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MOTHER-ONLY FAMILIES

Low Earnings Will Keep Many Children in Poverty

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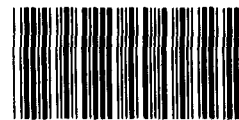
Human Resources Division

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The Honorable Dan Rostenkowski
Chairman, Committee on Ways and Means
House of Representatives

The Honorable Lloyd Bentsen
Chairman, Committee on Finance
United States Senate

Over the past few years, policymakers at all levels of government have aimed legislative initiatives at the national problem of child poverty. Census data indicate that throughout the 1980s, about 20 percent of children under the age of 18 lived in families with incomes below the poverty line. This has raised serious concerns about the welfare of these children and about the future productivity of the American labor force if so many children are growing up in poverty.

This report provides an empirical estimate of the magnitude of the problems mother-only families face escaping from poverty and examines federal policies that could help them. In 1987, slightly over 60 percent of the children below the poverty line lived in mother-only families. These children are more likely to experience long-term poverty than children living with both parents.

Background

There has been a longstanding debate among policymakers concerning the causes of poverty, the role of the welfare system in perpetuating poverty, and the direction public policy should take to reduce or eliminate poverty. Some have argued that helping the poor escape from poverty requires making welfare a less attractive alternative to working. Others have emphasized that the poor need better skills to obtain jobs that provide an adequate income.

In 1988, dissatisfied with the welfare system, the Congress enacted the Family Support Act (FSA). Under the act, the welfare system was redesigned to promote economic self-sufficiency of low-income parents, particularly single mothers. To achieve this goal, FSA aims to (1) help welfare recipients enter the labor force through education and training provided under its Job Opportunities and Basic Skills Training (JOBS) program and (2) provide short-term support services, primarily health benefits and child care, to facilitate the transition.

FSA also strengthens government efforts to ensure that noncustodial parents provide their families with financial assistance. FSA requires (1) the withholding of child support from the wages of absent parents in certain cases and (2) the use of state guidelines in making child support awards.[1]

The Omnibus Budget Reconciliation Act of 1990 provides additional support for poor families with children. The earned income tax credit (EITC) will be increased, making more income available to the working poor; Medicaid is to be gradually expanded to cover all children in poverty;[2] and block grants will allow states to devote more resources to improving quality and increasing availability of child care.

Objectives, Scope, and Methodology

We undertook this review as part of our basic legislative responsibility to study poverty and legislative approaches designed to remedy this national problem. Our objective was to examine how government policies might interact to improve the prospects for self-sufficiency in mother-only families.

Using data from the National Longitudinal Survey of the Labor Market Experience of Youth (NLSY), we first developed empirical estimates of the obstacles young single mothers face in supporting themselves without public assistance.[3] For single mothers in the sample, we (1) developed a measure of the expected earnings for full-time or part-time work; (2) examined data on the availability of important fringe benefits, such as sick leave and health insurance; and (3) analyzed information about their child care problems. We then compared their potential earnings, plus other reported sources of income, with the poverty line to see whether they could be expected to earn their way out of poverty without public assistance. We also examined possible sources of supplementary support, particularly for those with low earnings potential. (See apps. II-VII for details on the components of our analysis.)

[1]By 1994, wage withholding will be mandatory in all new child support awards. For cases in which payments are in arrears, mandatory withholding has been required since 1984 for those on public assistance and since 1990 for all others.

[2]Coverage will be extended each year— from the age of 8 and under in 1991 to the age of 18 and under in 2001. Non-AFDC mothers will not be covered unless they are pregnant.

[3]NLSY is a national survey that has interviewed approximately 11,000 young women and men yearly since 1979. Our analysis is based on the 1,123 women from this survey who were single mothers in 1986 when they were aged 21 to 28. For further description of NLSY, see appendix I.

Results in Brief

We found that many single mothers will remain near or below the poverty line even if they work at full-time jobs. Problems they are likely to face include low earnings; vulnerability to layoffs and other work interruptions; lack of important fringe benefits such as paid sick leave and health insurance; and relatively high expenses for child care. Our work shows that these problems pose significant challenges for FSA and other programs that aim to reduce the number of children in poverty.

Our analysis also indicates that 1990 legislative expansion of the earned income tax credit and child care subsidies could increase the percentage of poor families that live without welfare. Nevertheless, many poor single mothers will still need better job skills to raise their earnings. Otherwise, they will probably have to rely on public assistance and other income supplements to live above the poverty line. AFDC benefits, food stamps, and child support payments are especially important income supplements.

Single Mothers Face Obstacles to Self-Support

Poor women in our sample tend to have less education, less work experience, and, as a result, lower earnings potential than women who are not poor. The low-paid jobs that many poor women can find are less likely to provide health insurance and paid sick leave. Compared with nonpoor single mothers, poor women in our sample have more children and younger children. Therefore, these women often have more problems finding and paying for child care, and they are more likely to lose time from work because of disruptions in child care arrangements or children's illnesses. At the same time, the larger families of these women require more income to keep the family above the poverty level.

Low Levels of Education and Work Experience Limit Earnings Potential

Nearly half of poor single mothers in our sample had not finished high school, compared with 17 percent of single mothers who were not poor. Test results showing low achievement underscore these educational deficits. Specifically, on the Armed Forces Qualifying Test (AFQT), three-quarters of poor women had scores in the bottom half of the distribution for all women in their age group; nearly one-quarter were in the bottom tenth of the distribution.

Lack of work experience also limits the earnings potential of women in poverty. Young mothers in poverty averaged 2 years of work experience compared with 5 years for nonpoor mothers. For many of those in poverty, their only work experience was in short-term or part-time jobs. Over half had less than 1 year of full-time work experience.

As a result of low educational levels and lack of work experience, the wages that young mothers in our sample could expect to earn were quite low. Among those who had worked in the previous year, the median wage for poor women was $3.75 per hour (1986 dollars) compared with about $6.00 for those who were not poor.[4] We also estimated each woman's potential wage—our estimate of the best wage she could be expected to obtain without further education or job training (see app. II). The median potential wage predicted for women in poverty was $4.50 per hour, compared with about $6.50 for nonpoor women.[5]

Full-Time Year-Round Work Difficult for Women With Children

Most women with young children do not work full time year-round. Census figures show that in 1987, about 64 percent of women with children under the age of 6 worked at some time during the year, but only one-quarter worked full time (35 hours or more) for 50 or more weeks (at least 1,750 hours). Among NLSY mothers who did not receive AFDC benefits during the previous year, less than half worked as much as 1,750 hours (see table 1). Among those who worked at some time during the year, the average single mother worked about 1,630 hours and the average married mother about 1,310 hours.

