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**Does the Welfare State Work? Evidence on Antipoverty
Effects from the Luxembourg Income Study**

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DOES THE WELFARE STATE WORK? EVIDENCE ON ANTIPOVERTY EFFECTS FROM THE LUXEMBOURG INCOME STUDY*†

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Abstract

This paper estimates a three-equation empirical model of child poverty in Sweden and the U.S. using data from the Luxembourg Income Study. Market income poverty rates are found to be broadly similar when the characteristics of the children's parents are controlled for. However, children who are market-income poor face very different welfare states in the two countries, and, as a result, disposable income poverty rates in Sweden are much lower than in the U.S. It is also found that the proportion of all children, who are not poor based on their parents' market income, but are taken into poverty by taxes, is higher in the U.S. than in Sweden.

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1 Introduction

It is now well-known that child poverty rates in the U.S. are much higher than those in many European countries (e.g., see Smeeding and Torrey, 1988; Smeeding, 1992). These differences, found in descriptive analyses that examine one factor at a time, have been attributed to differences across countries in how labor markets operate, labor market institutions, and the extent and effectiveness of the welfare state.

In this paper, we present a three-equation model that we use to decompose the change in poverty in a country over time into separate effects due to labor market differences and welfare state differences. We estimate the model using microdata for the U.S. and Sweden from the Luxembourg Income Study (LIS). For each country, we begin with the probability that a child will be market income poor, that is poor before the intervention of the welfare state. We then focus on the probability that the family of a market income poor child will receive government social transfers. Lastly, we examine the probability that the market-income poor child, who receives transfers, receives enough benefits to escape poverty.

Our results yield one major surprising finding and two expected ones. The former is that, despite large differences in government labor market policies and in the strength of labor unions, the probability that a child with given characteristics will be poor on the basis of his/her parents' performance in the market economy is remarkably similar in the two countries. The expected findings are that children in the U.S. whose parents fare poorly in the labor market remain poor because the government does relatively little to help them. That is, relatively few of them receive transfers and many of those who do receive transfers do not receive enough to escape from poverty. All poor children in Sweden – in fact, all children in Sweden – receive transfers. And, most market-income poor children in Sweden, particularly those living in mother-only families, receive enough assistance to escape poverty. We also examine the question of horizontal equity with respect to poverty. To our surprise, when examining the proportion of children in each country who are taken into poverty by

taxes, we find more re-ranking across the poverty line in the U.S. than in Sweden.

This paper is organized as follows. Section 2 presents our model of the poverty and transfer rates for children, controlling for the characteristics of their families. The model is used to form predictions on poverty and transfer probabilities for six benchmark cases, and to decompose the aggregate changes into separate parts due to demographic changes and changes in the coefficients. Section 3 discusses issues of horizontal equity of the tax and transfer systems with respect to poverty and the final section presents our conclusions.

2 Predicted poverty rates

In order to systematically analyze how demographic and economic changes affected the trend in child poverty, we estimate a set of regression equations that control for the characteristics of the children. These results are descriptive, as we have not attempted to explain any behavioral effects induced by the welfare state. Thus, we have not addressed sample selection issues or modelled any correlations between the equations, even though they are not entirely independent of each other. We are merely describing the mean probabilities that a child with different exogenous characteristics will be market income poor [$\Pr(MIP)$], that the family of a child who is market income poor will receive a transfer [$\Pr(TR|MIP)$], and that a child who is market income poor and receives a transfer will remain poor [$\Pr(DIP|MIP \cap TR)$]. The probabilities are estimated from linear probability models, described in equations (1)-(3).

$$y_1 = \beta_1 X_1 + \epsilon_1, \quad y_1 = I(y_1^* < z) \quad (1)$$

$$y_2 = \beta_2 X_2 + \epsilon_2, \quad y_2 = I(y_1^* < z \cap y_2^* > 0) \quad (2)$$

$$y_3 = \beta_3 X_3 + \epsilon_3, \quad y_3 = I(y_1^* < z \cap y_2^* > 0 \cap y_3^* < z) \quad (3)$$

Here $I(.)$ is the set indicator function, z is the poverty line, y_1^* is market income, y_2^* is social transfer income and y_3^* is disposable income.¹ The vector X_1 consists of the age of the

¹Sweden has a universal child allowance. Since every child receives this, we do not count it in the

household head, education (U.S.) and the labor market status of both head and spouse (if present), the number of siblings and a dummy variable for house ownership.² The vector X_2 further includes the age of the youngest child and the market income poverty gap - ratio G , which indicates how far a poor family's income is below the poverty line. The third equation, indicating whether a child is poor after both market income and the welfare state, includes the same explanatory variables as equation (2). The LIS data does not have information on parents' education in Sweden. Instead, we controlled for the parents' occupational status. However, we dropped these controls in the final specification, since they did not appear to have much explanatory power.

This system of linear probability equations is sequential, in that equation (2) is defined only for children who are market income poor and equation (3) is defined only for those who are both market income poor and receive a transfer. The model simply allows us to decompose the change in the aggregate rates into effects due to demographic change and those due to changing coefficients.

The estimates were obtained from weighted LS regressions, using the sampling probabilities as weights, estimated for each country in each year.³ We estimate separate models for children living in mother-only and two-parent families. A small, but growing category, children in single-father households, has been excluded. Since differences in poverty rates between the U.S. and other countries are often attributed to the greater degree of heterogeneity probability of receiving a transfer.

²See Appendix Table A3 for variable means.

³The use of sample weights in a regression using data from a stratified sample is not an uncontroversial question. In principle, unbiased estimates of β can be obtained in an unweighted regression if the stratifying variable is included in the regression, or if it is uncorrelated with any other explanatory variables. However, the stratifying variables are not available in most of the LIS data sets. The weighted LS estimator is the best linear predictor, i.e. it is the solution to the problem

$$\min N^{-1} \sum_{i=1}^n w_i (y_i - \hat{y}_i)^2 \Leftrightarrow \min_{\beta} N^{-1} \sum_{i=1}^n w_i (y_i - \beta' X_i)^2.$$

See Skinner, Holt and Smith, 1989, esp. chapters 6 and 7 for a discussion of bias and efficiency in complex surveys. See also Manski, 1991.

in the U.S., we have restricted our sample to include only children of white, non-hispanic household heads. Thus, the results present the "most favorable comparison" between Sweden and the U.S., because minority children in the U.S. who have very high poverty rates are excluded.

A major concern in any cross-national study is the choice of poverty line, z . This is a conceptual rather than a technical problem. We could, but do not, compare poverty with respect to a common real standard of living across the two countries across time, although one rather convenient standard, the U.S. official poverty line would be available. Use of such a standard would involve real income comparisons, which in turn are driven by exchange and inflation rates. Such an analysis would not be free from the problems associated with real income comparisons. Instead, we use a common definition of the relative standard of living within each country in terms of the median income. This means that we compare poverty in terms of the living standards within the country at a point in time.⁴ We set the poverty line for each year and for each country at 40% of the adjusted median disposable income of all households (including single person households and families with no children). This amounts to comparing poverty using different real standards in each country in each year, although we use a common method of defining the standards.⁵

A poverty line is often defined as some fraction of the mean or median income, based on the notion of a 'reference level' of income by which people judge well-being. While some studies use half the median, 40% makes our poverty line quite similar to the official U.S. line. We did not define poverty as 40% of the median for families with children because the median of the total population better reflects the 'general standard of living' of society. In as much as people have a perception of the median income, it is probably based on all people around

⁴See Sen, 1979, for a discussion.

