.8
Crafts workers	0.4	0.4	1.7	1.4
Operatives	5.7	5.9	38.2	19.8
Textile	0.9	1.0	28.0	12.8
Manufacturing	1.4	0.8	5.5	3.3
Other	3.5	4.1	4.8	3.7
Transportation workers	0.1	0.1	0.0	0.0
Laborers	1.5	0.9	1.5	0.8
Service workers	8.7	11.7	13.1	12.6
Cleaning and food	6.5	7.7	7.7	5.8
Protection	0.0	0.5	0.1	0.1
Other	2.2	4.0	5.3	6.7
Private household workers	58.1	47.5	11.7	5.8
Farmers	3.8	2.3	3.6	2.0
Farm laborers	15.1	7.4	4.1	1.9

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.7
Occupational Distributions of Black and White Women Controlling for Characteristics: Non-South, 1940[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	4.2	11.0	8.9	18.7
Doctors, lawyers, engineers, etc.,[b]	0.0	0.0	0.2	0.4
Teachers	2.1	7.1	2.9	8.7
Nurses	0.8	1.2	2.9	5.2
Librarians, social workers, religious workers	0.5	0.9	0.8	1.4
Other	0.9	1.7	1.9	3.1
Managers	1.4	2.1	4.2	3.1
Manufacturing	0.1	0.1	0.2	0.3
Wholesale	0.1	0.0	0.1	0.1
Financial, insurance, real estate	0.3	0.3	0.5	0.6
Retail, personal service, entertainment, recreation	0.9	1.4	2.8	3.0
Other	0.1	0.2	0.4	0.8
Clerical workers	3.0	5.2	18.9	24.5
Secretaries, typists, stenographers	0.9	1.7	7.1	10.2
Other	2.0	3.5	11.8	14.3
Sales workers	1.2	1.6	6.9	7.6
Financial, insurance, real estate	0.1	0.1	0.3	0.5
Other	1.1	1.5	6.6	7.2
Crafts workers	0.8	0.7	2.0	1.6
Operatives	14.5	11.2	30.3	18.4
Textile	6.6	5.4	13.7	7.4
Manufacturing	2.0	1.7	11.0	6.9
Other	5.9	4.1	5.6	4.1
Transportation workers	0.2	0.2	0.1	0.1
Laborers	0.9	0.6	1.3	0.8
Service workers	14.3	15.2	16.1	14.1
Cleaning and food	10.4	10.5	9.8	7.6
Protection	0.0	0.0	0.4	0.1
Other	3.9	4.6	6.2	6.4
Private household workers	59.4	51.8	11.0	8.5
Farmers	0.0	0.0	0.5	0.7
Farm laborers	0.1	0.4	0.3	0.3

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.8
Occupational Distributions of Black and White Women Controlling for Characteristics: South, 1960[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	8.0	14.8	9.6	15.9
Doctors, lawyers, engineers, etc.,[b]	0.0	0.1	0.1	0.3
Teachers	5.8	10.9	4.4	8.0
Nurses	0.9	1.6	2.1	3.1
Librarians, social workers, religious workers	0.3	0.5	0.6	0.9
Other	1.0	1.6	2.4	3.7
Managers	1.0	1.6	4.1	4.9
Manufacturing	0.0	0.0	0.1	0.2
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.0	0.0	0.2	0.4
Retail, personal service, entertainment, recreation	0.8	1.1	2.8	2.8
Other	0.2	0.5	1.0	1.4
Clerical workers	3.8	6.9	23.1	33.6
Secretaries, typists, stenographers	1.1	2.0	6.6	11.6
Other	2.7	4.9	16.5	22.0
Sales workers	1.1	1.7	8.7	9.6
Financial, insurance, real estate	0.2	0.4	0.6	0.8
Other	1.0	1.3	8.1	8.8
Crafts workers	0.5	0.6	1.7	1.3
Operatives	9.6	9.2	29.2	18.5
Textile	0.9	1.2	17.3	10.7
Manufacturing	2.7	2.3	8.2	5.1
Other	6.0	5.7	3.7	2.7
Transportation workers	0.1	0.2	0.2	0.1
Laborers	1.0	0.9	1.0	0.5
Service workers	22.4	23.3	14.3	11.2
Cleaning and food	11.1	10.3	8.3	5.8
Protection	0.1	0.1	0.1	0.1
Other	11.2	12.8	5.9	5.3
Private household workers	46.4	37.0	5.3	2.7
Farmers	1.0	0.7	0.9	0.6
Farm laborers	5.1	3.0	1.9	0.5

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.9
Occupational Distributions of Black and White Women Controlling for Characteristics: Non-South, 1960[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	7.3	12.2	9.7	15.7
Doctors, lawyers, engineers, etc.,[b]	0.1	0.1	0.2	0.3
Teachers	2.4	5.6	3.1	6.7
Nurses	2.3	2.7	2.9	3.8
Librarians, social workers, religious workers	0.7	1.1	0.6	1.0
Other	1.7	2.7	3.0	3.9
Managers	1.2	1.8	3.3	4.1
Manufacturing	0.0	0.1	0.3	0.4
Wholesale	0.0	0.0	0.1	0.1
Financial, insurance, real estate	0.2	0.1	0.4	0.5
Retail, personal service, entertainment, recreation	0.7	0.8	1.7	2.0
Other	0.4	0.7	0.8	1.1
Clerical workers	13.7	14.6	32.1	34.3
Secretaries, typists, stenographers	3.9	4.2	10.3	11.8
Other	9.8	10.4	21.9	22.6
Sales workers	2.0	2.0	8.3	8.4
Financial, insurance, real estate	0.1	0.1	0.8	0.7
Other	1.9	1.8	7.5	7.7
Crafts workers	1.2	1.0	1.6	1.5
Operatives	21.5	17.2	24.5	17.3
Textile	6.1	4.7	7.0	4.4
Manufacturing	8.6	7.6	14.7	10.2
Other	6.8	5.0	2.9	2.7
Transportation workers	0.1	0.1	0.3	0.2
Laborers	1.4	1.2	0.6	0.5
Service workers	25.2	24.7	15.2	13.1
Cleaning and food	9.8	9.9	9.5	7.5
Protection	0.3	0.2	0.1	0.1
Other	15.1	14.5	5.5	5.4
Private household workers	26.0	24.6	3.5	3.3
Farmers	0.0	0.1	0.2	0.5
Farm laborers	0.4	0.6	0.6	1.0

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.10
Occupational Distributions of Black and White Women Controlling for Characteristics: South, 1980[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	15.4	19.7	15.6	19.6
Doctors, lawyers, engineers, etc.,[b]	0.3	0.4	0.5	0.7
Teachers	7.2	9.9	5.4	7.6
Nurses	2.1	2.5	2.5	3.1
Librarians, social workers, religious workers	1.3	1.7	0.8	1.1
Other	4.5	5.3	6.3	7.2
Managers	2.1	2.2	6.5	6.5
Manufacturing	0.1	0.1	0.6	0.6
Wholesale	0.0	0.0	0.4	0.3
Financial, insurance, real estate	0.3	0.3	1.0	1.1
Retail, personal service, entertainment, recreation	0.9	1.0	3.4	3.2
Other	0.7	0.8	1.1	1.2
Clerical workers	23.2	23.0	35.7	37.1
Secretaries, typists, stenographers	6.1	6.1	12.6	13.5
Other	17.2	17.0	23.1	23.6
Sales workers	2.7	2.8	6.5	6.8
Financial, insurance, real estate	0.4	0.4	1.6	1.8
Other	2.3	2.4	4.9	4.9
Crafts workers	3.4	3.3	4.4	3.8
Operatives	14.0	13.0	10.6	8.2
Textile	5.8	5.7	5.0	3.9
Manufacturing	5.9	5.4	4.5	3.5
Other	2.3	1.9	1.2	0.9
Transportation workers	1.1	1.0	1.0	0.8
Laborers	1.6	1.5	1.0	0.8
Service workers	27.7	25.8	16.1	13.9
Cleaning and food	15.9	13.5	8.4	6.6
Protection	0.6	0.5	0.5	0.4
Other	11.3	11.7	7.2	6.8
Private household workers	7.6	7.0	1.9	1.6
Farmers	0.1	0.1	0.2	0.7
Farm laborers	1.5	1.3	0.8	0.7

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.11
Occupational Distributions of Black and White Women Controlling for Characteristics: Non-South, 1980[a]

	Black distribution	Black distribution with white characteristics	White distribution with black characteristics	White distribution
Professional and technical workers	16.9	20.9	16.9	20.3
Doctors, lawyers, engineers, etc.,[b]	0.5	0.8	0.5	0.7
Teachers	5.3	7.5	4.8	7.1
Nurses	3.2	3.5	3.4	3.8
Librarians, social workers, religious workers	2.0	2.3	0.9	1.3
Other	6.0	6.9	6.8	7.5
Managers	2.9	2.9	6.3	6.3
Manufacturing	0.3	0.3	0.8	0.7
Wholesale	0.1	0.1	0.4	0.4
Financial, insurance, real estate	0.6	0.6	1.0	1.0
Retail, personal service, entertainment, recreation	1.0	1.1	2.5	2.7
Other	1.0	1.1	1.2	1.3
Clerical workers	35.3	33.1	37.1	36.2
Secretaries, typists, stenographers	9.1	8.4	12.9	12.7
Other	26.2	24.7	24.2	23.5
Sales workers	2.9	3.1	7.0	6.9
Financial, insurance, real estate	0.5	0.4	1.7	1.7
Other	2.4	2.7	5.3	5.3
Crafts workers	2.9	3.0	3.6	3.1
Operatives	9.6	9.6	8.2	6.8
Textile	1.3	1.2	2.1	1.4
Manufacturing	6.8	7.1	4.9	4.3
Other	1.5	1.3	1.2	1.0
Transportation workers	0.9	0.8	1.0	0.8
Laborers	0.8	0.8	0.9	0.7
Service workers	23.3	21.1	17.1	16.1
Cleaning and food	8.7	7.7	8.9	8.1
Protection	0.9	0.9	0.4	0.3
Other	13.7	12.5	7.8	7.7
Private household workers	4.5	4.4	2.2	2.1
Farmers	0.0	0.0	0.2	0.4
Farm laborers	0.8	0.9	0.7	0.9

Source: U.S. Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.
[b] This category includes physicians, dentists, and related practitioners, lawyers and judges, engineers, architects, computer specialists, life and physical scientists, and operations and systems analysts.

