African American Marital Disruption in the 20th Century:

What Changed? What Did Not?

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INTRODUCTION

Differences in the family patterns of African Americans and non-African Americans over time exhibit elements of both continuity and change. On many measures of family formation and structure, African American families have differed from those of non-African Americans for as far back as we can track (Morgan et al. 1993; Pagnini & Morgan 1996; Preston et al. 2002). But the dissimilarities are generally perceived to have grown in recent decades (Cherlin 1992; Morgan et al. 1993; Wilson 1987). Much of the recent work related to African American families has focused on widening ethno-racial differences in marriage rates and levels of premarital motherhood over the past few decades. But marital disruption among African Americans has a long history as a topic of sociological research (e.g., Du Bois 1909; Frazier 1939). Ruggles' (1997) analyses of Census data suggest that the pattern of persistent and growing differences held for marital disruption from the late nineteenth century through end of the twentieth.

In attempting to explain the patterns, some scholars, particularly those who observe shorter lengths of time, focus on the widening differences—and look for explanatory factors that have changed and that might explain it. Though many theories have been developed to explain the between-group differences in family patterns based on current material circumstances, (e.g., Massey & Denton 1993; Wilson & Neckerman 1987) , empirical researchers have encountered little success in explaining differences in family patterns—or the growth in those differences—using contemporary factors. That lack of success, along with the observed historical persistence of the phenomenon, has led many researchers to advocate an increased focus on historically-based causes (e.g., Cherlin 1992; Morgan, et al. 1993; Patterson 1998; Preston, et al. 1992; Stevenson 1995). Following their analysis of differences

in the family structures of Afro-Americans and Whites in 1910, Morgan and his co-authors ask:

> "Given such well-documented historical differences, why are contemporary explanations for racial differences focused on the contemporary period? . . . Those explaining contemporary differences need to recognize that these may be rooted in long-standing differences in family and household processes." (p.824)

But, given that the differences in family patterns appear to be so much larger today that in the past, historical factors seem unlikely to provide a sufficient explanation. During the twentieth century Americans experienced enormous material and cultural changes that profoundly influenced family structure. In general, Blacks and non-Blacks have been affected in qualitatively similar ways by those changes. Among other things, it is clear that marriage rates have fallen for both over the latter half of the century and single motherhood rates have risen. But the changes have been larger, sometimes dramatically so, for African Americans.

Marital disruption rates also rose throughout the 1900s, continuing a pattern dating back to at least the mid-nineteenth century (Cherlin 1992; Ruggles 1997). It is not completely clear, however, that the marital disruption *gap* increased monotonically over that period. Ruggles (1997) claims that the gap either rose or remained flat throughout the time horizon from 1880 to 1990, but marital disruption measure used in that study is problematic. It relies on disruption "prevalence" (the proportion of ever-married persons *currently* divorced or separated) rather than "incidence" (Sweet & Bumpass 1987). Some work suggests that the incidence of marital disruption of Afro- and non-Afro-Americans may have actually converged somewhat over at least part of the latter half of the century (Sweet & Bumpass 1987; Teachman 2002). This adds a certain complication to explanations of change. The dominant theories of family formation suggest that the same factors that reduce marriage also increase the risk of marital disruption. Consequently, if we observed declining relative

marriage rates among African Americans (compared to non-African Americans), we would also expect relative increases in marital disruption.

In this paper I use data from the U.S. decennial census to track trends in the incidence of marital disruption during the twentieth century. I also estimate the impacts of a range of potential causal factors on changes in the marital disruption gap over the course of the twentieth century. In doing so, I argue for the use of a "retrospective" decomposition method rather than the typical prospective approach (Firebaugh 1997). After presentation of the results I discuss the general question of how historically-persisting causal factors may influence later change in marital disruption rates for African Americans and non-African Americans.

THEORY

Data on the incidence of marital disruption tend to be poor, due both to the lack of nationwide reporting of divorce and the nearly complete lack of reports of the incidence of separation until very recently. This lack of data on separation is particularly problematic with respect to African Americans. African American couples who split up were unlikely seek out a legal divorce early in the century (Frazier 1939). In recent decades, African Americans spouses who separate have become more likely to obtain a legal divorce, but remain much less likely than non-African Americans to do so. And those who do obtain a divorce tend to wait longer. The low rate of divorce among separated couples today is likely related to the low rate of remarriage. Among non-Hispanic White couples who separated between 1965 and 1979, Sweet and Bumpass (1987) found that 72% of remarried within ten years. The fraction of ex-couples among which at least *one* partner remarried would be substantially higher than that figure. Legal divorce is therefore necessary in order to pursue the subsequent relationship.

Among separated African Americans, however, only 4% had remarried after two years and only 32% after ten, so legal divorce proceedings are less imperative.

Frazier (1939) found equivocal results when he attempted to use vital statistics data to compare the divorce rates of African Americans and non-African Americans. Today it is clear that African Americans' divorce rates are higher than the national average, but those rates understate the size of the marital disruption gap since they fail to account for separation. One alternative has been to use current marital disruption status as a proxy for incidence. Ruggles does so and finds higher marital disruption rates among African Americans from 1880 though 1990. But the prevalence of currently divorced or separated individuals is a result of both disruption incidence and remarriage rates. Given large changes in remarriage rates, it can produce a particularly misleading picture of changes in incidence. African Americans' sharply falling remarriage rates since mid-century would tend to increase the proportion of individuals currently divorced or separated, even in the absence of any change in disruption incidence.

Using retrospective data from the National Survey of Family Growth, Teachman (2002) finds a narrowing in the marital disruption gap between Blacks and non-Blacks for cohorts married between 1950 and 1984. However, this is based on a linear year specification with statistical controls, so it is unclear either if the raw differences have declined or if declines occurred over the entire period or only within certain portions. Using marital incidence measures derived from the decennial census, Sweet and Bumpass (1987:189) present data in a table that suggest larger some narrowing in the raw disruption gap between 1960 and 1980, though they do not explicitly discuss it in the text.

If patterns of differential change in marital disruption are not completely clear, their causes are even less well understood. Fundamentally, there are two types of explanations that one might use to account for changing group differences:

1) Growing inter-group differences in characteristics that cause marital disruption.
2) Changing impacts of persisting differences.

The first approach is the most commonly used. In this "shift-share" type of explanation, one looks for changes in the levels of potential contributors to the marital disruption gap such as employment outcomes, concentrated poverty, sex ratios, urbanization, etc. (Hatchett et al. 1995; Lichter et al. 1991; Massey & Denton 1993; Wilson & Neckerman 1987). The second relies not on changes in the explanatory factors, but in their effects. It is particularly crucial to consider the likelihood of non-constant effects when examining change over long time horizons. Isaac and Griffin (1989) critique what they see as "ahistoricism" in quantitative analysis of time series data, in which statistical convention and abstract theory neglect "'time-conditionedness' and temporal contingencies" (p.875). Tremendous normative and economic changes occurred during the twentieth century, with commensurately large impacts on family patterns. The impacts of factors that we take for granted as contributors to family patterns are almost certainly contingent on historical context.

For instance, as normative and legal barriers to marital disruption have fallen, we would expect factors that impact marital quality such as economic security to have a growing impact on marital disruption. In *When Work Disappears*, William Julius Wilson (1996, p. 97) presents an example of how normative changes may interact with economic conditions, causing the effect of economic factors to grow:

> "The weakening of social sanctions has *had the most severe impact* on the jobless, but it has also affected many who are employed, especially those whose jobs are not very secure or stable,

> and/or those who are experiencing declining real incomes . . . . The weaker the norms against premarital sex, out-of-wedlock pregnancy, and nonmarital parenthood, *the more that economic considerations affect decisions to marry.*" [emphasis added]

Although Wilson is discussing marriage and fertility, the point is equally applicable to marital disruption. If the normative or legal restrictions on marital disruption are absolute, then there will be no relationship between economic factors and disruption since there is no disruption. As those constraints are gradually loosened, the largest increases in divorce will be among groups who experience the greatest underlying marital stress, with low-income families likely to be one of those groups. If the material circumstances have had a growing impact on marital disruption over time, then the simple persistence of disadvantaged material circumstances among African Americans could be sufficient to predict growth in the marital disruption gap.

African Americans' economic disadvantage would be expected to contribute to lower average marital quality. Non-material factors could contribute as well. Some authors also emphasize that historical conditions have led to greater conflict surrounding gender roles among African Americans (Hatchett et al. 1995; Patterson 1998; Schoen 1995). All-in-all, African Americans have been subject to conditions that are less amenable to the development of a mutually satisfying relationship. Thus, as society as become more accepting of divorce, we might logically expect to observe greater increases in marital disruption among African Americans than among other groups.

DATA AND METHODS

In this paper I use data from several US decennial censuses to measure changes in the incidence of marital disruption among African Americans and non-African Americans between 1910 and 1980. I also construct a number of economic and demographic measures to examine potential contributors to those changes. The data include the years 1910, 1940, 1950,

1960, 1970, and 1980. It would be desirable to have data for a longer time span and without any gaps, but the Census lacks the necessary information to calculate estimates of marital disruption incidence in other years. However, this range does cover the periods of greatest change in marital disruption, as well as the dramatic transition in African Americans' living circumstances from a population predominantly concentrated in the rural South under Jim Crow to a predominantly urban population in the post-Civil Rights era.

