

The Impact of Local Labor Markets on Black and White Family Structure

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ABSTRACT: This study employs 1980 census data to determine how economic characteristics affect the incidence of female headed families in metropolitan areas. The study also attempts to determine if black family structure responds differently than white family structure to changes in the variables studied. It is found that changes in employment of men and women may have profound effects on family structure. Changes in the level of welfare support are also found to affect family structure. Black family structure is found to behave somewhat differently than white, thus lending support to Wilson's theory of the underclass.

INTRODUCTION

In recent years the U.S. has experienced rapid increases in the incidence of female-headed households. The adverse effects that these increases have on overall poverty rates and income levels are well documented (Bane, 1986; Danziger, Jakubson, Schwartz, & Smolensky, 1982), as are the adverse effects on certain subsegments of the population, especially women and children. While the increase in the incidence of female-headed families has been great for white families, going from 9.1 percent of all white families in 1970 to 12.9 percent in 1988, it has been even more pronounced for black families, going from 28.3 percent in 1970 to 42.8 percent in 1988 (U.S. Bureau of the Census, 1990).

Not all geographic areas, however, mirror the national averages. For example, in comparing metropolitan areas (SMSAs) with populations in excess of 250,000 we find that in 1980, the percentage of black families headed by women ranged from 22.8 percent in Tacoma, Washington to 49.6 percent in Milwaukee, Wisconsin; and for white families the range was from 8.1 percent headed by women in Beaumont, Texas to 18.9 percent in Jersey City, New Jersey (U.S. Bureau of the Census, 1983). Cross-sectional variation in family structure of this magnitude makes it possible to use SMSA level data to analyze a number of the economic determinants of family structure.

Evidence that there may be a relationship between economic characteristics of metropolitan areas and family structure is suggested in Table 1, which shows summary statistics for black populations in our sample of 99 SMSAs from the continental United States. To derive the three groups shown in the table, the 99 SMSAs were ranked from high to low by the percentage of black families which were female-headed and then divided into three equal groups of 33. In the first group are the SMSAs with the largest percentage of female-headed black families (above 40.1 percent). The table shows that these SMSAs had, on average, higher black poverty rates, lower median black family incomes, a higher percentage of black women with employment, a lower percentage of black men with employment, and higher average public assistance outlays for black families who receive public assistance.

This study employs 1980 Census data for a sample of SMSAs with populations in excess of 250,000 to determine how economic characteristics such as employment opportunities of men, employment

opportunities for women and the average level of welfare support determine the incidence of female-headed families in metropolitan areas. The study also attempts to determine if black family structure responds differently than white family structure to changes in these variables. The data base is described in detail in the Appendix.

DETERMINANTS OF FAMILY STRUCTURE

Modeling the economic determinants of family structure has been a long-time concern of sociologists and more recently of economists. We believe that much can be learned from both perspectives. In fact, hypotheses of the determinants of female-headed households to be developed and tested in this article are derived from both the theoretical and largely deductive work of neoclassical economist Gary Becker (1981) and from the more inductive approach of liberal sociologist William J. Wilson (1986,1987). Becker's neoclassical theory of the family suggests a number of hypotheses concerning the economic determinants of family structure which are equally applicable to black and white families while Wilson's theory of the urban underclass suggests hypotheses concerning differences in the sensitivity of black and white family structures to changes in economic variables. That is, the "neoclassical" theory explains why family structure in general responds to economic change and the "underclass" theory explains why black family structures may be more responsive and than white family structure to these changes.

From Becker's choice theoretic perspective, the decision to form or retain a traditional married couple family unit is based, in part, on perceived gains which can be received from a division of labor within the household. In a survey article on family change among black Americans, Ellwood and Crane (1990) explain some of the implications of Becker's work on the family.

. . . Becker's theory has been extended and interpreted in numerous ways. If one of the chief gains from marriage involves exploiting comparative advantages, and if one assumes sexually stereotypical roles of men and women, men will tend to specialize disproportionately in market work and women disproportionately in "home production." Any worsening of the economic position of men would seem to make marriage less attractive (or at least they will be able to gain a smaller share of the gains from marriage), since they have less comparative advantage in market work. Conversely, the comparative advantages of marriage might be weakened by factors leading to increased earnings of women (like reduced discrimination in the labor market, increased opportunity, or heightened desire to work) since the comparative advantages are lessened and the gains from specialization reduced. Similarly, an increase in the availability of other income that can be used to support a family in the absence of a male, like government welfare payments, would be expected to reduce the marriage desires of women (p. 71).