Table 1: Hours of Paid Employment for Non-AFDC Mothers

In percent

Hours	Total sample		Workers only	
	Single	Married	Single	Married
None	16	26	a	a
Less than 1,750	37	47	44	63
1,750-2,079	15	10	18	14
2,080 or more	32	17	38	23
Total	**100**	**100**	**100**	**100**

Note: Sample of non-AFDC mothers consists of 614 single mothers and 1,486 married mothers.
[a]Not applicable.

Source: GAO calculations based on NLSY.

Even if they want to work full time, women often have to take time off when they or their children are sick or when child care arrangements

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[4]Although wages have risen since 1986, they do not appear to have outpaced inflation. For example, the recent increase in the minimum wage to $3.80 makes it approximately the same as the minimum of $3.35 in 1986 dollars.

[5]The potential wage for women who were working was on average higher than the actual wage. This is the case because the potential wage was based on whichever was higher—the highest wage a woman had earned over the previous 7 years or a wage predicted on the basis of her education and work experience.

break down. Reduced hours of work will translate into lower earnings unless jobs provide sufficient vacation and sick leave. But the jobs young mothers in our sample are likely to find will often lack these benefits. On the basis of the percentage of young working mothers who reported having paid vacation and sick leave at different levels of pay, we estimated that about one-quarter of mothers in poverty could be expected to find jobs that would not provide a paid vacation. About half would not have paid sick leave (see app. III).

Economic conditions that result in layoffs, difficulty in finding full-time employment, or reduced hours due to slack work also make full-time year-round work difficult to achieve. Among poor women in our sample who were not employed, 24 percent were looking for work and another 5 percent were not looking because they thought no work was available. Of women employed part time, 30 percent said they could not find full-time employment and 7 percent said they worked part time because of slack work.

Child Care a Problem for Some

Recent survey data show that child care costs amount to 21 to 25 percent of income for low-income households that pay for care.[6] In our sample, about 70 percent of working mothers with preschool children paid for child care while working full time. The other 30 percent had access to free child care—most commonly provided by relatives but, in some cases, subsidized formal care. The median amount paid for child care was about $40 per week for full-time working women with preschool children.

About 20 percent of poor single mothers who were not in the labor force cited lack of child care as the reason they were not looking for work. We do not know whether these women believed they could not find adequate child care in their communities or whether they thought they would be unable to afford the care that was available.

Many Jobs Lack Health Insurance

We estimated that about 35 percent of poor single mothers would probably not have health insurance in the jobs they could be expected to find (see app. III). Lack of health insurance in many low-wage jobs may discourage employment and encourage dependence on welfare to obtain Medicaid benefits, especially if the mother or children have health

[6]Whose Minding the Kids? Bureau of the Census, Current Population Reports, Series P-70, No.20 (Washington, D.C.: GPO, 1990).

problems.[7] Although Medicaid will gradually cover more children below the poverty line, the mother herself will not be covered.

Many Single Mothers Unable to Earn Enough to Escape From Poverty

The number of hours single mothers can work at a paying job, while carrying out their child-rearing duties, will have a strong impact on their ability to escape from poverty through employment. We developed three scenarios to illustrate this point. For our sample of single mothers below the poverty line, we estimated yearly earnings if they were to work

- 40 hours per week year-round (2,080 hours), our best-case scenario;
- the number of hours worked by non-AFDC mothers with similar characteristics (see app. IV);[8] and
- 30 hours per week year-round, the amount of work that meets the employment and training requirement under JOBS.

If all poor single mothers obtained jobs at their potential wage rates, the percentage not earning enough to escape from poverty would be 35 percent under the first scenario, 52 percent under the second, and 70 percent under the third (see fig. 1).
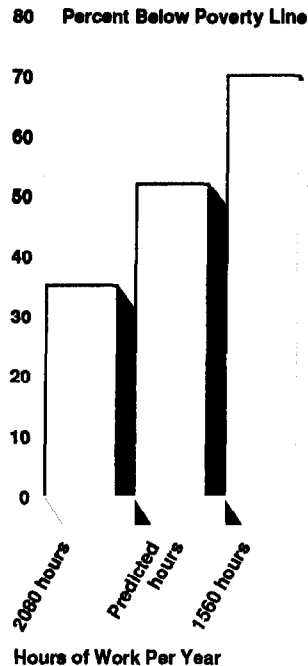
These percentages are based on official poverty thresholds, but researchers have voiced concerns because these thresholds are based on expenditure data from the 1950s that do not reflect current basic needs (see app. V).[9] Child care expenditures—a major cost incurred by employed mothers—would have been a small part of total expenditures in the 1950s, when most mothers did not work outside the home. However, with child care costs now amounting to 21 to 25 percent of total income for low-income families paying for child care, much less income remains for other basic needs.

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[7]One study has estimated that providing health insurance to all employed single mothers would reduce the AFDC caseload by about 10 percent. See Robert Moffitt and Barbara Wolfe, "The Effect of the Medicaid Program on Welfare Participation and Labor Supply," National Bureau of Economic Research, Working Paper No. 3286 (Cambridge, Mass.: 1990). AFDC caseworkers also report that women who do not obtain health insurance sometimes quit their jobs to regain Medicaid coverage if they or their children develop health problems. See Work and Welfare: Current AFDC Work Programs and Implications for Public Policy (GAO/HRD-87-34, Jan. 29, 1987).

[8]Yearly hours worked by single mothers varied depending on the number and ages of the children, mothers' health status, and their hourly rates of pay. Poor single mothers would work an average of about 1,750 hours per year based on the above variables, with a range of about 1,280 to 2,600 hours.

[9]Patricia Ruggles, Drawing the Line (Washington, D.C.: The Urban Institute Press, 1990).

Figure 1: Single Mothers Below Poverty Line, by Hours of Work

80   Percent Below Poverty Line

[Bar chart with y-axis from 0 to 80 in increments of 10, showing three bars for "2080 hours", "Predicted hours", and "1560 hours"]

Hours of Work Per Year

Note: Predicted hours vary depending on number and ages of children, as well as health status and potential wage of the mother.
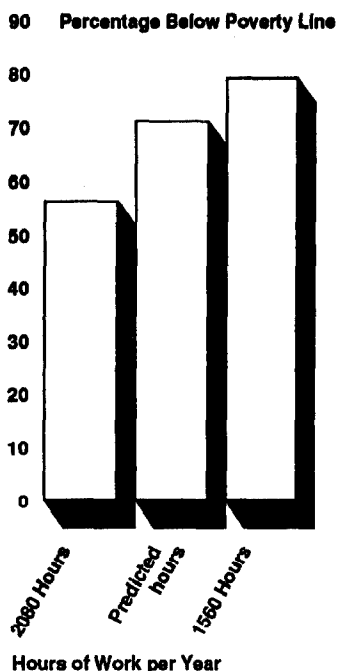Source: GAO estimates based on NLSY.

