# Cohabitation and the Measurement of Child Poverty 

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#### Abstract

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#### Abstract

We use 1990 U.S. Census of Population data to calculate what poverty rates would have been if cohabitors were treated in the same manner as married couples. We find that the official treatment of cohabiting partners as separate family units overstated the extent of poverty in 1989 among all children by about three percent. No more than about 11 percent of the observed rise in child poverty between 1969 and 1989 would be eliminated if the Census Bureau made this change in measurement procedures. We estimate a logistic regression model of the likelihood that poor, cohabiting families with children will be reclassified as non-poor when the cohabitor's income is included in family income. We find that the primary reason that many of these families remain poor is that the cohabitor has no earnings. Cohabitation has become increasingly common in the United States. Bumpass and Sweet (1989a) find that almost half of all adults under age 35 have cohabited at some time in their lives, and that the proportion of persons entering first marriages who had previously cohabited quadrupled to 44 percent between the 1970s and the early 1980s. Premarital cohabitation has blurred the boundaries of "marriage," with 27 percent of nonmarital births (five percent of all births) accounted for by cohabiting couples (Bumpass and Sweet, 1989a). In 1987-88, 40 percent of cohabitors had children present (Bumpass, Sweet and Cherlin, 1991). In the U.S. (unlike in some European countries), an unmarried parent with children who lives in a consensual union is counted by the Census Bureau as a single-parent family, and the cohabitor is treated as a separate unrelated unit. As a result, the trend towards increased cohabitation will overstate the growth in single-parent families if cohabiting couples are more similar to two-parent families in their economic and social relationships than they are to single- parent families. The treatment of cohabiting couples as separate economic and demographic units thus affects the measurement of poverty. The unit of analysis for the official poverty rate is the family, defined as: "a group of two or more persons related by birth, marriage, or adoption who reside together; all such persons are considered as members of one family" (Baugher and Lamison-White, 1996). A family is counted as poor if the total annual money income of all family members is less than the poverty threshold for a family of its size. Because the cohabitor is not classified as a family member, his or her income is not included, and poverty status is computed separately for each of the cohabitors. To the extent that "family-like" resource-sharing occurs between cohabitors, poverty will be overstated. Because increasing numbers of children in "single-parent families" (as officially classified) actually live with two cohabiting adults (and potentially benefit from their income-sharing), the official poverty data mismeasure children's true economic well-being. The Panel on Poverty and Family Assistance of the National Academy of Sciences (NAS) (Citro and Michael, eds., 1995) recommended broadening the family definition to include cohabiting unions because many last at least one year and eventually lead to marriage. Such sharing of income and expenditures (and the resulting economies of scale) is consistent with the assumptions made about married-couple families under the official poverty measure. In this paper, we use 1990 Census data to calculate what poverty rates would have been if cohabitors were treated as married couples. We find that treating cohabiting partners as separate units overstates the extent of poverty among all persons by about four percent, and among all children by about three percent. We analyze the change in children's measured poverty status as the income of cohabitors is first considered separately and then combined. We then estimate a logistic regression model to determine the characteristics associated with being reclassified as non-poor for poor, cohabiting families with children.


## Previous Research

Whereas numerous studies have examined the causes and consequences of cohabitation (e.g., Bumpass and Sweet, 1989a and 1989b; Manning, 1993; Loomis and Landale, 1994; Schoen and Weinick, 1993), few have focused on its effects on measured poverty (exceptions are Manning and Lichter, 1996, and Bauman, 1997). Given the recent increase in both child poverty and cohabitation, it is important to consider how much of the poverty increase might have been accounted for by increased cohabitation.
According to Bumpass and Sweet (1989b), the propensity to cohabit is highest "among those who did not complete high school, those whose family received welfare while they were growing up, and those not raised in an intact family." Bumpass et al. (1991) confirm that cohabitation, contrary to its popular perception as a "college student phenomenon," is most frequent among the least-educated. This inverse relationship between cohabitation and education suggests that cohabitation may substitute for marriage when partners face economic constraints. If this were the case, then some children living in single-mother families who are officially counted as poor, might benefit from the incomes of both cohabitors, and hence be better off than the Census data indicate. Macunovich and Easterlin (1990) find that the formation of cohabiting unions by single parents improves the wellbeing of children, primarily because of the presence of an additional earner. Manning and Lichter (1996) analyze the impact on the economic well-being of children of treating cohabiting couples as two-parent families. Using the five-percent Public Use Microdata Sample (PUMS) of the 1990 Census, they find that 2.2 million children ( 3.5 percent of all children) live in cohabiting unions. When they pool the income of cohabitors and use the poverty line that reflects all persons living with both cohabitors, the poverty rate of children in unmarried-couple households falls from 43.7 percent to 31.1 percent--a 29-percent reduction. After including cohabitors' income, these children still have almost one-third less income than do children in married-couple families. They conclude that "the sociodemographic circumstances of children in cohabiting families more closely resemble those of children in female-headed families (without an unmarried partner) than the circumstances of children in marriedcouple families."
Bauman (1997) uses monthly data from the Survey of Income and Program Participation (SIPP) to analyze the duration of cohabiting unions over the course of a year and finds that three-fourths of cohabitors were in unions which lasted six months or longer. He also assesses the extent to which resource-sharing actually occurs between cohabitors and determines the effect of changing the definition of the unit on poverty rates. The poverty rate for all persons declines by 0.6 percentage points (or six percent) when the income of the cohabitor is included, and by 0.9 percentage points (or five percent) for all children. When incomes are pooled, those who cohabit for at least six months are far more likely to be reclassified as non-poor (two-thirds) compared to those who cohabit for one to five months (less than 10 percent). Bauman's analysis of the extent of resource-sharing within households, based on an examination of the income contributions of various household members, leads him to cautiously suggest the inclusion of cohabitors in the definition of family.
Our analysis extends the work of Manning and Lichter, and Bauman. Like them, we consider how measured poverty rates change when the partner's income in cohabiting units is counted. In addition, we estimate a logistic regression to analyze the factors that distinguish those cohabiting families who are categorized as non-poor when the unit is redefined from those who are still counted as poor.

