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Improve the Health of African-American Women in the
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George A. Kaplan, Center for Social Epidemiology and Population Health,
Department of Epidemiology, University of Michigan

Nalini Ranjit, Center for Social Epidemiology and Population Health,
Department of Epidemiology, Department of Sociology, University of Michigan

Sarah Burgard, Center for Social Epidemiology and Population Health,
Department of Epidemiology, Department of Sociology, Population Studies
Center, University of Michigan

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**Lifting Gates--Lengthening Lives: Did Civil Rights Policies Improve the
Health of African-American Women in the 1960's and 1970's?**

**George A. Kaplan¹
Nalini Ranjit¹
Sarah Burgard^{1,2,3}**

¹Center for Social Epidemiology and Population Health, Department of Epidemiology
²Department of Sociology
³Population Studies Center

University of Michigan

Introduction

Based on literally thousands of studies carried out over many decades, it is increasingly accepted that social and socioeconomic conditions act as important determinants of both individual health and the health of populations (Kaplan et al. 1987; Kaplan and Lynch 1997). Wages, income, and wealth, the nature of work, investments in human capital, and the levels of resources and risks in communities are now recognized by many, as arguably the most critical determinants of health (Kaplan 2001; Evans et al. 1994). It seems possible that social and economic policies in their ability to alter these determinants might also impact health, even though that is not their primary intent. Furthermore there is increasing recognition that historical and contemporary forces that differentially distribute these determinants to racial groups, within and across generations, may underlie many of the pernicious health gaps between racial groups that are found in the United States (Williams and Collins 1995).

While the evidence is compelling in its breadth and depth, for the most part it is based on observational studies of cohorts of individuals or aggregates, and as such lacks some of the power that comes from experiments where randomization strengthens causal inference. When experiments are not possible, which is often the case, it becomes useful to focus on exogenous policy changes that have been demonstrated or are thought to lead to major changes in those factors which putatively influence the health of individuals and populations. We can then test whether or not health effects follow from these policy changes, as increasingly is being done.

However, it is not a simple matter to find cases where social and economic policies have had a clear impact on possible determinants of health. Cases that come to mind in the last century or so are child labor laws, Social Security, the introduction of compulsory schooling, the elimination of restrictive covenants on land ownership, programs introduced by agencies such as

the Federal Housing Administration that altered patterns of home ownership and housing development, the Earned Income Tax Credit and other measures designed to impact poverty levels, and mechanisms that altered support mechanisms for poor families such as Temporary Assistance for Needy Families (TANF). The list could be much longer, and these policies vary considerably in the extent of their success, the degree to which the changes might ex ante influence health, and the availability of health data to test whether or not they did have an impact on specific aspects of disease processes.

One compelling case that may have had an influence on important determinants of health was the Civil Rights Act of 1964. On July 2 1964, Congress put in place “An Act to enforce the constitutional right to vote, to confer jurisdiction upon the district courts of the United States to provide injunctive relief against discrimination in public accommodations, to authorize the Attorney General to institute suits to protect constitutional rights in public facilities and public education, to extend the Commission on Civil Rights, to prevent discrimination in federally assisted programs, to establish a Commission on Equal Employment Opportunity, and for other purposes.” (H.R. 7152. 88th Congress 1964). In its guarantees of voting rights, equal access to public accommodations, public education, federally assisted programs, and work, and its creation of the Equal Employment Opportunity Commission (EEOC), the Community Relations Service, and its extension of the Commission on Civil Rights, Congress laid the foundation for a potential and dramatic reshaping of the American fabric so heavily entwined in the American Dilemma of Myrdal and the racial divide of DuBois.

The Civil Rights Act of 1964 and the Voting Rights Act of 1965 arguably represent the most important legislation regarding the nexus of race and society since Reconstruction. As political scientist and social psychologist Bernard Grofman (2000) puts it, the Civil Rights Act:

transformed the shape of American race relations. Supporters of the Civil Rights Act of 1964 sought, at a minimum, the elimination of segregation of the races in publicly supported schools, hospitals, public transportation, and other public spaces, and an end to open and blatant racial discrimination in employment practices. Judged in those terms, the act is a remarkable success story. If ever any piece of legislation showed the power of the central government to change deeply entrenched patterns of behavior, it is the Civil Rights Act of 1964. Together...[they] broke once and for all the Jim Crow legacy of post-Reconstruction South and largely ended the overt and legally sanctioned forms of discrimination against African Americans that had been found throughout the nation. In terms of the law, blacks were no longer second-class citizens.

Thus in its potential impact on education, occupation, income, voting and other aspects of civil society, and on decreasing the marginalization of blacks, the Civil Rights Act (and the Voting Rights Act of 1965) could have had substantial health effects, even though that was not the primary intent. Indeed, other measures put in place at the same time that also attempted to create more of a level playing field seem to have improved infant health. A companion paper in this volume ([Chay et al 2007 Note to Editor: Edit reference](#)) describes dramatic improvements in infant mortality in the years immediately following 1964, the year the Hill-Burton act was reformulated as a provision of the Public Health Service Act. Under the provisions of this act, a facility receiving funds was to be made available to all members of the community in which it was located, regardless of race, color, national origin or creed. As demonstrated by Chay and

colleague in Chapter X [editor add chapter number], the effects of this improved access on infant mortality were both immediate and pronounced.

In what follows, we summarize existing studies on the social and economic changes that occurred during this period, and present new analyses that show remarkable life expectancy and mortality gains for black women compared to white women in the period following 1964. We then explore some of the potential mechanisms that could account for these gains, and discuss the strengths and limitations of our analyses. While we are confident about the existence of these relative improvements in the health of black women, we will call attention to the comment made by John Donahue and his Nobel Laureate colleague James Heckman (1989) when discussing their work on the reasons for economic gains for blacks during the era of improvements in civil rights. They note that their answers are more similar to the solution to a Sherlock Holmes puzzle than to the coefficients from an econometric model, and so shall ours be.

Data and Methods:

In these analyses, we examine socio-economic trends by race, and evaluate the extent to which changes in mortality rates track these socio-economic trends. Socio-economic data for blacks and whites of both sexes are evaluated using occupation data from the U.S. Census 1950 and 1960 and the Current Population Survey (CPS) March annual files 1963-1980, both obtained from the Integrated Public Use Microdata Series (IPUMS). We examine the main occupation for individuals 35 to 64 years of age who were currently in the paid labor force at the time of the respective survey. These data sets provide occupational data for the years 1950, 1960 and a continuous (annual) data series for the period 1963-1980. Data points for the periods 1951-1959 and 1961-1962 are obtained by linear interpolation. Slopes of trend lines reflecting the periods 1950-1964 and 1965-1980 are obtained by regressing percentages in a particular occupational

category on indicators of linear trend for these two periods; we test for difference in the estimated slopes for the two periods for particular groups of interest and report relevant results of these tests below.

Mortality rates by region, race, sex, cause of death, and year, for the years following 1967, are obtained from the Compressed Mortality files (1968-1978). For the period preceding 1968, we use tabulated data from annual volumes of the Vital Statistics data published by the National Center for Health Statistics (NCHS). Mortality analyses are for the most part limited to the working ages (35-64 years), and compare trends in mortality rates or ratios across two periods - 1955-1964 (the decade before passage of Civil Rights legislation), and 1965-1974 (the decade following passage of Civil Rights legislation). Because the Civil Rights Act of 1964 is considered to have had most of its impact in the South for a variety of demographic, cultural and political reasons, we present some analyses disaggregated by region. A final set of analyses examines trends in age-adjusted cause-specific mortality rates by selected causes, specifically for mortality due to heart disease, cerebrovascular disease and neoplasms (primarily lung cancer). Most of the analyses presented are for females, with results for males described in the text. In general, analyses are limited to the working ages (35-64 years), the age-group that is considered to have experienced the largest shift in occupational opportunity following Civil Rights legislation (Alexis, 1998). We compare occupational and mortality trends across two periods - 1955-1964 (the decade before passage of Civil Rights legislation), and 1965-1974 (the decade following passage of Civil Rights legislation).

Life expectancy analyses are summarized as years of life-expectancy remaining at age 35 (e35), and mortality rates (for persons aged 35-64) are age-standardized to the corresponding region- and age-sex-specific population obtained from the 1968 Compressed Mortality files.