A frequently recommended adjustment to gross income is to take into account payroll and income taxes, which may increase the income of low earners through the refundable EITC. In order to take these factors into account, we estimated net income after (1) subtracting the cost of child care (see app. VI) and the payroll tax (FICA) and (2) adding (or subtracting) the amount refundable (or owed) under the federal income tax.[10] When we used net income, poverty rates ranged from approximately 55 to 80 percent, depending on hours of work (see fig. 2), as compared with 35 to 70 percent using gross income.[11]

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[10]In making these cost estimates for child care, we assumed that nonworking mothers would be able to find child care at the same cost as employed mothers with the same number and ages of children, living in the same parts of the country. Our income tax estimates assume use of the standard deduction, the dependent care tax credit, and the EITC.

[11]The estimates using gross income correspond to official poverty rates; they could also be considered lower-bound estimates of poverty rates if all of the sample had access to free child care.

Figure 2: Single Mothers Below Poverty Line After Paying for Child Care, by Hours of Work

90   Percentage Below Poverty Line
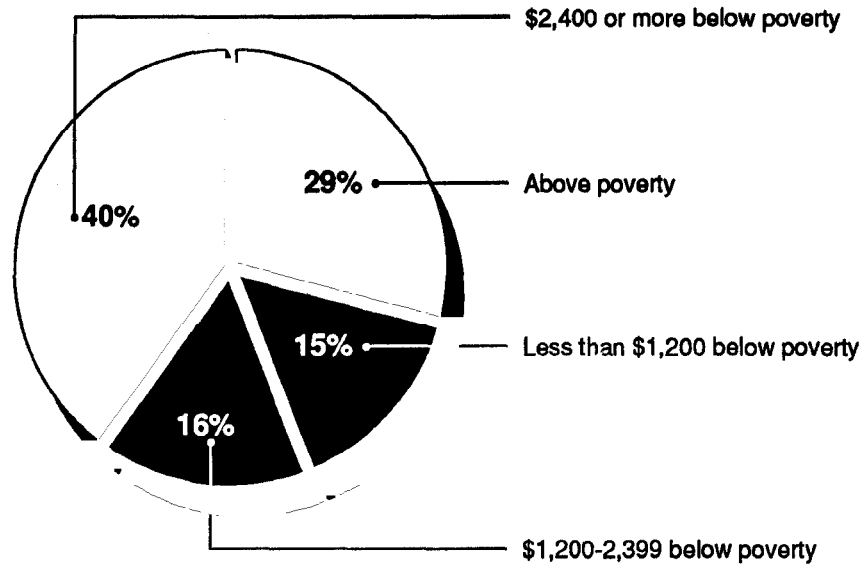

Hours of Work per Year

Note: Predicted hours vary depending on number and ages of children, as well as health status and potential wage of the mother.
Source: GAO estimates based on NLSY.

Additional Sources of Income Needed

If mother-only families are to escape from poverty, the majority of poor single mothers will need either supplementary income sources or job training that raises their earnings substantially. In our intermediate scenario, 29 percent of poor single mothers would earn enough to escape from poverty after paying for child care. The gap between income and the poverty threshold would be less than $1,200 per year for another 15 percent, but more than $2,400 for 40 percent of the families (see fig. 3). These estimates represent the poverty status of families before adding any public assistance to which they may be entitled.

Figure 3: Net Income Compared With Poverty Line

- $2,400 or more below poverty — 40%
- Above poverty — 29%
- Less than $1,200 below poverty — 15%
- $1,200-2,399 below poverty — 16%

Source: GAO estimates based on NLSY.

Effects of AFDC Benefits and Food Stamps

Families with incomes below the poverty line can receive additional income from AFDC in some states and from food stamp benefits in all states. Because AFDC benefits offer different levels of support in each state, we cannot readily estimate poverty rates after including AFDC benefits.[12] Instead, therefore, we show examples of income deficits for two mothers—a minimum-wage earner and a median-wage earner—each with two children (see app. VII).[13] Both women work 1,750 hours per year, the median predicted hours for our sample.[14]

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[12]Medicaid benefits, which AFDC recipients receive automatically, also vary widely in coverage from state to state.

[13]In our examples, each woman pays $2,100 for child care, the amount predicted for women with two children, the youngest aged 2. Neither has any private source of income other than earnings. Their wage rates are $3.80 per hour, the current minimum wage, and $5.15 per hour, the median wage rate for our sample. All figures are expressed in 1989 dollars to simplify the calculation of AFDC and EITC amounts.

[14]These examples do not allow for extended layoffs or other circumstances that often reduce hours of work.

Before including AFDC benefits, the gap between net income and the 1989 poverty threshold for a family of three would be $5,039 for the minimum-wage earner and $2,857 for the median earner (see table 2).[15] In 14 states, even the minimum-wage earner would probably not be eligible for AFDC benefits. In a median-benefit state, the minimum-wage earner would be entitled to about $850 per year in AFDC benefits, bringing the gap between income and the poverty line to about $4,187; the median-wage earner would not be eligible for AFDC benefits.[16] Even if food stamps are counted as income, the two families would remain below the poverty threshold in the median-benefit state.[17] However, in a few states with high AFDC benefits, the addition of food stamps would bring both families above the poverty line.

Table 2: Gaps Between Poverty Line and Net Income With Various Income Supplements

In 1989 dollars

	Earnings level	
Income supplement	Minimum wage[a]	Median wage[b]
No supplement	$5,039	$2,857
With median state AFDC benefits	4,187	2,857[c]
With AFDC and food stamps	1,584	564[c]

Note: Net income is equal to gross income minus taxes and child care costs. Calculations based on families with two children, mothers working 1,750 hours per year and paying $2,100 for child care.

[a]$3.80 per hour.

[b]$5.15 per hour.

[c]Not entitled to AFDC benefits.

[15]Gaps between the poverty threshold and gross income would be smaller than those using net income (see table VII.2).

[16]We based our AFDC calculations on income disregards as well as child care expenses after 1 year of employment. The minimum-wage earner would be eligible for larger benefits for the first 4 months of employment, and the median earner would also be entitled to a small benefit. Both would be entitled to subsidized child care for 1 year after losing AFDC eligibility.