## Results

We utilize data from the one-percent Public Use Microdata Sample of the 1990 Census and measure the poverty status of persons before and after the income of cohabitors is combined. Conceptually, several outcomes are possible when unmarried couples are treated as if they were married. Because poverty is a function of both family income and family size, one or both of the cohabitors may move into or out of poverty when the family unit is redefined.
In 1989 , the poverty threshold for a single person was $\$ 6,452$. For a family of two, it was $\$ 8,076$; for a family of three, $\$ 9,885$. Consider a woman and her child who receive $\$ 3,000$ in cash welfare: they comprise a poor twoperson family. If the mother is cohabiting with a man who earns more than $\$ 6,885$, then she and her child will be reclassified as non-poor when we pool their incomes and treat them as a three-person family. If the man earns less then $\$ 6,542$, he will be counted as a poor unrelated individual by the Census, and all three persons will remain poor when we combine their incomes. If the man earns between $\$ 6,453$ and $\$ 6,884$, he will not have been counted as poor by the Census, but he will fall into poverty due to our income-pooling exercise. Similarly, a single woman and her child might be above the poverty line on their own, but be brought below the poverty line if her partner were jobless. All of these possible transitions are documented below. As we show, however, most persons living with unmarried partners are neither poor before nor poor after their incomes and units are pooled. Table 1 shows how combining the incomes of unmarried partners affects the number and percent of persons in poverty. ${ }^{(1)}$ When cohabitors are treated as two separate units, 13.0 percent of the total population ( 240.7 million) is poor, compared to 12.5 percent when cohabitors' income is combined. Treating cohabitors as couples reduces the number of poor persons by 1.3 million, or by 4.2 percent. Thus, the extent of total poverty is not seriously overstated by the current treatment of cohabitation, and the trend in the official poverty rate over the past several decades is not challenged.

