

# Do Social-Welfare Policies Reduce Poverty? A Cross-National Assessment\*

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## *Abstract*

*Most social scientists, policymakers, and citizens who support the welfare state do so in part because they believe social-welfare programs help to reduce the incidence of poverty. Yet a growing number of critics assert that such programs in fact fail to decrease poverty, because too small a share of transfers actually reaches the poor, or because such programs create a welfare/poverty trap, or because they weaken the economy. This study assesses the effects of social-welfare policy extensiveness on poverty rates across fifteen affluent industrialized nations over the period 1960-91, using both absolute and relative measures of poverty. The results strongly support the conventional view that social-welfare programs reduce poverty.*

A central aim of social-welfare policies is to reduce poverty. Every major industrialized nation has a set of programs that transfer between 10% and 30% of the country's gross domestic product (GDP) among the populace, a key goal of which is to improve the well-being of those at or near the bottom of the income distribution. Do these programs work?

This issue has been subject to increasingly heated debate. A number of analysts contend that social-welfare policies do indeed help to alleviate poverty. But the past two decades have witnessed a growing chorus of criticism. Some aver that too little of the income that is transferred actually reaches the poor. Others suggest that by providing a safety net, such programs sap the initiative of the poor and thereby create a "poverty trap." Critics also frequently contend that steep tax rates and

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generous benefits reduce economic growth, offsetting or outweighing in the long run any poverty reduction achieved in the short run. Who is right?

This study offers a cross-national empirical assessment of the utility of social-welfare policies in reducing poverty. I do so by examining the relationship between social-welfare policy extensiveness and poverty rates across fifteen affluent industrialized nations during the period 1960-91. The question I attempt to answer is: Do countries with more extensive social-welfare programs have less poverty? A prominent line of thought suggests that redistribution may indeed reduce poverty, but only in the short run and only if poverty is defined in "relative" terms — as the share of citizens in a country with incomes below a certain percentage of the median for that country. Poverty is more usefully defined, according to this view, in "absolute" terms — as the share with incomes below a specified level that is held constant across countries. If we use an absolute poverty measure, we might find that nations with more generous social-welfare benefits tend to have *higher* poverty rates over the long run because economic growth, the key to poverty reduction, is crippled by excessive redistribution. To assess the merits of this view I focus on the welfare state's long-term effects on absolute poverty rates, though I also examine relative poverty.

The first section outlines existing views and research findings on the relationship between the welfare state and poverty. The second details the data and method I use in the analysis. The third section describes and discusses the results. A brief conclusion follows.

### Existing Arguments and Evidence

There is no shortage of proponents of the view that social-welfare policies help to reduce poverty. This notion is at the heart of support for such policies among many scholars, policymakers, and citizens. Yet there is also considerable sentiment for the opposing view, which holds that social-welfare programs do not in fact reduce poverty. Sometimes the argument is, to borrow Hirschman's (1991) useful terminology, one of futility: redistributive policies are said to be incapable of achieving poverty reduction. In other instances the argument is a stronger one — one of perversity. Here such policies are said to have the perverse effect of increasing the poverty rate. In de Tocqueville's ([1835]1997:70) words: "Any permanent, regular administrative system whose aim will be to provide for the needs of the poor will breed more miseries than it can cure."

Critics have focused upon three reasons why social-welfare programs may fail to reduce poverty. One is that too little of the money reaches the poor (Crook 1997; Friedman & Friedman 1979; Stigler 1970). It is certainly true that a substantial share of government benefits tend to go to the middle and upper classes rather than to the poor. In the U.S., for instance, more than half the transfer payments

and tax benefits dispensed by the federal government in 1991 went to households with incomes over \$30,000, which is more than double the poverty cutoff for a family of four (Howe & Longman 1992). And in most other industrialized nations social-welfare programs are even more universal in nature — that is, less targeted toward the poor — than they are in the U.S. (Castles & Mitchell 1993; Esping-Andersen 1990). Nevertheless, enough money reaches the poor that, in the absence of any detrimental effects of social-welfare programs, one would expect them to have at least some poverty-reducing impact.

The second line of criticism asserts that redistributive programs do in fact have detrimental effects. In particular, they foster dependence on benefits and thereby increase the poverty rate (Butler & Kondratas 1987; Lee 1987; Murray 1984). According to this argument, for many poor individuals with little in the way of marketable skills it makes sense financially to live off government transfers rather than take a low-wage job. The welfare system sucks them in, and they become trapped in poverty. The transfers pay enough to keep such individuals alive, but not enough to bring them above the poverty line. Were they to take entry-level jobs, by contrast, they might be able to work their way up the job ladder and eventually escape poverty. Murray (1984) points out that in the U.S. welfare benefits were increased and eligibility requirements eased in the late 1960s. Shortly thereafter, the welfare rolls grew and the poverty rate stopped falling. After having declined steadily through the 1960s, the U.S. poverty rate leveled off and began to increase slightly starting in the early 1970s. Murray concludes that this must be due to the perverse incentives created by an excessively generous social-welfare system: “We tried to provide more for the poor and produced more poor instead” (Murray 1984:9).

