Poverty and Household Composition

by

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Working Paper No. 39

November 1990

Submitted to
The Jerome Levy Economics Institute
Bard College

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This research was supported by a Summer Excellence Research Award from the University of North Carolina at Greensboro and a Fellowship from The Jerome Levy Economics Institute of Bard College.

1. INTRODUCTION

"The feminization of poverty" has received considerable attention, both in the popular press and in the academic literature.[1] It refers to the fact that, over the last few decades, a large, and increasing, proportion of poor families in the United States are headed by females with no husband present (hereafter referred to as female-headed families). A second characteristic of the U.S. population, often linked to the feminization of poverty, is the rising proportion of families headed by females. Columns 1 and 2 of Table 1 document the evidence. Almost 52 percent of poor families were female-headed in 1989, compared with 23 percent in 1959. The proportion of all families headed by females rose steadily from 10.0 percent in 1959 to 16.5 percent in 1989.

Discussion of the feminization of poverty draws attention to the relationship between poverty and family type. The fact that, in any given year, the percentage of poor families headed by females far exceeds the percentage of all families headed by females certainly implies that poverty and family type are not independent. But the attention given to the proportion of poor families headed by females is largely misdirected. If there were only 100 poor families in the nation and 90 of them were female headed, the feminization of poverty, although extreme, would not be an issue because the overall poverty rate would be minuscule. Furthermore, an increase in the feminization of poverty can result from any one of the following (Pressman, 1989, p.233): (a) an increase in the poverty rate for female-headed families, (b) an increase in the proportion of families headed by females, or (c) a decrease in the poverty rate for

households other than families headed by a female. If increased feminization results from an increase in the poverty rate for female-headed families, it is clearly undesirable. If results from a decrease in the poverty rate for other household types, it is (arguably) desirable.[2] If it is brought about by an increase in the proportion of people living in female-headed families, its desirability is unclear. Thus, the feminization of poverty is not necessarily a bad thing.

The important statistics are the overall poverty rate and the poverty rates for various subpopulations, including female-headed families. The overall poverty rate in the United States in 1989 was 12.8 percent, about as high as it was in the late 1960s and higher than it was during the 1970s (see column 3 of Table 1). Since the late 1960s, the poverty rate among people living in female-headed families (see column 4 of Table 1) has consistently been almost three times the overall poverty rate, and almost five times the poverty rate among people living in other families (see column 5 of Table 1). None of these poverty rates has shown a consistent trend throughout the period 1959 to 1988, although there have been considerable fluctuations during this time period. The poverty rate for female-headed families fell during the 1960s, remained fairly constant during the 1970s, and rose in the early 1980s. The chances of being poor, given that one belonged to a female-headed family, were about the same in the mid to late 1980s as they were during the period from 1966 to 1976. In contrast, the poverty rate for unrelated individuals has shown a consistent downward trend, from 46.1 percent in 1959 to 19.2 percent in 1989 (see column 6 of Table 1).[3] The interesting questions, it seems to me, are: (1) why is the poverty rate for female-headed families so much higher than that of other

households, (2) how much impact does the poverty rate for female-headed families have on the overall poverty rate, and (3) why does the United States, which is a highly developed economy, have such a high and nondeclining poverty rate. Clearly, these questions are inter-related.

This paper investigates the relationship between poverty and family type. It attempts to identify the factors which determine the poverty rates for various family types and, in so doing, tries to isolate the characteristics of "family type" which are associated with poverty. Intuitively, family type would appear to be important in explaining poverty for reasons such as the following: (1) Two-parent families can better take advantage of economies of scale in the purchase of housing and other goods than can single-parent families. (2) Two-parent families are less likely than single-parent families to be forced into poverty if one party is laid off or is unable to work because of illness or injury. (3) To the extent that sexual discrimination exists in the workplace, female-headed families are more likely to be poor than male-headed families. On the other hand, factors unrelated to family type undoubtedly affect the poverty levels of families. It may be that, in general, people living in single-parent families possess personal characteristics (for example, low levels of human capital) which make it likely that they would be poor regardless of whether they lived in married-couple or single-parent families. If so, society's resources would be better allocated towards modifying those personal characteristics of poor persons (for example, increasing their human capital) rather than encouraging individuals to live in traditional family units.

Section 2 explores the relationship between the overall poverty rate, the poverty rates for different household types (such as married-couple and single-parent families and unrelated individuals), and the structure of the population. Section 3 describes the model and the data used to analyze the relationship between the type of family in which a person resides and the likelihood of him or her being poor. Sections 4 through 7 report the results. Some concluding comments are offered in Section 8.

2. POVERTY RATES AND THE STRUCTURE OF THE POPULATION

The overall poverty rate is a weighted average of the poverty rates for various household types, the weights being the proportions of the population residing in those types of household:

$$(1) \qquad \Pr(\text{poor}) = \sum_{j=1}^{J} \Pr(\text{poor} \mid \text{hh type } j)\ \Pr(\text{hh type } j)$$

where "Pr" stands for "probability", "hh" for "household", "|" for "conditional upon", and J is the number of household types.