The size of the poverty-reducing effect of pooling income grows as we narrow the scope of the population group analyzed. There were 62.9 million children in $1990 .{ }^{(2)}$ Combining the income of cohabitors reduces the child poverty rate from 18.7 percent to 18.1 percent. Poverty rates for children living in single-parent families are, of course, affected even more. For the 15.4 million children in these families, the poverty rate falls from 46.6 to 44.3 percent. Thus, similar to Manning and Lichter, we find that five percent of "officially poor" children in singleparent families would be reclassified as non-poor if cohabitors were treated as married couples.
The smallest group shown in Table 1 includes only the two million children who live in cohabiting families. When the incomes of cohabitors are combined, their poverty rate falls from 44.4 to 26.9 percent--a 39-percent decline. Treating unmarried partners as married yields a large reduction in the poverty rate for children living with cohabitors; it has only a marginal effect on the overall child poverty rate because less than three percent of all children lived with cohabitors in 1990.
Table 2 shows the number, the percent poor, and the mean income-to-needs ratio, of the two million children living with cohabiting parents. They are categorized into one of four mutually-exclusive groups defined by their poverty status when the partners are treated as separate units and then as a couple. About one-fourth are poor regardless of whether the unmarried partner's income is pooled or not; pooling raises their mean income-toneeds ratio from 39 to 55 percent of the poverty line (row 1). About 19 percent are reclassified as non-poor by income-pooling; their mean income-to-needs ratio triples, rising from 0.57 to 1.75 (row 2). Only 1.4 percent of children in cohabiting unions are reclassified as poor; their standard of living falls from just above to just below the poverty line (row 3). About half of children are not poor either when the adults' income is considered separately or together, but pooling raises their standard of living as well (row 4). While 42.6 percent ( $0.385 / 0.904$ ) of all poor children who are cohabiting are reclassified as non-poor by income pooling, there are race and ethnic differences. Whites ( 48.0 percent) are more likely to be reclassified than are blacks (36.6 percent) or Hispanics (40.3 percent).
One reason why pooling income has relatively modest effects on child poverty, even for the subset of children living with cohabitors, is that the economic status of many cohabitors is marginal. Table 3 classifies all cohabiting families according to the four categories of before- and-after poverty status. For those families who were poor both before and after pooling, nearly 60 percent of both parents and cohabitors were unemployed or otherwise not in the labor force during the survey week, and almost half of both parents and cohabitors had no earnings in the previous year (column 1). Of those who were reclassified as non-poor through income-pooling, 36 percent of parents and six percent of cohabitors had no earnings (column 2). In contrast, only four percent of parents and 17 percent of cohabitors who were non-poor in both states (column 4) had zero earnings in the prior year. Much attention has been given to the welfare system's disincentives to marry. The latest research consensus is that welfare has small negative effects on family structure (Moffitt, 1997). Welfare programs have historically had at least two sources of disincentives for two-parent families: ${ }^{(3)}$ First, eligibility rules for two-parent families were more stringent than those for single-parent families. Second, two-parent families faced disparate rules within the tax and transfer system; different "filing units" in the AFDC and food stamp programs (and which household members are included in the unit), as well as a family's tax filing status, could significantly affect net income. For example, a non-working welfare mother could lose her welfare and Medicaid benefits if she were to marry a man with modest earnings. On the other hand, his tax bill might go down, due to the Earned Income Tax Credit for families with children, if he married her and adopted her child.
With few exceptions (Edin, 1991; Gabe, 1992; and Winkler, 1995), most studies of welfare and family structure ignore cohabitation, implicitly assuming that welfare pays benefits only to mothers living alone (never-married, divorced or separated). According to Moffitt, Reville and Winkler (1995a and 1995b), however, cohabitation is treated leniently by most states, provided the cohabitor is not the father of the child. They observed that some women on AFDC are cohabiting, and contrary to the general opinion, some are even married.
Table 4 shows the total number of children living in single-parent families and the subset residing in cohabitingparent families, classified by their poverty status as separate versus cohabiting units, and the number in each group who received any welfare income (AFDC, SSI or General Assistance) in 1989. ${ }^{(4)}$ Welfare receipt is somewhat less common among children living in cohabiting unions than among all children living with single parents. Among the 15.4 million children living in single-parent families, 31.7 percent received welfare; among the 2.0 million children living with cohabitors, 22.1 percent received welfare.
As expected, welfare receipt is highest among those who remain poor regardless of how we measure poverty (row 1)--52.8 percent of children in single-parent families and 43.0 percent in cohabiting-parent families receive welfare. A significant percentage of those children who are reclassified as non-poor (row 2 ) also receive welfare ( 34.6 percent). Mothers in these families may face a disincentive to marry because of welfare's differential treatment of marriage and cohabitation. These children represent, however, only about three percent of the almost five million children receiving welfare.
In order to examine which cohabitors are most likely to be reclassified as non-poor when incomes are combined, we estimate two logistic regression models. ${ }^{(5)}$ Our sample includes cohabiting families with at least one child who are poor according to the official Census definition. (A description of the unweighted sample is presented in the