The sample includes all ever-married, non-widowed, non-institutionalized native-born women aged 20 to 39 in each census year. The restriction to women is due to the lack of sufficient marital history data for men in the 1940 census. In years where data are available for males, the results are qualitatively the same for both sexes. The disruption incidence measure captures whether the individual's first marriage ended in marital disruption. I estimate disruption incidence using individuals' current marital status and the number of times that they have been married. For individuals who have only been married once, we know whether that marriage ended in disruption. All once-married persons not living with a spouse are counted has having experienced the disruption of their first marriage. However, the Census data do not contain detailed marital history data, so, for persons who have been married more than once, we do not know whether the first marriage ended through divorce or death of a spouse. The marital disruption incidence variable for those individuals represents the estimated probability that their first marriage ended through marital disruption. That probability was estimated by grouping individuals into cells by race, age, urbanicity, and region, and then determining the proportion of divorcees among formerly married persons who had only been married once within each cell. For instance if 90% of the formerly married women within a given cell were divorcees (as opposed to widows), then the women in that

cell who had been married *more* than once would be assigned a value of 0.90 for the outcome measure.

This procedure will tend to underestimate the frequency of marital disruption among the remarried somewhat. There are multiple reasons for this. One is the fact that the disruption/widowhood ratio falls as age rises, and within any current-age cell the end of the first marriage will tend to have been longer ago—and thus at a younger age—among the remarried than among those who have not. In addition, divorcees' remarriage rates are higher than widows' (Wilson & Clarke 1992)—sometimes because the relationship with the new partner (and future spouse) precipitated the end of the first marriage. A third reason, applicable primarily in earlier years, is the over-reporting of widowhood as a way to legitimate non-marital births (Preston et al, 1992).[1]

The independent variables in the multivariate analyses include measures of a number of factors that have been tied to marital disruption and/or ethno-racial differences in family patterns more generally. They consist of measures of employment, occupation, education, age at marriage, urbanicity, region, sex ratios, single motherhood, extended kin households, and imprisonment rates (Becker 1991; Cherlin 1992; Fossett & Kiecolt 1993; Frazier 1939; Heaton & Jacobsen 1994; Koball 1998; Lopoo & Western 2005; Orbuch, et al. 2002; Staples 1999; Testa & Krogh 1995; Tzeng & Mare 1995; Wilson 1996; Wolfinger 1999). The majority of those variables are calculated at the local area level. Some, such as sex ratios, are

[1] I tested the accuracy of the estimation procedure using 1970 and 1980 data, the only years in which IPUMS provides explicit information on how first marriages ended for all ever-married persons. As expected, the differences between the estimated and actual values were small, with the estimate understating the frequency of first-marriage disruption among the remarried slightly (3.1% in 1970, and 0.1% in 1980). And the estimates correlate very highly with the actual in each of those years (0.8127 in 1970 and 0.8732 in 1980). The size of the underestimates may be somewhat larger in earlier years, but they cannot exert more than a small impact on the overall estimates of marital disruption.

inherently aggregate measures, while the aggregation of other measures such as employment is motivated by issues of reverse causality (Akerlof 1997; Rogers 1999).

Most aggregate measures are calculated at the local area. The strategy for defining local areas generally follows Ruggles (1997). Local areas here are defined as State Economic Areas (SEAs) through 1950 and as county groups in 1970 and 1980. Comparable substate area identifiers are not available in 1960. Consequently, the only data I present for that year are the overall rates of marital disruption. For local areas with fewer than 1,000 observations, Ruggles aggregated the observations to the state level (by metropolitan and non-metropolitan separately). If a group still lacked sufficient observations, those were dropped. I follow Ruggles' aggregation strategy and when necessary, I aggregate further to the region level (also by urbanicity). But in all years at least 89% of the African American cases used geographic measures aggregated to the state level or below. The corresponding figure for non-African Americans is 94%. Aggregation over a larger geographic area will provide a somewhat less precise measure of the conditions experienced by some individuals and may lead to attenuation bias. But the retained cases prevent the loss of a particular subset of individuals—those who live in areas less populated by one or both groups.

Since labor market, marriage market, and other conditions faced by African Americans differ from those of non-African Americans within a given local area, it is important to calculate the aggregate variables separately from each. Ruggles does not include African Americans in his multivariate analyses on the argument that the sample sizes are insufficient to calculate local area variables. It is true that in many cases, particularly in the earliest years, the numbers of African American respondents in a district fell short of the 1,000 person threshold. However, by the time one aggregates to the state level, as Ruggles did

with Whites, the threshold is met for the large majority of African Americans in all years. The one year for which this would not have been true when Ruggles performed his analyses was 1910, since the main PUMS sample for that year was only 1-in-250 rather than 1-in-100. But IPUMS now contains a 1910 oversample of African Americans (Hereward, et al. 1990) that augments the number of observations available. This is not a national oversample, but rather an oversample of areas that contained moderate numbers of African Americans. This is particularly useful, since in areas with large African American populations, the sample sizes at the SEA or state level are already sufficiently large for calculating labor market statistics. The oversamples were a random draw, by county, of either 1-in-100 or 1-in-200, depending on the state. Inclusion of the oversample increases the total African American sample size in 1910 by 60%.

The labor market variables consist of employment rates and the mean log occupational income of married males and unmarried females, as well as the percent of the labor force engaged in a non-farm occupation. Employment rates reflect the percent of the population aged 20 to 59 that are employed. The mean occupational income measure is calculated using all labor force participants from that same age group. The non-farm employment measure is the percent of all labor force members who are engaged in farming in the SEA.

From economic theory, unmarried female employment should be more relevant to marital disruption risk than that of married females, and it is also less likely to be endogenous. Economic theory posits that if women have opportunities to support themselves when not married, then they will be more likely to leave a low quality marriage. In addition, they will be less likely to invest in the current marital relationship since the costs of a failed relationship are lower, which will, in turn, will reduce marital quality. From a purely

economic standpoint then, it is the employment opportunity of an unmarried woman that is relevant for a married woman who is considering divorce.

The employment of married women may also matter, but controlling for unmarried women's employment outcomes, it is more likely to reflect local cultural factors related to the acceptability of paid employment by married women. In addition, in terms of occupations, in many situations one might reasonably expect unmarried and married females to tend to seek out different types of jobs. So the occupation of married females may not accurately reflect what a woman's employment would be if she were no longer married. Using the employment outcomes of married females may also be endogenous to the risk of marital disruption. Married women's decision to enter the labor force may partially result from perceived risk of marital disruption (Rogers 1999). And, as noted, it will also reflect cultural attitudes towards women's roles, rather than direct economic factors.[2]

Sex ratios are captured using two measures—reflecting symmetric and asymmetric theories of the impacts of sex disproportions. The symmetric model hypothesizes that proportional unevenness in either direction increases the availability of potential partners and promotes disruption. To test that theory I include a variable that is equal to the ratio of males per female if there are more males in the district, and the ratio of females per male otherwise.[3]

[2] That said, tests were run and the inclusion of married female employment rates do not produce results that alter any of the conclusions of the study.

[3] This "absolute sex ratio" variable has a minimum possible value of 1, which would reflect an equal number of males and females. Its mean is partially a function of the sample variance of the male-to-female ratio, and as such will be sensitive to the size of the sample being used, since smaller sample sizes increase the probability of observing uneven sex ratios. Consequently, some of the observed unevenness may be due simply to smaller sample sizes, though the sample sizes within SEAs are large enough that any bias should be minimal. To be safe, the measure is corrected for the size of the sample they are drawn from. To estimate the size of the bias resulting from variations in SEA sample size, I regress the absolute sex ratio measure (using ordinary least squares) on a variable for the square root of the sample size, along with controls for race, region, urbanicity, and other SEA measures such as employment rates. I then take the estimated effect of SEA sample size and use it to adjust the absolute sex ratio for each SEA to what it would be if the SEA had a sample size of 1000 (or a square root of 31.6) persons between those ages, a fairly arbitrary value chosen because it is a prominent number that happens to fall near the center portion of the distribution of the sample size of 20-to-39 year-olds. The impact of the

A second variable, the number of males per female in a district, corresponds to the theory that, due to male structural power, it is only the relative number of males that matters (Guttentag & Secord 1983). Sex ratios, according to this theory will primarily affect marital disruption through their effect on male commitment and faithfulness. When women are relatively scarce, men will value them more and demonstrate greater relationship commitment. When men have more alternative partners they will show less faithfulness.

The prevalence of premarital childbearing may matter either because it increases the number of stepfamily relationships, reflects nontraditional family norms, or because it suggests conditions that are otherwise not amenable to relationship stability. The variable measures the percentage of never married females (ages 16-35) who are mothers.

One potential measure of the strength of kin ties (including fictive kin) relative to the marital tie is the prevalence of complex residential arrangements. While coresidence may reflect other factors like economic status (Kamo 2000; Cohen & Casper 2002), it will – particularly after controlling for economic conditions – also reflect the extent to which married couples are more isolated in their own "nuclear" family system versus having close ties in a broader kinship system. The coresidence measure I use is the percentage of married couples in the SEA who live in a household that is not their own – that is, a household in which someone other than one of the spouses is the householder.