⁵We compare poverty with respect to poverty lines that are taken to be the standard in each country. That is, instead of using 40% of the median income in the U.S. in 1979 and converting that into Swedish kronor, we use 40% of the estimated Swedish adjusted median in each year. In this regard, the Swedish and the U.S. poverty line change by different amounts during the time period we study – the change in real income in each country.

them, not some narrow reference population. Also, this median is more exogenous, and reveals how children's living standards on average compare to those of the total population.⁶ In the U.S. in 1986, 17.3 percent of white non-hispanic children were market income poor as compared to 7.5 percent in Sweden in 1981. In the U.S., 74.8 percent of the market income poor children received transfers and 81.5 percent of them remained poor, while in Sweden 96.4 percent of the market income poor received a transfer and only 15.1 percent of them remained poor. After both the market and the welfare state, 12.5 percent of children in the U.S. and 2.1 percent of children in Sweden were disposable income poor. Table A2 in the Appendix shows the detailed descriptive data.

Appendix Table A4 presents our estimated coefficients from the 24 regression equations. We use these coefficients to form predictions about the well-being of children in six benchmark families, distinguished by the extent to which the parents participate in the labor market. These are a child with (1) two parents, whose father works full time, and whose mother does not work, (2) two parents, whose father works full time, and whose mother works part time, (3) a child whose father and mother both work part time, (4) a child whose single mother does not work, (5) one whose single mother works part time and (6) one whose single mother works full time. All of our families are assumed to have two children under the age of 18, the youngest child is six years old, the household head is between the ages of 25 and 34 and does not own a home. In the U.S., both the head and the spouse are assumed to be high-school graduates. Due to data limitations, we could not control for the education of the parents with the Swedish data. The market income poverty gap - ratio is set at 0.5, that is the family is assumed to have market income equal to 1/2 of the poverty line.

(Table 1 here)

The estimated probabilities are shown in Table 1. Children in two-parent households are not very likely to be market income poor – $\Pr(MIP)$. Row 1 shows that the child poverty rate is quite similar between the two countries if the father works full time and the mother

⁶See Appendix Tables A1 and A3 for the poverty line estimates and variable means.

Table 1. Predicted probabilities^a

	Sweden			U.S.		
	1981	1987	Change	1979	1986	Change
1. Father works full time, mother non-worker						
Pr(<i>MIP</i>)	12.3	18.8	6.5	11.7	12.0	0.3
Pr(<i>TR</i> <i>MIP</i>)	92.9	89.8	-3.1	22.6	36.3	13.7
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	24.7	25.9	1.2	69.3	81.8	12.5
2. Father works full time, mother part time						
Pr(<i>MIP</i>)	4.9	5.1	0.2	8.4	8.3	-0.1
Pr(<i>TR</i> <i>MIP</i>)	95.6	97.1	1.5	16.6	31.1	14.4
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	20.9	32.2	11.3	69.6	82.8	13.2
3. Father, mother work part time						
Pr(<i>MIP</i>)	8.3	16.8	8.4	20.9	18.5	-2.4
Pr(<i>TR</i> <i>MIP</i>)	99.5	+	*	60.3	65.6	5.3
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	-	15.4	*	60.0	75.8	15.7
4. Single mother, non-worker						
Pr(<i>MIP</i>)	+	84.8	*	79.3	96.6	17.4
Pr(<i>TR</i> <i>MIP</i>)	99.1	+	*	59.7	69.0	9.3
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	23.7	48.9	25.2	55.1	60.1	4.9
5. Single mother, works part time						
Pr(<i>MIP</i>)	34.1	17.0	-17.1	58.9	61.1	2.2
Pr(<i>TR</i> <i>MIP</i>)	+	+	*	49.4	63.4	13.9
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	16.1	41.4	25.3	67.7	81.0	13.2
6. Single mother, works full time						
Pr(<i>MIP</i>)	19.2	1.6	-17.6	19.3	22.6	3.3
Pr(<i>TR</i> <i>MIP</i>)	98.0	+	*	42.7	69.0	26.3
Pr(<i>DIP</i> <i>MIP</i> ∩ <i>TR</i>)	32.1	8.4	-23.7	66.3	52.9	-13.3

^aSource: Computed from coefficients in Appendix Table A3.

MIP = market income poor, TR = receives a transfer and DIP = disposable income poor. A + denotes a predicted probability greater than one, a - denotes a prediction smaller than zero and a * denotes that change is not determined. See text for characteristics.

does not work – 18.8 percent in Sweden in 1987 and 12 percent in the U.S. in 1986. This is the type of finding not revealed in descriptive studies that do not control for variation in the characteristics of a child's parents. The unconditional market income poverty rate is lower in Sweden primarily because the labor supply of both mothers and fathers is higher there than in the U.S. For example, while 90.4 percent of Swedish fathers in two-parent families work full time, only 72.2 of similar American fathers work full time.

The labor force status of the mother has a large impact on these market income poverty probabilities, particularly in Sweden. A child with a father working full time and a non-working mother is far more likely to be poor than a similar child with a part-time working mother. In 1987, the predicted market income poverty rates in Sweden are 18.8 and 5.1 percent, respectively.

In the U.S., the difference in poverty for a child whose father works full time, if the mother works part time, is smaller than in Sweden. That is, if she works part time, the poverty rate falls by 3.7 percentage points, from 12 to 8.3 percent. In Sweden, the child poverty rate is similar in the two cases where there is approximately one full-time worker – 18.8 percent in row 1 where the father works full time and the mother does not, as compared to 16.8 percent in row three, where each parent works half time. In the U.S., the latter families have much higher poverty rates, 18.5 percent as compared to 12 percent for the former.

For children in female-headed households, the extent of work is very important and the trends between the two countries differ markedly. In the U.S., market income poverty rates rose most for children with non-working mothers – from 79.3 to 96.6 percent. The rate was also very high for part-time working single mothers in each year, 58.9 and 61.1 percent. Single mothers working full time had almost the same poverty rate, 22.6 percent, as two-parent families where the mother and father each worked half time, 18.5 percent, in 1986. In Sweden, the rates for female heads were much lower in each year and dropped substantially over the period. For example, while 22.6 percent of single mothers working full

time in the U.S. were poor, our prediction for a similar child in Sweden is 1.6 percent.

Market income is the primary determinant of a child's standard of living. In addition, there may be social and psychological consequences for children that operate through the labor market experiences of their parents. However, market income poverty is not directly experienced by children. It is their post-tax – post-transfer position that children experience directly. Thus, how the welfare state affects market income poor families with children has an important effect on the material well-being of a child.

It comes as no surprise that the probability that the family of a market income poor child receives a transfer is much higher in Sweden than in the U.S.⁷ In Sweden, virtually all children receive a transfer in addition to the universal child allowance. Our predictions in both years for all groups exceeded 90 percent. In the U.S., the predicted probabilities were around one-third for poor two-parent families, and about two-thirds for poor single-mother families. There was some improvement in receipt between 1979 and 1981. For example, the probability that a single mother working full time receives a transfer increased from 42.7 to 69 percent, while the probability for a two-parent family where the father works full time and the mother is a non-worker increased from 22.6 to 36.3 percent. This is probably due to the fact that the working poor were more likely to receive an earned income tax credit in the later year.