As is often noted, this argument fails to square with some important facts about welfare and poverty in the U.S. (see, e.g., Bane & Ellwood 1994; Blank 1997; Marmor, Mashaw & Harvey 1990). Three are particularly salient. First, most of the poor are not long-term welfare dependents. During the 1970s and 1980s about two-thirds of those receiving Aid to Families with Dependent Children (AFDC) at any given point in time were in the midst of spells during which they received welfare payments in more than five successive years (Bane & Ellwood 1994). These women can be considered genuine long-term dependents on the system; yet together with their children they accounted for only about 25% of Americans living in poverty in any given year. Second, the generosity of (inflation-adjusted) welfare benefits decreased markedly between the mid-1970s and the early 1990s, yet the poverty rate increased during that time. Third, states with more generous welfare benefits do not have higher poverty rates than those with low benefits.

The third criticism directed against social-welfare policies is that they undermine economic growth and thereby fail to reduce the number of poor in the long run, even if they do provide some temporary near-term assistance. According to the equality-efficiency trade-off thesis, higher rates of progressive taxation and

more generous government benefits reduce incentives to invest and to work (Arrow 1979; Lindbeck et al. 1994; Okun 1975). As a result, no matter how well intentioned they may be, redistributive programs are ineffective as a long-term strategy to reduce poverty.

On the other hand, there are reasons to suspect that the economic effects of social-welfare policies may be considerably less detrimental than is assumed by the trade-off thesis, and perhaps even beneficial. Reducing income inequality may expand and stabilize consumer demand, increase investment by the poor in education, and heighten worker motivation and workplace cooperation. Furthermore, as Esping-Andersen (1990) has argued, expansive social-security programs, which account for the bulk of transfer expenditures in all industrialized nations, may enhance firms' flexibility in labor deployment by facilitating early retirement. In addition, social services have become a significant source of new jobs, helping countries to absorb the rapid increase in female labor-force participation of the past few decades. Any adverse impact of income redistribution, such as crowding out of investment or reduction of work effort, may be offset or even outweighed by these and other beneficial effects (Birdsall, Ross & Sabot 1995; Kenworthy 1995a, 1998; Perotti 1996).

A host of studies have assessed the effect of taxes and/or transfer payments upon labor supply and work effort (Atkinson & Mogensen 1993; Danziger, Haveman & Plotnick 1981; Moffitt 1992). Many of these studies have found a negative impact of transfers, but the magnitude of the effect is unclear. More important, this research has not analyzed the impact of tax and transfer programs on poverty itself. Detrimental effects of social-welfare policies on labor supply or work effort may be so small that they have no influence on poverty rates, or they may be offset by other, poverty-reducing effects of such programs.

Other analyses have examined the relationship between welfare state commitment and economic growth across countries (e.g., Atkinson 1995; Kenworthy 1995b; Korpi 1985). However, the findings of this research have conflicted due to differing variable measures, time periods, and samples of nations. And again, because these studies do not examine poverty directly, it is not clear what implications can be drawn from them regarding the overall utility of social-welfare policies.

Most studies that do examine the relationship between social-welfare programs and poverty have focused upon a single nation, commonly the U.S. (e.g., Blank 1997; Danziger & Weinberg 1994; Sawhill 1988). This single-country focus has limited the capacity of such studies to effectively gauge the impact of social-welfare policies on poverty rates. Variation over time in many other potentially important factors — particularly demographics and the state of the economy — makes it difficult to isolate the effect of the welfare state on poverty. A cross-national approach would be more useful in this respect. To date, however, there has been no careful

multivariate cross-national analysis of the relationship between social-welfare policies and poverty. This study attempts to fill this gap.

## Data and Method

My aim is to assess, for fifteen nations, the impact of social-welfare policies over the period 1960-91 on poverty rates in 1991. The analysis consists of cross-sectional ordinary least squares (OLS) regressions of 1991 (or similar year) posttax and posttransfer poverty rates on three causal variables: social-welfare policy extensiveness (operationalized using three alternative measures) during 1960-91, national wealth (GDP per capita) in 1960, and pretax/pretransfer poverty rates in 1991. The fifteen countries are Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the U.S. These are fifteen of the eighteen most affluent democratic members of the Organization for Economic Cooperation and Development (OECD) with populations of at least 3 million. The other three — Austria, Japan, and New Zealand — cannot be included due to lack of adequate poverty data.<sup>1</sup>

Until recently, careful cross-national exploration of the effects of social-welfare programs on poverty has been prevented by a lack of comparable data on the distribution of income in different countries. Such data are now available through the Luxembourg Income Study (LIS). The LIS database consists of microdata (data for individuals and households) on earnings, government transfers, other income sources, and tax payments in various countries. These data can be used to calculate national poverty rates. The most recent year for which data are available for most nations is 1991.

How should poverty be defined?<sup>2</sup> Most cross-national studies use a relative measure of poverty (e.g., Duncan et al. 1995; McFate, Smeeding & Rainwater 1995; Mitchell 1991). That is, individuals are classified as poor if their household income is below a certain percentage — typically 40% or 50% — of the median in *their country*.

The problem with a relative poverty measure is that it may hide indirect, dynamic effects of social-welfare programs — specifically, the possibility that such programs reduce the society's growth rate and therefore hurt the poor over the long run.<sup>3</sup> There is no question but that social-welfare programs reduce poverty in a direct, static sense. By shifting money to those with lower incomes, tax and transfer policies in all industrialized nations bring some individuals above the poverty line, however that line is defined (McFate, Smeeding & Rainwater 1995; Mitchell 1991; Smeeding 1997). Indeed, more than one-fifth of all households in such nations rely on government transfers as their major source of income (Atkinson, Rainwater & Smeeding 1995:83). The degree of impact varies across countries, of course.