TABLE B.12
Indices of Occupational Dissimilarity for Black and White Women by Region Controlling for Characteristics: 1940, 1960, and 1980[a]

	1940		1960		1980	
	South	Non-South	South	Non-South	South	Non-South
Actual black occupational distribution: actual white occupational distribution	68.7	55.6	63.0	41.4	27.5	16.0
Simulated black occupational distribution assuming blacks had white characteristics: actual white occupational distribution	57.4	46.4	54.9	36.2	26.1	13.4
Simulated white occupational distribution assuming whites had black characteristics: actual white occupational distribution	31.1	17.7	18.6	9.8	6.1	4.4
Simulated black occupational distribution assuming blacks had white characteristics: actual black occupational distribution	21.0	11.3	13.3	6.7	4.8	5.7
Simulated white occupational distribution assuming whites had black characteristics: actual black occupational distrbution	59.1	49.3	56.2	37.4	24.2	14.2

Sources: 1940, 1960 and 1980 Censuses of Population.
[a] Sample includes all women between the ages of 20 and 64 who reported an occupation. Characteristics controlled for are: education, urban/rural residence, and age.

APPENDIX C
An Attempt to Measure Differences in the Quality of Education by Race, Region, and Educational Level

This report has found gaps between the wages and occupations of black and white women that cannot be explained by racial differences in measured characteristics. The report has also found that the unexplained gaps between the wages and occupations of black and white women are generally larger in the South and at low levels of education. Throughout, the report speculates that differences in the quality of education received by black and white women might account for some of the black-white differences in wages and occupations that cannot be explained by racial differences in measured characteristics. If black women receive generally lower quality education, then their educational achievement will generally be lower than that of white women with the same number of years of education. If employers consider educational achievement rather than years of schooling completed when making hiring decisions and setting pay, the lower educational achievement of black women might be partially responsible for their lower relative wages and occupational status.

This appendix constitutes an attempt to determine whether measured educational achievement varies by race consistently with the patterns in women's wages and occupations noted above. Is the educational achievement of black women lower than that of white women with the same number of years of school? Is the educational achievement of black women relative to white women lower in the South than in the rest of the country? Do black women have lower educational achievement relative to white women at low levels of education? If the answers to these three questions are yes, the argument that part of the unexplained racial gaps in women's wages and occupations is due to differences in the quality of education rather than to direct labor market discrimination becomes more credible.

Since measures of educational achievement are not available in the data sources used for the bulk of this report, this appendix uses data from the National Longitudinal Survey of Youth (NLSY) to study patterns of educational achievement by race. As part of a larger survey, the NLSY administered the Armed Forces Qualifications Test (AFQT) to a large national sample of young persons (male and female) between the ages of 14 and 21 in 1979. The AFQT is a test routinely administered to inductees to the armed forces for placement purposes. The test evaluates skills in the areas of science, mathematical reasoning, work knowledge, paragraph comprehension, numerical operations, coding speed, automobile and shop, mathematical knowledge, mechanical comprehension, and electronics. The scores on these subtests are then collapsed into a unidimensional overall AFQT score.

This appendix analyses the relationship between final AFQT score, race, region, and education for the 3,085 white women and 1,477 black women in the NLSY sample for whom test scores are reported. A woman's final AFQT score is taken as a measure of her educational achievement. Since persons in the NLSY sample varied in age considerably when they were taking the test (from 14 to 21), their AFQT scores were age adjusted.[7] Many of the persons had not completed their education when they took the test. Rather than their 1979 educational level, the education level women had achieved by 1986 was used as a measure of their education.[8]

Table C.1 shows the average AFQT percentiles (age adjusted) for the black and white women in the NLSY sample overall and by region and educational level. On average, the black women in the sample scored in the 36th percentile and the white women scored in the 68th percentile on the AFQT. Black women scored lower than white women at every educational level. These results confirm

[7] A regression of test scores on age and age-squared was estimated, and the results were used to adjust women's scores upward or downward, depending on their age.

[8] As such, the research presented in this appendix does not constitute a perfect test of the hypothesis that the quality of education varies by race according to the patterns noted above. A better test of the hypothesis would rely on test scores for persons who had actually completed their education.

TABLE C.1
Age Adjusted AFQT Percentiles for Black and White Women by Region and Education[a]

Years of school	Black			White		
	All	South	Non-South	All	South	Non-South
All	36.8	34.7	38.9	68.3	64.0	70.1
0–7	13.3	9.4	18.4	20.3	19.9	22.9
8–11	22.5	20.6	24.7	45.1	39.9	48.2
12	32.5	31.4	34.5	59.1	55.1	60.5
13–15	44.5	41.2	48.2	78.0	76.5	78.6
16+	59.1	57.4	62.1	89.5	87.8	90.2

Source: The National Longitudinal Survey of Youth (NLSY).
[a] Sample includes all female respondents for whom AFQT scores are reported.

TABLE C.2
Regressions of Age-Adjusted AFQT Percentiles on Race, Education, and Region[a]

	(1)		(2)		(3)	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	–19.13	–9.58	–20.43	–9.86	–21.29	–9.95
Education	6.74	45.97	6.84	44.81	6.90	43.77
South	–4.23	–5.49	–4.20	–5.45	–4.19	–5.44
Rural	0.55	0.71	0.54	0.70	0.59	0.76
Black	–26.40	–20.31	–26.33	–20.26	–11.45	–2.07
Black	–0.42	–0.23	15.35	2.18	–0.42	–0.24
Black*south	–	–	–1.26	–2.31	–	–
Black*education	–	–	–	–	–1.18	–2.78
Number of observations	3,957		3,957		3,957	
R-squared	0.4733		0.4740		0.4744	
Adjusted R-squared	0.4727		0.4732		0.4736	

[a] Source: National Longitudinal Survey of Youth. Sample includes all female respondents for whom AFQT scores are reported. Dependent variable is age-adjusted percentile of person's score on the Armed Forces Achievement Test (AFQT).

that black women today may have generally lower educational achievement than white women with the same number of years of school and suggest that black women's lower educational achievement may "explain" part of the "unexplained" racial gap in wages and occupations.

On the other hand, the pattern of racial differences in AFQT percentiles by region and educational level are not consistent with the patterns in the unexplained gaps noted above. Although both blacks and whites have lower AFQT scores at lower educational levels, blacks appear to perform better relative to whites at lower than at higher educational levels. Thus, educational achievement patterns cannot explain why wage and occupational gaps between black and white women are greater at lower educational levels.

Similarly, although both black and white women have lower AFQT scores in the South than in the rest of the country, black women do not perform relatively worse in the South. In fact, the overall regional gap in scores is larger for white women than for black women. There is some apparent tendency for the regional gap within educational groups to be greater at higher educational levels for black women, whereas the reverse is true for white women. Thus, educational achievement patterns cannot explain why gaps in the

wages and occupations of black and white women are larger in the South than in the rest of the country.

These results are confirmed in the regression analysis reported in table C.2. In column (1) of table C.2, persons' age-adjusted AFQT percentiles are regressed on their education and on dummy variables indicating whether they are black, whether they lived in the South when they were 14 years old, and whether they lived in a rural area when they were 14 years old. An interaction between the dummy variables for living in the South and being black was also included to determine whether black women's relative test scores differed by region. The regression results indicate that women's test scores rise with education and are lower overall for black women and for women living in the South. Living in a rural area has no effect on women's test scores. Furthermore, since the coefficient on the interaction between being black and living in the South is not statistically significantly different from zero, black women living in the South do not score relatively worse than their northern counterparts.

A second specification, reported in column (2) of table C.2, adds an interaction term between being black, living in the South, and education. The results from estimating this regression confirm that black women may do relatively worse in the South at higher educational levels, even though they do not do relatively worse in the South in general.[9] A third specification, reported in column (3) of table C.2, adds an interaction between being black and education. The results from estimating this regression confirm that black women do relatively worse at higher, not lower, educational levels.[10]

The results that southern black women score relatively lower at higher educational levels might conceivably explain the finding in chapter 4 that southern black women are underrepresented in the clerical sector even after controlling for education, among other factors. Since clerical jobs require relatively high educational levels, it is possible that southern black women's relatively low educational achievement at high levels of education prevents them from entering clerical jobs in the same numbers as their white counterparts.