The last row for each model family gives the estimated probability that a child remains poor after taxes and transfers, given that she was market income poor and that her family received a transfer – $\Pr(DIP|MIP \cap TR)$. This rate was much lower in Sweden than in the U.S. For instance, a market income poor child with a father working a full time and a mother working part time was far more likely to remain poor in the U.S. than in Sweden – 82.8 and 32.2 percent, respectively. A child with a single mother working part time was also twice as likely to remain poor in the U.S. compared to Sweden. In both countries, the probabilities

⁷The universal child allowance in Sweden is not counted in the probability of getting a transfer in either equation (2) or (3), since all children receive it. However, the child allowance is included in disposable income and is therefore counted when the post-tax post-transfer poverty rate is assessed.

of remaining poor increased in the first rows of Table 1, and decreased only in the last row. Only poor children of single mothers working full time were less likely to remain poor in the later year.

(Figure 1 here)

Since our choice of points in time is constrained by what years are included in LIS, there is little we can do to control for stages in the business cycle. However, we do not think that macroeconomic conditions have biased our results. As Figure 1 shows, the U.S. and Sweden were at approximately the same stages on unemployment. However, the unemployment rate in the U.S. was one percentage point higher in 1986 than in 1979, while in Sweden, the rate in 1987 is approximately half a percentage point lower than in 1981.⁸ On the other hand, business cycles are more likely to affect aggregate poverty rates, while in our examples we control for worker characteristics.

We have also performed a Oaxaca-type decomposition of the changes the poverty and transfer rates in the three equations. This allows us to consider all children, not just those in the benchmark families analyzed in Table 1. In Table 2 we report the aggregate change and the changes due to coefficients and demographic characteristics for the three rates. The part of the actual change attributed to changing coefficients is

$$\hat{\beta}'_{t2}\bar{X}_{t1} - \hat{\beta}'_{t1}\bar{X}_{t1} = (\hat{\beta}'_{t2} - \hat{\beta}'_{t1})\bar{X}_{t1},$$

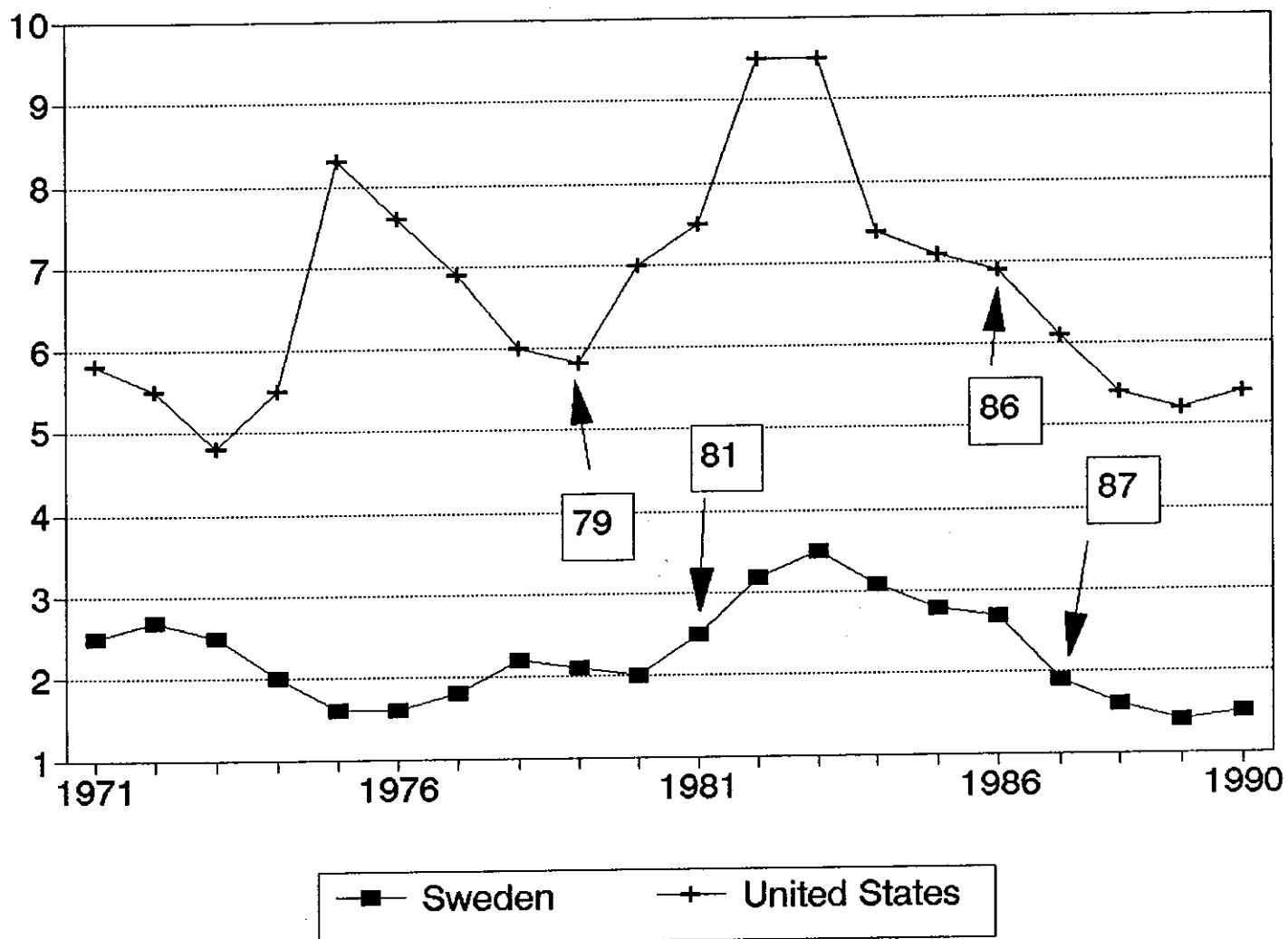
i.e. the difference between the predicted rate in $t1$ and the predicted rate in $t2$ had the characteristics of the children not changed over the time period. The change due to means is defined as

$$\hat{\beta}'_{t2}\bar{X}_{t2} - \hat{\beta}'_{t2}\bar{X}_{t1} = \hat{\beta}'_{t2}(\bar{X}_{t2} - \bar{X}_{t1}),$$

i.e. the difference between the predicted rate in $t2$ and the rate predicted in $t2$ had the

⁸In both Sweden and the U.S., inflation rates were lower and real GNP growth was higher in the second year we have data. Thus, although the data are sampled at slightly different stages of the business cycle, we feel that the difference is not so large as to seriously distort our results. Indeed, the average growth rate of GNP was higher in the U.S. than in Sweden over the period, which, all things equal, would lead to a greater reduction in poverty in the U.S.

Figure 1. Unemployment rate



characteristics of the children not changed.