From equation (1) we see that the overall poverty rate is directly related to the poverty rate for each household type, ceteris paribus. Furthermore, the rate of change of the overall poverty rate with respect to the poverty rate for a given household type equals the proportion of the population living in that household type. Since a much smaller percentage of people live in female-headed families than in the remainder of the population, a change in the poverty rate for the former has less impact on the overall poverty rate than an equal change in the poverty rate for the latter. The growth in the proportion of the

population living in female-headed families, however, means that a given change in the poverty rate for female-headed families is having an increasing impact on the overall poverty rate.

Equation (1) also shows that the overall poverty rate is related to the structure of the population. Unlike the poverty rates for all household types, which can rise or fall simultaneously, the proportions of people living in the various household types cannot all rise or all fall. Consequently, the effect of a change in the structure of the population on the overall poverty rate is more complex than the effect of a change in the poverty rate of a given household type. Equation (2) shows the effect on the overall poverty rate of a change in the proportion of the population living in female-headed families:

$$(2)\quad \frac{\Delta Pr(poor)}{\Delta Pr(Fhf)} = Pr(poor \mid Fhf) - Pr(poor \mid other) + \frac{\Delta Pr(poor \mid Fhf)}{\Delta Pr(Fhf)} Pr(Fhf) + \frac{\Delta Pr(poor \mid other)}{\Delta Pr(Fhf)} Pr(other)$$

where "Fhf" stands for "female-headed family" and "other" stands for "household other than a female-headed family".

Consider the simplest case in which the poverty rate for each household type is independent of the proportion of the population living in that household type. In this case the last two terms of equation (2) equal zero. Since the poverty rate for female-headed families exceeds the poverty rate for the rest of the population, an increase in the proportion of the population living in female-headed families would increase the overall poverty rate. More generally, in this simple scenario, if the poverty rate for a given household type is larger

(smaller) than the poverty rate for the rest of the population then there is a direct (inverse) relationship between the overall poverty rate and the proportion of the population living in that household type.[4]

More realistically, the poverty rate for each household type is affected by the proportion of the population living in that household type.[5] In this more complex case the last two terms in equation (2) are nonzero and are likely to have different signs. The implication is that an increase in the proportion of the population living in female-headed families does not necessarily imply an increase in the overall poverty rate, even if the poverty rate for female-headed families exceeds that of the rest of the population. For the overall poverty rate to increase as a result of an increase in the proportion of people living in female-headed families, the rate of increase in the poverty rate for female-headed families must be large enough to outweigh any decrease in the poverty rate for the rest of the population.

The above analysis suggests that policy aimed at reducing the percentage of the population living in female-headed families may well reduce the poverty rate among these families. However, such policy is unlikely to succeed in reducing the overall poverty rate unless it can effect a large enough reduction in the poverty rate for female-headed families to offset any associated increase in the poverty rate for the rest of the population. For this reason, policy aimed at directly reducing the poverty rates of the various household types may be more effective in reducing overall poverty than policy which tries to influence people's choices concerning the type of household in which to live.[6] An understanding of the factors which determine the poverty rates of different

types of household will help in designing policy to reduce these poverty rates and thereby reduce overall poverty.

3. POVERTY STATUS AND FAMILY TYPE - A MODEL

In this section we investigate the relationship between poverty status and family type. The model used in the analysis has the following form:

$$(3) \qquad Y^j = \alpha^j + \sum_{i=1}^{k} \beta^j_i X^j_i + u^j$$

where: Y^j is the poverty status of a family of type j;

X^j_i is the ith control variable for a family of type j;

α^j is the intercept for families of type j;

β^j_i is the marginal effect of the ith control variable for families of type j;

u^j is a random residual which is assumed to be $N(0,\sigma_j^2)$,

k is the number of control variables.

If poverty is independent of family type then α_j and β^j_i (i=1,2,...k) will be the same across family types and, according to model (3), differences in mean poverty levels of different family types are due to differences in the mean levels of the control variables. Conversely, if poverty is related to family type then at least one of α_j or β^j_i (i=1,2,...k) will differ across family types.

A simple, but appealing, technique, developed by Blinder (1973), can be used to decompose the poverty differential between any two family types, m and f, into three components:

$$(4) \qquad \bar{Y}^m - \bar{Y}^f = (a^m - a^f) + \sum_{i=1}^{k} (b^m_i - b^f_i)\bar{X}^m_i + \sum_{i=1}^{k} b^f_i(\bar{X}^m_i - \bar{X}^f_i)$$

(component 1) (component 2) (component 3)

where a and b_i are estimates of α and β_i, respectively. From equation (4) we can estimate how much of the average poverty differential between family types m and f is due to:

(a) differences in the average levels of the control variables (component 3),

(b) differences in the marginal effects of the control variables (component 2), and

(c) other unexplained differences (component 1).