Timothy Smeeding (1997:35) finds that "In general, low poverty reduction nations have lower social expenditures . . . while high expenditure nations achieve higher rates of poverty reduction, as we might expect." But even in the least redistributive nations, such as the U.S., they have a beneficial impact (Center on Budget and Policy Priorities 1998; Smeeding 1997).

One of the principal objections to social-welfare policies is that they may, by reducing investment or work incentives, have a detrimental effect on the real living standards of the poor *over the long run*. Consider two hypothetical countries: country A and country B. Suppose each has a median household income of \$20,000 and the distribution of pretax/pretransfer income is identical in the two nations. But suppose country A redistributes more money from rich to poor, so that, after taxes and transfers, only 10% of its citizens have incomes below 40% of the median whereas 20% of country B's do. This would suggest that the redistributive programs are effective at reducing poverty in a direct, static sense. But if country A's programs have the additional effect of reducing its growth rate below that of country B, then twenty years later the median income in country A might have increased to only \$25,000, compared to \$30,000 in country B. Given country A's more extensive redistributive programs, it might continue, at this later point in time, to have a smaller share of its citizens with posttax/posttransfer incomes below 40% of *its* median. Yet since the median itself would now be higher in country B, many of those on the lower end of B's income distribution might be better off than their counterparts in A in an *absolute* sense.

To take into account the indirect, dynamic effects of social-welfare programs, it is more useful to employ an absolute measure of poverty. This involves selecting a particular monetary figure for the poverty line and applying that line to all countries.

How exactly are absolute poverty rates calculated? I begin with LIS data on posttax/posttransfer household income.<sup>4</sup> Unlike the official U.S. poverty measure, this measure takes into account both government benefits (including "near-cash" benefits such as food stamps) and tax payments. These income figures are then adjusted for household size, using an equivalency scale of .5. Specifically, this adjustment is made by dividing household posttax/posttransfer income by  $S^{.5}$ , where  $S$  represents the number of persons in the household. This presumes that larger households enjoy economies of scale in their use of income, so that, for instance, a household of four needs only twice as much income as a household of one, rather than four times as much (see Atkinson, Rainwater & Smeeding 1995; Smeeding 1997).<sup>5</sup> I use 40% of the 1991 median posttax/posttransfer household (size-adjusted) income in the U.S. as the poverty line. This is an arbitrary choice; but it approximates the poverty line used by the U.S. government, which is one of the few governments that calculates an official poverty rate (Citro & Michael 1995; Smeeding 1997). I adjust household incomes in eight of the fifteen nations for inflation (using changes in each nation's consumer price index, from OECD 1995)

because their income data were collected in a year other than 1991. I then use 1991 purchasing power parities (PPPs, from OECD 1996) to convert incomes from the various national currencies into U.S. dollars.<sup>6</sup> The poverty rate for each nation is calculated as the percentage of individuals living in households with incomes lower than 40% of the 1991 U.S. median.<sup>7</sup> To check the sensitivity of the results to the poverty line chosen, I also calculate poverty rates using 50% and 30% of the U.S. median.

The absolute poverty rates thus calculated are shown in Table 1. Despite the fact that it is the richest nation and has the highest median income, the U.S. does not have a low rate of absolute poverty. Instead, it has one of the highest, exceeded only by those of Italy and three other "Anglo" countries — Ireland, Australia, and the United Kingdom.<sup>8</sup> The lowest rates are found in Norway, Finland, Switzerland, and Germany, with Sweden, Denmark, Belgium, and Canada not far behind. The rate for any given country varies considerably with the income level selected as the poverty line (50% or 40% or 30% of the U.S. median), but the differences across countries vary only minimally: the three measures correlate between .85 and .96 with one another.

In an ideal scenario it would be possible to analyze the effects of social-welfare policies on poverty via pooled time-series analysis, using data on social-welfare programs and poverty rates for various nations over a period of several decades. Unfortunately, LIS data are not available for enough nations over a sufficient period of time to permit this type of analysis.<sup>9</sup> Instead, we must rely on a dependent variable (poverty rates) that is measured at a single point in time (around 1991). In spite of this limitation, it is possible to gauge the indirect dynamic effects of social-welfare programs. Doing so entails utilizing data on social-welfare policy extensiveness in prior years, instead of just for 1991 itself. Such data are available for the fifteen countries beginning in 1960. The effects of any growth retardation caused by social-welfare policies during the 1960s, 1970s, and 1980s should show up in poverty figures for the early 1990s.

I use three alternative measures of social-welfare policy extensiveness. The first is government transfer expenditures as a share of GDP, with data from the OECD (1995).<sup>10</sup> This is perhaps the most useful overall measure, and it is certainly the most widely used. Average transfer levels for the fifteen nations over the period 1960-91 are shown in Table 2. Not surprisingly, the smaller social democratic, corporatist European nations along with France have had the most extensive transfer programs, while those in the Anglo nations and Switzerland have been the least extensive.