The results from this investigation lend some support to the hypothesis that lower educational quality explains some of the overall black-white wage and occupational gap. They further support the hypothesis that southern black women may be prevented from entering clerical jobs by their relatively low educational achievement at higher educational levels. However, lower educational quality appears to explain neither the wider black-white wage and occupational gap in the South as a whole nor the wider black-white wage and occupational gap at lower education levels.

Since the NLSY administered the AFQT to young persons in 1979, the conclusions drawn in this appendix are only valid for the current day and may not characterize accurately historical patterns in educational achievement by race.

[9]The coefficient on the additional interaction term is negative and statistically significantly different from zero.

[10]The coefficient on the additional interaction term is negative and statistically significantly different from zero.

APPENDIX D
Census Wage Regressions: Supplementary Tables for Chapter 6

TABLE D.1
Wage Regressions for Black and White Women: 1940, 1960, and 1980 Censuses*

	1940			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	−1.0694	−8.28	−0.9999	−12.28
Independent variables:				
Age	0.0271	4.33	0.0622	17.19
Age squared	−0.0002	−3.22	−0.0007	−16.12
Elementary schooling	0.0378	8.21	0.0186	3.37
Secondary schooling	0.0353	3.74	0.0709	12.67
High school	0.1503	3.66	0.0743	4.31
Some college	0.2326	11.05	0.0926	12.98
College	0.0745	1.32	0.1528	9.06
Urban residence	0.3893	23.37	0.2857	27.41
Part time	0.2711	16.46	0.2454	19.92
South	−0.4490	−24.45	−0.0876	−7.61
One child	−0.0067	−0.31	−0.0676	−5.89
Two children	−0.0260	−1.17	0.0128	0.72
Number of children after second	0.0003	0.05	−0.0371	−5.83
Never married	0.0182	0.74	−0.0235	−2.00
Divorced	0.0344	0.86	−0.0643	−3.36
Widowed	−0.0335	−1.59	−0.1471	−8.49
Other marital statuses	0.0020	0.10	−0.1165	−5.78
Number of observations	7,334		16,849	
R-squared	0.3490		0.2335	
Adjusted R-squared	0.3475		0.2327	

	1960			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.2092	2.16	0.4892	−4.30
Independent variables:				
Age	0.0145	3.32	0.0180	4.01
Age squared	−0.0001	−2.84	−0.0002	−3.09
Elementary schooling	0.0162	3.89	0.0268	2.78
Secondary schooling	0.0340	6.44	0.0360	5.35
High school	0.1217	6.38	0.0764	4.05
Some college	0.1837	18.57	0.1011	13.46
College	0.0745	1.32	0.1528	9.06
Urban residence	0.3143	23.65	0.1927	16.00
Part time	−0.0289	−2.52	−0.0332	−2.46
South	−0.4397	−37.07	−0.0938	−7.32
One child	−0.0094	−0.58	−0.0510	−2.80
Two children	0.0131	0.82	−0.0727	−4.48
Number of children after second	−0.0186	−5.49	−0.0288	−5.26
Never married	−0.0435	−2.17	−0.1024	−5.32
Divorced	0.0143	0.69	−0.0509	−2.41
Widowed	−0.0619	−3.57	−0.0389	−1.94
Other marital statuses	−0.0377	−2.64	−0.0864	−3.12
Number of observations	17,031		11,240	
R-squared	0.3032		0.1643	
Adjusted R-squared	0.3025		0.1630	

TABLE D.1 (continued)

	1980			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.3819	4.24	0.4210	3.80
Independent variables:				
Age	0.0362	9.98	0.0310	9.26
Age squared	–0.0004	–9.93	–0.0003	–7.61
Elementary schooling	0.0048	0.56	0.0181	1.32
Secondary schooling	0.0384	6.45	0.0395	5.02
High school	0.1287	8.97	0.0680	4.05
Some college	0.0941	17.44	0.0842	18.62
College	0.1103	15.69	0.0624	10.09
Urban residence	0.1550	12.57	0.1276	14.10
Part time	0.2844	24.64	–0.0391	–4.02
South	–0.1780	–18.99	–0.0493	–5.53
One child	0.0290	2.04	–0.0391	–2.69
Two children	–0.0161	–1.33	–0.0555	–4.44
Number of children after second	–0.0221	–7.63	–0.0267	–6.87
Never married	–0.0529	–4.00	–0.0049	–0.31
Divorced	0.0131	1.03	0.0317	2.56
Widowed	–0.0249	–1.38	–0.0148	–0.78
Other marital statuses	–0.0280	–1.92	–0.0589	–2.27
Number of observations	29,355		20,637	
R-squared	0.1418		0.1131	
Adjusted R-squared	0.1414		0.1124	

Source: U.S. Censuses of Population.
[a] Dependent variable is the natural logarithm of the hourly wage. Sample includes all women between the ages of 25 and 64 with positive wages.

TABLE D.2
Wage Regressions for Black and White Women: 1940, 1960, and 1980 Censuses (Including Occupation and Industry)[a]

	1940			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	−0,0806	−0.38	−0.4708	−3.51
Independent variables:				
Age	0.0227	3.91	0.0430	13.21
Age squared	−0.0002	−2.77	−0.0005	−11.81
Elementary schooling	0.0312	7.26	0.0177	3.57
Secondary schooling	0.0183	2.08	0.0270	4.99
High school	0.0213	0.56	0.0247	1.60
Some college	0.0498	2.36	0.0262	3.84
College	0.0824	1.58	0.1431	9.50
Urban residence	0.3827	24.10	0.2303	24.99
Part time	0.2577	16.76	0.1387	22.19
South	−0.3701	−15.93	−0.0769	−5.71
One child	−0.0112	−0.5[illegible]	−0.0777	−5.84
Two children	−0.0196	−0.96	0.0228	1.44
Number of children after second	−0.0007	−0.11	−0.0288	−5.09
Never married	0.0095	0.41	−0.0194	−1.83
Divorced	0.0432	1.17	−0.0069	−0.40
Widowed	−0.0171	−0.88	−0.0489	−3.13
Other marital statuses	0.0019	0.10	−0.0230	−1.27
Moved within last 5 years	0.2362	8.85	0.0587	3.78
Moved more than 5 years ago	0.1301	5.41	0.0757	7.73
Born in South	−0.0563	−2.95	−0.0590	−4.53
Full time in 1975	0	–	0	–
Part time in 1975	0	–	0	–
Mining	0.6254	1.42	0.2490	1.64
Construction	0.0620	0.26	0.2794	2.20
Durable	0.1257	0.69	0.3535	3.16
Nondurable	0.1847	1.12	0.2802	2.52
Transportation	0.1316	0.63	0.3503	3.02
Communications	0.2441	0.66	0.3157	2.79
Utilities	0.4436	1.33	0.4281	3.59
Wholesale trade	0.4138	1.96	0.2235	1.96
Retail trade	−0.0776	−0.46	0.1312	1.18
Finance, insurance, real estate	−0.0632	−0.36	0.2526	2.26
Business & repair service	−0.0692	−0.31	0.2628	2.22
Personal service	−0.1086	−0.66	0.1270	1.13
Entertainment and recreation	0.808	0.41	0.1437	1.21
Professional services	−0.1640	−0.97	0.0427	0.38
Public administration	0.0037	0.02	0.0362	0.32
Miscellaneous industries	0.0148	0.08	0.1983	1.71
Manager	−0.7340	−4.44	−0.0390	−1.29
Sales	−0.5986	−5.51	−0.2463	−10.03
Clerical	−0.2631	−3.26	−0.0712	−3.94
Craft	−0.6844	−5.56	−0.1513	−4.29
Operator	−0.5435	−7.96	−0.3039	−13.86
Transportation worker	−0.2988	−1.62	−0.5003	−2.15
Laborer	−0.4150	−4.41	−0.3642	−7.55
Farmer	−1.8749	−3.10	0	–
Farm laborer	−0.8885	−5.01	−0.9578	−6.21
Service	−0.6696	−11.20	−0.5140	−25.50
Private household worker	−0.8974	−13.59	−0.8523	−30.11
Miscellaneous occupations	−0.7863	−4.78	−0.3952	−5.57
Government	0.1884	3.53	0.3878	23.15
Federal government	0	–	0	–
State government	0	–	0	–
Number of observations	7,334		16,849	
R-squared	0.4483		0.3936	
Adjusted R-squared	0.4446		0.3918	

TABLE D.2 (continued)