Three types of family are considered: married-couple families with or without children, single-parent families headed by a male, and single-parent families headed by a female. The sampling unit is the family, or equivalently the head of the family. The assumption underlying the analysis is that the heads of each type of family constitute a random sample from the population at large. In other words, family type is exogenous. This is a reasonable assumption concerning the sex of family heads but not necessarily in regard to marital status since individuals have some control over their own marital status. Thus the potential exists for self-selection bias in the estimated coefficients of equation (3). Attempts by the author to correct for self-selection bias gave results which are quite similar to those reported in this paper.

The dependent variable, our measure of the family's poverty status, is before-tax family income,[7] expressed as a percentage of the poverty line[8] for a family with the same number of adults and the same number of children as the

family in question. Government transfers (in cash or in kind) are not included in family income because the objective is to explain poverty which results from market activity (or lack of it); transfer payments counteract the effects of the market.[9] For brevity, the dependent variable will be referred to hereafter as "relative income". If relative income is less than one then the family is poor. A binary variable, equal to one if the family is poor and zero otherwise, could have been used as the dependent variable but would convey less information about the poverty status of the family than relative income.

Family type is represented by two binary variables:

HTYPM = 1 if the family is headed by a male with no wife present;
HTYPM = 0 otherwise.

HTYPF = 1 if the family is headed by a female with no husband present;
HTYPF = 0 otherwise.

The reference group is married-couple families.

The control variables can be divided into two groups: (1) those which describe certain personal characteristics of the members of the family and the location of the family, and (2) those which measure the size and composition of the family. Each control variable affects either family income, the poverty line, or both.[10]

Characteristics of the Family

HGRADE: number of years of schooling completed by the head of the family.

OGRADE: aggregate number of years of schooling complete by all able-bodied adults in the family, who are 65 years or younger and not in school, other than the head of the family.[11]

HWRKEXP: work experience of the head of the family, computed as the maximum of zero and (AGE*-GRADE*-5-NYR), where AGE* is the minimum of 65 and the family head's age, GRADE* is the maximum of 10 and HGRADE as defined above, and NYR is an estimate of the number of years the head of the family was unemployed between 1969 and 1979.

OWRKEXP: aggregate work experience of all able-bodied adults in the family, who are 65 years or younger and not in school, other than the head of the family. Each person's work experience is computed as the maximum of zero and (AGE*-GRADE*-5-NYR), where AGE* is the minimum of 65 and the person's age, GRADE* is the maximum of 10 and the number of years of schooling completed by the person, and NYR is an estimate of the number of years the person was unemployed between 1969 and 1979.

HWKSU79: number of weeks during which the head of the family was unemployed during 1979.

DHDIS1 = 1 if the head of the family has a limited work disability;
DHDIS1 = 0 otherwise.

DHDIS2 = 1 if the head of the family is prevented from working because of a work disability; DHDIS2 = 0 otherwise.

DHRACE1 = 1 if the head of the family is black;

DHRACE1 = 0 otherwise.

DHRACE2 = 1 if the head of the family is neither black nor white;

DHRACE2 = 0 otherwise.

DAREA1 = 1 if the family is located in an urban fringe area;

DAREA1 = 0 otherwise.

DAREA2 = 1 if the family is located in an urban area which is not central city nor urban fringe; DAREA2 = 0 otherwise.

DAREA3 = 1 if the family is located in a rural area:

DAREA3 = 0 otherwise.

The variables HGRADE, OGRADE, HWRKEXP, OWRKEXP, HWKSU79, DHDIS1 and DHDIS2 are included in the analysis because they measure productivity differences across families, DHRACE1 and DHRACE2 capture any racial discrimination in the labor market, while DAREA1, DAREA2 and DAREA3 take account of geographical differences across labor markets caused by immobility of labor.

Size and Composition of the Family

ADULTS: number of able-bodied adults in the family, 65 years or younger and not in school, including the head of the family and his or her spouse, if present.

INFANTS: number of children, five years or younger, in the family.

DEPEND: number of other dependents in the family, calculated as number of people in the family minus ADULTS, minus INFANTS.

The variables ADULTS, DEPEND and INFANTS reflect differences in the size and composition of families. These variables may be related to the sex and marital status of the family head. For example, single-parent, female-headed families are expected to have fewer ADULTS but more INFANTS than other families.

Relative income is expected to be directly related to HGRADE, OGRADE, HWRKEXP, and OWRKEXP and inversely related to HWKSU79, DHDIS1, DHDIS2, DHRACE1, DHRACE2, ADULTS, DEPEND and INFANTS. The relationship between relative income and DAREA1 and DAREA2 is not clear, a priori. The coefficient of DAREA3 is expected to be negative because labor immobility suggests higher incomes for people living in urban rather than rural areas.

The data used to estimate equation (3) are the Public Use Microdata Sample (C Sample) for the state of Texas.[12] This is a one percent random sample of households from the 1980 United States Census of Population and Housing. For the purpose of this study, vacant households, people living in group quarters or nonfamily households, unrelated individuals living in family households, and families with a head who is over 65 years old and not in the workforce were excluded from the data set. This left a sample of 33,608 Texas families of which 28,646 were two-parent families, 981 were one-parent families headed by a male, and 3,981 were one-parent families headed by a female. By limiting data to that of a single state the effect on family income of state specific welfare programs can be ignored.