Therefore, three major implications of the Becker model for our purpose are that the percentage of female headed households (1) will be greater in cities where welfare support is high; (2) will be greater where employment opportunities for men are poor; and (3) will be greater where employment opportunities for women are good.

Becker (1981) explains some of the possible effects of welfare on family structure as follows:

Payments to mothers with dependent children are reduced when the earnings of parents increase, and are raised when additional children are born or when fathers do not support their children. It is a program, then, that raises the fertility of eligible women, including single women, and also encourages divorce and discourages marriage (the financial well-being of recipients is increased by children and decreased by marriage). In effect, welfare is the poor woman's alimony, which substitutes for husband's earnings. The expansion of welfare, along with the general decline in the gain from marriage, explains the sizable growth in the ratio of illegitimate to legitimate birth rates despite the introduction of the pill and other effective contraceptives (pp. 251-252).

Although most would agree that public assistance will have some influence on family structure, there is still disagreement as to the magnitude of its effects. At one extreme, Charles Murray (1984) argues that high levels of welfare support for female-headed households (e.g., AFDC support) destroys work incentives and discourages the formation of married couple families. Sociologist, William J. Wilson, on

the other hand, attempts to demonstrate that current levels of welfare support have little to do with family structure and posits that joblessness is the major determinant of the incidence of female-headed families (1987).

In his research on the economic and social effects of the economic decline of many predominantly black central city neighborhoods, Wilson (1987) follows a different line of reasoning to reach the same conclusion as Becker regarding the direct relationship between male joblessness and the incidence of female-headed families. He links the "marriageability" of young adult males directly to their employment. Recent increases in black male joblessness in depressed urban neighborhoods have sharply reduced the supply of "marriageable" males and, according to Wilson, caused rapid increases in the incidence of black female-headed families.

Wilson's conclusion, restated in the context of Becker's theory of the family, is simply that increasing black male joblessness--which manifests itself in the form of rising unemployment, withdrawal from the labor force and increasing rates of incarceration--reduces the economic advantages of marriage and results in a higher incidence of female-headed families.

One strength of Wilson's theory and that of other sociologists working on the emergence of black "underclasses" in central city areas, such as Kasarda (1985) and Sampson (1987), is the attention given to urban transformations which have contributed to the high rates of joblessness for poorly educated black males. One of the most profound changes in urban labor markets has been the rapid decline in manufacturing jobs in central city areas and a resultant loss of many blue-collar jobs. For example, Wilson (1987) points out that between "1953 and 1984 New York City lost about 600,000 jobs in manufacturing but gained nearly 700,000 jobs in white-collar service industries" (p. 102). Analysis of the effects of the deindustrialization of central cities on the economic situation of residents have also received some attention by economists such as Kain (1968), Ihlanfeldt and Sjoquist (1990), who argue that movement of manufacturing out of the central cities, combined with the lack of mobility of less-educated, largely minority populations in the central city has resulted in a serious "spatial mismatch" between that population and job opportunities.

Demographic trends have also worsened the economic and social structure of many central city neighborhoods. Most notable have been the exodus of white and middle class black families. Those who remain are often poor, less educated minorities who lack both economic opportunities and role models.

The natural result of these changes has been the development of an urban, largely black, underclass which exhibits high rates of joblessness and associated social pathologies such as youth gang activity, high crime rates, drug and alcohol abuse, and high dropout rates. An important implication of the underclass theory regarding the issue of family structure is that participation of jobless males in underclass behavior may well decrease their "marriageability" even more than would unemployment alone.

This line of reasoning has important implications for our research on the economic determinants of the incidence of female-headed families. If, as Wilson and his associates would argue, a strong interaction exists between economic opportunity and underclass activity for the black urban population, black family structure may be more strongly influenced by economic variables than white family structure.