The second measure is Esping-Andersen's (1990) decommodification scale. This scale taps the degree to which individuals "can uphold a socially acceptable standard of living independently of market participation" (Esping-Andersen 1990:37). It takes into account the rules governing access to pension, sickness, and unemployment benefits, the degree of income replacement provided by those

TABLE 1: Posttax/Posttransfer Absolute Poverty Rates (Percents), circa 1991<sup>a</sup>

	Year	Percentage of the U.S. Posttax/ Posttransfer Median at which the Poverty Line Is Set		
		50%	40%	30%
Australia	1989	20.1	11.9	5.6
Belgium	1992	14.2	6.0	2.2
Canada	1991	11.3	6.5	3.1
Denmark	1992	13.5	5.9	3.4
Finland	1991	8.1	3.7	1.4
France	1989	19.7	9.8	4.8
Germany	1989	11.5	4.3	2.1
Ireland	1987	43.7	29.4	15.6
Italy	1991	26.1	14.3	5.6
Netherlands	1991	16.0	7.3	4.2
Norway	1991	4.0	1.7	0.7
Sweden	1992	11.0	5.8	3.1
Switzerland	1982	6.2	3.8	2.7
United Kingdom	1991	27.0	16.8	6.1
U.S.	1991	17.7	11.7	6.6

*Note.* Data are author's calculations from the LIS database.

<sup>a</sup> Percentage of individuals in households with posttax/posttransfer incomes (adjusted for household size) below poverty line in 1991 U.S. dollars. For method of calculation, see text.

benefits, and the range of entitlements they encompass. Decommodification is a more multifaceted, and thus arguably a better, measure of social-welfare commitment than the share of GDP spent on government transfers. Its chief drawback is that it is measured at only a single point in time — the year 1980. As Table 2 indicates, the highest degree of decommodification is achieved by the Scandinavian welfare states, followed by those of the continental European nations, with the U.S. and the other Anglo countries again scoring lowest. Yet the country scoring for decommodification differs notably from that for government transfers. The two measures correlate at only .58 for the fifteen countries.

The third measure of social-welfare policy extensiveness is the “social wage” — the percentage of former income that a median-income worker will receive if she or he stops working. Sources of this income include unemployment compensation, general public assistance, and related programs. These data are available from the OECD (n.d.) for each of the fifteen countries for every other year over the 1960-91 period.<sup>11</sup> This measure focuses more directly than do the other two on benefits available to the working-age population. That is an advantage in that this is the group that welfare-state critics suggest will be most negatively affected by the work

TABLE 2: Independent Variables

	Social-Welfare Policy Extensiveness			GDP per capita 1960 (1989\$)	Pretax/Pretransfer Absolute Poverty Rates (Percents), circa 1991 <sup>b</sup> : Percentage of the U.S. Posttax/Posttransfer Median at which the Poverty Line Is Set		
	Government transfers 1960-91 <sup>a</sup> (Percent of GDP)	Decommodification 1980	Social Wage 1960-91 <sup>a</sup> (Percent)		50%	40%	30%
Australia	7.3	13.0	15.9	7,734	27.1	23.3	20.9
Belgium	19.3	32.4	39.8	6,259	30.8	26.8	23.9
Canada	9.5	22.0	47.5	7,895	26.6	22.5	18.6
Denmark	13.5	38.1	54.5	7,450	29.1	26.4	23.7
Finland	10.4	29.2	30.4	5,713	16.7	11.9	8.0
France	17.8	27.5	51.6	6,938	44.5	36.1	27.4
Germany	14.8	27.7	39.2	6,746	17.8	15.2	13.7
Ireland	10.5	23.3	25.5	3,906	46.2	39.2	31.6
Italy	14.5	24.1	4.4	5,507	41.7	30.7	22.2
Netherlands	21.5	32.4	60.7	7,390	25.1	22.1	20.5
Norway	13.4	38.3	30.6	6,507	11.9	9.2	7.0
Sweden	14.6	39.1	54.6	7,966	28.9	23.7	19.5
Switzerland	9.4	29.8	18.1	11,419	14.5	12.5	10.6
United Kingdom	10.1	23.4	25.2	7,982	33.4	29.6	26.0
U.S.	8.8	13.8	22.1	11,871	25.2	21.0	17.4

Sources: Government transfers: OECD (1995). Decommodification: Esping-Andersen (1990, table 2.2). Social wage: OECD (n.d.). GDP per capita: author's calculations using 1989 per capita GDP levels from OECD (1996:149) and 1960-89 growth rates of per capita GDP from OECD (1995). Pretax/pretransfer absolute poverty: author's calculations from the LIS database.

<sup>a</sup> Figures are averages for 1960 to the year the LIS income data were collected for the particular country (see Table 1) — e.g., 1960-89 for Australia, 1960-92 for Belgium.

<sup>b</sup> Percentage of individuals in households with pretax/pretransfer incomes (adjusted for household size) below poverty line in 1991 U.S. dollars.

disincentives associated with social-welfare programs, which in turn are said to hurt the poor by reducing economic growth. Yet that same focus precludes this measure from taking into account the benefits that other types of social-welfare programs may provide for the young or elderly poor. As the figures in Table 2 indicate, the rank-ordering of countries for the social wage is similar to yet different from those for government transfers and decommodification. The social wage measure correlates at .60 with transfers and at .57 with decommodification.

If proponents of social-welfare policies as an anti-poverty tool are correct, the regression analysis should yield a statistically significant negative coefficient for the social-welfare policy extensiveness variable — whichever of the three measures is used. That is, countries that transfer a larger share of GDP, have more extensive decommodification, or provide a more generous social wage should have lower posttax/posttransfer poverty rates, controlling for other relevant variables. Critics of such policies would expect the coefficient for the social-welfare policy variable to be not significantly different from zero, or perhaps positive.