4. POVERTY STATUS AND FAMILY TYPE - RESULTS

Means and standard deviations of the dependent and independent variables, by family type, are presented in Table 2. Single-parent families headed by a female are, on average, the poorest, followed by single-parent, male-headed families. On average, heads of married-couple families have higher levels of education, more work experience, and reside with nondependents who have more education and more work experience than heads of single-parent families. These married people were unemployed for fewer weeks during 1979 than heads of single-parent families. They are less likely to be seriously disabled, are more likely to be white, and less likely to be black. They are less likely to reside in a central city area, and are more likely to reside in an urban fringe or rural area. They reside in families with more nondependent adults and at least as many infants as heads of single-parent families. Female heads of single-parent families have less education, less work experience and reside with nondependents who have less education and less work experience than heads of other families. These single women are more likely to be seriously disabled, are more likely to be black and less likely to be white, than heads of other families. They are less likely to live in an urban fringe or rural area, and are more likely to live in a central city or other urban area. They live in families with fewer nondependent adults and more dependents than heads of other families. Male heads of single-parent families have fewer dependents and are more likely to be neither white nor black than heads of other family types.

Regression equations for the three family types are given in Table 3. The estimated parameters in all equations have the expected signs. Ceteris

paribus, relative income is directly related to:

(1) the education level of the head of the family,

(2) the aggregate amount of education of other nondependent family members,

(3) the amount of work experience of the head of the family, and

(4) the aggregate amount of work experience of other, nondependent family members.

Ceteris paribus, relative income is inversely related to:

(1) the number of weeks during which the head of the family was unemployed during 1979,

(2) the number of nondependent adults,

(3) the number of children five years or younger, and

(4) the number of other dependents in the family.

Ceteris paribus, each additional nondependent adult, and each additional child of five years or younger, reduce relative income more than each additional dependent who is older than five.

If the head of the family is disabled then, ceteris paribus, relative income is lower than for families with an able bodied head and the greater the disability, the lower is relative income. Families with heads who are black have lower relative incomes than families with heads who are neither black nor white, and the latter have lower relative incomes than families with heads who are white. Geographical differences in relative income are observed, ceteris paribus, relative income being largest in urban fringe areas.

In most cases the coefficients are highly significant, the exceptions being families headed by single males, in which case not all geographical locations are significant. Considering the large samples employed, each of the five equations fits the data well as indicated by its coefficient of determination, and its F and Wald statistics, both of which test the hypothesis that all slope coefficients are zero, the Wald statistic being valid in the presence of heteroscedasticity.[13]

The influence on poverty of the three variables which measure family size and composition is of particular interest because when people think of the typical family headed by a single woman they usually have in mind a family with more young children and fewer adults than the typical married-couple family. Table 3 shows that an additional infant, five years or younger, an additional dependent over five years, and an additional nondependent adult all reduce relative income of two-parent families more than that of one-parent families. These rates of change of relative income with respect to each control variable, assume other things are equal. In the case of the number of adults, other things are unlikely to be equal. Each nondependent adult will likely contribute some human capital to the family and also some work experience. For example, an additional, nondependent adult, with 12 years of education and 10 years of work experience, in a married-couple family would increase relative income by (-118.86 + 12x9.5055 + 10x1.701) = 12.216 percentage points. Such an individual would contribute 39.7872 percentage points to relative income of a single-parent, female-headed family and 31.6744 percentage points to the relative income of a single-parent, male-headed family.

5. POVERTY STATUS DIFFERENTIALS: MALE-HEADED VERSUS FEMALE-HEADED, SINGLE-PARENT FAMILIES

Table 4 decomposes the relative income differential of 139.18 between male-headed and female-headed, single-parent families into the three components on the right hand side of equation (4) as follows:

Component 1: If male-headed and female-headed, single-parent families had the same mean levels of the control variables and the same marginal effects of the control variables then relative income would be 34.98 points higher for male-headed families than for female-headed families. This effect is due to the larger constant term in the equation for males.

Component 2: If male-headed and female-headed, single-parent families had the same mean levels of the control variables and the same constant terms then relative income would be 75.71 points higher for male-headed families. This differential, which is 54.4 percent of the total, is attributable to the overall "superiority" of the marginal effects in the relative income equation of male-headed, single-parent families. Although the marginal effects of unemployment, race and the number of dependents favor female-headed families, the marginal effects of the other variables, particularly work experience, location and number of nondependents favor male-headed families.

Component 3: If male-headed and female-headed, single parent families had the same marginal effects of the control variables and the same constant terms then relative income would be 20.49 points higher for male-headed families. That is,

a differential of 20.49 (14.7 percent of the total) is attributable to male-headed families' "superior" mean levels of the control variables. In particular, male-headed families have more education and fewer dependents than female-headed families.