	1960			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.5568	3.67	0.7860	5.01
Independent variables:				
Age	0.0101	2.47	0.0134	3.22
Age squared	–0.0101	–1.73	–0.0001	–2.10
Elementary schooling	0.0159	4.09	0.0214	2.40
Secondary schooling	0.0114	2.31	0.0226	3.58
High school	0.0409	2.28	0.0327	1.85
Some college	0.0519	5.04	0.0475	6.10
College	0.1199	8.46	0.0761	6.99
Urban residence	0.2607	20.39	0.1724	15.10
Part time	0.1041	9.30	0.0704	5.51
South	–0.2810	–20.76	–0.0835	–5.17
One child	–0.0128	–0.86	–0.0486	–2.88
Two children	–0.0035	–0.23	–0.0563	–3.75
Number of children after second	–0.0119	–3.80	–0.0187	–3.68
Never married	–0.0118	–0.63	–0.0724	–4.05
Divorced	0.0422	2.18	0.0092	0.47
Widowed	–0.0169	–1.05	0.0068	0.37
Other marital statuses	0.0038	0.28	–0.0258	–1.00
Moved within last 5 years	0.0378	1.82	–0.0695	–3.72
Moved more than 5 years ago	0.1230	9.56	0.0315	2.76
Born in South	–0.1011	–6.55	–0.0111	–0.72
Full time in 1975	0	–	0	–
Part time in 1975	0	–	0	–
Mining	0.5626	1.83	0.3301	2.03
Construction	0.3730	2.42	0.1113	0.82
Durable	0.5675	4.67	0.2763	2.40
Nondurable	0.4052	3.38	0.1746	1.52
Transportation	0.4900	3.48	0.2579	2.09
Communications	0.3866	2.76	0.2887	2.42
Utilities	0.4699	2.57	0.2300	1.74
Wholesale trade	0.3370	2.57	0.1494	1.26
Retail trade	0.2110	1.75	–0.0119	–0.10
Finance, insurance, real estate	0.1978	1.57	0.1811	1.56
Business & repair service	0.2399	1.73	0.0315	0.26
Personal service	0.1517	1.27	–0.0591	–0.51
Entertainment and recreation	0.2283	1.65	–0.0043	–0.03
Professional services	0.2285	1.90	–0.0350	–0.31
Public administration	0.3030	2.46	–0.0281	–0.24
Miscellaneous industries	0.1793	1.39	0.0964	0.78
Manager	–0.3239	–4.43	–0.0511	–1.47
Sales	–0.3196	–5.66	–0.4132	–13.59
Clerical	–0.2554	–7.67	–0.1852	–8.40
Craft	–0.3233	–4.94	–0.1039	–2.19
Operator	–0.3404	–9.58	–0.2382	–8.61
Transportation worker	–0.1648	–1.05	–0.4047	–3.57
Laborer	–0.3750	–6.47	–0.2569	–3.21
Farmer	0	–	0	–
Farm laborer	–0.4787	–3.73	–0.6786	–4.31
Service	–0.5127	–17.37	–0.4603	–18.28
Private household worker	–0.7120	–19.86	–0.8592	–19.20
Miscellaneous occupations	–0.5028	–9.07	–0.2515	–5.19
Government	0.2567	11.51	0.2467	12.02
Federal government	0	–	0	–
State government	0	–	0	–
Number of observations	17,031		11,240	
R-squared	0.4006		0.2922	
Adjusted R-squared	0.3990		0.2891	

TABLE D.2 (continued)

	1980			
	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.4897	4.49	0.5669	4.84
Independent variables:				
Age	0.0251	7.13	0.0189	5.93
Age squared	-0.0003	-6.66	-0.0002	-4.89
Elementary schooling	-0.0008	-0.09	0.0304	2.34
Secondary schooling	0.0181	3.16	0.0293	3.88
High school	0.0664	4.78	0.0243	1.50
Some college	0.0615	11.30	0.0577	12.44
College	0.0856	12.21	0.0416	6.78
Urban residence	0.1372	11.28	0.1228	13.98
Part time	0.4717	39.54	0.1089	10.54
South	-0.1064	-8.55	-0.0751	-6.27
One child	0.0152	1.12	-0.0236	-1.71
Two children	-0.0195	-1.66	-0.0230	-1.93
Number of children after second	-0.0156	-5.59	-0.0172	-4.65
Never married	0.0388	-3.06	0.0095	0.63
Divorced	0.0076	0.62	0.0312	2.65
Widowed	-0.0135	-0.78	0.0076	0.42
Other marital statuses	-0.0069	-0.49	-0.0281	-1.14
Moved within last 5 years	-0.0002	-0.01	-0.0598	-3.89
Moved more than 5 years ago	0.0446	3,86	0.0153	1.67
Born in South	-0.0549	-4.76	0.0185	1.49
Full time in 1975	0.1547	13.84	0.2004	19.75
Part time in 1975	-0.0720	-4.37	0.0558	4.32
Mining	0.4457	3.60	0.3876	4.76
Construction	0.3008	3.51	0.1936	3.24
Durable	0.3370	5.14	0.1554	3.06
Nondurable	0.4353	6.58	0.2433	4.78
Transportation	0.5182	7.38	0.3277	5.87
Communications	0.6012	8.52	0.4533	7.99
Utilities	0.3475	3.99	0.2398	3.48
Wholesale trade	0.3364	4.61	0.1919	3.58
Retail trade	0.1523	2.28	-0.0165	-0.33
Finance, insurance, real estate	0.2843	4.18	0.1551	3.04
Business & repair service	0.2246	3.19	0.1132	2.09
Personal service	0.0846	1.26	-0.0654	-1.21
Entertainment and recreation	0.3154	3.54	0.0055	0.09
Professional services	0.2718	4.13	0.0770	1.54
Public administration	0.3155	4.65	0.0782	1.48
Miscellaneous industries	0	-	0	-
Manager	-0.0193	-0.63	-0.0484	-2.37
Sales	-0.1863	-5.51	-0.2312	-10.95
Clerical	-0.1313	-8.09	-0.1876	-13.59
Craft	-0.1340	-4.53	-0.1528	-5.90
Operator	-0.2181	-9.59	-0.2839	-12.85
Transportation worker	-0.2888	-6.48	-0.1767	-4.08
Laborer	-0.2610	-5.76	-0.2146	-4.41
Farmer	0.0532	0.23	0.3504	1.40
Farm laborer	-0.1788	-3.51	-0.3273	-6.03
Service	-0.2737	-16.82	-0.3157	-19.17
Private household worker	-0.5627	-21.89	-0.6355	-18.16
Miscellaneous occupations	-0.1205	-4.90	-0.1064	-4.84
Government	0	-	0	-
Federal government	0.1865	9.66	0.2214	8.88
State government	0.0656	5.15	0.0920	7.05
Number of observations	29,355		20,637	
R-squared	0.2142		0.2004	
Adjusted R-squared	0.2138		0.1984	

Source: U.S. Censuses of Population.
[a] Dependent variable is the natural logarithm of the hourly wage. Same includes all women between the ages of 25-64 with positive wages. Excluded occupation is professionals and excluded industry is agriculture.

TABLE D.3
The Effects of Selected Characteristics on the Black-White Female Hourly Wage Ratio: 1940, 1960, and 1980 (Evaluated Using the Black Pay Scale)[a]

	1940	1960	1980
Actual hourly wage ratio[b]	36.7	55.3	94.0
Predicted black-white wage ratio due to racial differences in all characteristics (eliminates differences in pay scales)[c]	59.6	75.6	89.7
Predicted black-white wage ration due to racial differences in selected characteristics (eliminates differences in pay and differences in other characteristics)[d]			
Education	77.8	87.3	95.0
Regional distribution	82.4	87.4	96.1
Urban/rural residence	95.5	101.5	101.7
Age	99 3	99.3	100.2
Marital status	99.1	99.5	99.4
Children	99.4	99.2	99.3
Part time/full time status	99.4	99.2	99.3

Source: U.S. Censuses of Population.
[a] The figures presented in this table are based upon regression results reported in app. D, table D.1. Characteristics included in the regressions include: age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[c] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the black pay scale, multiplied by 100.
[d] Ratio of the hourly wage of a woman with the black average for the selected characteristic and the white average for all other characteristics to that of the average white woman, assuming that both were paid according to the black pay scale, multiplied by 100.

TABLE D.4
The Effects of Selected Characteristics on the Black-White Female Hourly Wage Ratio Derived from Regressions Including Occupation and Industry: 1940, 1960, and 1980 (Evaluated Using the Black Pay Scale)[a]

	1940	1960	1980
Actual hourly wage ratio[b]	36.7	55.3	94.0
Predicted black-white wage ratio due to racial differences in all characteristics (eliminates differences in pay)[c]	43.5	63.1	88.7
Predicted black-white wage ratio due to racial differences in selected characteristic (eliminates differences in pay and differences in other characteristics)[c]			
Education	90.0	94.7	96.6
Regional distribution	79.1	91.8	97.7
Urban/rural residence	95.6	101.2	101.5
Age	99.5	99.7	99.8
Marital status	99.5	100.1	99.7
Children	99.3	99.5	99.4
Part time/full time status	103.1	101.2	97.0
Occupation and industry	62.7	74.4	96.2

Source: U.S. Censuses of Population.
[a] The figures presented in this tables are based upon regression results reported in app. D, table D.2. Characteristics included in the regressions include occupation and industry in addition to age, education, region, urban/rural residence, full-time/part-time status, marital status, and presence of young children.
[b] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[c] Ratio of the hourly wage of the average black women to that of the average white woman assuming that both were paid according to the black pay scale, multiplied by 100.
[d] Ratio of the hourly wage of a woman with the black average for the selected characteristic and the white average for all other characteristics to that of the average white woman, assuming that both were paid according to the black pay scale, multiplied by 100.