[17]Food stamps are not counted as income in official poverty data, but many researchers favor their inclusion. In the examples shown in table 2, we used food stamp amounts that were based on the maximum allowable shelter deduction. If families had access to inexpensive housing, food stamp amounts could be up to $600 per year less than our calculations.

Increased Earnings Through JOBS

If JOBS succeeded in preparing the minimum-wage earner for a job at the median wage, her income and poverty status would become that of the median-wage earner.[18] In most states, her increased earnings would be partly offset by her loss of AFDC benefits, and her income would still be below the poverty threshold. The median earner would need a wage increase of about 50 cents an hour to bring her net income (including food stamps) up to the poverty line, but would need a wage increase of at least $2.00 an hour to reach the poverty line without public assistance. As shown by these amounts, for the most disadvantaged single mothers—even after a considerable increase in earnings capacity—supplementary income sources will be needed if their families are to escape from poverty.

Other Sources of Income

Increased Child Support

Increased child support should become available in the future as FSA tightens enforcement of payments made by noncustodial parents and as new awards comply with state guidelines. Larger awards and better enforcement of payments may allow many single-parent families to leave poverty with the help of child support from fathers. In our sample, only about one-third of single mothers who were not on AFDC received any child support and the median amount received was about $1,200 per year. This amount of child support (together with food stamps) would bring the median-wage earner in the example close to or slightly above the poverty line. If the amount of child support was increased to $3,000, the minimum-wage earner would also have income near the poverty line (see table VII.3).[19]

Subsidized Child Care

Subsidized child care could be important when the mother's earnings are too low to bring her above the poverty line but too high for her to receive AFDC benefits. For example, in a subsidized child care program that required families to pay no more than 10 percent of income for child care, the median-wage earner would have some reduction in food stamp benefits, but she would retain enough additional income to bring

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[18]At 1,750 hours of work, this would mean increased earnings of nearly $2,400 per year. This amount is greater than the average observed in previous job training programs for which increases in yearly earnings have usually ranged from very little change up to $1,500 per year. See Robert Moffitt, "Incentive Effects of the U.S. Welfare System: A Review," Special Report No. 48 (Madison, Wisconsin: Institute for Research on Poverty, 1990).

[19]We estimated that the average woman in our sample might potentially receive approximately $3,000; we based this on estimates of the average father's earnings and award standards from the state of Wisconsin (see app. VII).

her above the poverty line (see table VII.4). In contrast, reduced child care expenses for the minimum-wage earner on AFDC would increase countable income for determining AFDC eligibility. The resultant loss of AFDC benefits would nearly offset the reduction in child care costs.

EITC Increases

Increases in the EITC included in the Omnibus Budget Reconciliation Act of 1990 will improve the outlook for poor families. By 1994, when fully phased in, the EITC could increase—from 29 percent (see fig. 3) to about 37 percent—the percentage of poor single mothers in our sample who could escape from poverty without public assistance.[20] In our examples (see table 2), income deficits would be reduced by $715 per year. This amount combined with food stamps would bring the median-wage earner above the poverty line.

GAO Observations

Our work demonstrates that many single mothers who find employment will continue living below the poverty line. They will need intensive skill-enhancement and income supplements if they are to escape from poverty.

Through JOBS, many AFDC participants can be enrolled in education, job training, or other employment-related programs. The resources and mix of services the states decide to provide may determine whether JOBS can improve on previous job-training programs, which have typically produced only small earnings increases. With limited funds, states may make trade-offs between serving more people with low-cost programs and fewer people with more intensive programs. Ongoing research and evaluation of JOBS may be able to determine the most effective ways to aid the disadvantaged.[21]

Even relatively large increases in earnings would not be enough to bring many disadvantaged single mothers out of poverty. In addition to AFDC benefits and food stamps, other recently enacted income supplements could raise these families close to or above the poverty line, depending on the states they live in and their individual circumstances. Because child support appears to be one promising income supplement, monitoring progress in implementing the child-support enforcement system

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[20]Between 1991 and 1994, the maximum payment rate of the EITC will gradually increase for one-child families from the previous rate of 14 percent to 23 percent and for families with two or more children, to 25 percent.

[21]One major research effort will be an 8-year evaluation of various JOBS programs by the Manpower Demonstration Research Corporation under a contract with HHS.

will be important. For the near-future, however, many single mothers will not have income from child support. Currently, subsidized child care and the mandated increase in EITC could provide important income supplements. In addition, making sure that health insurance is available could encourage continued employment.

If implemented effectively, legislated expansion of income supplements and services should help reduce poverty in mother-only families. As efforts to foster self-sufficiency among single mothers expand, we believe government needs to assure that these women have adequate knowledge of, and access to, sources of support. We also believe continuing evaluation will help policymakers achieve the mix of income supplements and services that will be most effective in reducing poverty.

We did our work between August 1989 and December 1990. Because the facts and analysis conveyed in this report do not pertain to a specific agency, we did not obtain agency comments. We did, however, obtain the views of experts and incorporated their comments as appropriate.

This report was prepared under the direction of Joseph F. Delfico, Director, Income Security Issues, who can be reached on (202) 275-6193. Other major contributors are listed in appendix VIII.

Lawrence H. Thompson
Assistant Comptroller General

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Description of the National Longitudinal Survey of Youth

The National Longitudinal Survey of Youth (NLSY) was started in 1979 by the Center for Human Resource Research (CHRR) at the Ohio State University; funding was provided by the Department of Labor. The original national probability sample for NLSY consisted of 5,578 young women and 5,828 young men, 14 to 21 years old. Blacks, Hispanics, and disadvantaged whites were overrepresented so that their numbers would be large enough to provide reliable information about these groups. Interviews have been conducted annually with this sample by the National Opinion Research Center (NORC) at the University of Chicago under subcontract with CHRR.

Originally, NLSY focused primarily on labor market experiences such as employment, unemployment, job training, and wages. But data on family composition, education, and income sources and amounts have also been collected at all interviews. In certain years, information collected by NLSY has been more diversified, reflecting the interests of such agencies as the Department of Defense and the National Institute for Child Health and Human Development, which have also contributed to the funding of the survey.

Public use data tapes are provided by CHRR. These include the original data from all interviews that have currently been coded and prepared for use, as well as a number of extract data tapes provided for users with specialized interests. We used one of these extract data tapes, the merged child-mother, in our analysis.[1]

Because of the oversampling of minorities and disadvantaged whites, individual case weights must be used for providing tabular information that reflects national totals. NLSY data tapes provide sampling weights for each case for each interview year. These weights are calculated by first applying a factor equal to the reciprocal of the probability that the respondent would be included in the survey. The weights are then adjusted to allow for underrepresentation of different subgroups because of nonresponse either in the initial interview or in later surveys. These sampling weights have been used to prepare all tabular presentations in this report.