Note that the regression (components 2 and 3) accounts for a differential of 104.20 (74.9 percent of the total differential) in favor of male-headed, single-parent families. That is, if both family types kept their current levels of the control variables, and kept their current marginal effects of the control variables, but were given the same constant coefficient, male-headed, single-parent families would have a relative income 104.20 points higher than female-headed, single-parent families.

6. POVERTY STATUS DIFFERENTIALS: MARRIED-COUPLE FAMILIES VERSUS FEMALE-HEADED, SINGLE-PARENT FAMILIES

The relative income differential of 210.91 between married-couple families and female-headed, single-parent families is decomposed into its three component parts in Table 5 as follows:

Component 1: If married-couple families and female-headed, single-parent families had the same mean levels of the control variables and the same marginal effects of the control variables then the relative income differential would be 99.80 points in favor of married-couple families. This effect is due to the much larger constant term in the equation for married-couple families.

Component 2: If married-couple families and female-headed, single-parent families had the same mean levels of the control variables and the same constant terms then the relative income differential would be 27.06 points in favor of married-couple families. This differential is attributable to the overall "superiority" of the marginal effects in the relative income equation of married-couple families. The marginal effects of education and work experience favor married-couple families to such an extent as to outweigh the marginal effects of the other variables, all of which favor female-headed, single-parent families. In particular, the marginal effects of the numbers of nondependents and dependents favor female-headed, single-parent families.

Component 3: If married-couple and female-headed, single parent families had the same marginal effects of the control variables and the same constant terms then the relative income differential would be 84.06 points in favor of married-couple families. This differential (39.9 percent of the total) is attributable mainly to the fact that married-couple families' have more education and work experience, and are more likely to be headed by a white.

The regression (components 2 and 3) accounts for a differential of 111.11 points (52.7 percent of the total differential) in favor of married-couple families. That is, if both family types were given the same constant coefficient but kept their slope coefficients and mean levels of the control variables then the relative income of married-couple families would be 111.11 points higher than that of female-headed, single-parent families.

7. POVERTY STATUS DIFFERENTIALS: MARRIED-COUPLE FAMILIES VERSUS MALE-HEADED, SINGLE-PARENT FAMILIES

Table 6 decomposes the relative income differential of 71.73 between married-couple families and male-headed, single-parent families into its three components as follows:

Component 1: If married-couple families and male-headed, single-parent families had the same mean levels of the control variables and the same marginal effects of the control variables then relative income would be 64.82 points higher for married-couple families.

Component 2: If married-couple families and male-headed, single-parent families had the same mean levels of the control variables and the same constant terms then relative income would be 49.57 points higher for male-headed families. This differential is attributable to the overall "superiority" of the marginal effects in the relative income equation of male-headed families compared with those in the relative income equation for married-couple families. The marginal effects of education and work experience favor married-couple families but are outweighed by the marginal effects of location, and the numbers of dependents and nondependents which favor male-headed, single-parent families.

Component 3: If the relative income equations for married-couple families and male-headed, single parent families had the same coefficients (constant and slopes) then relative income would be 56.48 points higher for married-couple families. This differential is attributable mainly to married-couple families'

higher levels of education and work experience, and the fact that a larger proportion of married-couple families are headed by a white.

The regression (components 2 and 3) accounts for a differential of 6.92 (9.6 percent of the total differential) in favor of married-couple families. That is, if both family types had the same constant coefficient, but kept their current levels of the control variables, and kept their current marginal effects of the control variables, then relative income would be 6.92 points higher for married-couple families than for single-parent, male-headed families.

8. CONCLUSIONS

This paper has investigated the relationship between poverty and family type, as reflected in the marital status and gender of the head of the family. A number of factors have been identified as important determinants of poverty for all family types: education and work experience of family members, race, disability, and unemployment of the family head, geographical location, size and composition of the family.

Differences among average poverty levels of (a) married-couple families, (b) male-headed, single-parent families and (c) female-headed, single-parent families can be partially explained by differences in the average levels of these control variables. Families headed by females with no husband present have "inferior" levels of the control variables (taken as a group) compared with families headed by males with no wife present. In turn, the latter have "inferior" levels of the control variables (as a group) compared with married-

couple families. In particular, female-headed families, on average, have less education and work experience, have more dependents, and are more likely to be nonwhite than other family types. They are also more likely than other family types to be headed by someone with a disability, severe enough to prevent her from working. All these factors contribute to the high poverty rate among people living in female-headed families. Married-couple families, on average, have more human capital, and are more likely to be white than male-headed, single parent families. However, male-headed, single-parent families have fewer dependents than other family types, a factor which mitigates poverty among people living in these families.

Some of the differences among the average poverty levels of the three family types can be attributed to differences in the marginal effects of the control variables on poverty. As a group, the marginal effects of control variables favor male-headed over female-headed, single-parent families, favor married-couple families over female-headed, single-parent families, but favor male-headed, single-parent families over married-couple families. In particular, additional units of human capital are more valuable to married-couple families than to single-parent families, and are more valuable to male-headed, single-parent families than to female-headed, single-parent families. Each additional family member reduces relative income of married-couple families more than that of single-parent families. However, each additional nondependent adult reduces relative income of male-headed, single-parent families less than that of female-headed, single-parent families.