TABLE D.5
Predicted Hourly Wages and Black-White Wage Ratios by Age: 1940, 1960, and 1980 (Regressions Including Occupation and Industry)[a]

	1940		1960		1980	
Age:	25–39	40–64	25–39	40–64	25–39	40–64
A. Predicted hourly wages[b]						
Black regression (pay scale)						
Average black woman	0.85	0.81	2.25	2.06	4.70	4.41
Average white woman	1.86	2.00	3.38	3.44	5.37	5.20
White regression (pay scale)						
Average black woman	1.10	0.90	2.62	2.37	4.54	4.28
Average white woman	2.25	2.02	3.78	3.93	4.86	4.87
B. Predicted wage ratios						
Actual black-white wage ratio[c]	37.7	44.9	59.7	52.3	96.6	90.6
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)[d]	48.9	44.3	69.4	60.4	93.3	88.0
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)[e]	77.1	101.4	85.9	86.6	103.5	103.0

Source: U.S. Censuses of Population.
[a] The results presented in this table are based on regressions using census data estimated separately for each age level. Regression results are reported in app. D, tables D.8, D.9, and D.11.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay scale, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay scale to the wage she would earn if she were paid according to the white pay scale, multiplied by 100.

TABLE D.6
Predicted Hourly Wages and Black-White Wage Ratios by Education: 1940, 1960, and 1980 (Regressions Including Occupation and Industry)[a]

	1940			1960			1980		
Education:	0–11	12	13+	0–11	12	13+	0–11	12	13+
A. Predicted hourly wages[b]									
Black regression (pay scale)									
Average black woman	0.78	1.22	2.04	1.81	2.67	4.33	3.57	4.45	6.10
Average white woman	1.65	1.94	2.83	2.85	3.34	4.86	4.02	4.92	6.55
White regression (pay scale)									
Average black woman	0.88	1.39	2.77	2.10	3.14	4.82	3.60	4.30	5.83
Average white woman	1.78	2.39	3.36	3.27	3.89	5.37	3.94	4.49	5.88
B. Predicted wage ratios									
Actual black-white wage ratio[c]	44.7	51.0	60.9	55.5	68.5	80.7	90.7	99.2	103.8
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)[d]	49.8	58.0	95.7	64.3	98.2	82.5	91.5	95.7	98.2
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)[e]	88.7	87.6	73.8	86.2	85.1	89.8	99.2	103.6	104.6

Source: U.S. Censuses of Population.
[a] The results presented in this table are based on regressions using census data estimated separately for each education level. Regression results are reported in app. D, tables D.15, D.16, and D.17.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay scale, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay scale to the wage she would earn if she were paid according to the white pay scale, multiplied by 100.

TABLE D.7
Predicted Hourly Wages and Black-White Wage Ratios by Region: 1940, 1960, and 1980 (Regressions Including Occupation and Industry)[a]

	1940		1960		1980	
	South	Non-South	South	Non-South	South	Non-South
A. Predicted hourly wages[b]						
Black regression (pay scale)						
Average black woman	0.71	1.45	1.68	3.01	4.16	5.22
Average white woman	1.43	1.92	2.94	3.69	4.84	5.54
White regression (pay scale)						
Average black woman	0.74	1.36	2.02	3.10	4.18	4.89
Average white woman	1.92	2.24	3.53	3.99	4.77	4.96
B. Predicted wage ratios						
Average black-white wage ratio[c]	37.3	64.8	47.6	75.6	87.1	105.3
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)[d]	38.7	60.5	57.2	77.7	87.1	98.6
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)[e]	96.3	107.0	83.3	97.2	99.5	106.8

[a] The results presented in this table are based on regressions using Census data estimated separately for each region. Regression results are reported in app. D, tables D. 22, D.23, and D.24.
[b] All dollar figures are expressed in 1979 dollars.
[c] Ratio of the hourly wage of a black woman with average black characteristics to that of a white woman with average white characteristics, multiplied by 100.
[d] Ratio of the hourly wage of the average black woman to that of the average white woman assuming that both were paid according to the white pay scale, multiplied by 100.
[e] Ratio of the hourly wage of a woman with average black characteristics if she were paid according to the black pay scale to the wage she would earn if she were paid according to the white pay scale, multiplied by 100.

APPENDIX E
Notes on the Construction of Wage Variables for the Census of Population, Current Population Survey, and Survey of Income and Program Participation Data

This appendix provides a set of detailed notes showing how the wage variables used in this report were constructed.

Wage Construction for the 1940–80 Censuses of Population

This report uses data from the 1940, 1950, 1960, 1970, and 1980 Censuses of Population. The wage variables for the Censuses of Population are derived from information provided by individuals regarding their total annual wage and salary income and weeks worked for the previous calendar year and information regarding the hours they worked per week. Persons with any self-employment or farm income, unpaid workers, students, and members of the armed forces were excluded from the wage calculations.

Annual Wages

An annual wage is a person's total wage and salary income for the previous calendar year except for persons whose wage and salary income was top-coded.[11] For persons whose wage and salary income was top-coded, the annual wage was estimated using the Pareto method (see Technical Documentation, 1980 Census of Population, p. 164). Assuming that the distribution of wage and salary income within demographic groups given by age, race, sex and educational levels can be described by a Pareto distribution, the annual wage for top-coded individuals was calculated as the conditional mean wage and salary income estimated for all top-coded individuals in the same demographic group.

Weekly Wages

A person's weekly wage was calculated as the annual wage divided by the number of weeks worked in the previous calendar year. For 1980 and 1950, determining the number of weeks worked was derived directly from persons' responses to the question: "How many weeks did you work last year?" In 1960 and 1970, however, persons' responses regarding the number of weeks they had worked were coded in intervals rather than continuously. For these years, the number of weeks a person worked was estimated using the interval midpoint. In 1940 persons were asked how many "full-time equivalent" weeks they had worked in the previous year. Lacking any better estimate of the number of weeks they had worked, persons' answers to this question were used to calculate their weekly wages.

Hourly Wages

A person's hourly wage was calculated as the weekly wage divided by the number of hours usually worked per week in the previous year. In 1980 the number of hours usually worked per week was asked directly. In the earlier years, this question was not asked. Instead, only hours worked during the survey week were reported. Survey week hours are not likely to be the same as hours usually worked per week in the preceding year. First, since the hours worked can vary widely from week to week, survey week hours may not be typical. Second, survey week hours refer to hours worked in the current year, not hours worked in the previous year, when the wage and salary income was earned. To alleviate this problem, since both usual hours and survey week hours were reported in the 1980 census, a regression was estimated of usual hours worked last year on survey work hours and various demographic characteristics using 1980 census data; the coefficients obtained in this regression were used to derive predicted values of usual hours worked for the earlier years.[12] To ensure

[11]Top-coded wage and salary levels were: $5,000 in 1940, $10,000 in 1950, $25,000 in 1960, $50,000 in 1970, and $75,000 in 1980.

[12]Separate regressions were estimated for black and white women. Besides survey week hours, variables included in the regression were educational level, age, marital status, and presence of children. Interactions between

(continued...)

comparability across census years, predicted usual hours were also used rather than actual reported usual hours in calculating persons' 1980 hourly wages.[13]

Wage Construction for the March Current Population Surveys

This report uses data from the 1970, 1971, 1980, 1983, 1985, 1986, and 1987 March Current Population Surveys. Like the Censuses of Population, the March Current Population Surveys report persons' wage and salary income earned and weeks worked during the previous calendar year. Starting in 1980, the Current Population Surveys reported both survey week hours and hours usually worked in the previous year. In 1970 and 1971, only survey week hours were reported. As for the censuses, persons with any self-employment or farm income, unpaid workers, students, and members of the armed forces were excluded from the wage calculations.

Annual Wages

As for the censuses, annual wages are reported annual wage and salary income except for individuals whose wage and salary income was top-coded. For top-coded individuals, the Pareto method described above was used to estimate their annual wages.[14]

Weekly Wages

An individual's weekly wage is calculated as the annual wage divided by the number of weeks worked in the previous year.

Hourly Wages

For all years except for 1970 and 1971, an individual's hourly wage is calculated as the weekly wage divided by the number of hours usually worked per week in the previous year. In 1970 and 1971, the weekly wage was divided by the predicted number of hours usually worked, derived in the same way as for the 1940–70 censuses, except that the prediction was based on a regression estimated using data from the 1980 Current Population Survey.

Wage Construction for the Survey of Income and Program Participation

Hourly wages for the Survey of Income and Program Participation (SIPP) were constructed using data from the third wave of SIPP's 1984 panel. SIPP's third wave contains 4-months of data, including a detailed work history module. The principal advantages of SIPP's work history module are its measures of lifetime work experience, but it also provides more detailed information on the beginning and ending dates of jobs. The SIPP reports information on earnings, hours, and beginning and ending dates for up to two jobs held during the 4-month period.

For persons with only one job during the 4-month period, the hourly wage was calculated as their earnings over the 4-month period divided by the product of the total number of weeks they worked and their usual weekly hours.

For persons with two jobs during the period, the hourly wage was calculated as follows. If the jobs overlapped by fewer than 7 days, the hourly wage was calculated using total earnings and total hours at both jobs. If the two jobs overlapped by 7 or more days, the hourly wage was set to their hourly wage at their "primary job." Their "primary job" was determined by comparing, in order, hours worked and earnings in the two jobs. If usual hours worked on one job were 5 or more hours greater than on the other, it was considered the primary job. Failing this, the job with the greater earnings was considered the primary job. Finally, if both jobs were identical in hours and earnings, the job termed "Job 1" was considered the primary job.

[12](...continued)
survey week hours and these other variables were also included.

[13]Using predicted usual hours rather than actual reported usual hours in 1980 has large consequences for estimates of black women's relative hourly wages in that year. When predicted usual hours are used, black women appear to earn an average of 99 percent as much per hour as white women. When actual reported usual hours are used, this figure is 111 percent. Using survey week hours yields a figure of 102 percent.