The aim here is not to develop a full or complete explanation of cross-national variation in poverty rates. Instead, it is to assess the impact of social-welfare policies on poverty. Thus, there is no need to include variables representing all possible influences on poverty. Moreover, given the small number of cases, only a limited number of causal variables can reasonably be included in the regression analysis. Which control variables should be used? Since I am not attempting to discover the underlying institutional causes of differential poverty rates — labor strength, the partisan complexion of government, state structure, culture, and so on — it is necessary to include only variables representing what are likely to be proximate *sources* of poverty.<sup>12</sup> Two stand out as particularly salient.

First, some nations may have less poverty than others because their economy is stronger. Hence, it is important to control for national economic wealth, the best measure of which is GDP per capita. As noted earlier, one of the principal arguments made by critics of social-welfare programs is that such programs weaken the economy over time. It is preferable, therefore, to use a measure of economic wealth at the beginning of the time period being considered, before any such growth-retarding effects have occurred. I use a variable representing GDP per capita in 1960 (calculated from OECD data). These figures are also shown in Table 2.

Second, cross-national poverty rates may vary because the distribution of pretax/pretransfer income is more unequal in some countries than in others. Some nations have larger shares of citizens working in low-paying jobs, higher unemployment rates, more labor-force dropouts, larger elderly populations, and/or more single-parent families. Each of these features can be expected to produce more households with earnings below the poverty level, which, *ceteris paribus*, will result in a higher posttax/posttransfer poverty rate. I therefore include a variable representing pretax and pretransfer absolute poverty rates, which can be calculated from the LIS database.<sup>13</sup> As Table 2 indicates, pretax/pretransfer poverty is highest in Ireland and France and lowest in Norway, Finland, Switzerland, and Germany.

Because it is so commonly used in cross-national research on poverty, I also analyze the relationship between social-welfare policy extensiveness and poverty using a relative poverty measure. Table 3 shows rates of relative poverty after and before taxes/transfers in the fifteen countries, using 40% of the median within each nation as the poverty line. For most countries relative rates of posttax/posttransfer poverty are lower than absolute rates. Indeed, relative poverty measured using the

40%-of-the-median line is less than 7% in every nation except the U.S. That the U.S. has the highest rate of relative poverty is not especially surprising given the extensive earnings inequality that characterizes the American economy (Gottschalk & Smeeding 1997).

## Results

Regression results for analyses of cross-national variation in absolute poverty are shown in Table 4. The coefficients for each of the three alternative social-welfare policy extensiveness measures are negative and statistically significant at or near the .01 level. This suggests that social-welfare policies *do* help to reduce poverty, even when indirect, dynamic effects are taken into account. The unstandardized coefficient in the equation with government transfers used as the social-welfare policy measure indicates that, on average for these fifteen nations, each additional one percent of GDP spent on transfers over the period 1960-91 may have reduced the absolute poverty rate in the early 1990s by as much as .75 of a percentage point.

Pretax/pretransfer poverty is the most important determinant of posttax/posttransfer poverty. The coefficients for this variable are positive and significant in each equation, with strong standardized effects of .60 or greater. This underscores the limits to how much the welfare state — which is inherently reactive, coming into play after the distribution of primary (pretax/pretransfer) income has been established — can accomplish in reducing poverty. Yet the coefficients for the social-welfare policy variable clearly indicate that it *does* tend to help.

The coefficients for the 1960 GDP per capita variable have the expected negative sign but do not reach conventional levels of statistical significance in any of the three equations. It appears that national economic affluence at a given point in time is no guarantee of low rates of poverty a generation later. Indeed, it is no guarantee of a low poverty rate even at the same point in time: the zero-order correlation for the fifteen countries between posttax/posttransfer absolute poverty circa 1991 and GDP per capita in 1991 is only  $-.56$ . National economic wealth may help in combating absolute poverty, but it is by no means a cure-all.

Although the aim here is not to develop a full model or explanation of poverty, it is worth noting that, irrespective of how social-welfare policy extensiveness is measured, this simple three-variable model accounts for two-thirds or more of the variation in posttax/posttransfer absolute poverty rates (after adjusting for degrees of freedom).

Given the small sample size, the results of this analysis may be highly sensitive to outlier cases or to the particular way in which the variables are measured. A variety of analyses were performed to assess the robustness of the findings. The results of these analyses are not shown here, but they are available from the author.

TABLE 3: Relative Poverty Rates (Percent), circa 1991

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	Posttax/Posttransfer Relative Poverty	Pretax/Pretransfer Relative Poverty
Australia	6.4	21.3
Belgium	2.2	23.9
Canada	5.6	21.6
Denmark	3.5	23.9
Finland	2.3	9.8
France	4.8	27.5
Germany	2.4	14.1
Ireland	4.7	25.8
Italy	5.0	21.8
Netherlands	4.3	20.5
Norway	1.7	9.3
Sweden	3.8	20.6
Switzerland	4.3	12.8
United Kingdom	5.3	25.7
U.S.	11.7	21.0

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*Note.* Data are author's calculations from the LIS database. Percentage of individuals in households with incomes (adjusted for household size) below 40% of the median within each country. For year see Table 1.