Our report is based on the 1,123 women from the original NLSY sample who had had a child by the ages of 21 to 28 and were not married (or were married, but separated) at the time of the 1986 interview. The poverty sample consists of 698 cases for which enough income information

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[1]In a few cases, variables not available on the child-mother tape were added from the original tape.

was available to classify the family by poverty status. Of these, 449 had received AFDC benefits in the previous year. (See app. V for further discussion of poverty status calculations.)

To find errors in recording and coding information supplied by respondents, NORC relies on extensive interviewer training, validity checks on at least 15 percent of interviews, and range and consistency checks.[2] As in all surveys, some respondents may provide erroneous information because of poor recall, failure to understand a question, or unwillingness to reveal information; in particular, underreporting of income is a primary concern. In the Current Population Survey (CPS), the major source of income and poverty data in the United States, the Census Bureau estimates that income is underreported by about 10 percent.

The effect of underreporting of income would be to overstate the percentage of families initially in poverty. If we have overestimated this percentage, we have probably also overestimated how many families could escape from poverty through the mothers' earnings. This is the case because women who were misclassified as poor are probably more likely than those who were actually poor to have potential earnings that would put them above the poverty level.

Because of the restricted age range of the NLSY sample, our calculation of official poverty rates from NLSY cannot be compared directly with published census data. CPS reported that 61 percent of all female householders with children under the age of 6 were poor in 1985; the comparable NLSY percentage for 21- to 28-year-old women householders was 66 percent. Because young mothers are more likely to be poor than the entire group of female householders, our percentages appear to be reasonable as compared with CPS percentages.

We have not presented standard errors or confidence intervals for our estimates because of the difficulty of calculating these accurately for subgroups in a survey with a complex stratification and cluster design. Therefore, although NLSY was designed to represent the entire youth population of the United States, we refer in our analysis to the characteristics of the NLSY sample rather than to all young single mothers.

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[2]A detailed description of these procedures may be found in NLS Handbook, 1987, Center for Human Resource Research (Columbus, Ohio: The Ohio State University, 1987).

Estimating Potential Wages

In order to determine whether young mothers could earn enough to escape from poverty, we made estimates of how much they could earn if they were to find full-time jobs. Using regression analysis, we estimated an expected wage, based on the wages of employed women with the same characteristics. With this statistical technique, we predicted each woman's wage, based on such characteristics as education, the Armed Forces Qualifying Test (AFQT) score, and work experience. Because people who are not working may differ in important ways from those who are employed, wage estimates for nonworkers may be biased. We used the Olsen technique to correct for this in our estimates.[1]

The equation we used to predict the natural logarithm of the wage rate is shown in table II.1. Commonly used in this kind of analysis, the logarithmic form is preferred because it shows approximate percentage changes in wages as a result of each characteristic. For example, our equation predicts that each year of full-time work experience will increase wages by approximately 5.6 percent; an additional year of schooling will yield a 3.4 percent wage gain; and those living in the rural South can expect wages that are 17 percent lower than those living in urban areas outside the South.

Table II.1: Regression Equation for Estimating Wage Rates

Factor	Regression coefficient	t-statistic
Education	.034	5.34
Full-time work experience[a]	.056	8.27
Part-time work experience[a]	.013	1.26
Tenure on current job[a]	.019	3.12
Armed Forces Qualifying Test score[b]	.029	4.74
Living in rural South[c]	−.172	5.42
Living in rural non-South[c]	−.079	1.94
Living in urban South[c]	−.097	4.10
Olsen correction factor	−.067	0.76
Constant	5.462	86.87
Adjusted R^2	**.310**	

[a]In years.

[b]In 100s.

[c]As compared with urban non-South.

[1]Three correction techniques, including the Olsen technique, are described in Richard A. Berk, "An Introduction to Sample Selection Bias in Sociological Data," American Sociological Review, Vol.48 (1983), pp. 386-98. The variables used in the correction equation include number and ages of children, years receiving AFDC, attitudes toward work, income from child support or assets, health problems, and education.

As an example of how the predicted wage is calculated, take the case of a woman with (1) 11 years of schooling, (2) 1 year of full-time work experience, (3) 2 years of part-time work experience, (4) currently unemployed (job tenure=0), (5) an AFQT score of 600, and (6) living in the urban South.[2] The prediction equation would be

logarithm of wage rate=5.462 + (.034x11) + (.056x1) +(.013x2) + (.029x6) -.097 - (.067x -.5) = 6.028.

The predicted wage is the antilog of 6.028, which is equal to 415 (cents) or $4.15.

During the 7 years covered by the interviews, some women in NLSY had held jobs that paid more than the predicted wage; others had never worked or had never obtained a job that paid as much as the predicted wage. In order to make the most optimistic estimate, we defined the potential wage as the higher of either the predicted wage or the highest actual wage reported over the previous 7 years. For women who had never worked, the potential wage was the predicted wage unless the predicted wage was less than the minimum wage ($3.35). In this case, we assumed that the potential wage was the minimum wage. The potential wage does not take into account future wage increases that could come about as the women acquire more work experience or obtain additional education or job training.

The distribution of potential-wage estimates are shown in the first column of table II.2. The median wage was $4.50 (in 1986 dollars). For comparison, this wage is slightly higher than the median hourly wage of $4.14 in jobs participants in AFDC work programs found in 1985, as shown in a previous GAO report.[3]

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[2]The equation includes a correction factor score of -.5.

[3]Work and Welfare: Current AFDC Work Programs and Implications for Public Policy (GAO/HRD-87-34, Jan. 29, 1987), p. 104.

Table II.2: Distribution of Potential Wages

In percent

Hourly wage rate[a]	Distribution
$3.35 - 3.99	29
$4.00 - 4.99	37
$5.00 - 5.99	19
$6.00 - 6.99	5
$7.00 and over	10
Total	**100**

[a]In 1986 dollars.

Source: GAO estimates based on NLSY.

Availability of Fringe Benefits

Mothers with jobs that do not offer paid vacations or sick leave will probably lose earnings because they must take time off for illness or to cope with children's illnesses, child care problems, or other family emergencies. In addition, some women may have difficulty affording the high costs of health care. Jobs that do not provide health insurance may therefore further limit the ability of young mothers to become self-supporting.