(Table 2 here)

This decomposition is more general than the particular cases shown in Table 1, but it yields the same bottom line. Market income poverty rates rose in both countries (except for children living in mother-only families in Sweden). The transfer system in Sweden became more generous – a smaller percentage of the market income poor remained disposable income poor (column 3) even though a slightly smaller percentage of them received transfers (column 2). In the U.S., the system became less generous – a greater percentage of the poor received a transfer, but an even greater number remained disposable income poor. The bulk of all these changes can be attributed to changes in the coefficients. For instance, in the U.S., the 2.2 percentage point increase in market income poverty for two-parent families was due to a 3.0 percentage point increase due to coefficients, offset by .8 point percentage point decrease due to changes in the means. On the other hand, for children in mother-only families in the U.S., the 4.7 point increase in market income poverty was due to a 3.1 point increase due to coefficients and 1.6 points increase due to changing means. In Sweden, market income poverty rates for two-parent families rose slightly due to unfavorable changes in coefficients which in turn were offset by favorable changes in the mean characteristics of the children.

The poverty rates for market income poor children who received transfers, reported in the third column, decreased in Sweden and increased in the U.S. Again, the changes were mostly due to changing coefficients, with developments in the means either re-inforcing or countering that. For instance, mother-only children in Sweden were less likely to be poor after taxes and transfers. Had only the coefficients changed, the reduction would have been 10.3 points. This was countered by a 3.1 point increase due to changing characteristics. On the other hand, in the U.S. mother-only children were more likely to be poor after taxes and transfers. The fact that they were slightly more likely to receive transfers was more that offset by the declining size of transfers for recipients. This was due to large changes in the coefficients, which were offset by smaller, yet sizeable improvements in characteristics.

Table 2. Decomposition of changes in poverty and transfer rates^a

	$\Pr(MIP)$ (1)	$\Pr(TR MIP)$ (2)	$\Pr(DIP MIP \cap TR)$ (3)
<u>Sweden</u>			
<u>Two parent families</u>			
Change 1987-1981	0.3	-0.7	-17.1
Change due to coefficients	2.8	-3.2	-17.0
Change due to means	-2.5	2.5	-0.1
<u>Single mother families</u>			
Change 1987-1981	-6.4	-1.2	-7.2
Change due to coefficients	-3.3	1.0	-10.3
Change due to means	-3.1	-2.2	3.1
<u>United States</u>			
<u>Two parent families</u>			
Change 1986-1979	2.2	4.9	17.4
Change due to coefficients	3.0	4.4	12.4
Change due to means	-0.8	0.5	5.0
<u>Single mother families</u>			
Change 1986-1979	4.7	6.3	12.0
Change due to coefficients	3.1	7.8	17.6
Change due to means	1.6	-1.5	-5.6

^aSource: Computed from variable means and regression coefficients in Appendix Tables A2 and A3.

If the parents of American children worked as much as those of Swedish children, then child poverty in 1987 would have been 10.8 percent, instead of 17.3 percent (this is for two-parent and single-mother families combined).⁹ Most of the remaining difference (between 10.8 and the actual Swedish rate, 7.5) is due to the higher returns to work in Sweden. On the other hand, for children in the U.S. in 1986 who were market income poor and who received a transfer, if their parents had the Swedish levels of work effort, their probability of remaining poor would be 75.5 percent instead of the actual 74.2 percent. Only 5.8 percent of similar children in Sweden remain poor. This very large difference is due to the more generous Swedish welfare state.

3 Horizontal equity

How then did the state affect those households who were not poor prior to taxes and transfers? It is to this we turn now. A legitimate concern about the effects of taxes and transfers on poverty is that of horizontal equity.¹⁰ To what extent did the welfare state have "perverse" effects? That is, Table 1 shows the market income poor children removed from poverty by transfers. But were there other children, who were not market-income poor, who were moved into poverty by the taxes raised to fund the welfare state programs? In Table 3, we examine the size of the latter group using cross-tabulations, and find that there was some movement in both directions across the poverty line. While one might suspect that this kind of "gross" movement would be more common in Sweden than in the U.S. due to the higher tax rates there, the contrary is true.

(Table 3 here)

The first column in Table 3 gives the proportion of all children who were moved into

⁹This simulation uses all of the U.S. coefficients and all of the means values of the X s for U.S. parents, except the work effort of Swedish parents. For example, for two-parent families, 90.4 percent of Swedish fathers worked full time and 12.9 percent of mothers were non-workers, while in the U.S. 72.2 percent of fathers worked full time and 38.0 percent of the mothers were non-workers.

¹⁰See Plotnick, 1982, for a definition and discussion on the concept of horizontal equity on the whole income distribution.

Table 3. The effects of the welfare state on movements of children into and out of poverty^a
 % of All children:

		Taken into poverty by taxes and transfers ^b	Taken out of poverty by taxes and transfers ^c	Net (2) - (1) taken out of poverty	Poor before and after transfers	Disposable income poor (1) + (4)
		(1)	(2)	(3)	(4)	(5)
<u>Sweden</u>						
two parent	1981	1.1	3.5	2.4	1.3	2.4
	1987	0.7	4.1	3.4	1.0	1.8
single mother	1981	0.0	27.1	27.1	4.4	4.4
	1987	0.0	23.0	23.0	2.1	2.2
<u>United States</u>						
two parent	1979	0.6	2.1	1.5	4.8	5.4
	1986	1.3	1.9	0.6	7.4	8.6
single mother	1979	1.1	10.7	9.6	33.3	34.4
	1986	2.4	8.0	5.6	38.7	41.1

^aSource: Authors calculations from LIS tapes.

^bThese children were not market income poor.

^cThese children were market income poor.

poverty by taxes and transfers in each country by year and type of family. While quite small, this number more than doubled in the U.S. for both types of families, indicating an increase in the tax burdens of the near poor during the period of the Reagan tax cuts. It should be noted, however, that 1986 was a particularly unfavorable year for the poor and near poor in the U.S. Lower-income families did not benefit as much as those with higher income from the tax reforms of the early 1980s, and the Tax Reform Act of 1986, targeting many of its benefits to low income families, comes too late to have an effect in this data set (see Gramlich, Kasten and Sammartino, 1992). In Sweden, despite the high overall tax rates, no children in mother-only families were brought into poverty by taxes and transfers, and in 1987, only 0.7 percent of children in two-parent families were so affected by income and social insurance taxes. The LIS data do not report the sales taxes in the U.S. or the value added tax in Sweden. Because the V.A.T. is so high relative to the U.S. sales taxes, these results should be viewed with some caution.

The second column gives the proportion of all children moved out of poverty by taxes and transfers. This number, the gross effect of the welfare state on the market income poor, decreased for both two-parent and mother-only families in the U.S. While the proportion of all children who were taken out of poverty increased for two-parent families in Sweden, this rate decreased in mother only families in Sweden. However, at the same time, in mother-only families, the proportion of "never poor" children (i.e. neither market income nor disposable income poor) increased and the proportion of market-income poor children decreased. Thus, there were simply fewer children to be moved out poverty.