THE MODEL

To determine the influence of employment opportunities for men and women and the level of welfare support on black and white family structure, two equations are estimated,

$$\begin{aligned} \%BFHEAD = & \alpha_0 + \alpha_1 (B--MMPI) \\ & + \alpha_2(B--FEMEMP) + \alpha_3(B--DUR\%) \\ & + \alpha_4(B-GOV\%) + \alpha_5(EMPCHANGE) \\ & - \alpha_6(AID) \quad (1) \end{aligned}$$

$$\begin{aligned} \%WFHEAD = & \beta_0 + \beta_1(W-MMPI) + \beta_2(W-FEMEMP) \\ & + \beta_3(W--DUR\%) \end{aligned}$$

$$+ \text{beta4}(\text{W-GOV}\%) + \text{beta5}(\text{EMPCHANGE}) \\ - \text{beta6}(\text{AID}) \quad (2)$$

Variable definitions and summary statistics are in Table 2. Of principle concern is how our measures of male employment opportunities (B-MMPI and W-MMPI), female employment opportunities (B-FEMEMP and W-FEMEMP) and public assistance levels (AID) effect the incidence of female headed families in SMSAs (%BFHEAD and % WFHEAD). The rationale for inclusion of each of these variables in the model is presented below.

Employment Opportunities for Men

According to Becker's theory of the family, reduced employment opportunities for men decreases the returns from specialization (i.e., division of labor) within the family. Consequently, deterioration in the employment prospects for men should result in an increase in the proportion of female-headed families.

Wilson (1987) provides additional explanations for why the relationship between male employment and family structure may be especially strong for blacks. He links marriageability of black males to joblessness by defining the male marriageable pool index (MMPI) as the ratio of employed men to women of the same age and race. This measure is "intended to reveal the marriage market conditions facing women, on the assumption that to be marriageable a man needs to be employed" (p. 95). In our model we define an MMPI for 20 through 34 year old blacks (B-MMPI) and another for whites in the same age group (W-MMPI). The marriageable pool indexes, thus computed, are presented in Table A-1 in the Appendix for each of the cities in our sample. There is significant variability in the index across the 99 metropolitan areas in our sample and the index for whites is much greater, on average, than for blacks (81.4 percent vs. 56.6 percent).

On the basis of both Becker's and Wilson's theories, we hypothesize that the MMPI will be inversely related to the incidence of female headed households. That is, the coefficients α_1 and β_1 are expected to be negative. Also, an implication of Wilson's work on the underclass, is that α_1 should be more negative than α_1 . This is because marriageability of jobless black males should be decreased further by participation in urban underclasses. Jobless white males, on the other hand will be more geographically diffused and consequently less likely to be exposed to the further debilitating effects of contact with "underclass" environments.

Employment Opportunities for Women

From his economic analysis of trends in family structure, Becker concludes that one of the most important determinants of the increased incidence of female headed families (%FHEAD) has been secular improvement in the employment opportunities of women (see, Becker (1981), pp. 245-247). Wilson would agree, but argues that improvements in employment opportunities for women may have been more important in explaining trends in white family structure than black family structure where the rate of joblessness of black men appears to be the most important determinant (see, Wilson (1987), pp. 83-84).

Our proxy for the employment opportunities of women is the employment to population ratio for women ages 20 through 34 in the SMSA, shown as FEMEMP in equations 1 and 2. We hypothesize that FEMEMP will be directly related to %FHEAD (i.e., $\alpha_2 > 0$ and $\beta_2 > 0$).

Public Assistance

To determine the extent that the average level of welfare support effects family structure across SMSAs, we include the average level of welfare support (AID) in the model. Following Becker, we expect a direct relationship between AID and the %FHEAD for both black and white populations. We also expect the effect to be stronger for blacks than for whites since a larger percentage of the black population is impoverished and eligible for welfare support. In terms of equations 1 and 2, the hypothesis to be tested is: $\alpha_6 > \beta_6 > 0$.

Control Variables

The remaining three variables in our model--DUR%, GOV% and EMPCHANGE--are included to control for factors on the demand side of local labor markets which could effect family structure. The first two are measures of the industrial structure of the local economy.[1] The third is a measure of the growth of total employment in an SMSA over time. It is included to capture the effects of the long term economic health of a community on family structure after taking into account job opportunities for men and women at a point in time as well as the overall structure of employment across industries. Our proxy for the economic health of the community is the percentage change in total SMSA employment between 1970 and 1980 (EMPCCHANGE).