[14]Top-coded income levels were $50,000 in 1970, 1971, and 1980, $75,000 in 1983, and $100,000 in 1985, 1986, and 1987.

TABLE F.1
Wage Regressions for Black and White Women: Survey of Income and Program Participation[a]

	(1)[b]				(2)[c]				(3)[d]			
	Black		White		Black		White		Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.4147	1.80	0.4478	4.78	0.9716	6.07	1.2474	17.47	1.0727	5.85	1.3840	18.32
Independent variables:												
Age	0.0384	4.31	0.0490	14.03	–	–	–	–	–	–	–	–
Age squared	–0.0004	–3.79	–0.0005	–12.67	–	–	–	–	–	–	–	–
Experience	–	–	–	–	0.0201	3.97	0.0106	5.72	0.0158	2.49	0.0057	2.77
Experience squared	–	–	–	–	–0.0005	–3.99	–0.0002	–4.94	–0.0004	–2.58	–0.0001	–2.42
Tenure	–	–	–	–	0.0392	5.34	0.0268	12.99	0.0383	5.18	0.0265	12.84
Tenure squared	–	–	–	–	–0.0011	–3.81	–0.0004	–6.93	–0.0010	–3.63	–0.0004	–6.78
Home time	–	–	–	–	0.0015	0.33	–0.0046	–4.74	0.0077	1.06	0.0002	0.16
Elementary and secondary schooling[e]	0.0110	0.70	–0.0073	–1.09	0.0040	0.26	–0.0115	–1.59	0.0017	0.11	–0.0105	–1.45
High school graduate[e]	0.1813	4.08	0.1678	7.89	0.1575	3.51	0.1902	8.20	0.1413	3.00	0.1587	6.56
Undergraduate education[e]	0.0895	5.81	0.0724	12.28	0.0930	5.71	0.0818	13.07	0.0917	5.62	0.0798	12.77
Postgraduate education[e]	0.1079	4.22	0.0769	8.50	0.1147	4.34	0.0688	7.48	0.1121	4.22	0.0679	7.40
Full time	0.1605	5.39	0.2046	17.41	0.1248	3.89	0.1679	13.01	0.1240	3.87	0.1579	12.15
Urban area	0.1678	4.60	0.1563	12.97	0.1739	4.61	0.1734	13.59	0.1789	4.72	0.1697	13.32
South	–0.1599	–5.64	–0.0653	–5.61	–0.1583	–5.34	–0.0539	–4.36	–0.1647	–5.46	–0.0537	–4.35
Child under 5	0.0393	1.01	0.1152	6.15	0.0481	1.20	0.0568	2.98	0.0558	1.37	0.0937	4.63
Number of children	–0.0031	–0.23	–0.0337	–4.86	0.0084	0.63	0.0119	1.78	0.0111	0.83	0.0140	2.09
Never married	–0.0102	–0.27	–0.0481	–2.83	0.0213	0.58	–0.0667	–3.80	0.0297	0.79	–0.0779	–4.42
Other marital statuses	0.0019	0.06	–0.0177	–1.24	–0.0088	–0.27	0.0142	0.96	–0.0002	–0.01	0.0019	0.13
Inverse Mills ratio	–	–	–	–	--	–	–	–	–0.0867	–1.73	–0.1460	–5.42
Number of observations	890		6,394		739		5,138		739		5,138	
R-squared	0.3358		0.2601		0.4034		0.2804		0.4034		0.2845	
Adjusted R-squared	0.3260		0.2586		0.3894		0.2781		0.3894		0.2821	

[a] Dependent variable is the natural logarithm of the hourly wage.
[b] Specification with no variables pertaining to labor market experience.
[c] Specification with labor market experience variables.
[d] Specification with labor market experience variables and correction for selectivity bias.
[e] Elementary and secondary schooling equals years attended school in grade 11 and below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate Education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of education at or beyond senior year of college.

TABLE F.2
Wage Regressions for Black and White Women: Survey of Income and Program Participation (Including Occupation and Industry)[a]

	(1)[b]				(2)[c]				(3)[d]			
	Black		White		Black		White		Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.9130	3.62	0.8943	9.23	1.3888	6.76	1.5300	18.80	1.4134	6.43	1.6428	19.47
Independent variables:												
Age	0.0288	3.50	0.0394	12.00	–	–	–	–	–	–	–	–
Age squared	–0.0003	–2.65	–0.0004	–10.91	–	–	–	–	–	–	–	–
Experience	–	–	–	–	0.0161	3.40	0.0086	4.86	0.0150	2.54	0.0043	2.22
Experience squared	–	–	–	–	–0.0003	–3.02	–0.0002	–4.03	–0.0003	–2.30	–0.0001	–1.78
Tenure	–	–	–	–	0.0282	4.08	0.0226	11.45	0.0280	4.03	0.0223	11.33
Tenure squared	–	–	–	–	–0.0007	–2.71	–0.0004	–6.34	–0.0007	–2.65	0.0036	–6.21
Home time	–	–	–	–	0.0042	0.94	–0.0046	–5.01	0.0057	0.85	–0.0048	–0.39
Elementary and secondary schooling[e]	0.0156	1.09	–0.0059	–0.95	0.0079	0.55	–0.0107	–1.56	0.0074	0.51	–0.0098	–1.43
High school graduate[e]	0.0990	2.39	0.1288	6.35	0.0743	1.73	0.1550	6.90	0.0704	1.57	0.1282	5.56
Undergraduate education[e]	0.0561	3.83	0.0448	7.73	0.0573	3.62	0.0565	9.00	0.0569	3.59	0.0550	8.77
Postgraduate education[e]	0.0330	1.28	0.0475	5.28	0.0606	2.20	0.0491	5.33	0.0597	2.16	0.0487	5.30
Full time	0.0454	1.55	0.1069	9.18	0.0323	1.02	0.0823	6.42	0.0324	1.02	0.0743	5.77
Urban	0.1697	5.02	0.1406	12.35	0.1870	5.25	0.1579	12.97	0.1884	5.25	0.1549	12.74
South	–0.1156	–4.38	–0.0708	–6.50	–0.1242	–4.45	–0.0639	–5.44	–0.1261	–4.42	–0.0635	–5.42
Child under 5	0.0722	2.03	0.0932	–5.32	0.0745	1.99	0.0448	2.48	0.0765	2.02	0.0767	4.01
Number of children	–0.0022	–0.18	–0.0304	–4.69	0.0018	0.15	0.0102	1.61	0.0025	0.21	0.0120	1.90
Never married	0.0114	0.34	–0.0285	–1.79	0.0039	0.11	–0.0462	–2.77	0.0060	0.17	–0.0560	–3.34
Other married	–0.0038	–0.13	0.0120	0.90	–0.0127	–0.43	0.0359	2.55	–0.0105	–0.34	0.0251	1.77
Federal government	0.0550	0.92	0.1100	3.08	0.0613	1.00	0.0960	2.65	0.0616	1.00	0.0960	2.66
State government	–0.0093	–0.23	–0.0451	–2.50	–0.0163	–0.39	–0.0645	–3.49	–0.0163	–0.39	–0.0668	–3.62
Manufacturing	0.1218	0.82	0.1514	3.60	0.1300	0.87	0.1104	2.49	0.1313	0.88	0.1121	2.53
Mining	–0.4210	–1.09	0.3189	3.59	–0.3784	–1.02	0.3546	3.87	–0.3781	–1.02	0.3499	3.82
Transportation	0.4382	2.66	0.2824	5.27	0.4471	2.72	0.2633	4.61	0.4475	2.72	0.2649	4.64
Communications	0.3776	1.95	0.3765	6.53	0.3256	1.70	0.3138	5.22	0.3260	1.70	0.3147	5.25
Utilities	0.5248	2.74	0.2276	3.42	0.4336	2.30	0.2092	3.09	0.4338	2.30	0.2114	3.13
Wholesale and retail trade	–0.1047	–0.70	–0.0429	–1.02	–0.0879	–0.59	–0.0743	–1.66	–0.0867	–0.58	–0.0740	–1.66

TABLE F.2 (continued)

	(1)[b]				(2)[c]				(3)[d]			
	Black		White		Black		White		Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Finance, insurance, real estate	0.1545	1.03	0.0890	2.06	0.1219	0.81	0.0576	1.26	0.1227	0.82	0.0562	1.23
Business & repair service	-0.0543	-0.35	0.0552	1.15	-0.1148	-0.71	0.0677	1.30	-0.1119	-0.69	0.0696	1.34
Personal service	-0.0764	-0.48	-0.0599	-1.24	-0.0617	-0.38	-0.0827	-1.57	-0.0610	-0.38	-0.0809	-1.59
Professional services	0.0472	0.33	0.0576	1.40	0.0052	0.04	0.0236	0.54	0.0063	0.05	0.0262	0.61
Public administration	0.1562	1.07	0.1441	3.02	0.1068	0.73	0.0969	1.95	0.1078	0.74	0.0998	2.01
Managers	-0.0312	-0.44	-0.0354	-1.56	-0.0130	-0.18	-0.0142	-0.61	-0.0142	-0.19	-0.0123	-0.53
Sales workers	-0.2489	-3.30	-0.2119	-8.31	-0.2227	-2.80	-0.1630	-5.77	-0.2278	-2.80	-0.1577	-5.68
Clerical workers	-0.3396	-5.75	-0.2071	-10.44	-0.3185	-5.01	-0.1731	-8.34	-0.3200	-5.02	-0.1707	-8.24
Construction, operatives & transportation workers	-0.3380	-4.92	-0.1945	-8.40	-0.3333	-4.50	-0.1589	-6.56	-0.3348	-4.51	-0.1580	-6.54
Laborers and farmers	-0.2495	-2.91	-0.2464	-6.12	-0.2513	-2.38	-0.2213	-5.03	-0.2524	-2.39	-0.2192	-4.99
Private household workers	-0.5358	-5.29	-0.9714	-16.45	-0.4991	-4.63	-0.8409	-11.75	-0.4984	-4.62	-0.8306	-11.63
Service workers	-0.4666	-7.79	-0.3559	-15.50	-0.3872	-5.96	-0.3126	-12.64	-0.3876	-5.96	-0.3078	-12.46
Inverse Mills ratio	–	–	–	–	–	–	–		-0.0224	-0.31	-0.1257	-4.93
Number of observations	890		6,394		739		5,138		739		5,138	
R-squared	0.4697		0.3588		0.5109		0.3627		0.5109		0.3657	
Adjusted R-squared	0.4493		0.3555		0.4858		0.3582		0.4851		0.3611	