What we usually observe is the net reduction in poverty due to taxes and transfers, i.e. column 3. The net reduction in poverty due to taxes and transfers in the U.S. decreased from 1.5 to 0.6 percent for two-parent families, and from 9.6 to 5.6 percent in mother-only families. What Table 3 reveals is that this adverse change was due to the two separate changes shown in columns 1 and 2 – taxes took more of the non-poor into poverty and transfers took fewer of the poor out of poverty. The corresponding change in Sweden was a

net increase in the proportion of children in two-parent families taken out of poverty, from 2.4 to 3.4 percent. Again, the net change for Swedish mother-only families was negative, but as the fourth column shows, the proportion of poor children unmoved by the welfare state decreased from 4.4 to 2.1 percent. For children in two-parent families in Sweden the fourth column shows that the proportion of those who were poor before and after the welfare state decreased, while it increased in both family types in the U.S.¹¹

A final reservation must be added to these results. Social security taxes in the U.S., which total about 14% of earnings, are paid in half by the employer and in half by the employee. Social security taxes paid by the employer are not included in gross income, whereas those paid by the employee are. In Sweden, on the other hand, all social security taxes are paid by the employer. Thus, our concept of gross income treats social security taxes differently in the two countries. There are two alternative ways of specifying gross income. We could either add all social security taxes to gross income in both countries or we could subtract the social security taxes paid by employees in the U.S. In either case, the substantive findings in Table 3 are unaltered, although the reported magnitudes change marginally.¹²

4 Concluding remarks

In the U.S., both pre-tax - pre-transfer poverty and post-tax - post-transfer poverty increased for children, as did the probability that a child who was poor prior to taxes and transfers would remain so. In Sweden, both the post-tax - post-transfer poverty rate and the probability that a child who was poor prior to taxes and transfers would remain poor decreased. Controlling for the characteristics of the children's families, we find that in the

¹¹In 1986, Federal income taxes raised the poverty rate for persons living in families with children by 0.9 percentage points; by 1989, this poverty-increasing effect had fallen to 0.6 percentage points because of changes made by the Tax Reform Act of 1986. In 1990, the EITC was again expanded, so by the time it reaches its maximum value in 1994, this poverty-increasing impact will have fallen further (U.S. Committee on Ways and Means, 1991). Nonetheless, these effects remain larger than those in Sweden.

¹²The results are available on request.

U.S., increases in poverty would have been even larger than the actual increases, if there had not been favorable demographic developments. In Sweden, holding family characteristics constant, market income poverty rates increased, but disposable income poverty conditional on being market income poor and receiving a transfer decreased.

What can be inferred from our empirical results? At first glance, it would seem as if the higher and rising degree of labor force participation in Sweden was a key to explaining the large differences in child poverty rates in the two countries. But, holding labor force participation constant, the economic position of children improved in Sweden in the 1980s and declined in the U.S. The reductions in the Swedish child poverty rates were thus both due to the increased work activity of the parents and to increased generosity of transfer programs. One might be tempted to argue that in order to reduce child poverty rates in the U.S., the parents of the children (including single mothers) should work more, in fact, as much as the parents of Swedish children. However, we feel that the solution is not as simple as that.

A careful comparison should not ignore the institutional differences in labor market and welfare state policies in the two countries. Most Swedish social programs are either independent of the work effort of parents (child allowance, health care) or are positively earnings related, but designed to make it easier for children's parents to work. The high degree of labor force participation is not an exogenous fact of Swedish life. Especially, the participation of women is promoted by the availability of welfare state provisions and by employment opportunities in the public sector.¹³ In the U.S., the work effort of parents is lower because the government has no active labor market policies, in general, and actually scaled back public employment programs for the disadvantaged during the 1980s. As Figure 1 showed, unemployment in the U.S., even during the peak years of the business cycle is higher than unemployment in Sweden in any year. We thus take the view that the welfare state

¹³For evidence on the effects of welfare state programs on women's labor force participation, see Gustafsson and Stafford, 1992. Some simulation results suggesting increased labor force participation of both husbands and wives at early stages of the life-cycle has recently been provided by Craig and Batina, 1991.

makes it easier for parents to work either indirectly or directly, and an effective antipoverty policy for the U.S. should take this as a starting point. Nonetheless, even if parents in the U.S. could increase their work effort to that of Swedish parents child poverty in the U.S. would still be higher because of its less generous welfare state.

A Appendix

Although the LIS data base offers unique possibilities for cross-country comparisons, a number of problems, in addition to those which arise in time-series comparisons for a single country, remain to be addressed. We now turn to some of the problems we encountered and discuss how we dealt with them.

1. Income concepts. Market income consists of earned income from wages, salaries and self-employment, property income, employment-related pensions as well as private transfers and "other income". Social welfare transfers include social insurance and means-tested cash and near cash transfers (e.g. Food Stamps and EITC are included in this). We have excluded sick pay from social welfare transfers; instead, it is counted in earned income. For Sweden, we exclude the child allowance when we discuss the probability of transfer receipt because all families receive it. Disposable income is the sum of market income and all social welfare transfers (including the universal child allowance in Sweden) less direct taxes.¹⁴

2. Unit of analysis. As we are studying the economic position of children, we can hardly work with any other income concept than family income. But how should that income be treated? Should our unit of analysis be families with minors or should we take the children themselves as the research unit? Technically, we only have information on the family (or, income receiving unit). To study the children rather than their families, we 'reconstruct' the population of children by multiplying the household sample weights by the number of children in each family. This procedure yields estimates of the characteristics of the child population living in families. Ideally, we would like to study a random sample of children. For this to be the case with the LIS data, we need to assume that all children are covered by the sampling frame. Also, we assume that children within each family are treated equally, that is the possibility of age- or sex-discrimination within households is not taken into account. In fact, all within-family inequality is assumed away (a dubious assumption which is

¹⁴See Smeeding et al., 1990, p. 9, for details on income variables in LIS.

the norm in income distribution research).

3. *Restricted sample.* We include all Swedish families with children less than 18 years of age. However, because Sweden is so ethnically homogeneous, we restrict our U.S. sample to white non-hispanic families with children. We feel that this provides the best test of cross-country differences because minority children are so much more likely to be poor than white children in the U.S. and because we do not deal with the causes of these differences in this paper. This restriction actually understates the large differences between the child poverty rates in the two countries.

4. *Equivalence scales.* We used the equivalence scales implied by the U.S. poverty line. These thresholds vary by family size and the presence of children. Roughly measured, the poverty line for a family of four persons is almost twice that of a single person. We assign a per adult equivalent family income to each child.¹⁵

5. *Poverty lines.* The choice of an appropriate poverty line is difficult for at least two distinct reasons. First, different concepts underlie the operationalizations of poverty lines in the U.S. and Sweden. The former has an official poverty line that is based on a version of what is often called an absolute view of poverty, whereas the commonly used poverty line in Sweden is based on an administrative definition of poverty. Both the conceptual base and the process by which a poverty line is arrived at are different in the two countries. It is therefore unclear what we would be measuring were we to apply the official poverty line in each country in each year to our data. As the text mentions, we use 40 % of the median as our poverty line.

(Table A1 here)

(Table A2 here)

Our poverty line for a family of three in the U.S. is USD 5502 in 1979 and USD 8578 in 1986. The official U.S. poverty lines for these years for this family size were USD 5839 and

¹⁵See Buhmann et al., 1988 for a review as well some empirical analyses of different equivalence scales, and Lazear and Michael, 1988 for a theoretical treatment. Danziger and Taussig, 1979, and Uusitalo, 1989 discuss different ways of specifying the research unit and the income concept.

Table A1. Poverty line, mean and adjusted median family income^a

	Year	Poverty line	Mean income	Median income
<u>Sweden</u>	1981	48394	126737	120985
	1987	49091	128047	122727
<u>United States</u>	1979	8783	24355	21956
	1986	8578	27084	21445

^aSource: Authors calculations from LIS tapes. Poverty line is 40% of median. Income adjusted by equivalence scale implied by U.S. poverty line. Weighted by person weights (= household weight × # of persons in household).