In summary, male-headed, single-parent families are less poor than female-headed, single-parent families mainly because the marginal effects of the control variables favor the former over the latter. Married-couple families are less poor than female-headed, single-parent families mainly because the former have more favorable levels of the control variables. For the same reason married-couple families are less poor than male-headed, single-parent families. In all three comparisons there is a sizeable unexplained differential favoring married-couple families over single-parent families and favoring male-headed, single-parent families over female-headed, single parent families.

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FOOTNOTES

1. The term "feminization of poverty" originated with Pearce (1978). Discussions in the economics literature include those of Moynihan (1986, pp.51), Peterson (1987 and 1989), Pressman (1988 and 1989), Bassi (1988) and Northrop (1990).

2. Pressman (1988, p.57) has raised the valid point that as poverty becomes feminized, for whatever reason, the percentage of children living in poverty is likely to increase. As a society, we may find this offensive. It may also lead to increased poverty rates in the next generation.

3. The data in Table 1 suggest that a good deal of the feminization of poverty has resulted from the increase in the proportion of the population residing in female-headed families and the reduction in the poverty rates for unrelated individuals. See Northrop (1990) for further discussion of this point.

4. In this simple scenario, a unit change in the proportion of people living in a given household type will result in a change in the overall poverty rate equal to the difference between the poverty rate for the household type under consideration and the poverty rate for the rest of the population.

5. If people become poor as a result of marriage dissolution, or if poor, two-parent families have a relatively high chance of breaking up (into poor, single-parent families) then a positive correlation is expected between the

poverty rate for female-headed families and the proportion of people living in female-headed families (Bane, 1986).

6. Policies intended to influence one's choice of household type include tax breaks for married-couple families, tougher divorce laws, stricter enforcement of alimony payments, sex education programs which strive to reduce the number of illegitimate births to young women. It may be difficult to influence people's choice of household type. For example, tougher divorce laws are unlikely to preserve failing marriages (Pressman, 1988, p.60). Furthermore, in some cases it may be undesirable to do so. For example, increased divorce rates are not necessarily indicative of a reduction in social welfare.

7. Family income includes wages and salaries, self-employment income, interest, dividends and net rental income. The paper analyses pre-transfer poverty so before-tax family income, rather than after-tax family income, is employed and social security and public assistance income are excluded.

8. The poverty lines used were those of the U.S. Department of Commerce, Bureau of the Census (see 1980 Census of Population, Volume 1, Chapter C, Appendix B). These official poverty thresholds vary according to the size and composition of the family.

9. It would be desirable to include non-cash components of income such as fringe benefits, home produced goods and services etc., but the necessary data are not available.

10. See Hagenaars (1986, chapter 3) for a review of theories concerning the determinants of family income. An early study by Garfinkel and Haveman (1977) uses a set of independent variables, similar to those used here.

11. The number of years of schooling includes nursery school and kindergarten. Therefore, someone with a high school diploma, but no higher education, is recorded as having 14 years of schooling.

12. These data were collected by the U.S. Department of Commerce, Bureau of the Census, and were made available on magnetic tape by the Inter-university Consortium for Political and Social Research. Neither the Bureau, nor the Consortium, bear any responsibility for the analyses or interpretations presented here.

13. The presence of heteroscedasticity in each equation is detected by a significantly large value of the Breusch-Pagan statistic, which follows a chi-square distribution. (See Breusch and Pagan, 1979, and Greene, 1990, pp.421-422 for a discussion). The Wald statistic is discussed by Greene (1990, pp.404-405).