Mortality rates by region, and by region and cause, are presented primarily as changes or trends in black-white ratios in mortality. Standard linear regression analyses are used to estimate annual rates of change in e35, 10-year changes in black-white mortality ratios by region, and slopes of black-white mortality ratios by cause.

Improved Social and Economic Position for Black Women in the Post- Civil Rights

Era: On the eve of the changes catalyzed by civil rights legislation, there were large differences in the average economic status of blacks and whites. In 1960 the hourly wage ratio between black and white women was about 0.64. This wage variation was due in part to differences in average educational attainment and the concentration of blacks in the low-wage South (Cunningham and Zalokar 1992); however, a major factor was marked racial occupational segregation: black women were concentrated in low-skilled and low-paying domestic service work and other service jobs, while the majority of working white women held white collar jobs or did “pink-collar” clerical work (Blau and Beller 1992; King 1993; Zalokar 1990). Female workers have received less attention than male workers in studies of economic progress after Civil Rights legislation, though it was among women that economic status converged more completely between blacks and whites, and for whom occupational segregation and desegregation played the larger role (Cunningham and Zalokar 1992; Sundstrom 2000).

Indeed, the changes that occurred in the 1960s dramatically decreased racial differences in socioeconomic standing between black and white working-aged women. Among the most notable changes, between 1950 and 1980 there was a major shift in the kinds of jobs typically held by black women (Conrad 2003; Cunningham and Zalokar 1992). Based on census data, Figure 1 shows that the percentage of black women in the South reporting private household service work as their occupation declined from nearly 50 percent in 1950 to just over 11 percent

in 1980, while the percentage for black women in other regions fell from about 43 percent to under 5 percent. The dramatic exodus from private household service work occurred at a fairly consistent rate from 1950 to 1980 for black women outside the South, while among black Southern women, change was delayed until the 1960s. Fewer than 5 percent of white women did private household service work over this period, even in 1950, and the figure fell to about 1 percent nationwide by 1980.

Insert Figure 1 here

What kind of work did African American women do if they were no longer doing private household service work? One of the notable changes of the 1960s was the increasing proportion of black women employed in white collar work. Figure 2 shows that while there was an increase from 1950-1980 in the percentage of white women reporting a white collar occupation (54 percent in the South and 59 percent in the non-South in 1950 to about 63-64 percent in 1980), there was an even more impressive rise among black women, especially after 1964, with progress greatest in regions outside the South. In 1950, about 10-12 percent of black women reported white collar occupations, while by 1980 the percentage had increased almost four-fold for women outside the South and about three-fold for women in the South (diff. in slopes outside the South : -1.23, $p < .001$) and almost three-fold for women in the South (diff. in slopes: -0.996, $p < .001$).

Insert Figure 2 here

Racial disparities among men did not change nearly as much during this period. Figures 3 and 4 show the percentage of men aged 35 to 64 reporting “laborer” and white collar occupations over the same period. Figure 3 shows that while menial work among black men was falling in and outside the South, the exodus out of such work was not as dramatic as that seen among

female private household service workers. Nonetheless, the percentage of black men in the South in laborer positions did not start to fall until the mid-1960s (diff. in slopes: 0.797, $p < .001$), while a secular decline had started by 1950 for black men outside the South (diff. in slopes: 0.065, $p = 0.465$). Similarly, Figure 4 shows that there was a steady rise in the percentage of all male workers in white collar jobs after the mid-1960s, with a consistent gap between whites, black men outside the South, and Southern black men. These changes were important for male workers, but were not as striking as the shifts in the work done by women, and did not hold as much promise for reductions in overall racial disparities in socioeconomic standing. Black men made gains in white collar positions in the 1960s, but the post-1964 period showed even more dramatic gains for black women (Smith 2003), particularly in the South, as some of the preceding data demonstrate.

Insert Figures 3 and 4 here

During this period of major occupational gains for blacks, most pronounced for black women, there were also major gains in relative levels of wages and income for black women, and for some age ranges the trends were striking. For example, Figure 5 (adapted from Allen & Farley 1966) shows the ratio of black to white median income for 35-44 year-old males and females from 1949-1979, based on data from the U.S. Census 1950-1980. The figure demonstrates a substantial narrowing of the income gap during this period for women and a far smaller narrowing for men.

Insert Figure 5 here

Other analyses of decennial census data indicate that between 1960 and 1980, the black-white ratio in women's hourly wages increased from 0.64 to 0.99 (Cunningham and Zalokar

1992), even while wages for all workers were rising. The racial gap in men's wages also declined from the early 1960s to the mid-1970s, but then reversed and began to increase through the mid-1980s. The largest relative gains in the decade following Civil Rights legislation were made by black women; from 1962 through 1973, real wages among white men increased by 17 percent, compared to 50 percent for black women (Smith 2003).

Not only were types of occupations and income changing, but also the sectors in which work was being done. There was a dramatic racial shift in the percentage of women employed in public sector jobs in the immediate post-Civil Rights period. Figure 6 shows that among 35 to 64 year old black women, less than one in ten worked for a public employer in 1950, rising to about one in three in 1980, with the majority of the increase concentrated in the 1960s and 1970s. Over the entire period white women in the South hovered at just over 20 percent public employment, while whites outside the South rose from about 15 percent in 1950 to just over 20 percent in 1980. This meant that black women were less likely to have a public employer in 1950 and 1960, but were equally or more likely than white women to be in public employment around 1970, and the gap widened thereafter. For men (not shown here) the changes were more muted, with a somewhat faster increase in public employment for black men and few regional differences. The implications of this rise in public sector jobs for black women was not all positive, as many of these jobs are of low quality relative to professional white collar positions, for example, and are vulnerable to government funding fluctuation (Burbridge 1994). Nonetheless, relative to private household service work these jobs probably represented a major advance in terms of prestige, wages, and other features.

Insert Figure 6 here

To summarize, black women experienced large occupational changes during the first decade or so of the Civil Rights era, relative to white women and black men. They also experienced substantial increases in employment in the public sector and considerable improvement in economic fortunes consistent with all of these changes. Based on the considerable prior evidence that better socioeconomic position, increased economic security, and improved working conditions are associated with better health, these changes would be expected to translate into better health. The next section considers the evidence for such changes.

Health trajectories in the post-Civil rights era—were there benefits of rising fortunes for Black women?

(a) Differential Gains in Life Expectancy for Black Women:

There were relatively greater improvements in the mortality rates of black women of working ages in the decade following 1964. Table 1 shows the estimated annual rates of change in remaining life expectancy at age 35 (e35), by race and sex, for the decade preceding the Civil Rights Act (1955-1964), and the decade following passage (1965-1974). Rates are estimated from a regression of e35 against period, race and sex, and year, with all possible interactions allowed. We focus on e35 and e65 rather than the commonly used e0 (life expectancy at birth) to highlight improvements in mortality in the working-age population.

Insert Table 1 here

In the decade prior to and including 1964, both black and white women experienced comparable annual gains in e35, a little under a month every year (a gain of .07-.08 years per year). During this period, mortality rates for males of both races were stagnant or declining (-.01 to -.04). Following 1964, all groups experienced significant increases in e35 compared to the

pre-1964 decade. Importantly, the gains in e_{35} for black women in this period outstripped the gains by other race and sex groups. In the decade following 1964, the annual increase in e_{35} among black women nearly tripled, from 0.07 years/year in the pre-Civil Rights era to 0.26 years/year. During the same period, in contrast, e_{35} for white women increased from 0.08 years/year to 0.15 years/year. Over a period of one decade, this translates to an additional year added to expected remaining life at age 35 for black women, compared to white women (2.6 years gain for black women vs. 1.5 years gain for white women). Not surprisingly, the .19 years/year improvement in e_{35} for black women is significantly higher than the .07 years/year improvement for white women (difference=0.12, $p=.02$).

The story is very different when we examine remaining life expectancy at age 65 (e_{65}). First, prior to 1964, black women aged 65 or older were at a significant disadvantage and experiencing a net annual decline in life expectancy ($e_{65} = -0.06$ years/yr) compared to their white counterparts ($e_{65}=.07$ years/year). After 1964, however, this trend in e_{65} reversed, and improved to the point where annual gains were comparable to those experienced by white women (0.12 years/year for blacks compared to 0.14 years/yr for white women). Moreover, the numbers indicate that almost all the gains in e_{35} for white women were experienced by women aged 65 or older (0.14 out of 0.15). In contrast, for black women, more than half the gains in e_{35} (0.12 out of 0.26 years/year) were experienced by women aged 35-65.