NLSY women in low-paid jobs were least likely to have these fringe benefits (see table III.1). Applying the wage distribution in table II.2, we find that approximately 25 percent of low-income mothers would have no paid vacations, 50 percent no paid sick leave, and 35 percent no health insurance. These percentages do not allow for (1) employment in part-time jobs that are less likely to carry fringe benefits or (2) any recent changes in health insurance coverage offered by employers.[1]

Table III.1: Women Workers With Paid Vacations, Paid Sick Leave, and Health Insurance, by Hourly Wage Rate

In percent

Hourly wage rate[a]	Paid vacation	Paid sick leave	Health insurance
$3.35-3.99	62	25	46
$4.00-4.99	69	45	63
$5.00-5.99	91	70	80
$6.00-6.99	92	77	86
$7.00 and over	94	84	92

Note: Based on working at least 30 hours per week.
[a]In 1986 dollars.

Source: GAO estimates based on NLSY.

[1]Our estimates are based on employment of at least 30 hours per week, with most women in the reference sample working at least 35 hours. For evidence of erosion of employer-provided health insurance see Health Insurance: Cost Increases Lead to Coverage Limitations and Cost Shifting (GAO/HRD-90-68, May 22, 1990).

Hours Worked by Single Mothers of Young Children

A major goal of FSA is to reduce welfare dependency by promoting employment of parents on AFDC. Providing welfare benefits for single mothers who are not employed probably appears less acceptable to policymakers now than in earlier years, when most mothers did not work outside the home. However, the contribution that poor single mothers can make to the support of their families will depend on how many hours they can work. Most mothers of young children are not employed full time year-round.

In our analysis, we used three examples of hours that poor single mothers might be able to work. Because FSA considers that a woman working 30 hours per week meets the employment and training requirement under JOBS, we used a 30-hour week (1,560 hours per year) as a lower-bound example. We used a standard 40-hour week (2,800 hours per year) as an upper-bound example.

For our third example, we estimated how many hours would be worked if poor single mothers worked as much as those not on AFDC. As a reference group, we used single mothers not on AFDC rather than those who were not poor because we did not want to exclude mothers who remained poor, though employed. However, because FSA requires at least 30 hours per week to fulfill its work requirements, we excluded women who voluntarily worked less than 30 hours. Because we wanted a reference group with strong labor force ties, we also excluded women who had been in the labor force (either working or looking for work) for less than 39 weeks in the previous year.

In order to determine what factors influenced hours of work, we did a regression analysis of the number of hours worked in the previous year by this reference group of single non-AFDC mothers (see table IV.1). These are the results: women with children under the age of 3 worked less than those with older children; women with bigger families worked less than those with smaller families; and women with low wages tended to work less than those with high wages. For example, 1,914 hours per year would be predicted for a healthy woman with one 4-year old child and a job paying $5.00 per hour.[1] If the woman held a minimum-wage job and had a 1-year-old child and an older child, 1,584 hours of work per year would be predicted for her.

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[1]Calculated as follows: 1797.06+(41.49x5) -76.47-13.92=1914.12.

Using these estimates, we predicted that for the average young mother in poverty, total hours of work would be about 1,750 hours per year.[2] About half would remain poor if they worked their predicted number of hours.

In our regression analysis, we deliberately tried to make our estimates of hours of work optimistic by using a sample with strong labor force ties. Our prediction of hours worked should therefore be regarded as illustrative of hours worked that might be achieved under good circumstances.

Table IV.1: Regression Equation for Estimating Yearly Hours of Work by Young Mothers

Factor	Regression coefficient	t-statistic
Infant	−249.69	2.69
Youngest child:		
Aged 1-2	−199.58	2.62
Aged 3-5	−13.92	0.22
Number of children	−76.47	1.89
Health problem[a]	−70.07	0.35
Health problem[b]	−224.62	1.57
Hourly wage in 1986	41.49	3.56
Constant	1,797.06	
Adjusted R^2	**.097**	

[a]Health problem limited work for more than 1 year.

[b]Health problem limited work for 1 year or less.
Source: GAO estimates based on NLSY.

[2]In making this calculation, we used actual hours worked in the previous year if actual hours were greater than predicted hours and the mother was still working at the same job as in the previous year. If predicted hours were greater than 2,080, we assigned 2,080 hours unless she had previously worked more.

Determining Poverty Status

The literature is replete with criticisms of official poverty statistics. One kind of criticism concerns what is to be counted as income. Official poverty figures do not include such noncash benefits as food stamps, housing subsidies, and health insurance paid for by employers or by Medicare or Medicaid. On the other hand, official poverty figures have always used gross (pretax) income, but researchers generally agree that income net of taxes is a better measure of income adequacy. As a result of these concerns, the Census Bureau has developed alternative measures of income that take some of these factors into account.[1] However, many problems arise in measuring noncash benefits, and no agreement has been reached on an improved standard measure.

A second kind of criticism concerns the poverty thresholds themselves. As originally conceived, poverty levels were intended to reflect the amount of income that would be needed to obtain a minimum adequate level of food, clothing, housing, and other essentials. Current poverty thresholds, however, are based on expenditure data from the 1950s that may not reflect current basic needs.[2] An important example is child-care expenditures, which would have been a small part of total expenditures in the 1950s when most mothers did not work outside the home, but amounted to about 21 to 25 percent of total income for low-income families paying for child care in 1986-87.[3] Incurring these costs leaves much less income for other basic needs.

The best measure of poverty depends in part on the purpose for which the measure will be used. In this report, we are interested in determining how many women could support themselves above the poverty level without being dependent on AFDC or food stamps. Therefore, to determine which women were initially poor, we counted only income from earnings, other private sources, and government transfer programs, not including AFDC and food stamps.

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[1]Under the official poverty definition, 61 percent of female-headed households with children under the age of 6 were poor. But with other definitions, the percentage counted as poor ranged from 49 to 67 percent, depending on how many noncash benefits were included and whether taxes and government transfers were excluded from income. See Measuring the Effects of Benefits and Taxes on Income and Poverty, 1986, Bureau of the Census, Current Population Reports, Series P-60, No. 164-RD-1 (1987).

[2]Patricia Ruggles, Drawing the Line (Washington, D.C., The Urban Institute Press, 1990). Further discussions on the limitations of the poverty concept are contained in Conference on the Measurement of Noncash Benefits, Proceedings, Vol. 1, Bureau of the Census (1985).

[3]Who's Minding the Kids? Bureau of the Census, Current Population Reports, Series P-70, No. 20 (1990).