TABLE 1

THE FEMINIZATION OF POVERTY IN THE U.S.A., 1959-89

YEAR	% OF POOR FAMILIES HEADED BY FEMALES (1)	% OF ALL FAMILIES HEADED BY FEMALES (2)	% OF ALL PERSONS WHO ARE POOR (3)	% OF PERSONS IN FEMALE HD FAMILIES WHO ARE POOR (4)	% OF PERSONS IN OTHER FAMILIES WHO ARE POOR (5)	% OF UNRELATED INDIVIDUALS WHO ARE POOR (6)
1959	23.0	10.0	22.4	49.4	18.2	46.1
1960	23.7	10.1	22.2	48.9	18.0	45.2
1961	23.3	10.0	21.9	48.1	17.6	45.9
1962	25.2	10.1	21.0	50.3	16.4	45.4
1963	26.1	10.3	19.5	47.7	14.9	44.2
1964	25.5	10.5	19.0	44.4	14.7	42.7
1965	28.5	10.3	17.3	46.0	12.8	39.8
1966	29.8	10.6	14.7	39.8	10.3	38.3
1967	31.3	10.7	14.2	38.8	9.6	38.1
1968	34.8	10.8	12.8	38.7	8.3	34.0
1969	36.5	10.8	12.1	38.2	7.4	34.0
1970	37.1	11.5	12.6	38.1	7.7	32.9
1971	39.6	11.6	12.5	38.7	7.5	31.6
1972	42.5	12.2	11.9	38.2	6.8	29.0
1973	45.4	12.4	11.1	37.5	6.0	25.6
1974	47.2	13.0	11.2	36.5	6.2	24.1
1975	44.6	13.3	12.3	37.5	7.2	25.1
1976	47.9	13.6	11.8	37.3	6.4	24.9
1977	49.1	14.4	11.6	36.2	6.2	22.6
1978	50.3	14.6	11.4	35.6	5.9	22.1
1979	48.4	14.6	11.7	34.9	6.3	21.9
1980	47.8	15.1	13.0	36.7	7.4	22.9
1981	47.5	15.4	14.0	38.7	8.1	23.4
1982	45.7	15.4	15.0	40.6	9.1	23.1
1983	46.6	16.0	15.2	40.2	9.3	23.1
1984	48.1	16.2	14.4	38.4	8.5	21.8
1985	48.1	16.1	14.0	37.6	8.2	21.5
1986	51.5	16.2	13.6	38.3	7.4	21.6
1987	52.2	16.4	13.4	38.1	7.2	20.8
1988	53.0	16.5	13.0	37.2	6.9	20.6
1989	51.7	16.5	12.8	35.9	7.0	19.2

Source: Money Income and Poverty Status in the United States: 1989. U.S. Dept of Commerce, Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, No. 168, (columns 1 and 2 from Table 21, columns 3 through 6 from Table 19).

TABLE 2

MEANS AND STANDARD DEVIATIONS OF VARIABLES

(Various Family Types, Texas, 1979)

VARIABLE		ALL FAMILIES (1)	MARRIED COUPLE FAMILIES (2)	1-PARENT (MALE) FAMILIES (3)	1-PARENT (FEMALE) FAMILIES (4)
STINCOME:	mean	366.59	393.66	321.93	182.75
	s.d.	(286.28)	(290.29)	(259.91)	(171.33)
HGRADE:	mean	13.98	14.13	13.28	13.08
	s.d.	(3.97)	(3.97)	(4.36)	(3.79)
OGRADE:	mean	13.33	14.56	7.64	5.89
	s.d.	(8.92)	(8.16)	(9.58)	(9.79)
HWRKEXP:	mean	21.12	21.45	19.43	19.15
	s.d.	(13.53)	(13.60)	(13.66)	(12.76)
OWRKEXP:	mean	12.65	14.21	5.76	3.13
	s.d.	(13.41)	(13.34)	(12.30)	(8.98)
HWKSU79:	mean	1.20	1.07	2.17	1.89
	s.d.	(5.21)	(4.83)	(7.44)	(6.80)
DHDIS1:	mean	0.06	0.06	0.07	0.05
	s.d.	(0.23)	(0.23)	(0.25)	(0.22)
DHDIS2:	mean	0.04	0.03	0.04	0.06
	s.d.	(0.19)	(0.18)	(0.20)	(0.25)
DHRACE1:	mean	0.11	0.08	0.18	0.27
	s.d.	(0.31)	(0.27)	(0.38)	(0.44)
DHRACE2:	mean	0.08	0.07	0.11	0.09
	s.d.	(0.27)	(0.26)	(0.32)	(0.29)
DAREA1:	mean	0.19	0.20	0.16	0.14
	s.d.	(0.39)	(0.40)	(0.37)	(0.35)
DAREA2:	mean	0.15	0.15	0.13	0.15
	s.d.	(0.36)	(0.36)	(0.33)	(0.36)
DAREA3:	mean	0.21	0.22	0.17	0.12
	s.d.	(0.41)	(0.42)	(0.38)	(0.32)
ADULTS:	mean	1.95	2.04	1.60	1.41
	s.d.	(0.70)	(0.64)	(0.80)	(0.79)
DEPEND:	mean	1.08	1.05	0.94	1.37
	s.d.	(1.24)	(1.24)	(1.05)	(1.24)
INFANTS:	mean	0.41	0.42	0.27	0.42
	s.d.	(0.71)	(0.72)	(0.61)	(0.71)
Sample Size		33608	28646	981	3981

Source: Public Use Microdata Sample (Sample C),
1980 U.S. Census of Population and Housing.

TABLE 3

EFFECT OF FAMILY TYPE ON POVERTY

(Various Family Types, Texas, 1979)

(Least Squares Coefficients with P-Values in Parentheses*)