In general, the estimates for men suggest that both before and after 1964, gains for women exceeded those for men. Black males experienced much smaller improvements in life expectancy than black females. In general, however, this period saw black males reverse declining trends in life expectancy, and attainment of parity with white males. In summary, black women experienced larger relative gains in the rate of change of life expectancy following the

passage of Civil Rights legislation than any other race-sex group, and that a substantial fraction of these relative gains were concentrated in the ages 35-65.

Insert Figure 7 here

Figure 7 summarize these trends visually. The figure shows the estimated annual rates of change/decade in remaining life expectancy at age 35 (e35), by race and sex, for the decade preceding the Civil Rights Act (1955-1964), and the decade following passage (1965-1974). It is evident that black women, alone among all race-sex groups, experienced a fairly pronounced upturn in e35 around 1964. Some evidence of upturn was evident in e65 as well, but the magnitude was much smaller, and it does not appear that this was unique to black women.

(b) Analyses of Regional Differences in Mortality Trends: Because the impact of Civil Rights legislation is widely believed to have been stronger in the Southern states, an examination of region-specific trends in mortality is instructive. Figures 8a and 8b compare the rate of decline in black/white ratio for female mortality pre and post-civil rights legislation by region. **1(Endnote 1 goes here)** The estimates are of decadal changes in black/white mortality ratios based on age-adjusted mortality rates for women aged 35-64, where rates were adjusted to the 1968 population.

Insert Figures 8a and 8b here

While the B/W ratio for females was converging (negative estimates in figure 8 indicate black-white convergence) in three of the four regions even prior to civil rights legislation, the relative advantage for black women accelerated dramatically in the decade after 1964, with the greatest changes in the South. The pattern for males was very different. In the decade before 1964, mortality rates for blacks relative to whites were either unchanging or worsening in most

regions (as indicated by small or positive estimates of change in the ratio), with particularly strong divergence in the Northeast. After 1964, there is some evidence that this diverging black-white trend was slowed down in the Northeast, while the trends remained similar in the South and Midwest. In contrast, patterns of change in mortality ratios over age 65 (estimates not shown) for males and females were similar. The B/W mortality ratio was increasing or stayed constant in all regions, both before and after 1964, except in the West, where both periods saw some racial convergence of rates for males and females.

(c) Mortality Trends by Cause of Death: We also examined age-standardized mortality rates for ages 35-64 for black and white women in the South vs. other regions, for three major cause-of-death categories – heart disease, stroke and all neoplasms. These causes taken together accounted for nearly 70 percent of all mortality among women in this age group in 1965. ²

(Endnote 2 goes here).

For mortality from heart disease (Figure 9), the black to white mortality ratio for females was declining in the South prior to 1964, and was relatively flat in the other regions, but the rate of decline in the South accelerates post 1964. Between 1955 and 1964, the ratio declined by 8 percent (from 3.6 to 3.3), while in the decade after 1965, the ratio declined by 24 percent (from 3.3 to 2.5); in other regions, the black-white mortality ratio from heart disease in other regions stagnated, at about 2.3 over most of this period.

Insert Figures 9-11 here

For cerebrovascular disease, there was a trend of increasing black/white female mortality ratios prior to 1964, in both the South and in other regions. After 1964, there was a sharp acceleration in the rate of decline of the ratio in the South particularly, with the ratio declining from 5.4 to 3.6 in the space of one decade. Declines in other regions were more muted, with the

ratio declining from 3.4 to 2.4. In the case of deaths from neoplasms, the regional differences in female black/white ratios are much smaller, with some indication of an accelerated decline in the black/white mortality ratio although there is also considerable year-to-year variability in the ratio.

These patterns are confirmed in Table 2, which presents estimated slopes of the trend in black-white ratios of cause-specific mortality. As is evident, trends of decline in heart disease and stroke mortality ratios favored the South even before 1964, but following 1964, these differences widened remarkably in favor of the South, particularly in the case of stroke mortality.

For men (not shown) there were few changes in trends in black-white mortality ratios in the post-Civil Rights decade relative to trends in the prior decade. Regionally, if anything, in the period preceding Civil Rights legislation trends in heart-disease and stroke mortality ratios favored black males in the South more than those in the North, possible reflecting the increased opportunities provided to black males by the expansion of the textile industry in the South after WWII. Male black-white mortality ratios from neoplasms were increasing both before and after 1964.

Discussion:

The results of our analyses indicate that there were important improvements in life expectancy and the mortality from specific causes for black women in the decade after the enactment of the Civil Rights Acts of 1964 compared to the previous decade. These improvements were concentrated in working age black women with black men showing smaller and qualitatively different patterns of improvement. Furthermore, the trends in increased life expectancy and decreased mortality rates were substantially stronger for black women than they

were for white women, and during the decade post enactment of the Civil Rights Act of 1964, the life expectancy gains for black women were 73 percent greater than for white women. The health of black women improved most, in both relative and absolute terms, in the South compared to other regions, and again it reflects a strikingly different picture than that found for black and white females over the age of 65 or for men of all ages and races. Finally, comparing the trends in rates of death from heart disease and stroke in the decade pre- and post-1964, again the most favorable trends are seen for black women in the South.

For the most part, the improved trends in working age life expectancy and mortality from vascular disease in black women, compared to white women and both black and white men, mirror the improved trends in socioeconomic and occupational status for black women compared to these other groups, as does the regional specificity of these patterns.

The similarity between these patterns, the specificity of the health effects, and the timing of the effects certainly adds credence to the suggestion that the broad set of programs and other changes that were created or catalyzed by the Civil Rights Acts of 1964 did, in fact, improve the health of black women. However, the consistency, specificity, and timing of these trends is not in itself sufficient to make an entirely convincing causal story. We now examine a series of interpretive issues that bear upon our confidence in such a causal effect.

It is possible that the trends in both labor markets and regional/cause-specific mortality represent independent secular changes or continuation of independent existing trends. Turning to labor markets, then, we need to assess the extent to which the gains were triggered by civil rights legislation as opposed to secular changes in labor markets. While one study (Smith and Welch 1977; Smith and Welch 1989) argues that evolving historical forces, especially improved black education (following desegregation), and migration (from South to North and from rural to urban

areas), drove wage increase for blacks, a preponderance of studies have concluded that this increase in economic status was associated with civil rights legislation. The big gains in relative median income of all blacks and of college-educated blacks of both sexes began in 1966, the year the initial impact of the 1964 Civil Rights Act could be measured. The EEOC has been described as the single most important explanation for income convergence during this period, even after taking into account growth in gross national product or black education (Freeman 1976). This position is supported by a number of more recent studies. In a study of the South Carolina textile industry, the authors conclude that the EEOC was a major factor in increasing the demand even for less-educated black workers (Butler, Heckman and Payner 1989). Most of the relative income gains that occurred during this period took place in the South, the region that was the target of early Title VII legislation (Heckman and Donohue 1991; Heckman 1990). Federal intervention also accounts for a large proportion of the gains in occupational attainment for minorities (DiPrete and Grusky 1990). One estimate is that improvements in school quality accounted for only a quarter of the gains in relative income made by black men between 1960 and 1980, with the rest being attributable to legislative changes (Card and Krueger 1992). Similarly, a sizeable fraction of the gains made by black women relative to white men can be explained by a decline in wage discrimination (Carnoy 1994). While there is abundant evidence from these studies that federal legislation increased black incomes, these studies generally focus on black males rather than females, and a number of them focus on college-educated blacks. Thus, while they do not directly address the reasons for changes in the economic status of black women, particularly those that were not college-educated, they are certainly consistent with a similar argument for the role of civil rights legislation in the occupational changes for women and their economic consequences.

What about mortality trends in the period preceding 1965? Between 1954 and 1963, some racial convergence among males was evident, but no such racial convergence was seen in the case of females. Among black women in particular, a steady slowing of the rate of decline of mortality was observed in all age groups below age 65 (Klebba 1966). Much of the slowing in decline observed during this period was due to an across-the board increase in mortality from diseases of the heart, which constituted nearly 40 percent of all deaths in 1963. Black women in particular experienced a large relative increase in mortality from heart disease (41 percent). Thus, it is apparent that in the decade preceding and into the early part of the 1960s, black women had significantly poorer trends in mortality improvements relative to all other race and sex groups. The reversal of these race- and sex-specific trends in 1964 is thus all the more remarkable.