Of the NLSY sample of 1,123 single mothers, 44 could not be classified as to initial poverty status because of missing information; these cases were dropped from the analysis, leaving a sample of 1,079 cases. In some cases with missing income data, we were able to impute poverty status. In the 1986 interviews, NLSY obtained poverty status for some families with missing income information. These respondents were asked whether they thought that the total incomes of their families in the previous year was greater than the poverty level for families of their size. If respondents reported that their incomes were below this poverty level, we counted them as poor. If they reported incomes above the poverty level, we counted them as nonpoor unless they had $3,000 or more in AFDC benefits or food stamps, in which case we counted them as poor. We made this judgment because the great majority of families receiving substantial AFDC benefits or food stamps would be poor in the absence of these benefits. Using the decision rules described above, we classified 698 women as initially in poverty.

About 30 percent of NLSY single mothers were not heads of households, but lived with other relatives, usually their mothers. In these cases, we used combined family income to determine initial poverty status. However, if the family was classified as poor, we determined the ability of the young mother to earn enough to independently support herself and her children.

In our analysis of the percentages of those initially poor who might be able to earn their way out of poverty, we present (1) basic estimates, corresponding to official poverty statistics, using gross income, and (2) alternative estimates, using income net of child care costs and federal taxes. Because of the complexity of AFDC regulations, our basic estimates do not include any income from AFDC or food stamps. Examples of the effects of these and other programs are presented in appendix VII.

Estimating Child Care Costs

Determining how much low-income mothers would have to pay for child care if they were to be employed presents a variety of problems. Low-income families tend to pay less for child care than those with higher incomes.[1] These lower costs may be due to (1) low-quality care, (2) greater access to subsidized child care arrangements, or (3) more access to child care from relatives at lower cost than for more formal arrangements. The first of these reasons for cheaper care—low quality—is probably not one that policymakers will want to encourage as more low-income mothers become employed. To the extent that the second and third reasons apply, a case could be made for allowing these factors to influence our estimates. However, without any measure of child care quality, it is not possible to separate these three factors.

Because we did not want to overstate the child care costs low-income mothers would be likely to face, we decided to include their expected wages as one of the variables in our regression equation predicting these costs (see table VI.1) We also took into account the number and ages of children and the place of residence. The regression equations predict child care cost per hour of employment (not cost per hour of actual care, which would require a further determination of the number of hours of care that would be needed). These equations were used to predict child care costs nonemployed mothers would incur if they went to work.

For employed mothers who were paying for child care, we used their reported costs, adjusted for the hours they would be expected to work. Our estimates allowed for the fact that some women reported having access to free child care. If these mothers were working full time or if all of their children were beyond primary school age, we assumed they would continue to have access to free child care. If they were working part time and had younger children, we assumed they would need paid care for the extra hours they would work on a full-time schedule.

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[1]See Who's Minding the Kids? Bureau of the Census, Current Population Reports, Series P-70, No. 20 (1990).

Table VI.1: Regression Equations for Estimating Costs of Child Care Per Hour of Employment, by Age of Youngest Child

	Aged 4 or less		Aged 5 to 9	
	Regression coefficient	t-statistic	Regression coefficient	t-statistic
Wage rate	.070	7.12	.028	1.80
Number of Children	.181	5.12	.087	1.62
Youngest child:				
Aged 0-2	.136	2.61	a	a
Aged 6	a	a	−.106	1.22
Aged 7 or more	a	a	−.289	3.34
Residence:				
Urban South	−.167	3.03	b	b
Rural South	−.312	3.78	b	b
Constant	.356		.567	
Adjusted R²	**.168**		**.133**	

[a]Not applicable.

[b]Not included because effect was not significant.

The median yearly cost predicted for preschool child care for women working a 40-hour week was approximately $2,200 (1986 dollars), which is near the low end of the range of estimates on the cost of child care found in other studies.[2] If the average young mother was unable to obtain quality child care at a cost she could afford, our estimates based on average cost might be lower than some policymakers would think adequate.[3] On the other hand, some individual families may have access to child care from relatives at lower cost than those predicted for them.

[2]Estimates of $1800 to $3,000 per year for full-time child care are reported in National Research Council, Who Cares for America's Children? (Washington, D.C.: National Academy Press, 1990). However, the lowest estimates include costs for families using part-time care.

[3]For example, the average cost of full-time enrollment in a high quality early childhood education program for 4-year-olds was reported to be about $3,600 per year. See Early Childhood Education: What Are the Costs of High Quality Programs? (GAO/HRD-90-43BR, Jan. 24, 1990).

Calculation of Income Deficits

Because of the complexity of AFDC rules, we did not attempt to make estimates of poverty rates after taking into account AFDC benefits or food stamps. AFDC eligibility rules and benefit amounts differ across states and, in some cases, within states. Although food stamp rules are set at the federal level, AFDC benefits are counted as income in calculating food stamp entitlements; therefore, food stamp amounts cannot be calculated unless AFDC benefits are known.

To illustrate the effect these sources of support would have on income adequacy for employed single mothers, we calculated AFDC benefits for a minimum-wage earner and a median-wage earner in low, median, and high-benefit states (see table VII.1). In our examples, the women have two children, work 1,750 hours per year (the median hours predicted for single mothers in our sample), and pay $2,100 for child care (the approximate amount predicted for women with two children, the youngest a 2-year old). We expressed all amounts in 1989 dollars for convenience in taking into account recent benefit levels and rules.

In 14 states, the minimum-wage earner would not be eligible for AFDC benefits. She would receive $71 per month in the median state and $374 in one of the highest states (California).[1] The median earner would be eligible for AFDC benefits in only 13 states; in California, she would receive $177 per month.

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[1] Alaska has the highest benefit level, but because of its very small population and unusually high cost of living, it is atypical and we chose not to use it as an example. California has the next highest benefits, approximately the same as Suffolk county, New York, but considerably higher than New York City.

Table VII.1: Income From Various Sources for Minimum-Wage and Median-Wage Earners in States With Low, Median, and High AFDC Benefits

1989 dollars

	Earnings level	
Income source	Minimum wage[a]	Median wage[b]
Earnings	$554	$751
Countable income[c]	289	486
AFDC benefit:		
Low state	0	0
Median state	71	0
High state	374	177
Food stamps amount:		
Low state	236	191
Median state	217	191
High state	126	138

Note: Both earners are employed for 146 hours per month.
[a]$3.80 per hour.

[b]$5.15 per hour.

[c]Earnings minus $175 (child care expenses) minus $90 income disregard.