RESULTS

Table 3 presents the results of the regression analysis of %FHEAD as specified in equations 1 and 2. In general, they support the hypotheses suggested by Becker's theory of the family. Also, an examination of the absolute values of the coefficients reveals that black family structure is far more responsive to differences across metropolitan areas in economic characteristics. For example, black families respond more than white families to economic opportunities facing men and women (MMPI and %FEMEMP), to the level of welfare support (AID), to differences in industrial structure (DUR% and GOV%), and to long term economic growth of metropolitan areas (EMPCCHANGE).

In support of both Becker and Wilson is the finding of an inverse relationship between the marriageable male pool index (MMPI) and %FHEAD. This finding is consistent with inferences drawn from Becker's argument that marriage is less likely when the employment and earnings of men decrease because of fewer opportunities for specialization and also consistent with Wilson's argument that marriage is less likely when employment of men decrease because joblessness of males decreases their attractiveness as marriage partners.

Further support for Wilson is the finding that $\alpha_1 > \beta_1$, which indicates that black family structure is more responsive to changes in their MMPI than is white family structure. This is consistent with Wilson's theory that, in many black communities, joblessness of young black males leads to the formation of "underclasses." Where underclasses develop, higher incidences of criminal activity, drug abuse, and teen pregnancy are observed along with higher high school drop out rates. These developments reinforce the adverse effects of joblessness on family structure. Since joblessness of white males is typically more diffused, underclass social pathologies are less likely to develop.

These results are stronger than those derived from a time series study by Hess (1990) which included MMPI, and several other control variables in an analysis of the percentage of female-headed families for several age-race cohorts between 1968 and 1984. His estimates were very sensitive to model specification and not always consistent across cohorts. We suspect that multicollinearity could account for at least some of the econometric difficulties encountered in this study. Other cross-sectional studies (Sampson, 1987) have found strong effects of MMPI on family structure, but generally are subject to the criticism that they did not control, in a parallel way, for the employment opportunities available to women. Our analysis gives equal treatment to female employment by including FEMEMP in equations 1 and 2 along with MMPI.

Hypothesis 2 also finds support in our results. There is a direct relationship between the proxy for employment opportunities for women (FEMEMP) and the incidence of female-headed families. This supports Becker's hypothesis that better employment opportunities for women reduce the gains from marriage; single women may have an economic incentive to delay marriage and married women may be in a better economic position to end bad marriages. It is interesting to note that black family structure is about 3 times as sensitive as white family structure to changes in female employment.

The third hypothesis also receives support. Our measure of welfare support (AID) is directly related to %FHEAD for both black and white families. Also, as expected, black family structure is more responsive than that of white families to changes in AID.

Regarding the control variables, we found that cities with higher levels of employment in durable goods producing industries (%DUR) and higher levels of employment in government (%GOV) tended

to have lower %FHEAD. Also, employment growth in the metropolitan area (EMPCHANGE) is inversely related to %FHEAD.

IMPLICATIONS AND CONCLUDING THOUGHTS

An important implication of the above results is that changes in employment of men and women may have profound effects on family structure. Consider Table 4, which presents coefficients and mean values for the key variables in our analysis.

An examination of the marriageable male pool index (MMPI) shows that blacks have a much lower mean MMPI and a much more negative coefficient than whites. Consider the effects of a public policy which increases the demand for black male labor. If the policy were successful in raising the black MMPI to the same level as the white MMPI (from 56.6% to 81.4%), black %FHEAD would decline by about 8.6 percentage points. This is computed by multiplying the difference in black and white mean MMPI times the coefficient to MMPI in the black regression equation.[2]

But this is not the entire story. It is possible that the same policy would effect the magnitude of the black MMPI coefficient. We argued earlier that increases in black male joblessness could have an indirect effect on %FHEAD by adding to the underclass. Social pathologies associated with the underclass further decreases the marriageability of those who have fallen into it. Because residential segregation increases the likelihood that jobless black males will find themselves in underclass activity, black family structure is more responsive to changes in joblessness as measured by MMPI. If this is the case, public policy to reduce joblessness among black males will also reduce the underclass and, in terms of our model, reduce the coefficient to black-MMPI.