Appendix.) For the entire (unweighted) sample, 47.1 percent are reclassified as non-poor when incomes are pooled. The first model includes demographic characteristics of the person whom the Census defines as the family head (here denoted as "parent"), as well as demographic characteristics of the cohabiting partner. The second model adds three dummy variables for whether the parent received welfare or had any earnings in the previous year, and whether the cohabitor had any earnings in the previous year.
The results in Table 5 indicate that families with a black, Puerto Rican or other non- Hispanic cohabitor are less likely to be reclassified as non-poor when incomes are combined than families with a white, non-Hispanic cohabitor. Families headed by women are twice as likely to be reclassified as non-poor due to income-pooling than are those headed by males; those who have previously been married have slightly higher odds of being reclassified as non-poor than those who never married. Cohabitor's age and education are positively and significantly related to being re-classified as non-poor, as are metropolitan residence and living in the Northeast region. Number of children is significantly negatively related to being reclassified as non-poor.
The second model shows that a family in which the parent receives welfare is 21 percent less likely to be reclassified as non-poor. If the parent has earnings, the family is 1.6 times more likely to be reclassified as nonpoor than if the parent has no earnings. Cohabitor's earnings have the largest effect on whether a family is reclassified as non-poor; if a cohabitor has earnings, the family is 13 times more likely to be re-classified as nonpoor compared to a family with a zero-earnings cohabitor. About one-quarter of cohabitors had no earnings in the previous year.
Table 6 uses the regression coefficients from Table 5 and presents predicted probabilities of being re-classified as non-poor due to cohabitation for some hypothetical single-mother families. All predictions assume the child's mother is age 30, has two children, lives in a metropolitan area in the Northeast region, and cohabits with a man who is age 35. Panel A shows that for a previously-married mother, if both she and her partner do not have a high school degree, their likelihood of being re-classified as non-poor ranges from 50 to 62 percent. If both the mother and cohabitor have a high school degree (and are white), their chance of being reclassified is 79 percent. Panel B shows that being never-married slightly reduces the probability of attaining non- poor status through cohabitation. Panels $C$ and $D$ add information from the regression that includes variables on welfare receipt and earnings. For a white mother receiving welfare and a white cohabitor, both with no high school degree, the likelihood of being re-classified as non- poor if the cohabitor has no earnings is 13 percent. If the cohabitor has positive earnings, the likelihood rises by more than 50 percentage points to 66 percent. For a similar white couple, but where the mother is not on welfare, if the mother has no earnings but the cohabitor does, the chance of being classified as non-poor is 71 percent. If the mother also has earnings, this probability rises to 80 percent. Thus, regardless of a poor, cohabiting mother's personal characteristics, the probability that she will be recategorized as non-poor through income-pooling is most affected by the labor force attachment of her partner. Even if a woman has low educational attainment and receives welfare, her probability of being reclassified is still about two-thirds if her cohabitor has earnings. In contrast, if this same mother lives with a partner who has no earnings, her prospects for "exiting" poverty via coresidence are minimal.
The recent welfare reform debate has emphasized marriage as a means by which single mothers can escape poverty. The economic benefits of marriage, however, are obviously contingent on the economic status of potential husbands. Compared to married couples, cohabitors tend be even more similar with respect to achieved characteristics, such as education (Schoen and Weinick, 1993). Thus, many single mothers who have low labor force prospects have potential partners with similar prospects. In our sample, about one-quarter of poor single mothers lived with a cohabitor who had zero annual earnings in the previous year. In such cases, neither cohabitation nor marriage will reduce poverty. To reduce poverty among poor, single mothers, greater attention should be paid to improving earnings and reducing joblessness among their cohabiting partners.

## Summary

Treating unmarried partners as if they were married couples reduces poverty rates for all persons and all children by small amounts. Between 1969 and 1989, the official child poverty rate rose by 5.6 percentage points (U.S. Bureau of the Census, 1991). Our results suggest that in 1989, the child poverty rate would have been 0.6 percentage points (three percent) lower if the incomes of cohabiting couples were pooled. Thus, only about 11 percent of the rise in child poverty over these two decades can be "accounted for" by the failure to treat cohabitors as couples. ${ }^{(6)}$
The impact on overall child poverty rates is minimal because children in cohabiting unions account for only 3.2 percent of all children. This effect will increase over time if the percentage of children living with cohabitors continues to rise. Thus, the recommendation the NAS panel on Poverty and Family Assistance that the Census Bureau should treat cohabiting partners as couples seems quite reasonable. ${ }^{(7)}$

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## ENDNOTE

1. The 1990 Census was the first to include "unmarried partner" as a category of relationship to the householder. An unmarried partner is defined as "A person who is not related to the householder, who shares living quarters, and who has a close personal relationship with the householder." Unmarried partners of the same or opposite gender can be classified as cohabitors, and both are here. Same-gender couples represent only one percent of cohabiting couples in the sample.
2. In this analysis, the number of children is determined by multiplying the number of children in the household (ages 18 and under) by the Census household weight. By this method, all children in the household are included, even if they are not related to the household head. Because Census information only indicates the relationship of the child to the household head, we cannot determine whether the cohabitor is a biological parent of the child. 3. Welfare reform legislation enacted in 1996 gave states greater flexibility in defining eligibility. In 1990 (the year for which we have data), the Federal system was still in effect.
3. By definition, the number of children in rows 2 and 3 must be the same in both parts of the table--a child can be reclassified only if s/he lives in a cohabiting family.
4. Because our data are cross-sectional, our results should be interpreted as descriptive estimates of the characteristics associated with being reclassified from poor to non-poor if cohabitors were treated as married couples.
5. This calculation assumes that cohabitation was so infrequent in 1969 that it did not then affect the child poverty rate.
6. One caveat is in order: If the Census Bureau were to adopt this procedure, it would be important to ask unmarried partners about actual income-sharing. Though preliminary research evidence (Bauman 1997) equivocally supports the assumption of income-sharing, the poverty-reducing effect of combining cohabitors into one family is overstated if many unmarried partners do not pool their incomes, or if they pool only for certain expenses, such as food and rent.