Note: Expressed in the prices of the later date data is collected in each country (e.g. poverty line in 1981 in Sweden is in Swedish 1987 prices) using Private Consumption Deflators (OECD Economic Outlook, July 1991, Table R11, p.185).

Table A2. The proportion of children who were market income poor, received a transfer and were disposable income poor

	Year	Share of all children ^a	Market income poor	Received a transfer	Share of market income poor who	Received a transfer	Remained disposable income poor	Disposable income poor
		(1)	(2)	(3)	(4)	(5)	(6)	(6)
<u>Sweden</u>								
two parent	1981	85.2	4.8	95.3	95.3	26.8	2.4	
	1987	85.3	5.1	93.9	95.6	20.0	1.8	
	Change	0.1	0.3	-1.4	0.3	-6.8	-0.6	
single mother	1981	13.5	31.5	98.8	99.3	14.0	4.4	
	1987	12.5	25.2	98.2	97.6	8.4	2.2	
	Change	-1.0	-6.3	-0.6	-1.7	-5.6	-2.2	
total	1981	100.0	8.3	94.5	97.3	20.3	2.6	
	1987	100.0	7.5	92.4	96.4	15.1	2.1	
	Change	0.0	-0.8	-2.2	-0.9	-5.1	-0.5	
<u>United States</u>								
two parent	1979	84.3	9.6	24.4	66.0	69.4	5.4	
	1986	85.1	12.8	23.9	68.8	78.3	8.6	
	Change	0.8	3.2	-0.5	2.8	8.9	3.2	
single mother	1979	14.0	44.0	50.4	76.5	75.6	34.4	
	1986	12.7	50.6	55.9	85.0	87.0	41.1	
	Change	-1.3	6.6	5.5	8.5	11.4	6.7	
total	1979	100.0	14.3	27.6	70.5	72.1	9.4	
	1986	100.0	17.3	27.4	74.8	81.5	12.5	
	Change	0.0	3.1	-0.2	4.3	9.4	3.1	

^aDoes not sum to 100% because children living in father-only families are excluded.

USD 8755. The official line, which is increased only for inflation, grew by about 50 percent, while our lines, which reflect real income levels as well, increased by 56 percent. Unadjusted mean family income in the U.S. grew at an annual rate of 1.4 percent between the years 1979 and 1986. The change in the poverty line in Sweden, 58 percent, corresponds closely to the change in prices during that period; real median income did not grow at all. Unadjusted mean family income grew at an annual rate of 0.7 percent.

(Table A3 here)

Table A3 presents variable means used in the analysis.¹⁶ The populations of children in the two countries are not too dissimilar.¹⁷ The demographic structure in the countries is slightly different and has changed somewhat during the eighties. The most interesting differences between the two countries can be found in the changes in labor market status in each category. In Sweden, the proportions of both part time and non-working heads decreased in favor of full-time work. In the U.S., heads and spouses working part time increased relative to non-workers and full time workers. This is a large difference in the percentage of children whose fathers are working full-time. For example, in 1986, about 72% of children had fathers who worked full time; in Sweden in 1987 the corresponding percentage was 90% (Table A3). One dissimilarity is the high level of children whose fathers work part-time in the U.S., about one-quarter in 1986, this being rare in Sweden, less than 10 percent. In Sweden, the proportion of children whose mothers participated in the labor force increased over the 6 years from about 75 to 83 percent, while in the U.S., it increased from about 60 to about 63 percent.

Children in single-mother families were less likely to have a mother who was a non-worker than children in two-parent families. And, these children also were more likely to have a mother working full-time. For example, in the U.S., in 1986, about 20 percent of

¹⁶The U.S. data in LIS consists of a 20 percent random sample from the March Current Population Survey, which is why the sample size is relatively small.

¹⁷Table A3 only gives the means for all children (both poor and non-poor) in the sample (Panels A and D). Variable means for market income poor children (Panels B and E) and for market income poor children who received social transfers (Panels C and F) are available from the authors on request.

Table A3. Variable means^a

	Sweden			U.S.		
	1981	1987	Change	1979	1986	Change
A. All children in two-parent families						
Age of head						
<24	0.009	0.011	0.002	0.042	0.028	-0.014
25-34	0.291	0.266	-0.025	0.331	0.394	0.063
35-54	0.664	0.695	-0.006	0.585	0.558	-0.027
55-64	0.031	0.025	-0.006	0.035	0.016	-0.019
>65	0.005	0.003	-0.002	0.007	0.004	-0.003
Education of head						
<9	n.a.	n.a.	n.a.	0.071	0.041	-0.03
9-11	n.a.	n.a.	n.a.	0.103	0.077	-0.026
12	n.a.	n.a.	n.a.	0.356	0.391	0.035
13-15	n.a.	n.a.	n.a.	0.204	0.206	0.002
>16	n.a.	n.a.	n.a.	0.266	0.285	0.019
Education of spouse						
<9	n.a.	n.a.	n.a.	0.044	0.034	-0.01
9-11	0.132	0.089	-0.043			
12	n.a.	n.a.	n.a.	0.478	0.472	-0.006
13-15	n.a.	n.a.	n.a.	0.195	0.225	0.03
>16	n.a.	n.a.	n.a.	0.151	0.18	0.029
Siblings	1.141	1.169	0.028	1.451	1.342	-0.109
Labor market status of head						
Non worker	0.034	0.025	-0.009	0.051	0.034	-0.017
Part time	0.085	0.071	-0.014	0.148	0.244	0.096
Full time	0.881	0.904	0.023	0.801	0.722	-0.079
Labor market status of spouse						
Non worker	0.262	0.129	-0.133	0.408	0.38	-0.028
Part time	0.515	0.595	0.08	0.394	0.422	0.028
Full time	0.223	0.276	0.053	0.198	0.198	0
Home owner	0.656	0.66	0.004	0.828	0.746	-0.082
Occupational status of head						
Semi-skilled laborer	0.199	0.189	-0.01	n.a.	n.a.	n.a.
Skilled laborer	0.214	0.202	-0.012	n.a.	n.a.	n.a.
Salaried	0.3	0.31	0.01	n.a.	n.a.	n.a.
Manager / Supervisor	0.214	0.221	0.007	n.a.	n.a.	n.a.
Other	0.073	0.078	0.005	n.a.	n.a.	n.a.
Occupational status of spouse						
Semi-skilled laborer	0.3	0.296	-0.004	n.a.	n.a.	n.a.
Skilled laborer	0.053	0.081	0.028	n.a.	n.a.	n.a.
Salaried	0.298	0.347	0.049	n.a.	n.a.	n.a.
Manager / Supervisor	0.073	0.082	0.009	n.a.	n.a.	n.a.
Other	0.276	0.194	-0.082	n.a.	n.a.	n.a.
Unweighted n	3845	3023		3728	2758	