To simulate the effect that this has on family structure, assume that the difference between the black and white coefficients is reduced by 50 percent via an increase in the black coefficient from $-.345$ to $-.233$. The reduction in black %FHEAD from the change in the black coefficient is then computed as the change in coefficient times the white mean MMPI (i.e., $.112$ times 81.4). The result is a 9.1 percentage point reduction in black %FHEAD.

In sum, the estimated effect of eliminating differences in mean MMPIs between whites and blacks is the combination of the direct effect (8.6 percentage points) and the indirect effect that the reductions in black male joblessness has via changes in coefficients (9.1 percentage points). The total effect is a 17.7 percentage point reduction in black %FHEAD. Therefore, under the assumptions of our simulation, policies to equalize black and white male MMPIs would reduce the 26.3 percentage point differential in %FHEAD between black and white populations to 8.6 percentage points.

Although equalization of employment rates of white and black males would have a large impact on narrowing the gap between white and black %FHEAD, policies which decrease the employment differentials between white and black females have quite different effects. Consider again the means and coefficients presented in Table 4. The average black female employment to population ratio (%FEMEMP) is 4.1 percentage points less than white %FEMEMP. If black %FEMEMP were raised to the white level, and the coefficients did not change, the percentage of black families headed by women would increase by .91 percentage points ($.223$ times 4.1). If public policy also had the effect of reducing the difference in black and white coefficients by 50 percent, the percentage of families headed by black women would decrease by about 4.8 percentage points. The total effect of this simulation is a 3.9 percentage point decrease in the incidence of female headed households.

Therefore, equalization of black and white female employment rates would have a much smaller effect on the total black/white differences in family structure. We have identified three reasons: first, the difference in employment rates is not large; second, the responsiveness of black family structure to a unit change in %FEMEMP is less than the responsiveness of black family structure to a unit change in MMPI; and third, the effect of increasing the mean level of black %FEMEMP on family structure is offset by the effect of reductions in the magnitude of the coefficient to black %FEMEMP.

Our results also indicate that policy to change the level of welfare support (AID) in a SMSA can also affect family structure. For example, if the average level of AID in an SMSA were increased by \$500

(from \$2380 to \$2880), the incidence of black female headed households would increase by 1.1 percentage points and the incidence of white female headed households would increase by 0.36 percentage points. This moderate, but significant effect is consistent with other empirical work (Danziger et al., 1982; Ellwood & Bane, 1985). In a review of the literature, Ellwood and Crane (1990) point out that it appears that changes in welfare support have the most impact on young single mothers as they decide whether to live with their parents or to live independently as a female-headed family unit. Levels of support appear to have much less impact on divorce and separation rates of older women.

Overall, the results are quite consistent with the theory of the family posited by Gary Becker (1981). Family structure changes in predictable ways to changes in economic opportunities facing men and women. Increases in the employment opportunities for men (i.e., increases in BMMPI) leads to reductions in the incidence of female-headed families for whites and blacks, while increases in the employment opportunities for women (i.e., increases in %FEMEMP) leads to increases in the incidence of female-headed families for both groups. Also, non-work income in the form of welfare assistance for female-headed families has its predicted effect even though this effect is not very strong.

The most remarkable set of findings, however, are in support of Wilson's theory of the underclass. Black family structure is much more responsive to the joblessness of black males (black-MMPI) than white family structure is to joblessness of white males (white-MMPI). Our simulations show that high rates of black male joblessness is a major factor in accounting for racial differences in the incidence of female-headed families. If true, the most effective way of reducing the incidence of female-headed black families is to pursue policies to expand job opportunities for black men.

APPENDIX THE DATA BASE AND ADJUSTMENTS OF NOMINAL VALUES

The data base used in this study is Standard Metropolitan Area (SMSA) level data primarily from the 1980 census (U.S. Bureau of the Census, 1983, Chapters c, d). Included in our sample are 99 SMSAs in the continental United States which met all of the following criteria:

1. A total population of at least 250,000;
2. A black population of at least 3,000;
3. No more than 20 percent of the black population enrolled in colleges and universities.