These figures were calculated by first determining countable income, which is defined as gross income minus $90 and child care expenses of $175 per month. Countable income is then subtracted from the state's maximum payment amount—$360 per month for the median state and $663 for California. These amounts represent benefits after 1 year of employment. In the first 4 months of employment, an additional $30 plus one-third of earnings is disregarded in determining countable income. After 4 months, the $30 disregard remains until the end of the first year. Because we wanted to determine longer-term income adequacy, we chose to represent benefits after the first year.

Food stamp benefits depend not only on AFDC benefits but also on the extent to which shelter costs exceed 50 percent of counted income. For food stamp calculations, counted income is equal to gross income minus two-tenths of gross earnings, child care expenses up to a maximum of $160 per child, and a standard deduction ($106 in 1989). Shelter costs in excess of 50 percent of counted income are then deducted, up to a maximum of $170. Finally, three-tenths of counted income is subtracted from the maximum food stamp award, which was $236 for a family of three in 1989.

In table VII.1, we show awards based on the maximum shelter cost deduction. For shelter costs of $400 per month, both mothers would be

entitled to the maximum deduction except in states with high AFDC benefits. In our high-benefit examples, shelter deductions would be slightly below the maximum. As a result, food stamp benefits would be reduced by $6 per month for the median earner and by $11 for the minimum-wage earner. If the families had shelter costs that were less than half of counted income, food stamp amounts could be reduced by as much as $50 per month below those shown in table VII.1. However, the minimum wage earner would not lose her entire shelter cost deduction unless her shelter costs were under about $115 per month in the median-benefit state and about $80 per month in the low-benefit state.

Gross and net income deficits are shown in table VII.2. Income deficits are defined as the difference between the poverty line and income: Gross income deficits use the same income definition as official poverty statistics; net income deficits include income after adjusting for child-care expenses and federal taxes. We show net income deficits before and after including food stamp benefits. In addition to the minimum-wage and median-wage earners, we show an example of a woman earning $7.00 per hour. This woman would not be eligible for AFDC benefits even in the high-benefit state, but after food stamps her net income would be above the poverty line in all states.[2]

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[2]One-child families would be somewhat better off than the two-child families shown in table VII.2. In low-benefit and median-benefit states, minimum-wage earners would have income deficits of about $1,400 after food stamps; median earners would be close to or slightly above the poverty level.

Table VII.2: Gross and Net Income Deficits for Three-Person Families, by Mother's Earnings in States With Low, Median, and High AFDC Benefits

Amounts in 1989 dollars

Earnings	Earnings levels		
	Minimum wage[a]	Median wage[b]	High wage[c]
Poverty line	$9,990	$9,990	$9,990
Gross income Including AFDC benefit:			
Low state	6,650	9,013	12,250
Median state	7,502	9,013	12,250
High state	11,138	11,136	12,250
Gross income deficit:			
Low state	3,340	978	[d]
Median state	2,488	978	[d]
High state	[d]	[d]	[d]
Net income deficit:[e]			
Low state	5,039	2,857	323
Median state	4,187	2,857	323
High state	553	733	323
Net income deficit after food stamps:[f]			
Low state	2,207	564	[d]
Median state	1,584	564	[d]
High state	[d]	[d]	[d]

Note: Income deficits measure the gap between the poverty lines and income, assuming 1,750 hours of work and child care costs of $2,100 per year. (Numbers may not add due to rounding.)

[a]$3.80 per hour.

[b]$5.15 per hour.

[c]$7.00 per hour.

[d]Above poverty threshold.

[e]Net income as equal to gross income minus child care costs plus the refundable portion of the EITC minus the payroll tax.

[f]Assumes maximum shelter cost allowance in calculating food stamp amounts.

The effect of child-support payments of $3,000 is shown in table VII.3; $3,000 is the approximate amount that the median family in our sample could be expected to receive if subject to Wisconsin's child-support

guidelines. Under these guidelines, noncustodial parents with two children are required to pay 25 percent of their income in child support.[3] With this level of child support, even the minimum-wage earner would be close to the poverty line after counting income from food stamps.

Table VII.3: Net Income Deficits for Three-Person Families, With Child Support of $3,000

Amounts in 1989 dollars

	Earnings level	
	Minimum wage[a]	Median wage[b]
Poverty line	$9,990	$9,990
Gross yearly income after AFDC:		
Median state	9,650	12,013
High state	11,736	12,013
Net income deficit:[c]		
Median state	2,039	d
High state	d	d
Net income deficit after food stamps:[e]		
Median state	79	d
High state	d	d

Note: Same conditions as table VII.2 except $3,000 in child support.

[a]$3.60 per hour.

[b]$5.15 per hour.

[c]Net income = gross income minus child care expense plus refundable part of EITC minus the payroll tax.

[d]Above poverty line.

[e]Assumes maximum shelter cost allowance in calculating food stamp amounts.

In the NLSY sample, only one-third of mothers not on AFDC received any child support; the median amount received was about $1,200. This amount would bring the median earner up to the poverty line after counting food stamps, but the minimum earner would only retain $600 per year and would still be well below the poverty line.

Income deficits if families were to receive subsidized child care are shown in table VII.4. Subsidized child care may often take the form of a sliding fee scale, based on ability to pay. In our examples, families are required to pay 10 percent of their earnings for child care. Because child

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[3]We used Wisconsin as an example because of the simplicity of its guidelines, which consider only the noncustodial parent's income, in contrast to other formulas, which use both parents' income and other factors. Wisconsin guidelines appear to be more generous than those of many other states for high-income parents, but not at the low end of the income distribution. See comparisons in Developing Guidelines for Establishing and Updating Child-Support Orders: Interim Report, Office of Child Support Enforcement, U.S. Department of Health and Human Services (1985).

care costs are lower than the $175 per month in table VII.I, countable income is higher. As a result, the minimum wage earner would become ineligible for AFDC benefits in the median state.

Table VII.4: Net Income Deficits for Three-Person Families With Subsidized Child Care

Amounts in 1989 dollars

	Earnings level	
	Minimum wage[a]	Median wage[b]
Poverty level	$9,990	$9,990
Gross yearly income after AFDC:		
Median state	6,650	9,013
High state	9,703	9,937
Net income deficit:[c]		
Median state	3,604	1,658
High state	553	733
Net income deficit after food stamps:[d]		
Median state	1,175	e
High state	e	e

Note: Same conditions as table VII.2 except that child care costs equal 10 percent of earnings.

[a]$3.60 per hour.

[b]$5.15 per hour.

[c]Net income equals gross income minus child care cost plus refundable EITC minus payroll tax.

[d]Assumes maximum shelter cost allowances in calculating food stamp amounts.

[e]Above poverty line.

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