This coincidence of relative gains in mortality for black women with marked changes in their occupational and income standing is thus unlikely to be accidental. Further, although Civil Rights legislation was not intended to be sex-specific, it is apparent from our results that the gains in labor market conditions were stronger for women. There are several potential explanations for this finding. First, black men's occupational gains had started several decades earlier than women's, beginning in the 1940s with a large-scale exodus from farming and farm labor into blue-collar positions including operative jobs, craft work, or other types of laborer positions (Allen and Farley 1986). Men also made occupational gains in the 1960s, but other issues had begun to arise that prevented the same increase in racial parity experienced by women. Starting in 1950 there was an increasing racial gap in the percent of men employed, with blacks more likely than whites to be unemployed or out of the labor force. There was a sharp increase in the gap in the recession of the 1970s, and no contraction by 1980. By contrast, it was

not until the early 1980s that white working-age women were more likely to be working for pay than black women (Allen and Farley 1986). Furthermore, gains in the 1970s resulting from the occupational changes catalyzed in the 1960s had opposite effects on racial inequality for men and women. Black women's occupation distribution became more like that of their white counterparts, leading to a decline in income disparity, while white men gained in occupational status and pulled away from black men, increasing income inequality (Alexis 1998).

Additionally, an analysis of the impact of state-level fair employment laws passed between 1945 and 1964 showed that African American women gained more than did their male counterparts (Collins 2001). These gains were all experienced outside the South, but the potential reasons proposed in that study for women's greater gains could apply to the present findings. First, employers may have had less latent discriminatory feeling toward black women than toward black men, so once the law changed, women would be hired first. Second, if unionization and related negative sentiment toward blacks were more prevalent for "men's work" than for "women's work," women might advance more quickly after a legal shift. Given the initial dominance of domestic service work for black women, their move into new, higher status occupations was a greater shift in economic standing than the mobility men were experiencing in this period (Collins 2001).

Another potential alternative explanation for the gender differences in response to changes in the legislative landscape in 1965 lies in the authorization of Medicaid (Title XIX of the Social Security Act of 1965). Low income families with dependent children and low-income aged, blind or disabled individuals were eligible. These criteria for eligibility, as stipulated, consistently excluded non-disabled adult men. Low-income adult men generally could only become eligible for Medicaid coverage by becoming blind, disabled, or elderly (Satcher et al.,

2005); in contrast, eligibility for low-income families with dependent children expanded the access for black women in particular. Health care access for black women probably also expanded as a result of increased public sector employment. Such improved access may have played some role in reducing working-age mortality.

Next, we consider whether the effects are biologically plausible, and what the possible biological and behavioral pathways might be between the enactment of Civil Rights legislation and improved health. The finding that pre- vs. post-1964 improvements in mortality that favored black women were found for heart trouble and stroke but not for malignancies is instructive. Most malignancies develop over long periods before they are clinically evident, in some cases many decades, and would not be expected to be responsive to change in the short run, thus the existence of noticeable short term effects for malignancies would cause reason for concern. While it is true that the multiple clinical entities grouped under the categories of heart trouble and stroke represent chronic pathophysiologic processes that also develop over decades, mortality from these causes represents a combination of chronic degenerative, acute triggering and secondary and tertiary care processes, with the latter two potentially responsive to changes over shorter periods. The clearest examples being increased rates of heart attacks post-natural disasters and after certain behavioral and psychosocial episodes (Katsouyanni et al. 1986; Mittleman et al. 1995; Albert et al. 2000; Kaplan and Keil 1993). Unfortunately, while such acute triggers of vascular events are biologically plausible and have been empirically demonstrated, to our knowledge there are no data that would allow us to examine whether there was a decline in such triggers in the decade post-1964, and if such a decline was more prevalent for black women in the South. Speculatively, an extensive literature indicates that the prevalence of stressors is inversely associated with higher socioeconomic position (House 2002), and it is

plausible that increased wages and income, better working conditions, and movement into a more supportive occupational sector may have reduced the prevalence of these stressors and their behavioral and physiologic sequelae.

A shared risk factor for mortality from most entities classified under “heart trouble” and “stroke” is of course cigarette smoking, and quitting smoking can have protective effects on cardiovascular mortality within five years or so. Is there any evidence that patterns of smoking and quitting changed, particularly for black women in the South, between the two decades under consideration? Again the data are sparse, particularly in the earlier period—for example, the National Health Interview Survey only collected national smoking data beginning in 1965. The data that are available post-1964 indicate lower rates but not more favorable trends for black women compared to white women. For example, among those 45+ years of age in 1965, 44.4 percent of white women and 25.1 percent of black women were current smokers (McGinnis et al., 1987). By 1976, the corresponding numbers were 35.0 percent and 26.7 percent, if anything indicating a worsening trend for black compared to white women, a trend not consistent with the differential mortality trends from heart trouble and stroke.

On the face of it, inspection of trends in hypertension control should be instructive both as an indicator of a disease process related to mortality from heart trouble and stroke, and also as an indicator of access to medical care and to effective treatment. Again the data are not easily obtained, but what exist do not indicate, unlike the case for birth outcomes reported by Chay et al. in this volume ([Editor add reference](#)), that improved medical care is likely to be responsible for what we have observed. A strong case is made that the federally mandated changes that increased access to facilities did improve health care, at least that care which was hospital-based, for blacks in the South. However the situation for hypertension is less clear. For all the emphasis

on hypertension control currently, the state of both epidemiologic and clinical evidence for the importance of control of blood pressure was much less clear during the periods we are considering (Kannel 2000; Kannel et al. 1971), effective therapies with low levels of side-effects were only just becoming widely available in the mid-70's or so, and broad-scale Federal efforts to control high blood pressure were only beginning in the early 1970's (Moser 1986). Thus, it is unlikely that there were major events pre- and post-1964 that led to more effective control of hypertension among black women in the South. The data that do exist show consistently higher rates of hypertension among Black vs. white women and almost identical secular trends from the early 1960's to the mid-1970 for those women who were 40-59 years of age, and a substantial convergence of Black/white difference in the prevalence of hypertension for women 30-39 (Burt et al., 1995). However, as a small proportion of the deaths in the 35-64 year age group are contributed by those 30-39 the decrease prevalence of hypertension is not likely to explain the differential mortality trends. Data of sufficient quality are not available to make any regional comparisons.

What else might account for the relatively accelerated improvement in the health of black women, particularly in the South, in the decade following the passage of the Civil rights Act of 1965? A number of possibilities suggest themselves, but data limitations and the lack of individual level micro-data do not permit us to examine them in any detail. One can imagine a cascade of material and psychosocial effects, and their interaction, in response to the changes in economic and occupational status described above. Certainly, the increases in income and wages for black women during this period may have translated into better living situations, more adequate nutrition, as well as less stress associated with housing problems, financial instability, family problems, under-resources neighborhoods, or other demands. The accelerated movement

into public sector jobs may have led to positions with greater job security, enforcement of work rules, and health and other benefits. It is also possible that moving from domestic service jobs into clerical and professional/technical jobs led to increases in learning opportunities, formation of new peer groups, increased self-esteem, lowered levels of depression, and for those who moved into professional/technical jobs, such as teaching or management of small businesses, there may also have been increased job control. While there is some evidence that some of these factors are associated with better health outcomes (job control, for example), we have not been able to discover data that would allow us to determine if measures of these characteristics moved in a way consistent with the observed secular trends in health.

It is important to stress that these gains in socioeconomic standing and mortality experienced by black women were transient. After the early 1980s, occupational gains stagnated (Fosu 1997) and earnings gains deteriorated (Conrad 2003). Perhaps not surprisingly in light of the above findings, the decade of the 1980s was marked by relatively poorer mortality improvements for black women over age 35. For example, between 1980 and 1988, the annual age-adjusted decline in ischemic heart disease mortality for the population aged 35 and over was as follows: 3.7 percent for white men, 3.1 percent for black men, 2.9 percent for white women, and 2.2 percent for black women. Remarkably, the rate of this annual decline was also slower in the South (2.9 percent) than in any other region (3.9 percent in the Northeast, 3.2 percent in the Midwest and 3.1 percent in the West) (MMWR 1992). These reversals emphasize that the gains for black women, particularly in the South, seen in the period 1964-1975 were episodic, and strengthen the case for a causal mechanism of Civil Right legislation.