The last criterion is designed to eliminate from the sample those SMSAs which have a large black transient student population whose labor market participation patterns and family structure are unrepresentative of the black population. Only Madison, Wisconsin, which has 22 percent of its black population enrolled in college, was eliminated from the sample on these grounds.

There are four SMSAs which met the above criteria which were excluded from the sample because comparable boundaries were not available for 1970 and 1980. Therefore, it was not possible to compute the employment change variable (EMPCHANGE) used in this study. These SMSAs are Lakeland, Daytona Beach, Long Beach and New Brunswick. For all other SMSAs, we were able to match counties in the SMSA in 1980 with the same counties in 1970 (U.S. Bureau of the Census, 1973). Therefore, the employment change data are based on the same geographic areas.

To account for differences in the cost of living across SMSAs, nominal values of levels of welfare support (AID) were deflated by the Inter-City Cost of Living Index developed by the American Chamber of Commerce Researchers Association (ACCRA) for the second and third quarter of 1979 (1979, June; 1979, September). Since the index was only computed for 56 out of the 99 cities in our sample, it was necessary to estimate it for the remaining 43. This was achieved by estimating the following OLS regression for the 56 cities for which the ACCRA index existed:

$$\text{INDEX} = 99.04 + 0.0000029\text{POP} + 0.06696\text{POPCHG} - 4.98\text{SOUTH}$$

(6.32) (2.08) (3.39)

Adjusted $R^2 = .56$ (t statistics are in parentheses).

This equation was then used to estimate the cost of living index for the 43 cities for which no index existed.

An advantage of the metropolitan area (SMSA) level data used in this study compared to others which use data on specific neighborhoods is that there is less likely to be serious biases caused by selective migration, a problem discussed in a survey article on black family structure by Ellwood and Crane (1990). If highly motivated blacks with high levels of educational attainment tend to migrate to middle and upper class suburban neighborhoods they would still be in our sample along with more economically disadvantaged populations which remain in segregated low-income central city neighborhoods. Our results, therefore, are more representative of the entire metropolitan population. The SMSAs included in our sample, along with summary statistics for each, are listed in Table A-1.

Table A-1: Summary Statistics

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	SMSA %BFHEAD	% WFHEAD	BMMPI	WMMPI
Akron	39.4	11.2	47.0	80.8
Albany	42.7	13.0	60.6	78.4
Anaheim	21.3	12.3	97.8	88.6
Ann Arbor	35.8	11.3	51.1	75.8
Atlanta	39.0	10.7	59.4	85.1
Augusta	34.3	11.2	55.1	73.7
Austin	32.5	10.5	65.7	83.3
Baltimore	42.2	11.5	52.5	82.9
Baton Rouge	33.5	9.1	61.8	86.7
Beaumont	28.8	8.1	63.3	91.9
Birmingham	34.7	9.9	56.8	84.7
Boston	44.9	14.8	56.4	78.4
Bridgeport	44.4	13.2	56.0	84.1
Buffalo	47.2	12.6	40.8	76.9
Charleston	32.9	9.8	59.4	71.2
Charlotte	37.7	10.7	57.0	76.3
Chatanooga	39.1	10.9	52.8	81.1
Chicago	41.7	11.3	48.0	85.8
Cincinnati	40.4	11.5	51.4	83.1
Cleveland	37.9	11.4	50.6	84.7
Columbia	32.6	10.9	57.4	79.8
Columbus, Ohio	38.7	12.1	59.6	81.3
Dallas	34.7	10.2	66.2	89.3
Dayton	38.6	10.6	45.6	77.3
Denver	32.7	11.3	77.1	87.0
Detroit	40.8	11.8	43.3	79.5
Flint	41.4	12.4	46.5	73.5
Fort Lauderdale	34.8	9.7	66.4	88.5
Fort Wayne	40.2	10.0	50.2	83.0
Fresno	38.7	11.9	49.9	81.4
Gary-Hammond	37.0	10.3	51.6	85.3
Grand Rapids	45.4	10.4	50.5	84.6
Greensboro	36.5	10.3	59.7	84.6
Greenville	35.8	10.0	65.3	94.0