There are two reasons to limit the measure to coresidential prevalence of married couples. One is that we are specifically interested in the extent to which *married* persons are embedded in broader kin networks. The second is to avoid endogeneity. Marital status is a determinant of whether one lives in an extended household (Angel & Tienda 1982; Hofferth

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correction is not large, but it does lead us to reduce the size of the absolute sex ratios in smaller districts somewhat while increasing them in larger ones.

1984), so to use a measure of the overall prevalence of extended family households across household types would mean using a measure that is caused by our outcome of interest.

Educational attainment has consistently been found to be negatively associated with marital disruption. But IPUMS did not gather information on it until 1940. Prior to 1940, the best available indicator of educational attainment is literacy. By today's standards this is a very low threshold of attainment, and even in 1910 only 6% of the US population aged 20-39 was illiterate. But about 30% of African Americans that age were unable to read. In 1910, the "low education" measure is a dichotomous variable, with a value of one if the respondent is illiterate, and zero otherwise. In later years it indicates educational attainment at the sixth percentile or below. This is an individual- not aggregate-level measure.

I exclude the institutionalized population from the aggregate measures, but incarceration itself may be of interest, particularly given the disparate rates experienced by Blacks and non-Blacks. We are interested in how incarceration affects individuals from a given locality, but since inmates may be held in a locality that is different from the one in which he or she lived in previously it does not make sense to measure incarceration at the local level. The large majority of institutionalized persons will, however, remain in their same state of residence, so I measure incarceration rates at the state level.

Indicators are also included for several geographic characteristics. States are divided into the four basic Census regions, Northeast, Midwest, South, and West. I also create a "deep South" variable that includes the more slavery-intensive southern states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.[4] A state in the "deep South" is also counted as

[4] That remaining "peripheral" southern states consist of Delaware, Maryland, Oklahoma, and West Virginia, along with the District of Columbia.

being in the South. So the coefficient on that variable reflects as the difference in marital disruption between states in the high-slavery South and those in the peripheral South. Analyses also include an urbanicity indicator, denoting non-farm metropolitan residency.

The analyses also include controls for females' median age at first marriage and the average age of labor force members. Median age at marriage is potentially important for a couple of reasons. One is that couples who marry at a younger age tend to separate more quickly (Bumpass et al. 1991). The second is that the analysis is restricted to respondents between the ages of 20 and 39. Individuals who marry later have less time to separate before aging out of the sample. Thus, observed disruption rates should be higher for groups who marry sooner than for those who marry later, possibly for causal reasons, but also because we observe their marriages for a longer period.

Ideally, we would like to have individual-level data on age at first marriage. This information was collected in a handful of Census years, but not all. As an alternative, I use a measure of median age at first marriage which represents the youngest age at which at least half of the population in a geographic district has been married. While this period measure might not accurately reflect the median age at first marriage for older cohorts, it should be a sufficient approximation for the sample that I focus on.

Decomposition of Change

Multivariate results incorporating the variables above are used to assess the causes of change in the marital disruption gap. Firebaugh (1997) presents a commonly used model for decomposing individual contributions to change. Suppose there are two time periods, t_1 and t_2. For each year the outcome Y is determined by factors reflected in the linear regression:

$$Y = \alpha + \beta X + \varepsilon$$

That being the case:

$$\overline{Y} = E(Y)$$
$$= E(\alpha + \beta X + \varepsilon)$$
$$= \alpha + \beta\overline{X}$$

where *E(.)* denotes expected value, $\overline{Y}$ is the mean of *Y*, $\overline{X}$ is the mean of *X*, and the *E(ε)=0*. Change in the outcome between the two years is equal to $\overline{Y}_2 - \overline{Y}_1$. And:

(1) $$\overline{Y}_2 - \overline{Y}_1 = (\alpha_2 + \beta_2\overline{X}_2) - (\alpha_1 + \beta_1\overline{X}_1)$$

(2) $$= (\alpha_2 - \alpha_1) + \beta_1(\overline{X}_2 - \overline{X}_1) + \overline{X}_1(\beta_2 - \beta_1) + (\beta_2 - \beta_1)(\overline{X}_2 - \overline{X}_1)$$

(3) $$= \Delta\alpha + \beta_1\Delta\overline{X} + \overline{X}_1\Delta\beta + \Delta\beta\Delta\overline{X}$$

This decomposition provides an illustration of what has to be "new" in order to produce social change. The second term, $\beta_1\Delta\overline{X}$, reflects the impact of changes in the casual factors on changes in the outcome. the $\overline{X}_1\Delta\beta$ term in Firebaugh decomposition captures the possibility of changes in $\overline{Y}$ as a result of changes in the average per-unit impact of *X*, rather than in its level. That would reflect changes in racial differences in the outcome resulting, not from changes in the causal factors, but from changes in the broader environment that mediate the relationship between *X* and *Y*. A conceptual example of this was provided earlier, where William Julius Wilson describes how the weakening of the normative imperative to marry increases the extent to which economic considerations affect an individual's decision regarding whether or not to wed.

The second term in the decomposition corresponds conceptually to the hypothetical question, "how would we expect the average outcome to have changed if the mean value of the covariates changed, but their marginal impacts remained constant at Time 1 level?" The third term corresponds to the question, "how would we expect the average outcome to have

changed if the marginal impacts of the covariates changed, but their mean values remained constant at their Time 1 levels?" This is certainly a legitimate way to think about change, and makes sense prospectively. But it is not necessarily the most intuitive way of thinking about change retrospectively, which is, of course, what we are doing when we use historical data.

Suppose that we are interested in the impact of changes in the levels of male employment on marital disruption. Retrospectively, the question that we are likely to have in mind is "what would marital disruption rates be today, or Time 2, if male employment rates had remained at their Time 1 levels?" This question starts with today and imagines a hypothetical world where society is as it is today, except that male employment rates hadn't changed from their earlier levels. Imagining a Time 2 where only one factor *didn't* change between the time periods, is a more plausible hypothetical than imagining a Time 2 in which only one thing *did* change – which is what the Firebaugh decomposition implicitly does. It is hard to make sense of a hypothetical where nothing had changed between Time 1 and Time 2 *except* for male employment. The retrospective question, by contrast, assumes a Time 2 world that looks basically like the actual world at the end of the time horizon, rather than one that looks mostly like the Time 1 world.

The hypothetical that one chooses is not a trivial question for estimating the impact of a change in the levels of the independent variables, assuming a fixed point estimate. The Firebaugh decomposition in Equation 3 does so using β_1 as the constant marginal effect. But if we're thinking about the retrospective question of how the world would look at Time 2 if the rest of the inter-period history, other than the change in a particular $\overline{X}$, had progressed as it did, then we would use β_2, not β_1, as the parameter by which we multiply $\overline{X}$. The choice is non-trivial since, point estimates can change substantially over time. That being the case, for

the purposes of the decomposition it is important to decide which counterfactual set-up is the appropriate one. For the reasons given above, the retrospective hypothetical seems the most sensible.

The Firebaugh decomposition in (3) is one way of decomposing Equation 1, but it is not the only possibility. Mathematically, the decomposition that corresponds to the retrospective hypothetical is:

(4) $$= \Delta\alpha + \beta_2\Delta\overline{X} + \overline{X}_2\Delta\beta - \Delta\beta\Delta\overline{X}$$

Equation 4 differs from Equation 3 in three ways. The second term includes β_2 rather than β_1. Similarly, in the third term, $\Delta\beta$ is multiplied by $\overline{X}_2$ instead of $\overline{X}_1$. Finally, the sign on the interaction term shifts from a plus to a minus.

The decomposition of changes in ethno-racial differences is closely analogous to changes in overall levels over time. The decompositions presented later in the paper will use the "retrospective" approach. Equation 4 is a decomposition of $\overline{Y}_2 - \overline{Y}_1$. In our case, we are interested not in the overall difference over time, but the difference in the differences, or $[(\overline{Y}_{2A} - \overline{Y}_{2N}) - (\overline{Y}_{1A} - \overline{Y}_{1N})]$, where A denotes African American and N denotes non-African American. This can be written out as:

(5) $$\begin{aligned}[(\overline{Y}_{2A} - \overline{Y}_{2N}) - (\overline{Y}_{1A} - \overline{Y}_{1N})] &= [(\alpha_2 + \theta_2 + \beta_2\overline{X}_{2A}) - (\alpha_2 + \beta_2\overline{X}_{2N})] \\ &- [(\alpha_1 + \theta_1 + \beta_1\overline{X}_{1A}) - (\alpha_1 + \beta_1\overline{X}_{1N})]\end{aligned}$$

This equation includes one new symbol, θ, representing the coefficient on the African American indicator. It captures the average residual difference in the marital disruption between African Americans and non-African Americans. Using the subscript *D* to denote inter-group differences, then the right hand side of Equation 5 can be re-written as:

(6) $$= (\theta_2 + \beta_2\overline{X}_{2D}) - (\theta_1 + \beta_1\overline{X}_{1D})$$

(7) $= \Delta\theta + \beta_2 \Delta\overline{X}_D + \overline{X}_{2D}\Delta\beta - \Delta\beta\Delta\overline{X}_D$

Equation 7 bears a strong resemblance to Equation 4. The intercepts, α, have been replaced by θ, the unaccounted for inter-group differences. And the period-specific overall means in the covariates, $\overline{X}$, have been replaced by the inter-group differences in those covariates, $\overline{X}_D$.