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A simple way to check for outliers is via the jackknife diagnostic (see Mooney & Duval 1993). For each of the social-welfare policy measures, I reestimated the regression equation fifteen times, each time with one of the countries omitted. The results changed very little. In no instance did the social-welfare policy extensiveness variable fail to reach statistical significance at the .05 level or better. Since Ireland is a potentially influential outlier on several variables, I reestimated the equation fourteen more times, this time always leaving out Ireland and then omitting the remaining countries one by one. Despite the inclusion of only thirteen countries, the results again held up, with the social-welfare policy extensiveness variable always significant at the .10 level or better.

One potential measurement problem is that the findings could be sensitive to the particular poverty line chosen. Yet the regression results are not altered to any noteworthy degree if the poverty line is set at either 50% or 30% of the U.S. median.

A second potential measurement problem is that the social-welfare policy extensiveness variable may span too long a time frame. Suppose a country had relatively low levels of government transfers during the 1960s but then dramatically increased transfer expenditures in the 1970s or 1980s (perhaps in response to the

TABLE 4: Regression Results Using Absolute Poverty Measure

	Measure of Social-Welfare Policy Extensiveness Used in the Model		
	Government Transfers	Decommodification	Social Wage
Social-welfare policy extensiveness	-.44** -.75 (2.92)	-.41* -.36 (2.37)	-.41** -.17 (2.82)
GDP per capita 1960	-.18 -.0006 (1.13)	-.20 -.0007 (1.11)	-.07 -.0003 (.46)
Pretax/pretransfer absolute poverty	.78** .63 (5.05)	.60** .49 (3.35)	.77** .62 (4.88)
Adjusted R <sup>2</sup>	.71	.66	.70
N	15	15	15

*Note.* Standardized and unstandardized OLS regression coefficients, with absolute t-values in parentheses. Dependent variable is posttax/posttransfer absolute poverty circa 1991, with the poverty line set at 40% of the U.S. posttax/posttransfer median (see Table 1).

\*  $p < .05$  \*\*  $p < .01$  (one-tailed tests)

severe economic recessions of 1973-75 and 1981-82). The average transfer level for that nation over the period 1960-91 might be relatively high. Yet if, as some critics of social-welfare policies maintain, low levels of transfers permit faster economic growth rates which in turn yield lower rates of absolute poverty, such a nation might have benefited from its lower transfer expenditure levels during the 1960s. Specifically, this might have led to faster growth and, consequently, a relatively low absolute poverty rate by the early 1990s, in spite of (rather than because of) generous social-welfare programs in the 1970s and 1980s. In other words, measuring government transfers over the entire 1960-91 period may yield misleading results regarding the indirect, dynamic effects of social-welfare policies on poverty. To examine this possibility, I reran the analysis using a measure of government transfers over 1960-70 and then over 1960-80. The same was done for the social wage measure but not for decommodification, since no pre-1980 data are available. None of these recalculations yielded any noteworthy change in the results.

There is another potential problem related to the measurement of social-welfare policy extensiveness. It could be the case that nations with more generous redistributive programs between, say, 1945 and 1960 grew more slowly during that

TABLE 5: Regression Results Using Relative Poverty Measure

	Measure of Social-Welfare Policy Extensiveness Used in the Model		
	Government Transfers	Decommodification	Social Wage
Social-welfare policy extensiveness	-.36* -.21 (1.92)	-.56** -.17 (4.18)	-.35* -.05 (2.00)
GDP per capita 1960	.54** .0006 (2.93)	.50** .0006 (3.82)	.63** .0007 (3.65)
Pretax/pretransfer relative poverty	.51** .21 (2.85)	.28** .12 (2.13)	.52** .22 (2.94)
Adjusted R <sup>2</sup>	.58	.78	.59
N	15	15	15

*Note.* Standardized and unstandardized OLS regression coefficients, with absolute t-values in parentheses. Dependent variable is posttax/posttransfer relative poverty circa 1991, with the poverty line set at 40% of the posttax/posttransfer median within each country (see Table 3).

\*  $p < .05$  \*\*  $p < .01$  (one-tailed tests)

time and consequently had lower per capita GDPs in 1960, and that this in turn caused these countries to have higher absolute poverty rates by the early 1990s. Were that the case, the finding of social-welfare programs' beneficial effect would be undermined. Unfortunately, there is no way to check this, because good comparative data on government transfers, decommodification, and the social wage are not available prior to 1960. But it is almost certainly not the case, since the 1960 per capita GDP variable is not statistically significant in any of the regressions in Table 4.

Do the results differ if a relative measure of poverty is used instead of an absolute one? To find out, I ran the analysis using the posttax/posttransfer relative poverty rates shown in Table 3 as the dependent variable. Table 5 displays the regression results. Each of the equations includes one of the three alternative measures of social-welfare policy extensiveness, 1960 GDP per capita, and pretax/pretransfer relative poverty. The results are similar to those obtained using absolute poverty rates. The principal change is that the 1960 GDP per capita variable is now positive and statistically significant, suggesting, paradoxically, that nations that were more affluent in 1960 tended to have *higher* relative poverty rates in the early 1990s. The

results for the social-welfare policy measures do not change if the GDP per capita variable is dropped from the regressions (not shown here).