Harrisburg	41.1	10.1	52.1	83.5
Hartford	41.6	11.5	58.8	85.0
Houston	29.5	9.2	73.1	96.5
Huntsville	31.8	10.4	54.5	80.1
Indianapolis	37.4	11.0	55.8	82.8
Jackson	34.3	10.0	58.4	81.0
Jacksonville	40.1	12.0	53.3	77.7
Jersey City	46.3	18.9	47.1	80.8
Kansas City	38.1	10.2	57.3	83.9
Knoxville	39.0	11.6	55.6	81.3
Lansing	36.5	11.9	58.9	75.1
Las Vegas	35.1	12.2	64.1	83.0
Lexington	41.4	11.8	51.9	79.6
Little Rock	37.5	11.1	58.2	78.3
Los Angeles	38.6	14.4	57.7	85.7
Louisville	41.9	12.5	53.8	82.0
Macon	36.9	10.6	53.6	78.8
Memphis	38.4	11.0	54.2	81.8
Miami	36.0	13.0	62.7	77.5
Milwaukee	49.6	10.9	50.6	86.1
Minneapolis	42.3	11.2	75.7	84.7
Mobile	37.9	10.0	57.5	85.8
Montgomery	37.1	10.0	53.1	78.1
Nashville	37.7	10.8	59.3	82.5
Nassau	31.4	9.8	55.1	80.9
New Haven	45.6	12.2	52.1	79.3
New Orleans	39.0	11.8	58.7	87.1
New York	43.7	14.9	47.3	77.5
Newark	41.6	11.4	50.8	83.4
Newport News	33.6	9.2	58.8	73.6
Norfolk	36.8	11.7	54.7	69.4
Oklahoma City	34.0	10.6	63.7	84.7
Omaha	43.5	11.5	51.7	76.6
Orlando	38.6	11.0	57.3	83.3
Paterson	47.5	13.0	47.8	82.1
Pensacola	40.8	11.6	48.2	69.1
Philadelphia	42.2	12.1	46.3	80.5
Phoenix	29.4	10.8	73.4	84.0
Pittsburgh	40.4	11.6	47.3	79.3
Portland	35.1	12.1	74.4	83.4
Raleigh	34.2	10.4	61.1	80.0
Richmond	35.7	10.8	58.8	83.7
Riverside	27.6	11.0	58.2	78.7
Rochester	44.4	11.3	55.6	82.2
Sacramento	35.4	13.4	51.6	73.4
San Antonio	30.7	13.6	44.8	72.5
San Diego	32.5	12.8	54.9	75.6
San Francisco	38.7	12.8	55.9	83.8
San Jose	27.2	12.6	84.4	88.2
Seattle	35.9	11.3	72.9	85.0
Shreveport	35.1	10.0	59.2	79.9
Springfield	44.4	13.9	50.1	77.9
St. Louis	40.8	10.6	46.7	81.4
Syracuse	45.0	12.1	54.9	75.0
Tacoma	22.8	11.2	48.6	70.1
Tampa	41.4	10.3	55.1	81.7
Toledo	40.1	11.2	44.8	77.2

Trenton	44.1	12.2	46.4	80.9
Tulsa	36.7	9.4	65.1	87.4
Vallejo	27.0	10.5	49.7	74.0
Washington, DC	35.6	10.8	60.0	80.8
West Plam Beach	32.8	8.8	69.6	90.4
Wichita	37.0	10.1	59.6	91.8
Wilmington	39.4	10.7	54.7	81.8
Youngstown	35.0	11.0	42.6	79.0
Mean	37.6	11.3	56.6	81.4
Standard Dev.	5.2	1.5	9.0	5.1

NOTES

1. Previous research on Mid-West SMSAs found that the higher the level of durable goods manufacturing in the SMSA, the more favorable the relative income position of black families compared to white families (Seeborg, 1990). One reason to expect DUR% to be inversely related to %FHEAD is that entry level jobs in manufacturing often offer higher wages than entry level jobs in other industries. This would increase the marriageability of males who hold these jobs and decrease the incidence of female-headed families (i.e., $\alpha_3 < 0$ and $\beta_3 < 0$).