RESULTS

Figure 1 presents trends in marital disruption prevalence—the fraction of ever-married women currently divorced or separated. Levels generally rise over time for both groups, as do the differences. Only between 1950 and 1970 do trends for each group, and the overall differences, flatten out. As noted earlier, those trends are the result of changes in both marital disruption and remarriage. Remarriage trends, as shown in Figure 2, have diverged notably for African Americans and non-African Americans. Here the remarriage rate is calculated as the fraction of women aged 20 to 39 who have married at least once since the end of their first marriage. The trends in remarriage are not in dramatically different directions, but African Americans' rates rise less or fall more than non-African Americans within each sub-period. The net result is that, whereas African Americans remarried at a slightly higher rate than other groups early in the century, by the latter part of the 1900s, African Americans were only about half as likely as non-African Americans to remarry.

Those relative trends in remarriage lead disruption prevalence measures to overstate the rise in African American marital disruption relative to other groups. Trends in disruption incidence are shown in Figure 3. Instead of rising or remaining level over all periods, the gap peaks in 1950, then declines by about one-third in the subsequent three decades. The narrowing was a broad-based phenomenon, not one that can be explained by conditions of sub-groups of the population. Table 1 shows that from 1910 to 1950, gaps rose across regions,

in both urban and rural areas, among the least educated and those with more education. After 1950, the gaps shrunk among all of those groups.

Tables 2 and 3 present means of the variables of interest in each year for African Americans and non-African Americans, respectively. Differences are shown in Table 4. Large changes are observed in many measures, including the dramatic urbanization of African Americans, declining gaps in educational attainment, and the shift among African Americans from an a group that tended to marry at earlier than other groups, to one that married later than average. Some of the changes—such as urbanization, movement out of farming, increasing relative occupational opportunities for women, and rising differences in sex ratios—predict growth in the marital disruption gap. In contrast, shrinking educational gaps, increased age at marriage, and relative improvement in the occupational status of African American males predict reduction. Not all differences in explanatory variables changed consistently in the same direction over time and, as we have seen, changes in the disruption gap were not consistent over time either.

As with the raw disruption gap, the gap left unexplained after accounting for explanatory factors also rose between 1910 and 1950, and fell thereafter. Table 5 contains results of both a bivariate OLS regression model and a model with the full complement of explanatory measures for each year. Identical specifications were also run using a Generalized Linear Model (GLM) with a logit link specification. The results are qualitatively the same with either OLS or GLM, but since the derivation of the decompositions is based on linear specifications, only the OLS results are presented here. Results for the bivariate model are contained in the first line. The remainder of the results are from the full model.

The signs of the explanatory variables are generally in the expected directions, especially after 1910. It has been argued that the meaning of marriage has changed since the beginning of the century (Burgess & Locke 1945; Cherlin 2004). Since most theories of marriage were developed after mid-century, it should maybe not be surprising that the theoretical predictions fit more consistently from mid-century on than at the beginning of the century. The most notable exceptions after 1910 are female employment and, in 1980, median age at marriage. The inconsistent and generally weak effects of female employment suggest that opportunities for female labor force participation, per se, do not contribute to marital disruption. However, the strong impact of female occupational status implies that the quality of the employment options matters. An alternative interpretation is that higher average female employment status proxies the acceptability of females pursuing careers (rather than simply "jobs"), and that the positive relationship reflects normative circumstances as much as economic conditions.

Possibly the most surprising finding is the non-correlation between marital disruption and age at marriage in 1970 and the positive correlation in 1980. As noted earlier, there are strong reasons to expect a *negative* association, both causal—the documented higher risk of marital disruption among those who marry younger—and artefactual ones resulting from age restrictions on the sample which makes it so that those who marry later simply have less time to experience disruption before aging out of the sample. The correlation *is* strongly negative through the middle of the century, but shifts in later years. The most likely explanation relates to changes in the meaning of late marriage. As the criteria for entering marriage changed, areas characterized by late marriage may have increasingly become those where circumstances are less amenable to establishment of a healthy marriage. As a result,

individuals will tend to take longer to find a spouse, if they do at all. The conditions that reduce the likelihood of marriage also increase the risk of marital disruption. In earlier times, where deciding to marry was taken for granted, factors now considered preconditions for marriage may have been less relevant in the decision to marry.

Other factors, such as male employment, farm occupations, urbanicity, and education are almost uniformly associated with marital disruption in the expected directions. In all years, ethno-racial differences in the explanatory factors do contribute to the disruption gap, though no more than one-fifth of the total is explained in 1910, 1940, or 1950. The proportion explained grows after 1950 however, and by 1980, the explanatory factors more than account for the raw disruption differences. Figure 4 displays the total and unexplained gaps in each year, along with the portion of the gap accounted for by particular factors.

Relatively poor male employment outcomes among African Americans do contribute to the gap, from 1950 onward, but African American females' below average occupational status has a countervailing effect. In 1980, the marital disruption gap is fully explained by the explanatory variables, with ethno-racial differences in premarital motherhood and incarceration being overwhelmingly the most important factors. The sudden emergence of incarceration as an important predictor is due primarily to the large growth in racial discrepancies in imprisonment between 1950 and 1980. The large impact of premarital motherhood in 1980 is due both to increasing differences in the variable and to large changes in its effect on marital disruption.

Table 6 presents the contributors to *change* in the marital disruption gap between 1910-1950 and 1950-1980. For each variable, the change explained represents the sum of the final three terms in Equation 7, that is, the effect of change in racial differences in the

variable, its per-unit effect, and the interaction of the two. Between 1910 and 1950, changes in the explanatory variables and their effects both predict some growth in the disruption gap, but far less than actually occurred. After 1950, further, and much larger, growth in the between-group differences is predicted. That prediction conflicts dramatically with the decline actually observed. Net of premarital motherhood and incarceration, no growth was predicted, so it is particularly important to understand the association of each of those variables with marital disruption.

DISCUSSION

Trends in the marital disruption gap between the early and late twentieth century demonstrate aspects of both continuity and change. The evidence clearly suggests that African Americans and non-African Americans were reacting to the same broad forces driving family change over time. African Americans did persistently experience substantially higher rates of separation and divorce, though the size of the gap fluctuated. Contrary to previous research that had relied on prevalence measures of marital disruption, the gap in the incidence of disruption narrowed by about one-third between 1950 and 1980, rather than continuing to widen as it had over the first half of the century.

Also contrary to earlier findings, the ethno-racial differences at the beginning of the century cannot be explained either by economic factors alone, nor by the battery of additional factors considered here. Only a small fraction of the actual gap is accounted for by the those factors. Both changing ethno-racial differences in potential causes of marital disruption and changes in the effect sizes of those variables do predict some growth in the disruption gap prior to 1950, though the predicted changes are far smaller than the divergence that actually

occurred. They both also predict substantial continued growth in the disruption gap after 1950 –contrary to the observed reduction in the gap over that period.

What are we to make of those trends? Why are there persistent differences, and why do the gaps – both explained and especially unexplained – grow and then shrink? Qualitative accounts suggest substantial historical differences between the family patterns of Blacks and non-Blacks, due both to economic circumstances as well as mores related to childbearing, marriage, gender roles, and marital disruption (Davis et al. 1941; Pagnini & Morgan 1996; Powdermaker 1939). Differences in unmeasurable factors in the first half of the century could certainly have contributed to higher rates of marital disruption. Intertwined relationship and economic issues are clearly present in the qualitative data in ways that are familiar today. Echoing the contemporary "few good men" theme (Edin 2000), African American female interviewees of Powdermaker (1939) lament that "these days the men have nothing to give" (p.163) and "there are no more husbands. Men don't want wives, they just want a good time" (p.160). A female interviewed by Lemann (1991) attributes the lack of successful marriages early in the century to "the constant pressure of poverty and the no-goodness of most men" (p.33). In addition, in their study of WPA interviews of rural southerners in the 1930s, Pagnini and Morgan (1996) conclude that Afro-American women were less willing than White women to remain in a bad marriage in the face of spousal misbehavior.

Those reports are consistent with the unexplained gaps in marital disruption in 1910, 1940, and 1950. Tolnay (1999) notes that we might reasonably expect cultural differences that affect family structure to dissipate as distance from the original historical cause lengthens. This does not appear to be consistent with the expanding unexplained gaps between 1910 and

1950. Urbanization of African Americans would be expected to contribute to the growth in the gap, but empirically, that does not seem to have been a major factor as growth within both urban and rural areas mirrored the overall increases.

Increases in marital disruption were roughly proportional for both Afro- and non-Afro-Americans, so although the raw size of the gap grew, the ratios remained similar over the course of the century. One might interpret the constant proportions to reflect no growth at all. While it may be correct to say that something remained constant, it is certainly not true that nothing changed that is relevant to ethno-racial differences in marital disruption. This pattern is consistent with historical persistence of underlying causal factors in the midst of change in the broader environment that mediates their effects. In this case, persistently greater underlying strains on marriage among African Americans—resulting from unmeasured causes—may have led to relatively larger increases in marital disruption as barriers to disruption fell.