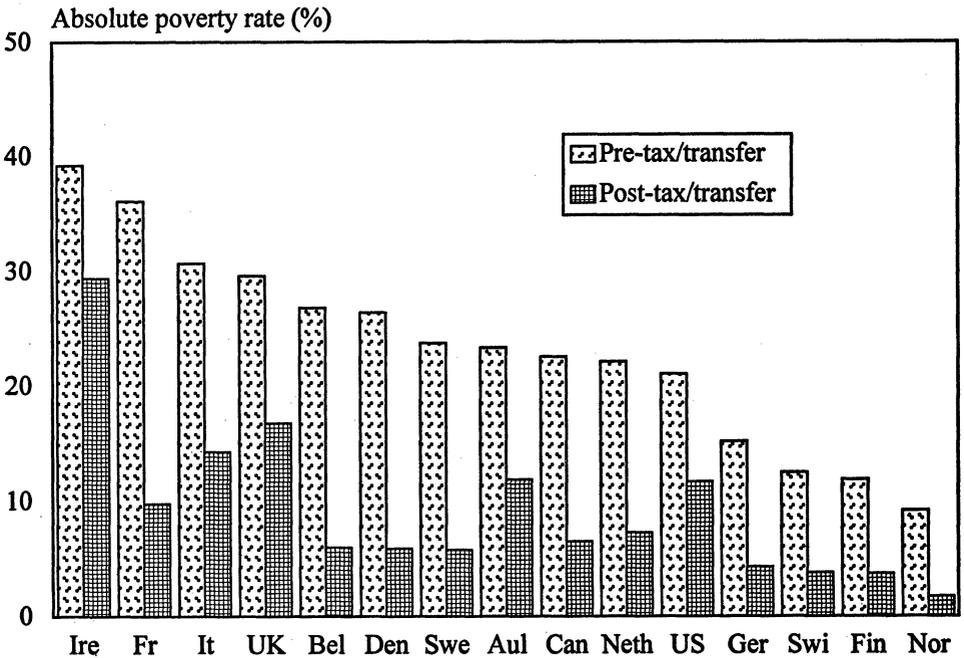
On the whole, then, the findings of the analysis appear to be quite robust. Social-welfare policies seem to have helped reduce both absolute and relative poverty in the wealthiest industrialized countries over the past several decades. This does not necessarily imply that such policies have been the most effective of all potential strategies to reduce poverty, nor that they have been as effective as one might like them to have been. Neither does it allow us to draw conclusions regarding the effectiveness of particular programs in particular nations. Those are separate questions, worthy of investigation in their own right. But the results here do suggest that, contrary to the increasingly influential objections of welfare-state critics, social-welfare programs on average have not failed to reduce poverty. Nations with more generous social-welfare policies since 1960 tended to have lower rates of poverty in the early 1990s.

Yet one might object that the model I have used here is misspecified and, as such, misleading. According to this argument, the potential availability of government transfers encourages some individuals to leave (or never enter) the labor force. Although the transfers they then receive may shift them from pretax/pretransfer poverty to posttax/posttransfer nonpoverty, in the absence of such transfers some or many of these persons would work (or work more) and thus would not have pretax/pretransfer incomes below the poverty level. In short, social-welfare policies reduce poverty that they caused in the first place.

While it is almost certainly true that government transfers tend to have some work-reducing effect, the numerous studies of this issue differ widely on its magnitude, and some suggest it may be quite minimal (see, e.g., Atkinson & Mogensen 1993; Danziger, Haveman & Plotnick 1981; Moffitt 1992). For our purposes, the question is whether the effect is so substantial as to be a *major* cause of pretax/pretransfer poverty. If it is, then the pretax/pretransfer poverty variable should not be included in an analysis of the causes of posttax/posttransfer poverty, because including it may hide the detrimental (or at least nonbeneficial) effects of the social-welfare policy extensiveness variable.

The data from the fifteen countries suggest, however, that this is not the case. A regression of posttax/posttransfer absolute poverty (using, as before, 40% of the U.S. median as the poverty line) on just government transfers and 1960 per capita GDP — i.e., leaving out the pretax/pretransfer poverty variable — yields a coefficient for the government transfers variable that is negative and significant at the .10 level. The results are similar for each of the other two measures of social-welfare policy extensiveness. More to the point, though, the correlation between government transfers and pretax/pretransfer poverty is only .18, which, although positive, is not significantly different from zero. For the social wage and pretax/pretransfer poverty the correlation is just .06, and for decommodification and pretax/pretransfer poverty it is negative, at  $-.24$ . This suggests that more extensive

FIGURE 1: Absolute Poverty circa 1991 Before and After Taxes/Transfers



Note. Poverty line is set at 40% of the U.S. median. For data sources see Tables 1 and 2.

government transfers may not increase pretax/pretransfer poverty rates at all, and that even if they do they are far from being the principal determinant. That in turn suggests that the pretax/pretransfer poverty variable *should* be included in the regressions. Including it may perhaps overstate the beneficial impact of social-welfare policies on posttax/posttransfer poverty somewhat, but probably not by much.

### Concluding Remarks: Why the U.S. Is Different

The failure of existing social-welfare programs to make any headway in reducing the poverty rate in the U.S. since the early 1970s has led to growing frustration among voters and policymakers.<sup>14</sup> This dissatisfaction is heightened by stagnant wages, growing job instability, and ever more intense global economic competition, all of which accentuate the perception that high tax rates and generous government benefits are no longer affordable. It is in this context that criticism of the welfare

state has become increasingly influential among intellectuals and policymakers. Books and articles invoking one or more of the three lines of criticism outlined earlier are now much more common than several decades ago. And while critics have made the most headway in the U.S., many industrialized nations have lowered marginal tax rates or reduced the generosity of social-welfare programs (Clayton & Pontusson 1998; Hicks 1999).