2. The procedure used in this paragraph and those which follow amounts to a partial decomposition analysis of two regression equations. The work is patterned after the that of Alan Blinder (1973) and Oaxaca (1973). Their purpose was to separate wage differentials into a component which is due to differences in endowments (i.e., differences in means) and a component which is due to differences in discrimination (i.e., differences in coefficients). Our purpose is limited to explaining the effects of black/white differences in the means and coefficients of three variables (MMPI, FEMEMP and AID) on black/white differences in %FHEAD.

Table 1: Summary Statistics Across SMSAs by Percent of Black Female Headed Families

Legend for Chart:

A - Variable
 B - Low %BFHEAD (, 35.8%)
 C - Middle %BFHEAD
 D - High %BFHEAD (>40.1%)
 E - Total Sample

A	B	C	D	E
Mean Black Poverty Rate	22.3	25.2	26.4	24.6
Median Black Family Income	\$13,765	\$13,166	\$12,794	\$13,242
Black Marriagable Male Index	62.0	56.3	51.5	56.6
Black Female Emp. to Population %	56.4	59.6	62.1	59.4
Mean Public Assistance	\$2,244	\$2,291	\$2,605	\$2,380
% Employed Blacks in Dur Goods	12.3	14.4	18.5	15.0
% Employed Blacks in Gov. Jobs	29.1	27.3	26.1	27.5
Number of SMSAs	33	33	33	99

Table 2: Variable Definitions and Summary Statistics

Legend for Chart:

A - Variable
 B - Mean
 C - Std. Dev.
 D - Definition

A	B	C	D
%BHEAD	37.6	5.2	Percent of all black families which are female headed.
%WFHEAD	11.3	1.5	Percent of all white families which are female headed.
B-MMPI	56.6	9.0	Employed black males aged 20 through 34 as percent of the black female population aged 20 through 34.
W-MMPI	81.4	5.1	Employed white males aged 20 through 34 as percent of the white female population aged 20 through 34.
B-POV	24.6	4.8	Poverty rate for black families in the SMSA.
W-POV	5.8	1.6	Poverty rate for white families in the SMSA.
B-FAMINC	\$13,597	\$2,314	Real median black family income.
W-FAMINC	\$22,274	\$2,410	Real median white family income.
B-DUR	15.0	9.1	Percent of all employed black workers in durable goods producing industries.
W-DUR	13.6	6.7	Percent of all employed white workers in durable goods producing industries.
B-GOV	27.5	6.7	Percent of all employed black workers in government jobs (local, state and federal).
W-GOV	16.6	5.5	Percent of all employed white workers in government jobs (local, state and federal).
EMPCHANGE	44.3	33.1	Percent change in total employment in the SMSA between 1970 and 1980.
B-HSGRAD	55.6	9.4	Percent of adult blacks (25 and over) who are high school graduates.

W-HSGRAD	71.6	6.0	Percent of adult whites (25 and over) who are high school graduates.
AID	\$2,379	\$383	Real mean public assistance to families who are on public assistance.

Table 3: Regression Analysis of Percent Female Headed Families by Race (t Stats. in Parentheses)

Legend for Chart:

A - Variable
 B - White %FHEAD
 C - Variable
 D - Black %FHEAD

A	B	C	D
Variable			
W-MMPI	-0.122 (-3.56)[a]	B-MMPI	-0.345 (-5.59)[**]
W-%FEMEMP	0.072 (2.75)[**]	B-%FEMEMP	0.223 (2.63)[a]
W-DUR%	-0.040 (-1.33)	B-DUR%	-0.074 (-1.78)[b]
W-GOV%	-0.064 (-2.11)[a]	B-GOV%	-0.258 (-3.79)
EMPCHANGE	-0.0107 (-2.41)[a]	EMPCHANGE	-0.0503 (-3.22)[a]
AID	0.00127 (3.20)[a]	AID	0.00286 (2.32)[a]
Constant	15.72	Constant	47.62
Sample	99		99
R-squared	0.32		0.32

** indicates significance at the 5 percent level

* indicates significance at the 10 percent level.

Table 4: Means and Coefficients by Race

Variable	White Mean	Black Mean	White Coef.	Black Coef.
MMPI	81.4	56.6	-0.122	-0.345
%FEMEMP	63.5	59.4	0.072	0.223
AID	N/A	N/A	0.00127	0.00286

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