But what of the post-1950 period? Are the smaller raw differences and the complete disappearance of unexplained differences to interpreted as evidence of the sort of convergence suggested by Tolnay? This is conceivable given that it was a period of increasing racial integration in certain realms. On their face, the trends certainly do *not* seem consistent with claims of increasing differences in norms between non-African Americans and at least certain sub-groups of African Americans (Anderson 1990; Massey & Denton 1993). But the answer hinges on how one interprets the two factors that account the large majority of the gap – incarceration and marital disruption.

Controlling for other observables, cross-state variation in incarceration seems reasonably likely to be due primarily to differences in state criminal justice policy and

practice. Imprisonment has been empirically tied to marital disruption (Lopoo & Western 2005), and it is not hard to imagine that it would have an impact in situations where the imprisoned individual is married. However, regressions with race interactions show that the effect of incarceration on the disruption incidence of African Americans is only about one-fourth the size of the all-race effect in Table 5. By 1980, African Americans married at a much lower rate than African Americans. In addition, data from the National Survey of Families and Households show much greater selection into marriage among African Americans (Clarkwest 2005). Non-African Americans who marry are largely representative of the marriage pool as a whole. In contrast, African Americans who marry are, among other things, disproportionately more religious, higher earning, and less likely to have had a child before marrying. Thus, we might expect the relationship between incarceration and marital status to be weaker for African Americans, with individuals who are most likely to face incarceration being also less likely to marry. An incarceration would, therefore, be less likely to directly impact a member of a married couple among African Americans than non-African Americans. The lower observed impact of incarceration on African Americans implies that incarceration contributes less to African Americans' elevated disruption incidence than is suggested by the results presented earlier. Nonetheless, the increasing incarceration rates of African Americans should contribute some to growing marital disruption rates. Thus, without the policy changes that led to growing incarceration, we might have expected less reduction in the disruption gap than was observed after 1950.

The association between premarital motherhood and marital disruption, on the other hand, *is* similar for African Americans and non-African Americans in 1980. What that sharp post-1950 turn in the relationship between the two variables means is a separate matter. Step-

family relationships (which are one result of premarital childbearing) could have become more strongly correlated with divorce and separation over time, though the reason for such a shift is not immediately obvious. Alternatively, it may be the case that premarital motherhood was not necessarily associated with less conventional attitudes regarding what constitutes appropriate grounds for marital dissolution in early years, but came to be so associated later and thus has become positively associated with marital disruption. During the demographic transition that took place between the mid-nineteenth and mid-twentieth centuries, marital and non-marital fertility fell in tandem, while marital disruption rates rose (Shorter et al. 1971). Prior to that transition, high non-marital fertility was associated with *more* traditional family patterns. By 1980, of course, that was no longer the case.

It is also possible that, as with age at marriage, high premarital motherhood rates have come to reflect conditions that are less amenable to the development of lasting relationships. Within ethno-racial groups, it is likely that premarital motherhood rates represented different things at the end of the 1900s than it had at the beginning of the century. And it is possible that the factors that premarital motherhood reflected in 1980 are ones that *have* been relevant to the marital disruption gap historically, but were not picked up by premarital motherhood rates nor by other measures earlier in the twentieth century. If that is the case, then the decrease in the unexplained gap is due less to changing causes of the gap than to changes in the capacity of measured factors to proxy those causes.

If we are willing to say that the *causal* effects of incarceration and premarital motherhood are, at least, much smaller than the total observed association, then the decrease in the unexplained gap is largely spurious. But the shrinking *actual* gap still has to be accounted for. One explanation is related to the aforementioned issue of selection into

marriage (Teachman 2002). As noted above, individuals who marry are a much more selected population among African Americans than non-African Americans. African Americans who are in situations that predict a higher risk of marital disruption are disproportionately unlikely to marry (Clarkwest 2005). Non-African Americans exhibit much less selectivity in entry into marriage. Until mid-century, African Americans married at rates as high or higher than those of non-African Americans. Marriage was nearly universal among both groups, so selection into marriage would almost necessarily have been minimal. But African Americans' marriage rates declined substantially starting in the 1950s. It is reasonable to expect that those who chose not to marry were disproportionately those who faced the lowest odds of successfully establishing a lasting, satisfying relationship. As their marriage rates fell, African Americans who did marry would have become increasingly similar to non-African Americans in their risk of marital disruption – not because of changes in their conditions or individual characteristics, but rather because African Americans in the most high-risk situations were increasingly not marrying (Teachman 2002). Had marriage rates not declined, it is possible that the disruption gap would have grown, as predicted by the multivariate results here.

Of course, this opens the question of why African Americans began to decide not to marry while non-African Americans continued to. Part of the answer is likely to be that, once marriage was no longer taken for granted, the past experience of relatively high marital disruption rates led to more of a deterrent to marriage among African Americans than non-African Americans. It may also be that historical differences in family patterns, such as greater reliance on extended kin and less stigmatization of childbearing outside of marriage, meant that African Americans could forego marriage at a lower personal cost. If children could be had without marriage and extended family kinship structures were strong, then one

could still have a full family life without marriage. In contrast, if marriage is the relationship around which family life revolves and children cannot be had (legitimately) without marriage, then the psychic costs of not marrying are high, even if one is normatively and financially free to decide not to marry. Under those stylized descriptions of African American and White family life, the declining normative imperative to marry should have had the largest impact on African American marriage rates. As suggested above, that decline, in turn would have tended to reduce the marital disruption gap. In sum, the narrowing marital disruption gap would be the result of the interaction between persisting ideational family differences and broad-based normative change. This is only one possible hypothesis, of course, and others could no doubt be constructed. That theoretical work, and the testing of those hypotheses will have to be left to future research.

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Figure 1. Marital Disruption Prevalence, 1910-1980