Early in this chapter we noted Donahue and Heckman's (1991) comment that understanding the role of Federal legislation in the employment and wage gains of blacks

following the enactment of the Civil Rights Act of 1964 seems more reflective of a puzzle solved by Sherlock Holmes than an econometric paper. We concur, as the paucity of data that we have referred to several times in this chapter makes it difficult to make an assertion of a causal effect of the Civil Rights Act, and the similar lack of data on potential pathways that might have translated legislation into improved health makes it difficult to apply a closer interpretive lens to the changes we have observed. In addition, the Civil Rights Act of 1964 did not occur in a vacuum, but reflected many changes that had occurred post-Reconstruction (Filvaroff and Wolfinger 2000; Woodward 1968; Kouisser, 2000). Of course, there also was the Economic Opportunity Act of 1965 that ushered in Johnson's War on Poverty and the dozens of programs that sprang from it (Clark 2002). Such a stew of history, politics, and race and class relations makes it difficult, despite the methodologic press, to construct any completely convincing connection between major legislation such as the Civil rights Act of 1964 and putatively resultant socioeconomic and health changes. However, in a Sherlock Holmesian manner we propose that the patterns of health changes observed post-1964, their timing and consistency with what is known about social and economic determinants of health, and the gender- and region-based patterns of change strongly suggest that the Civil Rights Act of 1964 did have a salutary impact of the health of black women in the United States. These effects were not the focus of the Act nor its intent, but provide some support for the proposition that social and economic policy are, indeed, health policy.

Endnotes:

1. Up until 1967, mortality statistics are only available for the race categories white and non-white; it was only after that separate tabulations for blacks are available. For national statistics, this is not expected to have much of an impact, as blacks constituted a large proportion of non-white races before this period. For regional statistics, however, this is no longer true. In the West, the “non-white” category included a significant non-black fraction. Race-specific statistics for the West prior to 1968 should accordingly be interpreted with caution.
2. For the most part, the pre-Civil Rights era corresponds to ICD-7 (1958-1967), with some slight overlap with ICD-6 (1949-1957), while the post-Civil Rights era corresponds to ICD-8 (1968-1978), with some overlap with ICD-7. Comparable codes for heart disease, stroke and neoplasms, were obtained across all three ICD code changes. ICD-codes for the three cause of death categories were as follows: (a) Heart disease: 400-402; 410-443 (ICD-6 and ICD-7) and 390-398, 402-404, 410-429 (ICD-8). (b) Stroke: 330-334 (ICD 6 and ICD-7), and 430-438 (ICD-8); and (c) Neoplasms: 140-205 (ICD 6 and ICD 7) and 140-208 (ICD-8).

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Table 1: Annual rates of change in remaining life expectancy at age 35 and age 36, by sex, race and period

		Black women	White women	Black men	White men
Annual rates of change in remaining life expectancy at age 35§	1956-1965	0.07	0.08	-0.04	-0.01
	1966-1975	0.26	0.15	0.07	0.10
Annual rates if change in remaining life expectancy at age 65	1956-1965	-0.06	0.07	-0.08	-0.02
	1966-1975	0.12	0.14	0.06	0.06

§Estimates are obtained from regressions of $e(x)$ on year, period and race-sex group, with all possible interactions between year, race-sex and period, to estimate differences in slope.

Table 2: Slope of Trend in ratios of black to white female mortality, by region, era and cause of death

	1955-1964			1965-1974		
	South	Non-South	South-NonSouth difference	South	Non-South	South-NonSouth difference
Heart disease§	-2.59 (0.73)	0.81 (0.73)	-3.4 (1.03)	-7.57 (0.62)	-2.36 (0.62)	-5.21 (0.88)
Stroke	-9.83 (1.07)	7.13 (1.25)	-3.33 (1.77)	-17.65 (1.07)	3.8 (1.25)	-7.82 (1.51)
Neoplasms	-0.46 (0.3)	0.85 (0.3)	-0.74 (0.42)	-1.65 (0.3)	0.1 (0.3)	-1.19 (0.43)

§Estimates based on regression of black-white mortality ratios against year, region, cause of death and all two-way and three-way interactions.

Figure 1. Percentage of women 35-64 years of age reporting private household service work as their occupation by racial group, region and year, IPUMS U.S. Census data using the OCC1950 recode variable for occupation, 1950-1980.

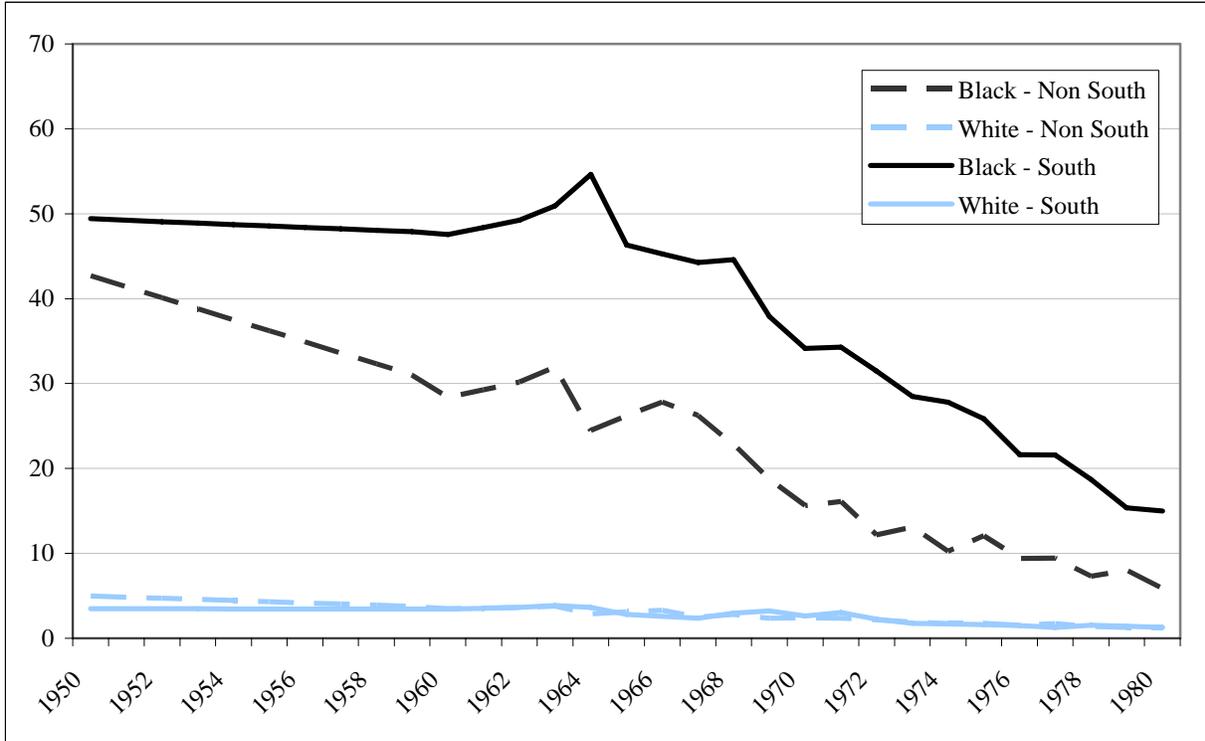


Figure 2. Percentage of women 35-64 years of age reporting a white collar occupation by racial group, region and year, IPUMS U.S. Census data using the OCC1950 recode variable for occupation, 1950-1980.