VARIABLE	MARRIED COUPLES (1)	1-PARENT MALE HEAD (2)	1-PARENT FEMALE HD (3)
ONE	199.7840	134.9640	99.9872
	(0.0000)	(0.0086)	(0.0000)
HGRADE	21.7220	17.6255	14.5287
	(0.0000)	(0.0000)	(0.0000)
OGRADE	9.5055	5.4390	9.8109
	(0.0000)	(0.0084)	(0.0000)
HWRKEXP	3.4662	3.0155	2.1945
	(0.0000)	(0.0000)	(0.0000)
OWRKEXP	1.7010	1.6357	1.1607
	(0.0000)	(0.0596)	(0.0005)
HWKSU79	-4.4726	-4.2551	-1.9314
	(0.0000)	(0.0000)	(0.0000)
DHDIS1	-63.1803	-48.0936	-58.8240
	(0.0000)	(0.0802)	(0.0000)
DHDIS2	-269.3890	-145.2900	-140.7400
	(0.0000)	(0.0001)	(0.0000)
DHRACE1	-84.0389	-87.5449	-64.2526
	(0.0000)	(0.0000)	(0.0000)
DHRACE2	-27.0378	-40.0936	-21.5937
	(0.0000)	(0.0469)	(0.0013)
DAREA1	28.6713	79.7984	15.1693
	(0.0000)	(0.0004)	(0.0295)
DAREA2	-28.4557	-14.1663	-14.9604
	(0.0000)	(0.4725)	(0.0241)
DAREA3	-43.3475	-3.2488	-28.3900
	(0.0000)	(0.8779)	(0.0000)
ADULTS	-118.8600	-49.9506	-89.5506
	(0.0000)	(0.0523)	(0.0000)
DEPEND	-41.3901	-35.4394	-20.8649
	(0.0000)	(0.0000)	(0.0000)
NINFANTS	-69.7018	-58.0156	-41.8644
	(0.0000)	(0.0000)	(0.0000)
N	28646	981	3981
SE-REGN	240.459	225.459	135.750
R-SQ	0.314	0.259	0.375
ADJ-R-SQ	0.314	0.248	0.372
F-STAT	874.444	22.491	158.306
(P-VALUE)	0.000	0.000	0.000
WALD-STAT (15)	10644.90	321.43	1773.08
BREUSCH-PAGAN (15)	7212.97	151.09	850.51

*. P-values are for a 2-tailed test and have been computed using standard errors from White's consistent estimate of the variance-covariance matrix in the presence of heteroscedasticity (see White, 1980).

TABLE 4

POVERTY DIFFERENTIAL BETWEEN MALE-HEADED, SINGLE-PARENT FAMILIES AND FEMALE-HEADED, SINGLE-PARENT FAMILIES

(Texas, 1979)

	AVERAGE LEVELS OF CONTROL VARIABLES (Component 3)	MARGINAL EFFECTS OF CONTROL VARIABLES (Component 2)	TOTAL (Components 3 and 2)
EDUCATION	20.22	7.71	27.93
WORK EXPERIENCE	3.69	18.69	22.38
UNEMPLOYMENT	-0.53	-5.04	-5.57
DISABILITY	2.50	0.53	3.03
RACE	5.43	-6.25	-0.82
LOCATION	-0.80	15.06	14.26
NONDEPENDENTS	-17.01	63.17	46.17
DEPENDENTS	14.99	-18.17	-3.18
SUBTOTAL	20.49	75.71	104.20
UNEXPLAINED DIFFERENTIAL (Component 1)			34.98
TOTAL DIFFERENTIAL			139.18

TABLE 5

POVERTY DIFFERENTIAL BETWEEN MARRIED-COUPLE FAMILIES AND FEMALE-HEADED, SINGLE-PARENT FAMILIES

(Texas, 1979)

	AVERAGE LEVELS OF CONTROL VARIABLES (Component 3)	MARGINAL EFFECTS OF CONTROL VARIABLES (Component 2)	TOTAL (Components 3 and 2)
EDUCATION	100.44	97.18	197.62
WORK EXPERIENCE	17.91	34.95	52.86
UNEMPLOYMENT	1.59	-2.72	-1.13
DISABILITY	3.78	-4.75	-0.98
RACE	12.50	-2.01	10.49
LOCATION	-1.98	-2.62	-4.60
NONDEPENDENTS	-56.95	-59.83	-116.79
DEPENDENTS	6.76	-33.14	-26.38
SUBTOTAL	84.06	27.06	111.11
UNEXPLAINED DIFFERENTIAL (Component 1)			99.80
TOTAL DIFFERENTIAL			210.91

TABLE 6

POVERTY DIFFERENTIAL BETWEEN MARRIED-COUPLE FAMILIES AND MALE-HEADED, SINGLE-PARENT FAMILIES

(Texas, 1979)

	AVERAGE LEVELS OF CONTROL VARIABLES (Component 3)	MARGINAL EFFECTS OF CONTROL VARIABLES (Component 2)	TOTAL (Components 3 and 2)
EDUCATION	52.59	117.10	169.69
WORK EXPERIENCE	19.89	10.60	30.49
UNEMPLOYMENT	4.68	-0.23	4.45
DISABILITY	1.22	-5.22	4.00
RACE	10.05	1.26	11.31
LOCATION	2.42	-21.28	-18.86
NONDEPENDENTS	-22.28	-140.67	-162.96
DEPENDENTS	-12.09	-11.11	-23.20
SUBTOTAL	56.48	-49.57	6.92
UNEXPLAINED DIFFERENTIAL (Component 1)			64.82
TOTAL DIFFERENTIAL			71.73