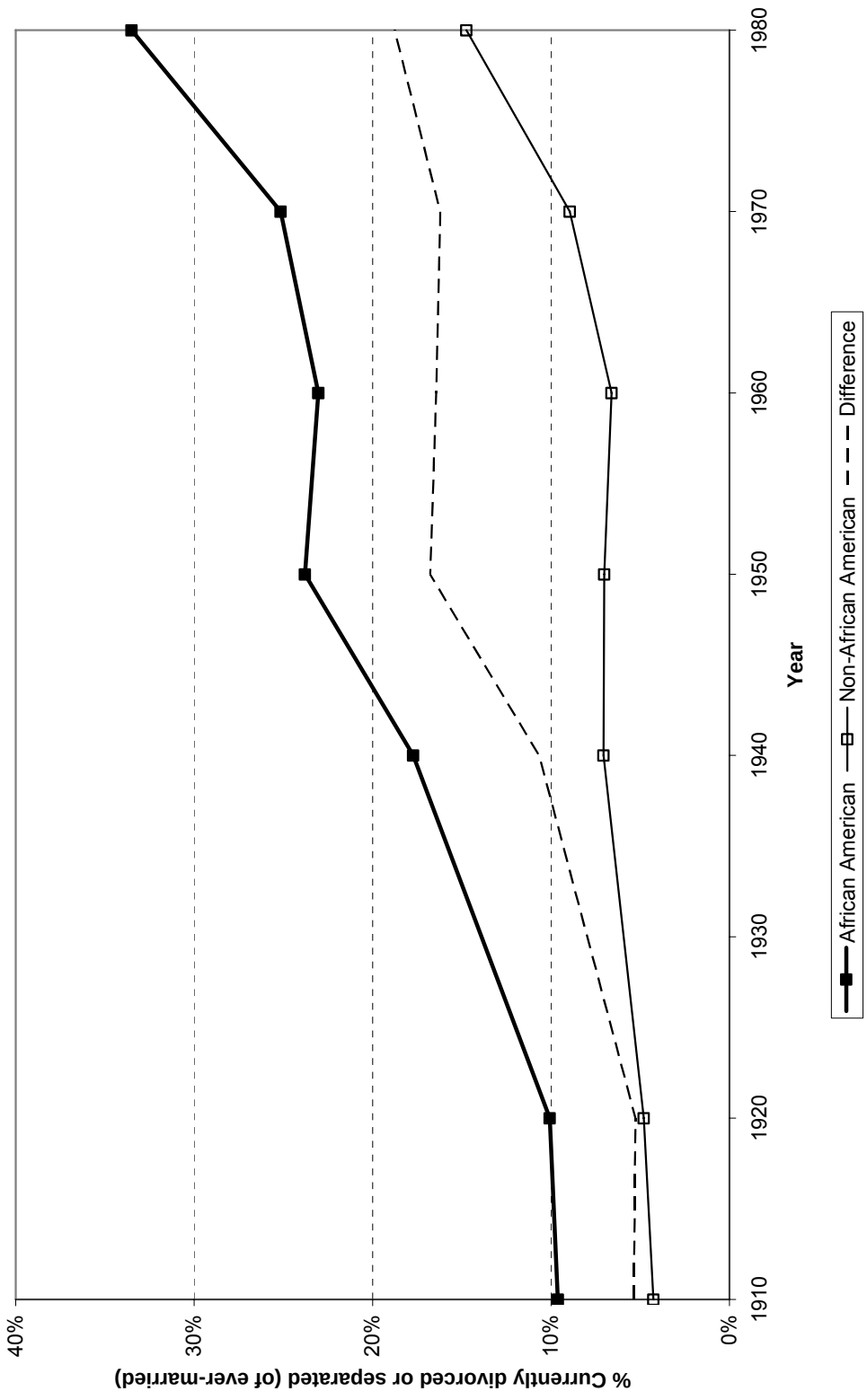

Figure 2. Remarriage, 1910-1980

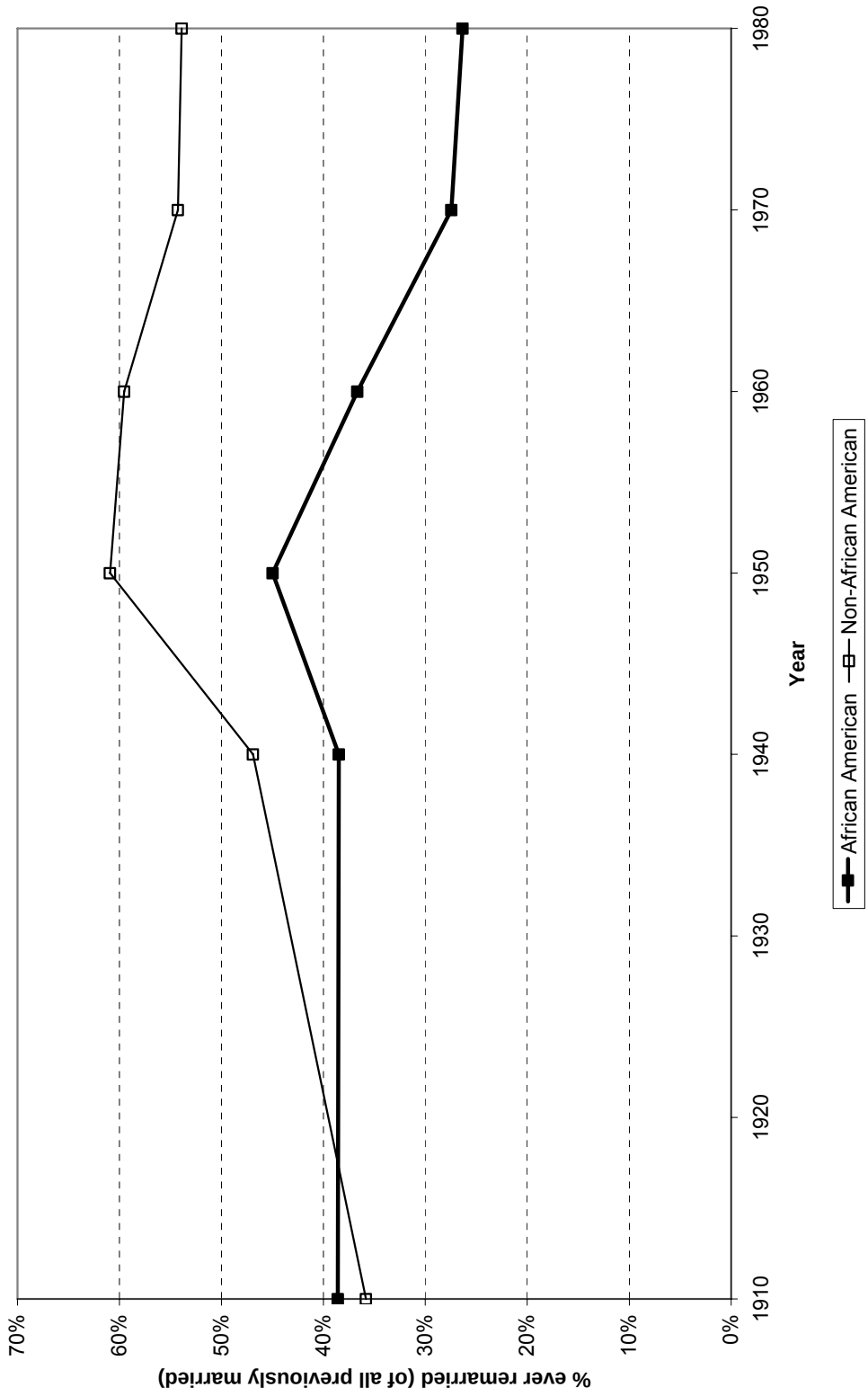

Figure 3. Marital Disruption Incidence, 1910-1980

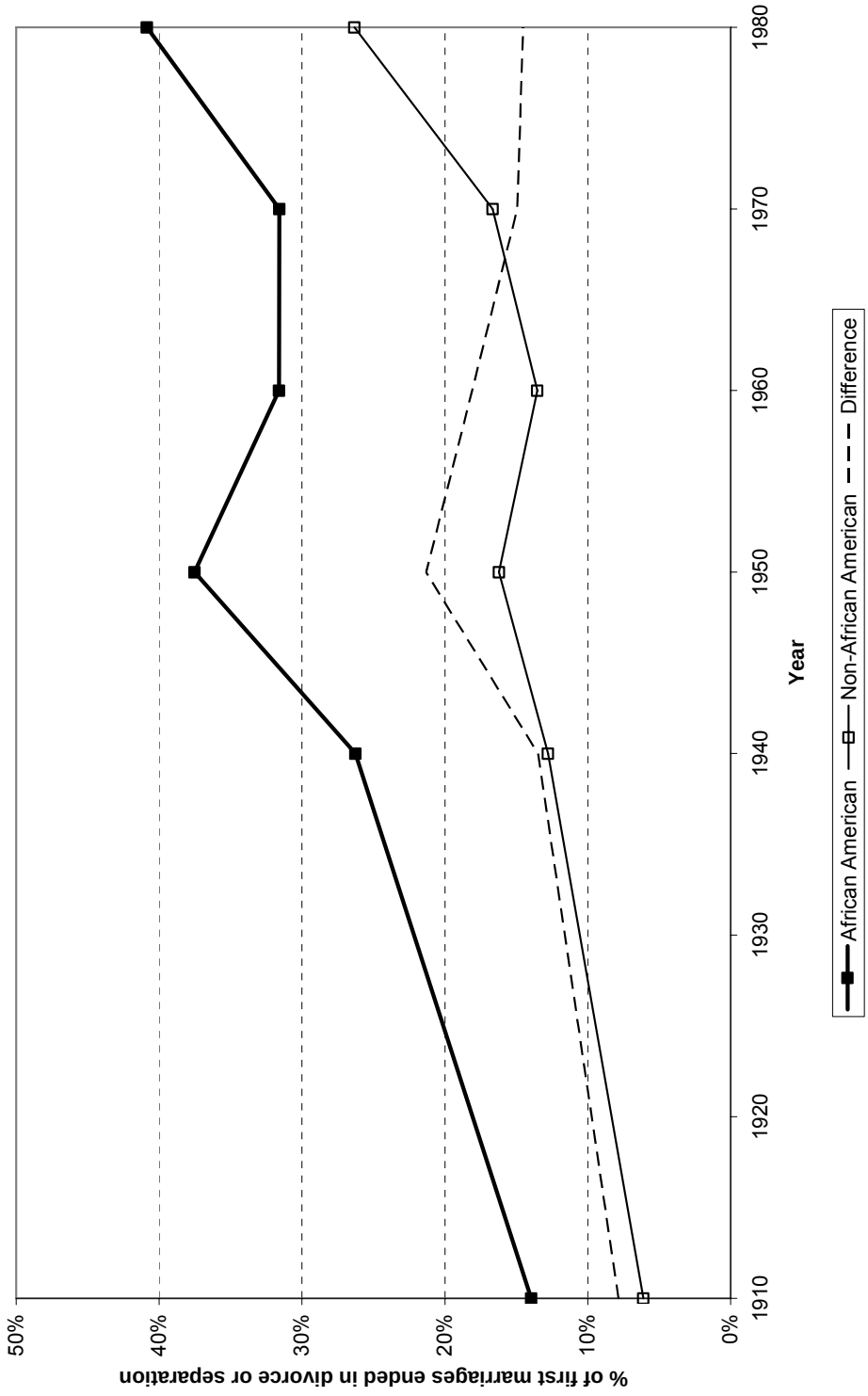

Figure 4. Contributors to the Marital Disruption Gap -- 1910, 1950, 1980

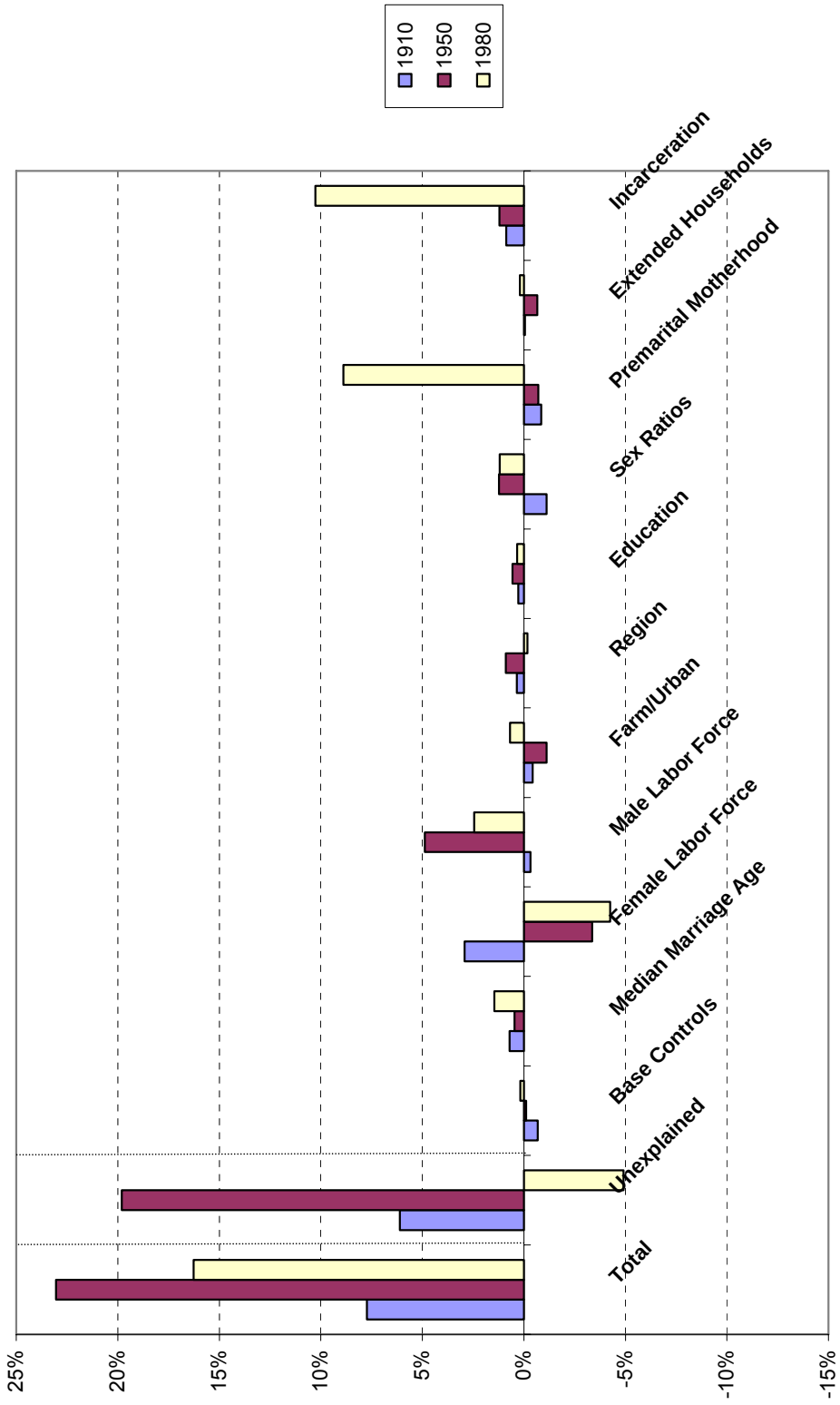

Table 1. Marital disruption incidence, by region/urbancity and education

	1910	1940	1950	1960	1970	1980
African Americans						
South/Urban	20.5%	32.6%	40.6%	35.3%	35.0%	43.2%
South/Rural	12.2%	20.5%	31.8%	30.5%	31.0%	34.6%
North/Urban	21.6%	35.6%	45.9%	36.8%	39.1%	48.1%
Low Education	13.4%	24.3%	38.2%	38.9%	42.4%	53.2%
Non-Low Education	14.3%	27.8%	39.5%	34.0%	35.3%	42.9%
Non-African Americans						
South/Urban	8.6%	16.2%	19.3%	18.2%	20.4%	30.6%
South/Rural	4.3%	9.6%	15.3%	13.4%	17.3%	25.1%
North/Urban	8.5%	13.2%	16.0%	13.8%	17.9%	27.7%
Low Education	6.8%	13.8%	20.2%	19.8%	26.9%	38.0%
Non-Low Education	6.2%	12.2%	15.8%	13.9%	17.3%	26.8%
Difference						
South/Urban	*11.9%*	*16.4%*	*21.3%*	*17.1%*	*14.6%*	*12.5%*
South/Rural	*7.9%*	*10.9%*	*16.5%*	*17.0%*	*13.7%*	*9.6%*
North/Urban	*13.1%*	*22.4%*	*29.8%*	*23.0%*	*21.2%*	*20.4%*
Low Education	*6.5%*	*10.4%*	*18.1%*	*19.1%*	*15.6%*	*15.2%*
Non-Low Education	*8.1%*	*15.6%*	*23.7%*	*20.2%*	*18.0%*	*16.1%*

Source: IPUMS microdata from the U.S. decennial Census

Table 2. Descriptive Statistics, African Americans, 1910-1980

	1910	1940	1950	1970	1980
Marital Disruption Incidence	0.139	0.267	0.388	0.359	0.437
	(0.302)	(0.409)	(0.464)	(0.470)	(0.489)
Median Age at First Marriage	20.16	20.06	19.75	21.22	24.60
	(1.08)	(1.19)	(1.25)	(1.10)	(1.07)
Unmarried Female Employment	0.576	0.588	0.513	0.758	0.700
	(0.125)	(0.102)	(0.105)	(0.074)	(0.066)
Unmarried Female Income (ln)	2.000	2.099	2.331	2.740	2.971
	(0.113)	(0.126)	(0.165)	(0.159)	(0.053)
Married Male Employment	0.974	0.901	0.880	0.944	0.893
	(0.018)	(0.067)	(0.056)	(0.038)	(0.055)
Married Male Income (ln)	2.735	2.838	2.962	3.122	3.195
	(0.118)	(0.153)	(0.144)	(0.082)	(0.041)
Nonfarm Employment	0.436	0.707	0.822	0.960	0.984
	(0.277)	(0.258)	(0.215)	(0.064)	(0.013)
Urban	0.208	0.452	0.587	0.725	0.818
	(0.406)	(0.498)	(0.492)	(0.447)	(0.386)
South	0.912	0.761	0.636	0.490	0.555
	(0.283)	(0.427)	(0.481)	(0.500)	(0.497)
Midwest	0.040	0.118	0.172	0.221	0.203
	(0.197)	(0.322)	(0.377)	(0.415)	(0.402)
West	0.000	0.011	0.049	0.088	0.092
	(0.000)	(0.102)	(0.217)	(0.283)	(0.289)
Deep South	0.875	0.694	0.571	0.423	0.487
	(0.331)	(0.461)	(0.495)	(0.494)	(0.500)