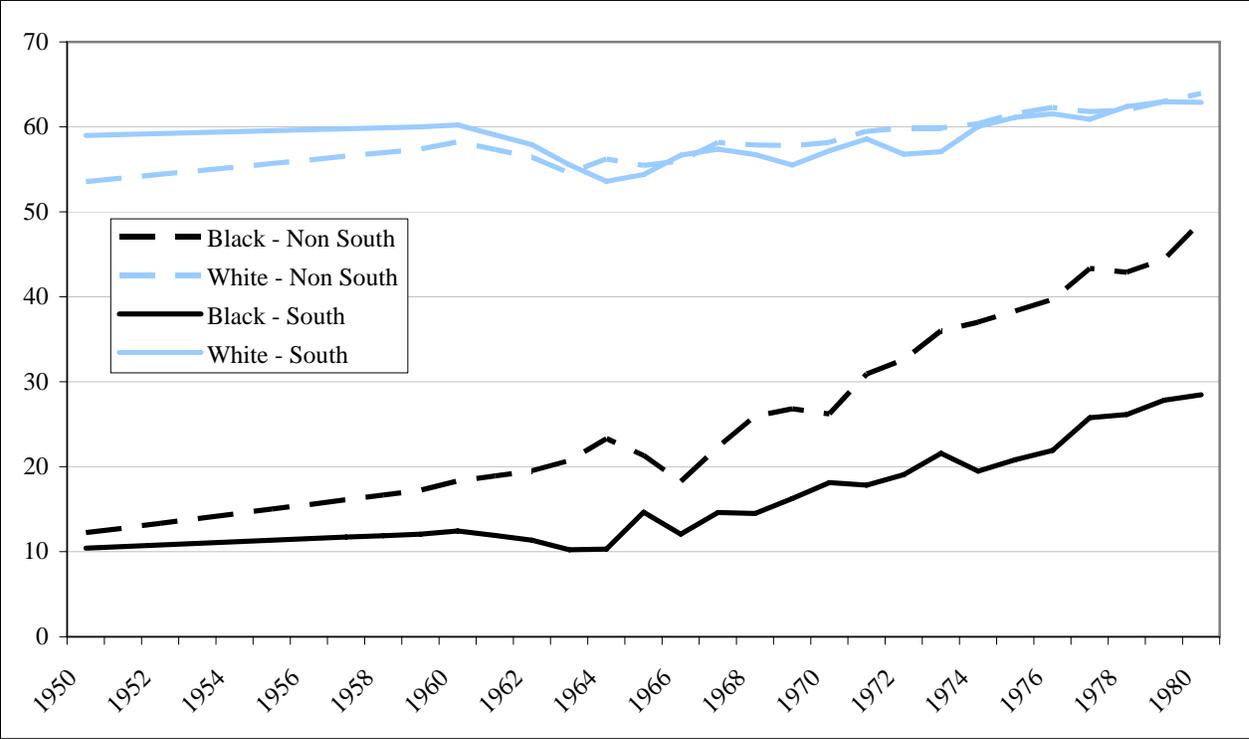


Figure 3. Percentage of men 35-64 years of age reporting a “laborer” occupation by racial group, region and year, IPUMS U.S. Census data using the OCC1950 recode variable for occupation, 1950-1980.

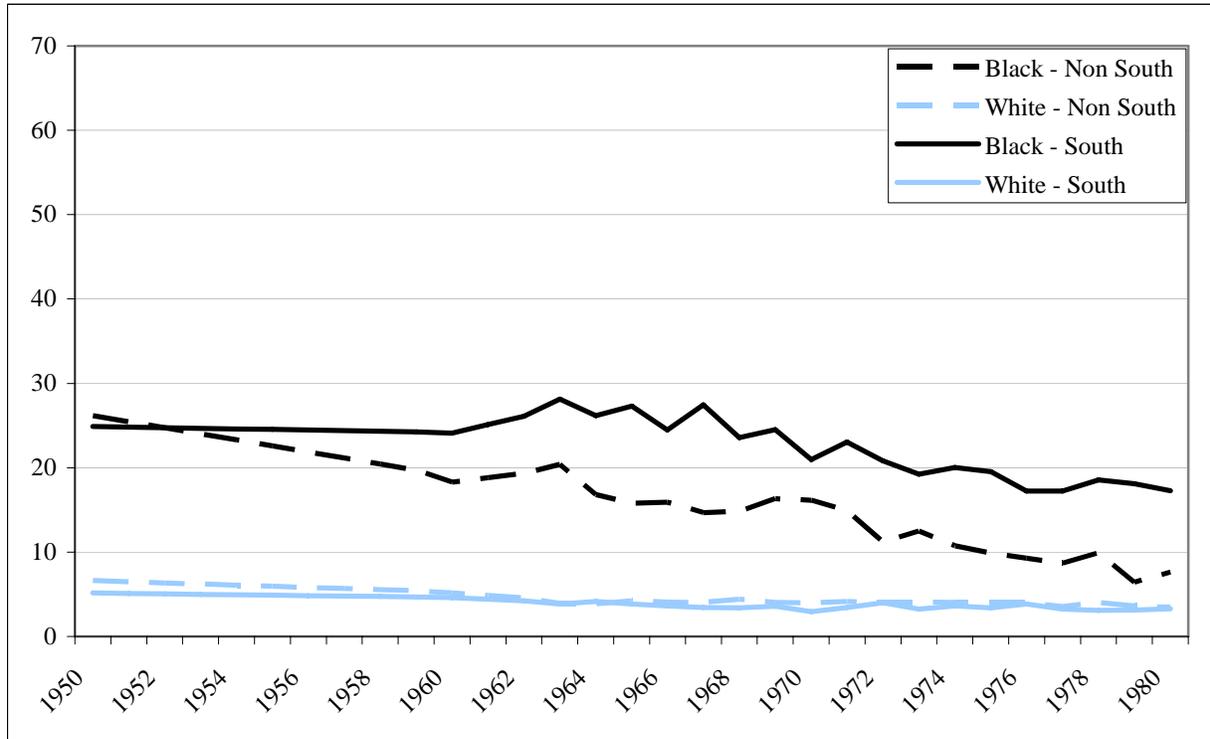


Figure 4. Percentage of men 35-64 years of age reporting a white collar occupation by racial group, region and year, IPUMS U.S. Census data using the OCC1950 recode variable for occupation, 1950-1980.

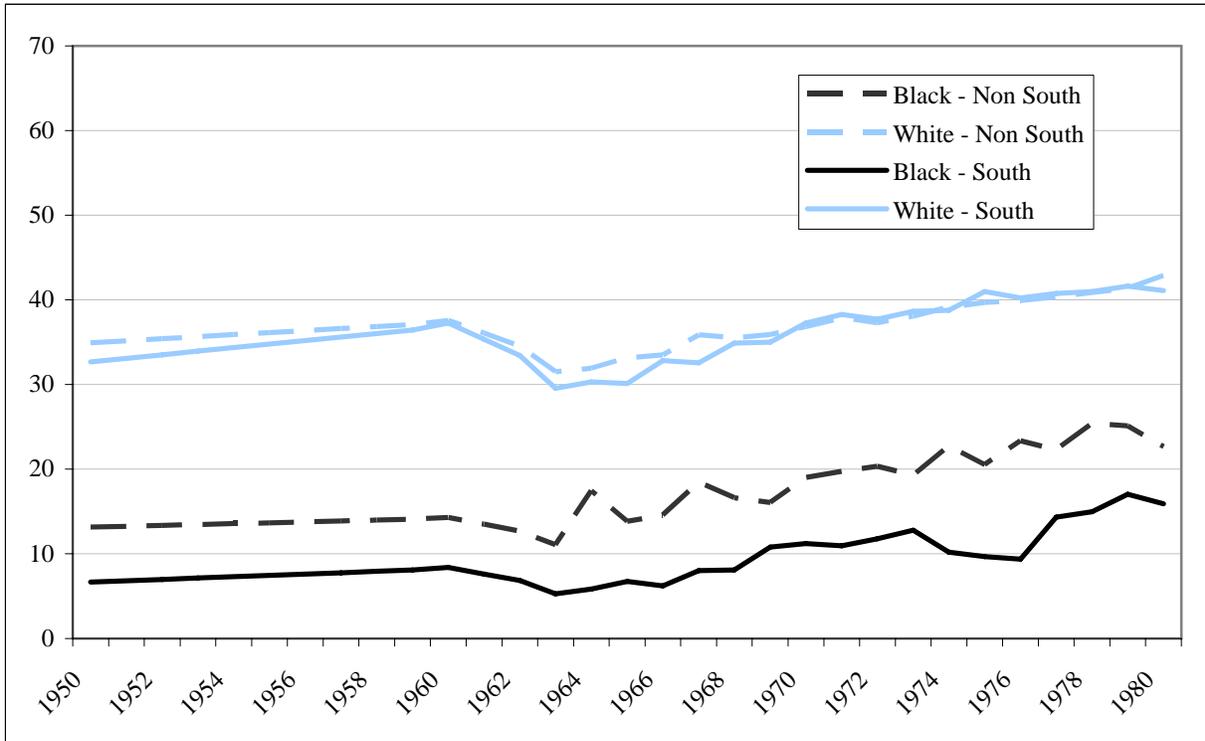


Figure 5. Ratio of Black/White Median Income (1983\$'s) Men and Women, aged 35-44: 1959-1979 (adapted from Allen & Farley, 1986)