[a] Dependent variable is the natural logarithm of the hourly wage. Excluded occupation is professionals and excluded industry is agriculture.
[b] Specification with no variables pertaining to labor market experience.
[c] Specification with labor market experience variables.
[d] Specification with labor market experience variables and correction for selectivity bias.
[e] Elementary and secondary schooling equals years attended school in grade 11 and below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of education at or beyond senior year of college.

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TABLE F.3
Wage Regressions for Black and White Women: March 1980 Current Population Survey[a]

	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.3204	1.79	−0.2110	−1.89
Independent variables:				
Age	0.0424	7.72	0.0332	12.68
Age squared	−0.0005	−6.79	−0.0003	−10.45
Elementary schooling[b]	0.0024	0.11	0.0831	6.12
Secondary schooling[b]	−0.0173	−1.06	−0.0158	−1.53
High school graduate[b]	0.2490	6.76	0.1926	9.08
Undergraduate education[b]	0.1028	9.96	0.0753	17.36
Postgraduate education[b]	0.1596	5.16	0.1459	11.28
Urban	0.1189	4.59	0.1497	14.45
South	−0.1808	−8.89	−0.0403	−3.96
Part time	−0.1029	−4.36	−0.1752	−17.45
Never married	−0.0276	−1.03	0.0101	0.75
Divorced	−0.0374	−1.18	0.0817	5.07
Other marital statuses	−0.0279	−0.86	−0.0010	−0.03
Widowed	−0.0645	−1.42	0.0523	2.12
Number of observations	3,511		30,456	
R-squared	0.2145		0.0939	
Adjusted R-squared	0.2113		0.0935	

[a] Dependent variable is the natural logarithm of the hourly wage.
[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college.

TABLE F.4
Wage Regressions for Black and White Women: March 1980 Current Population Survey (Including Occupation and Industry)[a]

	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	0.3268	1.89	0.0043	0.04
Independent variables:				
Age	0.0403	7.49	0.0228	8.89
Age squared	−0.0004	−6.24	−0.0002	−7.07
Elementary schooling[b]	−0.0106	−0.52	0.0737	5.60
Secondary schooling[b]	−0.0169	−1.08	−0.0175	−1.75
High school education[b]	0.1719	4.77	0.1344	6.48
Undergraduate education[b]	0.0613	5.63	0.0450	9.75
Postgraduate education[b]	0.1156	3.76	0.1105	8.62
Urban	0.1165	4.58	0.1365	13.46
South	−0.1454	−7.33	−0.0435	−4.41
Part time	0.0089	0.37	−0.0814	−7.98
Never married	−0.0096	−0.37	0.0043	0.33
Divorced	0.0351	1.15	0.0756	4.84
Other marital statuses	−0.0143	−0.46	0.0098	0.32
Widowed	−0.0804	−1.85	0.0541	2.27
Government	0.0636	2.08	0.0180	1.13
Durable manufacturing	0.5372	9.17	0.5019	20.37
Nondurable manufacturing	0.4581	7.53	0.4381	17.57
Mining	0.4864	1.83	0.4193	4.82
Construction	0.5645	3.98	0.1299	2.88
Transportation	0.6617	6.42	0.3806	8.92
Communications	0.7514	9.83	0.6776	16.74
Utilities	0.6830	4.64	0.5256	8.41
Wholesale trade	0.5863	6.11	0.4122	12.39
Retail trade	0.3024	6.21	0.1938	9.81
Finance, insurance, real estate	0.4621	7.99	0.3656	15.63
Business & repair service	0.2184	3.23	0.1728	5.58
Personal service	0.2039	3.05	0.1030	3.22
Entertainment and recreation	0.1256	0.86	0.1551	3.14
Professional services	0.3074	6.80	0.3206	17.26
Public administration	0.5505	8.67	0.4673	14.49
Manager	−0.0638	−0.79	−0.0075	−0.30
Sales worker	−0.2204	−3.30	−0.2114	−9.30
Clerical	−0.2208	−6.13	−0.1880	−12.90
Private household worker	−0.5153	−6.58	−0.7397	−15.18
Service worker	−0.3229	−8.49	−0.2747	−15.54
Farmer	0	–	−1.0915	−5.86
Craftsman	−0.1572	−1.64	−0.1981	−5.24
Operative	−0.2799	−5.36	−0.2697	−11.34
Transport equipment operator	−0.4256	−3.27	−0.1415	−2.34
Laborer	−0.1902	−2.24	−0.1355	−3.12
Farm laborer	−0.1938	−1.53	−1.7532	−27.07
Number of observations	3,511		30,456	
R-squared	0.2860		0.1561	
Adjusted R-squared	0.2778		0.1550	

[a] Dependent variable is the natural logarithm of the hourly wage. Excluded occupation is professionals and excluded industry is agriculture.
[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college.

TABLE F.5
Wage Regressions for Black and White Women: March 1985 Current Population Survey[a]

	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	−0.1676	−0.90	0.1060	0.78
Independent variables:				
Age	0.0645	11.27	0.0446	15.65
Age squared	−0.0007	−9.68	−0.0005	−13.46
Elementary schooling[b]	0.0378	1.78	0.0488	2.91
Secondary schooling[b]	0.0221	1.08	−0.0004	−0.03
High school graduate[b]	0.1181	2.77	0.1841	7.13
Undergraduate education[b]	0.1048	10.56	0.0913	20.66
Postgraduate education[b]	0.1587	5.52	0.1677	14.17
Urban	0.1236	4.77	0.1447	13.28
South	−0.1323	−6.27	−0.0421	−4.00
Part time	−0.1569	−6.51	−0.0220	−19.02
Never married	−0.0442	−1.66	−0.0021	−0.15
Divorced	0.0004	0.01	0.0605	3.86
Other marital statuses	−0.0884	−2.27	0.0122	0.38
Widowed	−0.0718	−1.53	0.0580	2.06
Number of observations	3,464		27,442	
R-squared	0.2459		0.1283	
Adjusted R-squared	0.2429		0.1279	

[a] Dependent variable is the natural logarithm of the hourly wage.
[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college.

TABLE F.6
Wage Regressions for Black and White Women: March 1985 Current Population Survey (Including Occupation and Industry)[a]

	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	–0.1616	0.91	–0.1990	1.51
Independent variables:				
Age	0.0558	9.99	0.0302	10.76
Age squared	–0.0006	–8.12	–0.0003	–8.99
Elementary schooling[b]	0.0341	1.68	0.0563	3.46
Secondary schooling[b]	0.0195	1.00	–0.0033	–0.27
High school education[b]	0.0267	0.65	0.1299	5.15
Undergraduate education[b]	0.0702	6.85	0.0558	11.95
Postgraduate education[b]	0.1301	4.57	0.1337	11.28
Urban	0.1058	4.15	0.1234	11.55
South	–0.0969	–4.74	–0.0465	–4.55
Part time	–0.0061	–0.25	–0.0960	–8.84
Never married	–0.0076	–0.30	0.0009	0.06
Divorced	–0.0104	–0.34	0.0683	4.47
Other marital statuses	–0.0593	–1.60	0.0358	1.16
Widowed	–0.0318	–0.71	0.0651	2.29
Government	0.0181	4.15	0.0190	1.25
Durable manufacturing	0.5427	8.86	0.5897	21.47
Nondurable manufacturing	0.4337	7.50	0.4543	16.16
Mining	0.9179	3.43	0.7731	9.13
Construction	0.6110	4.62	0.3398	7.56
Transportation	0.6090	8.05	0.5845	14.72
Communications	0.7489	9.37	0.7832	17.72
Utilities	0.6248	4.51	0.6983	10.65
Wholesale trade	0.3739	3.69	0.4703	13.32
Retail trade	0.2391	4.23	0.2762	11.53
Finance, insurance, real estate	0.5151	8.34	0.4641	17.50
Business & repair service	0.1529	2.31	0.3286	10.83
Personal service	0.3185	4.79	0.2419	7.08
Entertainment and recreation	0.1538	1.10	0.3621	7.21
Professional services	0.2727	7.89	0.3983	18.94
Public administration	0.4921	7.51	0.5600	15.52
Manager	0.0133	0.27	–0.0249	–1.23
Sales worker	–0.1886	–3.46	–0.2234	–10.25
Clerical	–0.1435	–3.98	–0.1975	–11.91
Private household worker	–0.6344	–8.11	–0.7852	–15.00
Service worker	–0.3170	–8.25	–0.3362	–16.87
Farmer	0	–	–0.7303	–5.11
Craftsman	–0.6791	–1.07	–0.2109	–5.72
Operative	–0.1799	–3.42	–0.2687	–9.43
Transport equipment operator	–0.4004	–3.48	–0.0840	–1.56
Laborer	–0.0565	–0.78	–0.1913	–4.45
Farm laborer	–0.6282	–3.43	–1.1950	–17.54
Number of observations	3,464		27,442	
R-squared	0.3229		0.1836	
Adjusted R-squared	0.3149		0.1824	

[a] Dependent variable is the natural logarithm of the hourly wage. Excluded occupation is professionals and excluded industry is agriculture.
[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college.