Born South	0.960	0.925	0.889	0.696	0.718
	(0.195)	(0.263)	(0.314)	(0.460)	(0.450)
Low Education	0.278	0.237	0.214	0.106	0.087
	(0.448)	(0.425)	(0.410)	(0.307)	(0.282)
Absolute Sex Ratio	1.145	1.199	1.210	1.280	1.235
	(0.075)	(0.109)	(0.121)	(0.133)	(0.113)
Male-Female Ratio	0.903	0.845	0.843	0.795	0.823
	(0.098)	(0.088)	(0.099)	(0.102)	(0.077)
Premarital Motherhood	0.103	0.030	0.047	0.171	0.254
	(0.052)	(0.021)	(0.026)	(0.043)	(0.033)
Extended Family Household	0.078	0.155	0.174	0.054	0.028
	(0.059)	(0.063)	(0.057)	(0.034)	(0.010)
Incarceration	0.0057	0.0091	0.0025	0.0125	0.0139
	(0.0035)	(0.0045)	(0.0020)	(0.0038)	(0.0037)
N	7156	5011	6318	21603	25171

Table 3. Descriptive Statistics, non-African Americans, 1910-1980

	1910	1940	1950	1970	1980
Marital Disruption Incidence	0.062	0.120	0.158	0.177	0.274
	(0.219)	(0.308)	(0.345)	(0.366)	(0.439)
Median Age at First Marriage	22.09	21.79	20.27	20.86	22.23
	(1.74)	(1.67)	(1.34)	(1.14)	(0.79)
Unmarried Female Employment	0.513	0.673	0.728	0.879	0.884
	(0.163)	(0.115)	(0.124)	(0.064)	(0.025)
Unmarried Female Income (ln)	2.697	2.930	3.027	3.058	3.127
	(0.114)	(0.100)	(0.096)	(0.065)	(0.030)
Married Male Employment	0.971	0.926	0.935	0.971	0.940
	(0.020)	(0.038)	(0.034)	(0.021)	(0.016)
Married Male Income (ln)	3.067	3.177	3.244	3.315	3.341
	(0.184)	(0.149)	(0.126)	(0.083)	(0.037)
Nonfarm Employment	0.643	0.829	0.883	0.966	0.975
	(0.236)	(0.171)	(0.136)	(0.042)	(0.013)
Urban	0.311	0.510	0.565	0.581	0.705
	(0.463)	(0.500)	(0.496)	(0.493)	(0.456)
South	0.316	0.307	0.297	0.307	0.335
	(0.465)	(0.461)	(0.457)	(0.461)	(0.472)
Midwest	0.358	0.333	0.308	0.290	0.275
	(0.480)	(0.471)	(0.462)	(0.454)	(0.447)
West	0.089	0.112	0.143	0.186	0.202
	(0.284)	(0.316)	(0.350)	(0.389)	(0.401)
Deep South	0.253	0.247	0.243	0.269	0.287
	(0.435)	(0.432)	(0.429)	(0.443)	(0.452)
Born South	0.312	0.327	0.324	0.312	0.313
	(0.463)	(0.469)	(0.468)	(0.463)	(0.464)
Low Education	0.032	0.029	0.042	0.043	0.058
	(0.175)	(0.168)	(0.201)	(0.202)	(0.234)
Absolute Sex Ratio	1.078	1.076	1.078	1.093	1.075
	(0.076)	(0.059)	(0.056)	(0.078)	(0.028)
Male-Female Ratio	1.015	0.979	0.970	0.960	0.988
	(0.105)	(0.078)	(0.073)	(0.103)	(0.034)
Premarital Motherhood	0.012	0.004	0.005	0.014	0.030
	(0.015)	(0.006)	(0.007)	(0.009)	(0.009)
Extended Family Household	0.081	0.100	0.081	0.022	0.018
	(0.030)	(0.029)	(0.032)	(0.012)	(0.005)
Incarceration	0.0020	0.0025	0.0006	0.0021	0.0022
	(0.0013)	(0.0009)	(0.0002)	(0.0010)	(0.0009)
N	27990	38980	51891	182297	224918