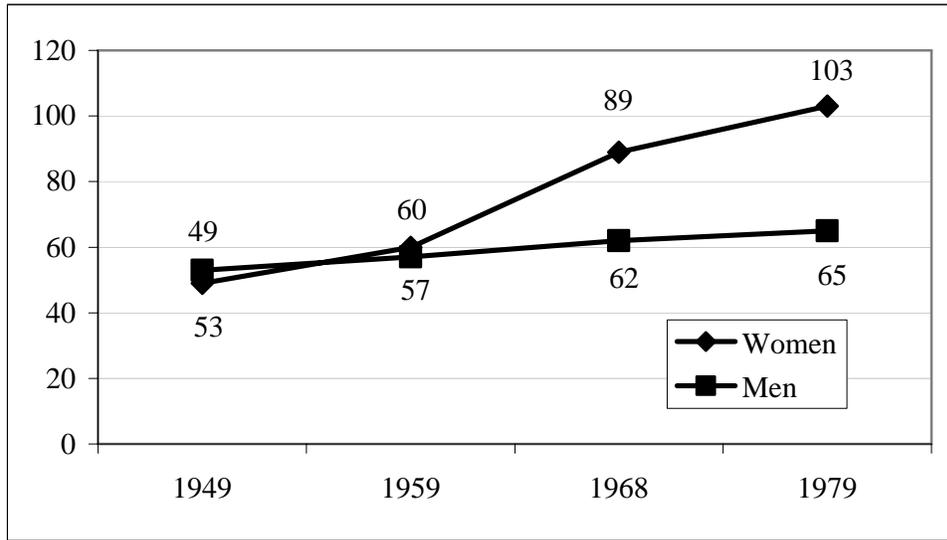


Figure 6. Percentage of women 35-64 years of age working for a public employer by racial group and region, IPUMS U.S. Census data, 1950-1980.

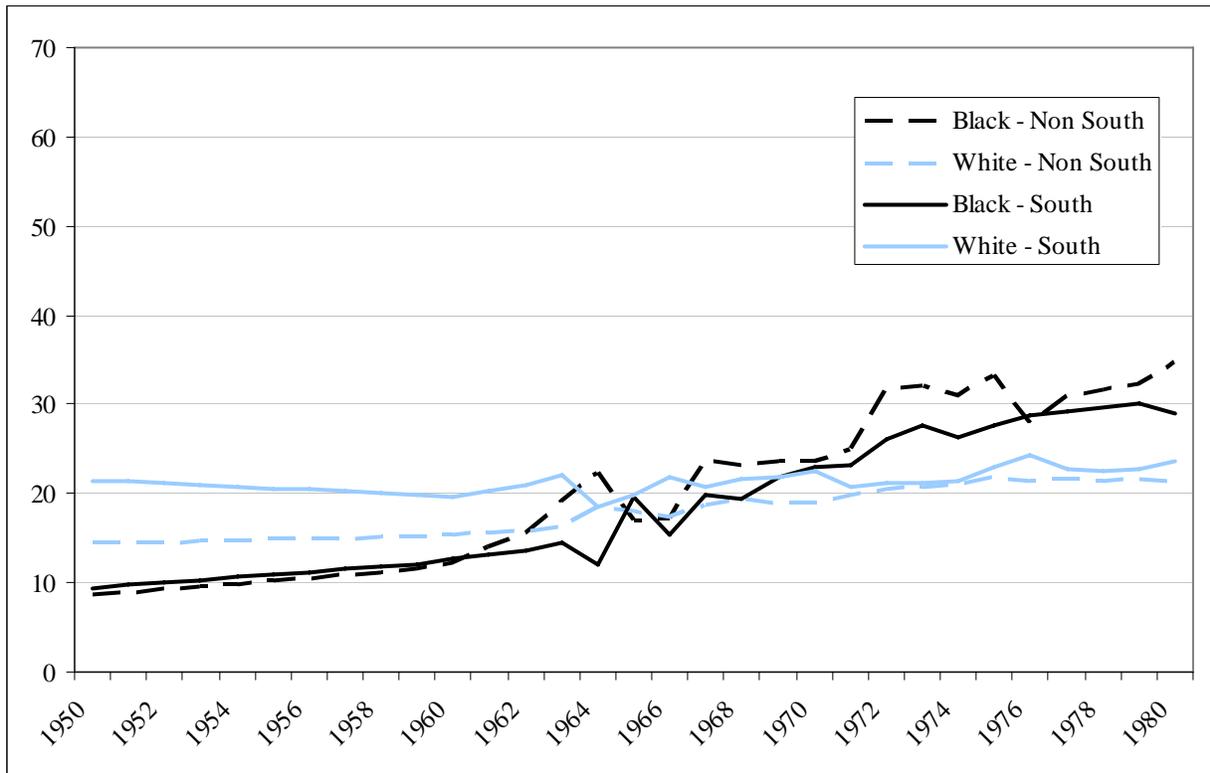


Figure 7: Change (years/decade) in Life Expectancy at age 35 United States: 1955-64 and 1965-74

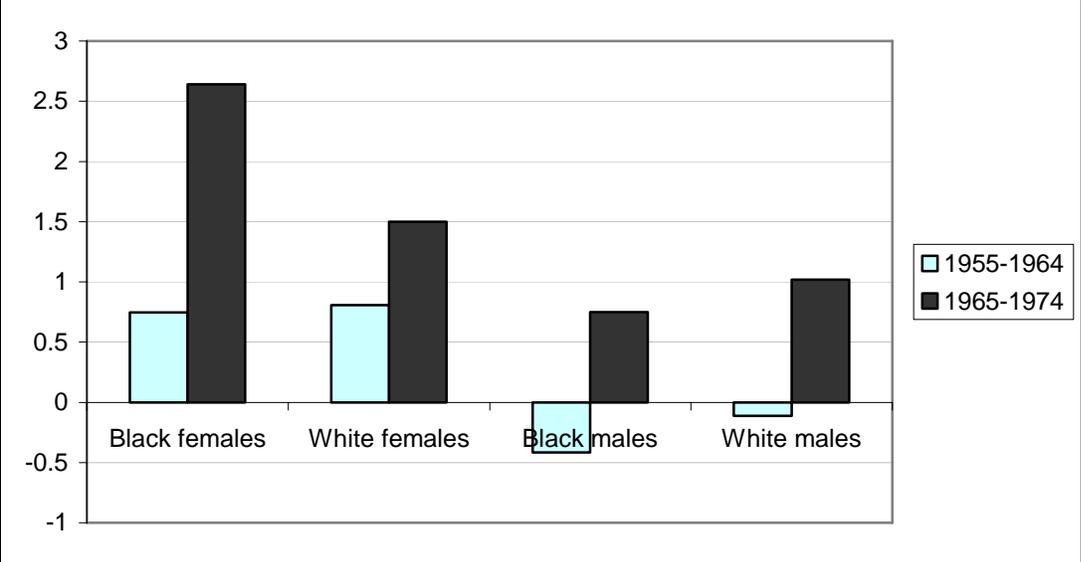


Figure 8a: Change in black-white ratio of female mortality (ages 35-64): 1955-1964 and 1965-1974