^aSource: Authors calculations from LIS tapes

Table A3. Variable means. *Continued*^a

	Sweden			U.S.		
	1981	1987	Change	1979	1986	Change
D. All single-mother children						
Age of head						
<24	0.046	0.091	0.045	0.084	0.126	0.042
25-34	0.363	0.369	0.006	0.359	0.391	0.032
35-54	0.581	0.531	-0.05	0.481	0.481	0
55-64	0.01	0.009	-0.001	0.047	0.002	-0.045
>65	0	0	0	0.029	0	-0.029
Education of head						
<9	n.a.	n.a.	n.a.	0.086	0.038	-0.048
9-11	n.a.	n.a.	n.a.	0.212	0.165	-0.047
12	n.a.	n.a.	n.a.	0.441	0.444	0.003
13-15	n.a.	n.a.	n.a.	0.174	0.192	0.018
>16	n.a.	n.a.	n.a.	0.087	0.161	0.074
Siblings	0.78	0.776	-0.004	1.297	1.021	-0.276
Labor market status of head						
Non worker	0.195	0.124	-0.071	0.301	0.317	0.016
Part time	0.437	0.511	0.074	0.344	0.344	0
Full time	0.368	0.365	-0.036	0.355	0.339	0.016
Home owner	0.198	0.16	-0.038	0.529	0.394	-0.135
Occupational status of head						
Semi-skilled laborer	0.312	0.301	-0.011	n.a.	n.a.	n.a.
Skilled laborer	0.066	0.072	0.006	n.a.	n.a.	n.a.
Salaried	0.312	0.28	-0.032	n.a.	n.a.	n.a.
Manager / Supervisor	0.073	0.09	0.017	n.a.	n.a.	n.a.
Other	0.237	0.257	0.02	n.a.	n.a.	n.a.
Unweighted n	639	238		672	456	

^aSource: Authors calculations from LIS tapes

children in two-parent families had mothers who worked full time compared to about 33 percent of those in mother-only families. For Sweden, in 1981, these rates were 23 and 37 percent. Swedish children in mother-only families were more likely to have mothers working part time and less likely to have mothers who did not work than their U.S. counterparts.

The characteristics of the children living in market income poor households are as expected. The parents of poor children are less educated (U.S.), have a lower occupational status (Sweden) and are younger than the average. Both fathers and mothers of poor children are considerably less likely than average to work, and those who do, will more often be in part-time rather than full-time work. The single mothers of market income poor children had very low rates of full-time labor force participation. In the late 1980s, these rates were as low as 4.3 and 8.5 percent in the U.S. and Sweden, compared to 33.9 and 36.5 percent for all children in mother-only households. The rates of full-time work were lower for market income poor children in two parent families as well (about half of the rates of all parents), especially the rate of full time working mothers. With the exception of the U.S. in 1986, the differences were less dramatic. The labor force status of the children's parents is one of the main differences between poor and non-poor children. Finally, Table A4 presents the regression coefficients we use to from the predicted poverty rates in Table 1.

(Table A4 here)

Table A4. Regression results^a

	Sweden				U.S.			
	1981		1987		1979		1986	
Pr(<i>MIP</i>)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
A. All children in two-parent families								
Age of head								
<24	0.006	0.034	0.004	0.034	0.015	0.020	0.116	0.031
25-34	0.026	0.007	0.007	0.008	0.012	0.008	0.008	0.010
55-64	0.023	0.018	-0.001	0.023	0.025	0.021	0.027	0.028
>65	-0.186	0.047	-0.003	0.072	0.089	0.046	-0.020	0.055
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	-0.006	0.019	-0.065	0.027
12	n.a.	n.a.	n.a.	n.a.	-0.069	0.014	-0.037	0.018
13-15	n.a.	n.a.	n.a.	n.a.	-0.057	0.015	-0.062	0.020
>16	n.a.	n.a.	n.a.	n.a.	-0.072	0.016	-0.057	0.021
Education of spouse								
<9	n.a.	n.a.	n.a.	n.a.	0.086	0.022	0.102	0.029
12	n.a.	n.a.	n.a.	n.a.	-0.033	0.012	-0.043	0.018
13-15	n.a.	n.a.	n.a.	n.a.	-0.049	0.015	-0.058	0.020
>16	n.a.	n.a.	n.a.	n.a.	-0.041	0.017	-0.070	0.022
Labor market status of head								
Non worker	0.430	0.018	0.488	0.024	0.272	0.018	0.589	0.025
Part time	0.034	0.011	0.117	0.014	0.125	0.011	0.102	0.011
Labor market status of spouse								
Non worker	0.066	0.009	0.142	0.012	0.062	0.010	0.060	0.013
Part time	-0.009	0.008	0.005	0.008	0.028	0.010	0.022	0.013
Home owner	-0.040	0.007	-0.053	0.008	-0.096	0.010	-0.070	0.011
Siblings	0.031	0.004	0.023	0.004	0.025	0.003	0.047	0.004
Constant	0.000	0.009	0.017	0.010	0.122	0.018	0.084	0.026
<i>R</i> ²	0.195		0.238		0.221		0.318	
n	3845		3023		3728		2758	

^aSource: Authors calculations from LIS tapes

Table A4. Regression results. *Continued.*^a

	Sweden				U.S.			
	1981		1987		1979		1986	
Pr(<i>TR MIP</i>)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
B. Market income poor children in two-parent families								
Age of head								
<24	0.108	0.111	-0.019	0.120	-0.101	0.112	0.160	0.147
25-34	0.018	0.031	0.016	0.047	-0.256	0.067	-0.064	0.074
55-64	0.110	0.054	0.094	0.092	-0.169	0.114	0.006	0.118
>65	0.120	0.082	0.132	0.117	0.145	0.145	-0.117	0.162
Age of youngest child	0.002	0.003	-0.005	0.005	-0.005	0.007	-0.003	0.008
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	0.060	0.084	-0.056	0.098
12	n.a.	n.a.	n.a.	n.a.	-0.047	0.075	-0.071	0.076
13-15	n.a.	n.a.	n.a.	n.a.	-0.047	0.097	0.004	0.104
>16	n.a.	n.a.	n.a.	n.a.	-0.364	0.154	-0.094	0.136
Education of spouse								
<9	n.a.	n.a.	n.a.	n.a.	-0.130	0.082	-0.044	0.096
12	n.a.	n.a.	n.a.	n.a.	-0.189	0.068	-0.124	0.073
13-15	n.a.	n.a.	n.a.	n.a.	-0.234	0.138	-0.013	0.113
>16	n.a.	n.a.	n.a.	n.a.	-0.424	0.186	-0.051	0.253
Poverty gap	0.000	0.002	-0.014	0.028	-0.249	0.071	-0.135	0.089
Labor market status of head								
Non worker	-0.032	0.027	0.024	0.039	0.332	0.070	0.600	0.088
Part time	0.039	0.037	0.059	0.045	0.436	0.061	0.345	0.074
Labor market status of spouse								
Non worker	-0.026	0.033	-0.056	0.054	-0.030	0.143	0.300	0.123
Part time	0.001	0.038	0.018	0.054	-0.090	0.147	0.248	0.122
Home owner	0.002	0.024	-0.051	0.038	-0.071	0.053	-0.138	0.060
Siblings	0.033	0.012	0.026	0.016	-0.008	0.020	-0.007	0.021
Constant	0.890	0.048	0.947	0.064	0.910	0.190	0.412	0.189
<i>R</i> ²	0.069		0.106		0.423		0.341	
	367		164		243		209	