Table 4. Inter-group differences, 1910-1980

	1910	1940	1950	1970	1980
Marital Disruption Incidence	0.077	0.147	0.230	0.182	0.163
Median Age at First Marriage	-1.933	-1.736	-0.519	0.360	2.370
Unmarried Female Employment	0.063	-0.086	-0.216	-0.122	-0.184
Unmarried Female Income (ln)	-0.697	-0.832	-0.696	-0.318	-0.156
Married Male Employment	0.003	-0.024	-0.055	-0.027	-0.048
Married Male Income (ln)	-0.332	-0.339	-0.283	-0.192	-0.146
Nonfarm Employment	-0.207	-0.122	-0.061	-0.006	0.010
Urban	-0.103	-0.058	0.021	0.144	0.113
South	0.596	0.454	0.339	0.183	0.220
Midwest	-0.318	-0.215	-0.136	-0.069	-0.073
West	-0.089	-0.102	-0.093	-0.098	-0.109
Deep South	0.621	0.447	0.329	0.154	0.201
Born South	0.648	0.598	0.565	0.384	0.405
Low Education	0.246	0.207	0.172	0.063	0.029
Absolute Sex Ratio	0.067	0.123	0.132	0.187	0.161
Male-Female Ratio	-0.112	-0.134	-0.127	-0.164	-0.165
Premarital Motherhood	0.091	0.026	0.043	0.157	0.223
Extended Family Household	-0.002	0.055	0.093	0.032	0.010
Incarceration	0.0037	0.0066	0.0019	0.0104	0.0117

Table 5. OLS Estimates of Determinants of Female Marital Disruption Incidence, 1910-1980

	(1910)	(1940)	(1950)	(1970)	(1980)
(1)					
African American	**0.077*** **	**0.147*** **	**0.230*** **	**0.182*** **	**0.163*** **
	(0.013)	(0.014)	(0.014)	(0.008)	(0.008)
(2)					
African American	**0.061*** **	**0.128*** **	**0.198*** **	**0.080*** **	**-0.049**
	(0.021)	(0.033)	(0.032)	(0.022)	(0.032)
Median Age at Marriage	**-0.004** **	**-0.009*** **	**-0.009*** **	**-0.002**	**0.006*** **
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
Unmarried Female Employment	**0.067** **	**-0.018**	**-0.052***	**0.051***	**-0.002**
	(0.028)	(0.029)	(0.027)	(0.030)	(0.049)
Unmarried Female Occupation	**-0.036**	**0.038**	**0.064** **	**0.066** **	**0.274*** **
	(0.022)	(0.031)	(0.032)	(0.029)	(0.059)
Married Male Employment	**-0.051**	**-0.102**	**-0.121***	**-0.119**	**-0.092***
	(0.101)	(0.071)	(0.064)	(0.089)	(0.054)
Married Male Occupation	**0.009**	**-0.094**	**-0.149** **	**-0.200*** **	**-0.137***
	(0.058)	(0.074)	(0.065)	(0.046)	(0.074)
Nonfarm Occupation	**0.007**	**0.177*** **	**0.194*** **	**0.390*** **	**0.223**
	(0.047)	(0.060)	(0.058)	(0.069)	(0.153)
Urban	**0.028*** **	**0.025*** **	**0.030*** **	**0.012*** **	**0.042*** **
	(0.007)	(0.007)	(0.006)	(0.004)	(0.004)
South	**0.014**	**0.026***	**0.014**	**0.021** **	**0.051*** **
	(0.010)	(0.015)	(0.014)	(0.010)	(0.010)
Midwest	**0.003**	**0.019** **	**0.027*** **	**0.025*** **	**0.024*** **
	(0.005)	(0.007)	(0.008)	(0.006)	(0.005)
West	**0.064*** **	**0.078*** **	**0.070*** **	**0.088*** **	**0.095*** **
	(0.013)	(0.009)	(0.010)	(0.008)	(0.006)
Deep South	**-0.001**	**-0.019***	**-0.016**	**0.018***	**-0.007**
	(0.008)	(0.011)	(0.012)	(0.011)	(0.008)
Born South	**0.004**	**0.017***	**0.035*** **	**0.016*** **	**0.002**
	(0.006)	(0.010)	(0.007)	(0.003)	(0.004)
Low Education	**0.011** **	**0.011**	**0.032*** **	**0.085*** **	**0.114*** **
	(0.005)	(0.010)	(0.008)	(0.005)	(0.004)
Absolute Sex Ratio	**-0.077** **	**0.099*** **	**0.051**	**0.040** **	**0.129*** **
	(0.037)	(0.038)	(0.038)	(0.019)	(0.030)
Male-Female Ratio	**0.055** **	**-0.087*** **	**-0.044**	**-0.042***	**0.054**
	(0.025)	(0.031)	(0.031)	(0.022)	(0.038)
Premarital Motherhood	**-0.095**	**0.043**	**-0.167**	**0.298*** **	**0.398*** **
	(0.106)	(0.305)	(0.275)	(0.093)	(0.118)
Extended Kin Householder	**0.212*** **	**0.074**	**-0.071**	**-0.448*** **	**0.191**
	(0.071)	(0.088)	(0.089)	(0.134)	(0.223)
Incarceration	**2.320**	**-0.132**	**6.249**	**3.439*** **	**8.754*** **
	(1.931)	(1.527)	(3.924)	(1.193)	(1.778)
N	35,146	43,991	58,209	203,900	250,089

Bold, p<0.01; *Italics* , p<0.05; Underline, p<0.10

Standard errors are corrected for clustering within SEAs. Model 2 includes controls for age of the sample member and average age of labor force participants

Table 6. Estimated Impact of Racial Differences in Explanatory Factors on the Marital Disruption Gap, 1910-1980

	1910-1950				1950-1980			
	Effect of Change in:				Effect of Change in:			
	Values $(\beta_2 \Delta \overline{X}_D)$	*Coefficients* $(\overline{X}_{2D} \Delta \beta)$	*Interaction* $-(\Delta \beta \Delta \overline{X}_D)$	*Total*	*Values* $(\beta_2 \Delta \overline{X}_D)$	*Coefficients* $(\overline{X}_{2D} \Delta \beta)$	*Interaction* $-(\Delta \beta \Delta \overline{X}_D)$	*Total*
Variables								
Base Controls*	0.28%	0.07%	0.22%	0.58%	0.45%	0.15%	-0.32%	0.28%
Median Age at Marriage	-1.25%	0.27%	0.73%	-0.25%	1.77%	3.54%	-4.31%	0.99%
Female Labor Force	1.44%	-4.40%	-3.32%	-6.28%	14.79%	-4.19%	-11.49%	-0.89%
Male Labor Force	-0.03%	4.86%	0.37%	5.20%	-1.94%	-0.32%	-0.19%	-2.44%
Farm/Urbanicity	3.21%	-1.14%	-2.76%	-0.68%	1.96%	0.16%	-0.31%	1.81%
Region**	0.28%	0.87%	-0.60%	0.54%	-0.54%	-0.61%	0.08%	-1.07%
Educational Attainment	-0.24%	0.36%	0.16%	0.28%	-1.64%	0.24%	1.17%	-0.23%
Sex Ratios	0.40%	2.93%	-0.98%	2.35%	0.17%	-0.35%	0.14%	-0.04%
Premarital Motherhood Rate	0.80%	-0.30%	-0.34%	0.15%	7.18%	12.60%	-10.19%	9.59%
Extended Households	-0.68%	-2.64%	2.71%	-0.61%	-1.59%	0.27%	2.19%	0.86%
Incarceration Rate	-1.12%	0.76%	0.70%	0.34%	8.57%	2.94%	-2.45%	9.05%
Gap								
Explained	3.10%	1.63%	-3.11%	*1.62%*	29.17%	14.42%	-25.67%	*17.92%*
Unexplained (Δθ)				*13.69%*				*-24.70%*
Total				*15.31%*				*-6.78%*

**Includes respondent's age and the mean age of labor force participants in the SEA.*

***Includes indicator variables for major census region of residence, residence in previously high slavery southern states, and southern place of birth.*