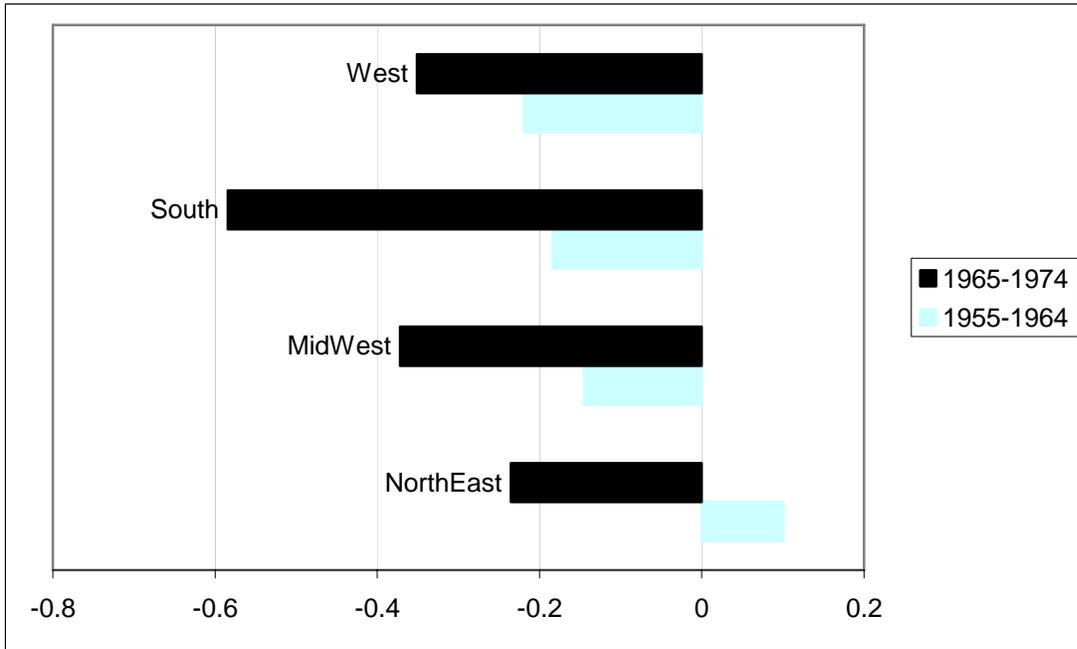


Figure 8b: Change in black-white ratio of male mortality (ages 35-64): 1955-1964 and 1965-1974

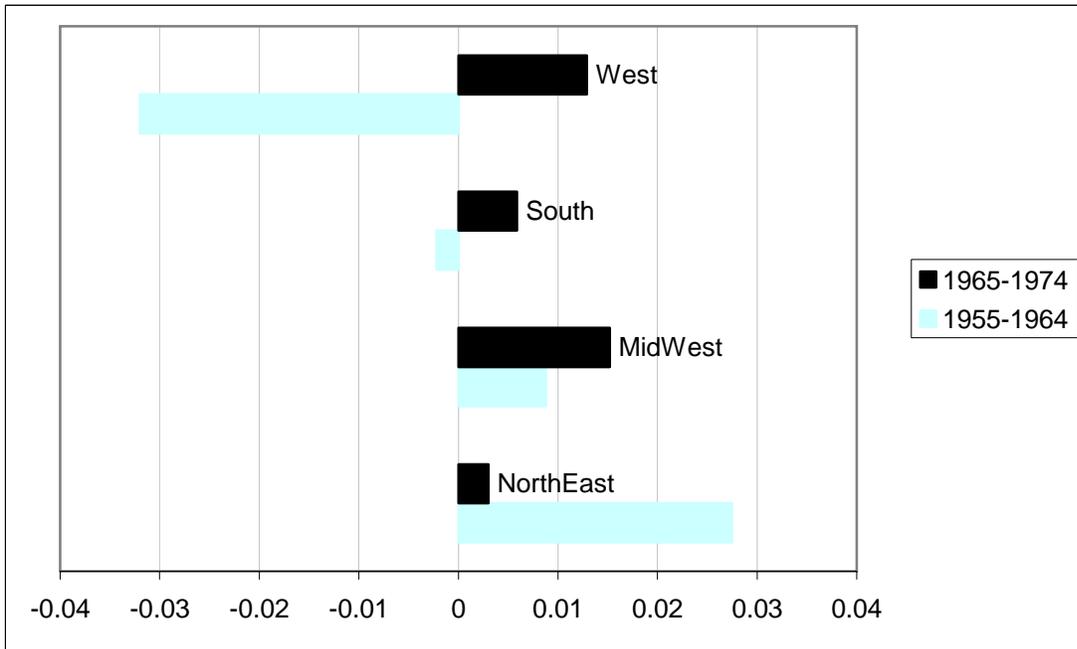


Figure 9: Trends in ratios of black to white mortality from heart disease (ages 35-64) for females, by region, 1955-1974

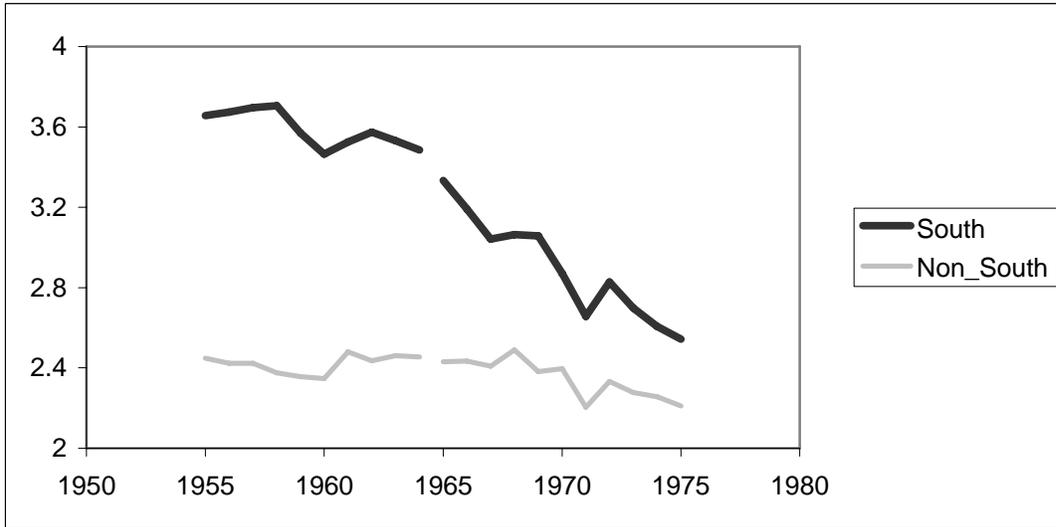


Figure 10: Trends in ratios of black to white mortality from stroke (ages 35-64) for females, by region, 1955-1974

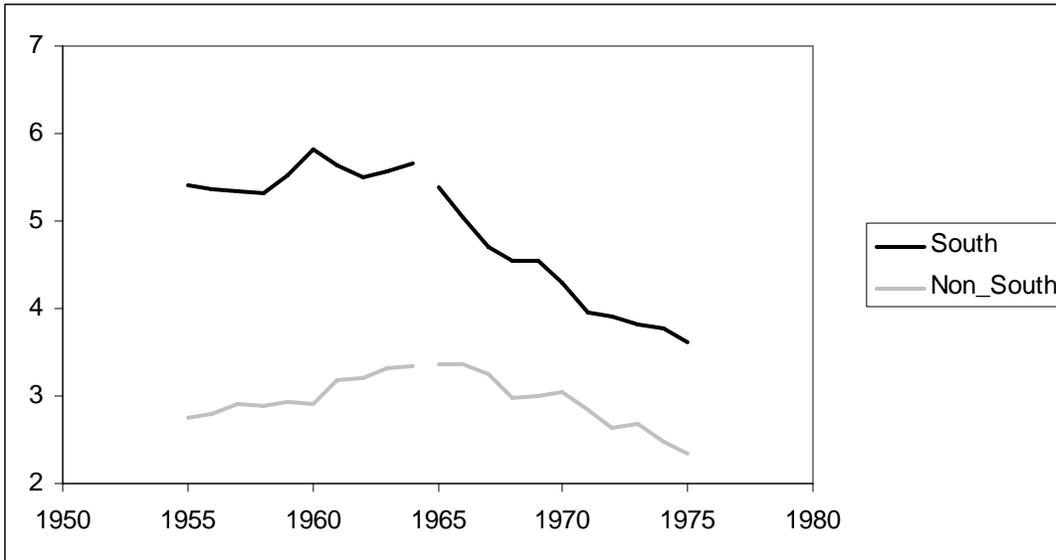


Figure 11: Trends in ratios of black to white mortality from neoplasms (ages 35-64) for females, by region, 1955-1974