TABLE F.7
Wage Regressions for Black and White Women: 1987 Current Population Survey[a]

	Black		White	
	Coefficient	**t-Statistic**	**Coefficient**	**t-Statistic**
Intercept	–0.3959	–1.82	–0.1860	–1.30
Independent variables:				
Age	0.0502	8.19	0.0528	19.04
Age squared	–0.0005	–6.66	–0.0006	–16.43
Elementary schooling[b]	0.1204	4.71	0.0636	3.57
Secondary schooling[b]	–0.0335	–1.57	0.0218	1.63
High school graduate[b]	0.2597	5.80	0.1493	5.52
Undergraduate education[b]	0.1127	11.16	0.1040	24.75
Postgraduate education[b]	0.1752	5.71	0.1320	11.79
Urban	0.1255	4.20	0.1954	17.35
South	–0.1932	–8.95	–0.0650	–6.50
Part time	–0.1557	–6.15	–0.2188	–21.25
Never married	–0.0692	–2.49	0.0019	0.14
Divorced	–0.0417	–1.29	0.0177	1.15
Other marital statuses	–0.1401	–3.57	–0.0922	–2.89
Widowed	–0.1082	–2.01	0.0211	0.72
Number of observations	3,549		27,099	
R-squared	0.2489		0.1577	
Adjusted R-squared	0.2459		0.1573	

[a] Dependent variable is the natural logarithm of the hourly wage.
[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high school graduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college.

TABLE F.8
Wage Regressions for Black and White Women: 1987 Current Population Survey (Including Occupation and Industry)[a]

	Black		White	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Intercept	–0.1971	–0.92	0.0046	0.03
Independent variables:				
Age	0.0391	6.44	0.0394	14.42
Age squared	–0.0004	–5.00	–0.0004	–12.26
Elementary schooling[b]	0.1091	4.40	0.0572	3.30
Secondary schooling[b]	0.0437	2.12	0.0128	0.99
High school education[b]	0.2295	5.27	0.1093	4.14
Undergraduate education[b]	0.0700	6.63	0.0678	15.24
Postgraduate education[b]	0.1412	4.56	0.1012	9.03
Urban	0.1103	3.65	0.1785	16.12
South	–0.1571	–7.38	–0.0642	–6.59
Part time	–0.0664	–2.57	–0.1118	–10.61
Never married	–0.0578	–2.14	0.0051	0.38
Divorced	–0.0295	–0.94	0.0228	1.52
Other marital statuses	–0.1156	–3.04	–0.0680	–2.19
Widowed	–0.0676	–1.29	0.0243	0.86
Government	0.0277	0.84	0.0318	1.96
Durable manufacturing	0.5304	8.01	0.5917	21.83
Nondurable manufacturing	0.3460	5.72	0.4856	17.43
Mining	0.5144	1.61	0.7767	8.44
Construction	0.3982	2.93	0.3813	8.32
Transportation	0.5602	6.81	0.6610	16.85
Communications	0.7619	8.28	0.7879	17.75
Utilities	0.4610	3.61	0.6825	11.27
Wholesale trade	0.3296	3.44	0.4784	13.73
Retail trade	0.1940	3.40	0.2623	11.27
Finance, insurance, real estate	0.3808	5.99	0.4784	18.66
Business & repair service	0.3169	4.79	0.3599	12.52
Personal service	0.1747	2.58	0.1700	5.21
Entertainment and recreation	0.4602	3.13	0.1473	3.15
Professional services	0.3277	6.56	0.3851	16.95
Public administration	0.4636	6.49	0.5165	14.90
Manager	0.0503	0.91	0.0276	1.45
Sales worker	–0.2187	–4.12	–0.2182	–10.44
Clerical	–0.1192	–3.08	–0.2025	–12.76
Private household worker	–0.3597	–4.23	–0.5338	–9.99
Service worker	–0.2906	–7.14	–0.3165	–16.65
Farmer	0	–	–1.1572	–8.26
Craft workers	–0.1637	–2.11	–0.1401	–3.78
Operative	–0.2873	–5.26	–0.3169	–11.14
Transport equipment operator	–0.1081	–1.25	–0.2455	–4.63
Laborer	–0.1901	–2.37	–0.3155	–7.76
Farm laborer	–0.0635	–0.39	–0.3883	–6.23
Number of observations	3,549		27,099	
R-squared	0.3032		0.2080	
Adjusted R-squared	0.2952		0.2068	

[a] Dependent variable is the natural logarithm of the hourly wage. Excluded occupation is professionals and excluded industry is agriculture. The 1987 CPS simulated wages reported in chapter 8, table 8.8 are based on an earlier version of this regression. Differences between the present version and the earlier are extremely small.

[b] Elementary schooling equals 8, or years of education, if less than 8. Secondary schooling equals years attended high school in grade 11 or below. High school graduate equals 1 if high schoolgraduate, zero otherwise. Undergraduate education equals years of undergraduate postsecondary education before senior year of college. Postgraduate education equals years of postgraduate education at or beyond senior year of college. ,

TABLE F.9
Predicted Wage Ratios by Region and Age: Survey of Income and Program Participation

	South		Non-South	
	18–39	40–64	18–39	40–64
A. Regressions without occupation and industry[a]				
Actual black-white wage ratio	84.0	80.6	100.0	101.7
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)	93.8	98.0	100.9	108.8
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)	89.5	82.2	99.2	93.5
B. Regression with occupation and industry[b]				
Actual black-white wage ratio	84.0	80.6	100.0	101.7
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)	85.5	75.4	102.2	101.4
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)	98.2	106.9	97.9	100.3

[a] Results derived from regressions reported in table F.15.
[b] Results derived from regressions reported in table F.16.

TABLE F.10
Predicted Wage Ratios by Education and Age: Survey of Income and Program Participation

	0–11		12		13+	
	18–39	40–64	18–39	40–64	18–39	40–64
A. Regressions without occupation and industry[a]						
Actual black-white wage ratio	100.1	84.3	92.5	89.3	92.8	114.9
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)	89.1	96.4	101.7	107.0	98.9	115.3
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)	112.3	87.5	91.0	83.5	93.8	101.4
B. Regression with occupation and industry[b]						
Actual black-white wage ratio	100.1	84.3	92.5	89.3	92.8	114.9
Predicted black-white wage ratio due to racial differences in characteristics (eliminates differences in pay scales)	79.4	86.2	102.4	96.0	97.2	107.4
Predicted black-white wage ratio due to racial differences in pay scales (eliminates differences in characteristics)	126.0	97.8	90.4	93.1	95.5	107.0

[a] Results derived from regressions reported in table F.17.
[b] Results derived from regressions reported in table F.18.

TABLE F.11
Occupational Distributions of Black and White Women by Region and Age: Survey of Income and Program Participation

	South		Non-South		18–39		40–64	
	Black	White	Black	White	Black	White	Black	White
Professionals	9.4	16.5	9.4	14.4	7.0	15.0	13.9	15.2
Managers	4.8	9.8	7.6	9.3	7.1	9.2	4.3	9.8
Clerical workers	18.3	31.7	32.0	34.0	29.2	32.8	16.1	34.0
Sales workers	10.2	11.3	8.4	10.3	12.1	11.5	4.4	9.1
Craftsmen, operatives, and transport workers	22.9	16.6	15.0	13.9	20.4	14.2	17.3	15.6
Laborers and farmers	2.6	1.8	2.1	2.1	2.4	2.0	2.3	2.2
Service workers	23.7	11.0	20.9	14.9	17.8	14.3	31.2	12.6
Private household workers	7.7	1.0	3.4	1.0	3.2	0.7	3.2	1.5

	South				Non-South			
	18–39		40–64		18–39		40–64	
	Black	White	Black	White	Black	White	Black	White
Professionals	7.4	17.4	13.6	15.1	6.5	13.9	14.2	15.2
Managers	6.0	9.8	2.4	9.6	8.5	8.9	6.1	9.9
Clerical workers	22.9	32.7	8.6	30.1	37.4	32.9	23.4	35.8
Sales workers	12.2	11.1	5.9	11.8	11.9	11.8	2.9	7.9
Craftsmen, operatives, and transport workers	24.9	15.4	18.8	18.6	14.4	13.7	16.0	14.2
Laborers and farmers	2.5	1.9	2.8	1.6	2.3	2.0	1.8	2.4
Service workers	19.7	10.6	32.3	11.5	15.2	16.0	30.1	13.1
Private household workers	4.0	0.5	15.5	1.7	2.1	0.8	5.5	1.3

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