^aSource: Authors calculations from LIS tapes

Table A4. Regression results. *Continued.*^a

	Sweden				U.S.			
	1981		1987		1979		1986	
$Pr(DIP MIP \cap TR)$	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
C. Market income poor children in two-parent families who received transfers								
Age of head								
<24	-0.322	0.207	-0.037	0.204	0.045	0.159	-0.294	0.186
25-34	-0.259	0.058	0.003	0.081	0.066	0.114	0.004	0.096
55-64	0.070	0.101	-0.060	0.156	-0.035	0.162	0.152	0.139
>65	-0.084	0.154	-0.186	0.200	-0.217	0.181	-0.147	0.213
Age of youngest child	-0.022	0.006	0.002	0.009	0.013	0.010	-0.014	0.010
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	0.003	0.113	-0.182	0.119
12	n.a.	n.a.	n.a.	n.a.	0.081	0.109	-0.135	0.095
13-15	n.a.	n.a.	n.a.	n.a.	0.123	0.158	-0.061	0.129
>16	n.a.	n.a.	n.a.	n.a.	0.023	0.414	0.074	0.218
Education of spouse								
<9	n.a.	n.a.	n.a.	n.a.	-0.198	0.113	-0.067	0.117
12	n.a.	n.a.	n.a.	n.a.	-0.240	0.100	-0.011	0.091
13-15	n.a.	n.a.	n.a.	n.a.	-0.189	0.279	-0.021	0.159
>16	n.a.	n.a.	n.a.	n.a.	0.154	0.379	-0.680	0.447
Poverty gap	0.008	0.004	0.192	0.047	0.730	0.155	0.455	0.139
Labor market status of head								
Non worker	-0.281	0.053	-0.246	0.068	-0.433	0.149	-0.458	0.136
Part time	-0.302	0.070	-0.168	0.077	-0.096	0.116	-0.070	0.120
Labor market status of spouse								
Non worker	0.049	0.064	-0.048	0.095	-0.169	0.224	0.296	0.224
Part time	0.011	0.072	0.015	0.092	-0.166	0.234	0.306	0.225
Home owner	-0.026	0.046	0.025	0.068	-0.122	0.081	0.120	0.077
Siblings	-0.042	0.023	-0.033	0.028	0.071	0.031	0.000	0.026
Constant	0.630	0.091	0.227	0.110	0.440	0.296	0.521	0.283
R^2	0.223		0.214		0.348		0.264	
n	328		155		152	150		

^aSource: Authors calculations from LIS tapes

Table A4. Regression results. *Continued.*^a

	Sweden				U.S.			
	1981		1987		1979		1986	
Pr(<i>MIP</i>)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
D. All children in single-mother families								
Age of head								
<24	0.199	0.063	0.379	0.075	0.216	0.056	0.116	0.060
25-34	0.107	0.027	-0.047	0.045	0.058	0.032	0.069	0.039
55-64	-0.078	0.128	0.050	0.221	-0.006	0.071	-0.314	0.084
>65					-0.333	0.092	-0.435	0.128
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	0.051	0.060	0.108	0.075
12	n.a.	n.a.	n.a.	n.a.	-0.094	0.039	0.005	0.048
13-15	n.a.	n.a.	n.a.	n.a.	-0.157	0.048	-0.147	0.058
>16	n.a.	n.a.	n.a.	n.a.	-0.299	0.059	-0.243	0.064
Labor market status head								
Non worker	0.823	0.037	0.832	0.072	0.600	0.039	0.740	0.045
Part time	0.149	0.029	0.154	0.046	0.396	0.034	0.385	0.040
Home owner	-0.110	0.032	0.015	0.058	-0.135	0.030	-0.033	0.037
Siblings	0.090	0.015	0.057	0.023	0.092	0.013	0.032	0.017
Constant	-0.005	0.026	0.005	0.043	0.137	0.048	0.120	0.056
<i>R</i> ²	0.547		0.475		0.460		0.529	
n	639		238		672		456	

^aSource: Authors calculations from LIS tapes

Table A4. Regression results. *Continued.*^a

	Sweden				U.S.			
	1981		1987		1979		1986	
Pr($TR MIP$)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
E. Market income poor children in single-mother families								
Age of head								
<24	0.012	0.030	0.099	0.076	0.145	0.105	-0.042	0.096
25-34	-0.007	0.017	0.073	0.058	0.078	0.067	-0.034	0.062
55-64	0.013	0.094	-0.029	0.211	0.038	0.133	0.229	0.150
>65					0.223	0.179	0.189	0.240
Age of youngest child	0.000	0.002	0.006	0.006	0.006	0.006	-0.000	0.007
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	0.055	0.092	-0.029	0.087
12	n.a.	n.a.	n.a.	n.a.	-0.051	0.066	-0.071	0.064
13-15	n.a.	n.a.	n.a.	n.a.	-0.171	0.089	-0.155	0.091
>16	n.a.	n.a.	n.a.	n.a.	-0.187	0.165	0.040	0.132
Poverty gap	-0.000	0.027	0.062	0.117	0.078	0.109	0.315	0.108
Labor market status head								
Non worker	0.010	0.031	0.037	0.124	0.169	0.131	-0.000	0.131
Part time	0.021	0.027	-0.001	0.123	0.067	0.120	-0.057	0.131
Home owner	0.007	0.022	0.023	0.096	-0.256	0.056	-0.095	0.060
Siblings	0.007	0.007	0.012	0.022	0.050	0.025	0.012	0.030
Constant	0.972	0.038	0.839	0.161	0.531	0.152	0.722	0.192
R^2	0.017		0.085		0.173		0.197	
n	183		55		250		195	

^aSource: Authors calculations from LIS tapes

Table A4. Regression results. *Continued.*^a

Pr($DIP MIP \cap TR$)	Sweden				U.S.			
	1981		1987		1979		1986	
	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)	b	s.e.(b)
F. Market income poor children in single-mother households who received a transfer								
Age of head								
<24	-0.179	0.120	-0.003	0.113	-0.116	0.126	0.165	0.110
25-34	-0.019	0.069	0.020	0.087	0.019	0.085	0.229	0.070
55-64	0.084	0.378	-0.102	0.309	-0.411	0.172	-0.036	0.165
>65					0.259	0.200	0.472	0.256
Age of youngest child	-0.016	0.008	0.003	0.009	-0.013	0.008	0.004	0.008
Education of head								
<9	n.a.	n.a.	n.a.	n.a.	0.065	0.108	0.202	0.096
12	n.a.	n.a.	n.a.	n.a.	-0.106	0.081	-0.014	0.071
13-15	n.a.	n.a.	n.a.	n.a.	-0.406	0.116	-0.009	0.108
>16	n.a.	n.a.	n.a.	n.a.	-0.417	0.231	-0.057	0.140
Poverty gap	0.054	0.110	-0.188	0.172	0.553	0.146	0.582	0.132
Labor market status of head								
Non worker	-0.084	0.124	0.405	0.183	-0.111	0.178	0.071	0.158
Part time	-0.160	0.111	0.331	0.180	0.015	0.158	0.280	0.158
Home owner	0.078	0.088	0.396	0.141	0.042	0.074	-0.052	0.070
Siblings	-0.066	0.028	-0.046	0.033	0.042	0.031	0.101	0.035
Constant	0.397	0.154	-0.210	0.239	0.466	0.203	-0.047	0.222
R^2	0.080		0.215		0.221		0.299	
n	179		54		187		163	

^aSource: Authors calculations from LIS tapes

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