The analysis here suggests that, contrary to the view of skeptics, social-welfare policies do help to reduce poverty. Part of the reason that the backlash against the welfare state has been so fierce in the U.S. is that American social-welfare programs are less effective than those in most of the other fourteen nations examined here. Figure 1 shows early 1990s absolute poverty rates (with the poverty line set at 40% of the U.S. median income) for these countries before and after taxes and transfers. Clearly the tax/transfer system in the U.S. is comparatively ineffectual at reducing the incidence of poverty. Why is that?

Its general stinginess is one obvious causal candidate. As Table 2 above showed, the U.S. had the second-lowest (after Australia) level of transfers as a share of GDP over the 1960-91 period among these fifteen countries. Yet this does not tell the whole story. Even in nations with transfer levels similar to those in the U.S., redistributive policies tend to do a better job at reducing poverty. Canada provides a particularly telling comparison. The U.S. and Canada are nearly identical in both pretax/pretransfer poverty and government transfer expenditures' share of GDP, yet the U.S. posttax/posttransfer poverty rate is nearly double that of Canada. The reason seems to be that Canada's social-welfare programs are more generous than those in the U.S. in several areas where such generosity is particularly helpful in reducing poverty (see Myles 1996; Smeeding 1992). For instance, unlike AFDC, Canada's principal means-tested welfare program, social assistance, is available to individuals and couples without children, and the benefit levels are substantially higher. In contrast to the U.S. Earned Income Tax Credit, Canada's child tax benefit is available not just to working families but to nonworking ones as well. Canada provides a guaranteed income supplement to the elderly, which ensures that elderly individuals and couples have an income at no less than 55-60% of the nation's median; in the U.S., supplemental security income (SSI) and food stamps ensure the elderly an income at only 35-40% of the median. Canada also provides a special widows' benefit to assist elderly women living alone, who comprise the largest single poverty group, whereas the U.S. has no such program.

The most noteworthy development in American social-welfare policy in recent years, the replacement of AFDC by Temporary Assistance to Needy Families (TANF) in 1997, will likely lead to an overall reduction in expenditures on welfare programs as well as a shift of more welfare recipients into the workforce. Given the low pay levels associated with the types of jobs these individuals are likely to get (Bernstein & Mishel 1995; Blank 1997; Edin & Lein 1996), it would be surprising

if this shift results in much, if any, reduction of the poverty rate. The differential success of Canada and the U.S. in reducing poverty despite similar overall levels of redistribution suggests that increased social-welfare policy effectiveness may be possible without a substantial rise in expenditures. Relatively modest increases in benefit levels for programs that assist nonworking individuals and low-income workers might well be sufficient to bring the U.S. into line with at least a few of the other affluent nations in reducing poverty.

### Notes

1. No Luxembourg Income Study (LIS) data have been collected for Japan or New Zealand. The LIS data for Austria are rendered problematic by omission of self-employment income.
2. For helpful overviews of differing approaches, see Atkinson (1991); Citro and Michael (1995); Smeeding (1997).
3. Another drawback of a relative measure is that it renders poverty merely a component of income inequality. As Blackburn (1994:372) puts it: "Relative poverty comparisons are primarily comparisons of the dispersion of income at the low end of the distribution."
4. In the LIS database this variable is called "disposable personal income" or "DPI." Sources of income include earnings, property income (interest, rent, dividends), pensions, child support and alimony payments, regular interhousehold cash transfers, and government transfers. Government transfers include cash benefits and "near-cash" transfers (such as food stamps in the U.S.), but not noncash transfers such as education, housing, and medical care. A recent study (Smeeding 1997) finds that the rank-ordering of poverty rates among nations does not change when such noncash transfers are counted. Taxes include personal income and employee payroll taxes, but not sales tax or VAT.
5. Poverty differences are somewhat, but not terribly, sensitive to the particular equivalence scale used. See Atkinson, Rainwater, and Smeeding (1995); Blackburn (1994).
6. PPPs are designed for currency adjustment of gross domestic product figures, not household incomes. Nevertheless, they are superior to exchange rates. Blackburn (1994) finds that cross-national differences in poverty rates are not very sensitive to varying PPP calculations.
7. This variable is somewhat skewed, but there is no substantive difference between the results for a logged version of the variable and for the variable itself. I present the results using the nonlogged version for ease of interpretation.
8. Note, further, that when 30% of the U.S. median is used as the poverty line, only Ireland has a higher rate of absolute poverty than the U.S.
9. LIS data are available for only nine of the fifteen countries prior to 1985 and for only four prior to 1979.

10. Included in the government transfers measure, called "social security transfers" by the OECD, are state benefits for sickness, old age, family allowances, social-assistance grants, and unfunded employee welfare benefits paid by the general government.

11. Similar figures are available on the social wage for a worker whose income is two-thirds of the median level. The results of the analysis are no different, however, if this measure is used.

12. On the distinction between sources and causes of socioeconomic phenomena, see Olson (1982) and Whiteley (1986). For an example of a study of the causes of successful income redistribution (not of poverty reduction per se), see Hicks and Swank (1984); see also Hicks and Kenworthy (1998).

13. In the LIS database this variable is called "market income," or "MI." Like the LIS data for posttax/posttransfer poverty, these figures must be adjusted for household size and converted to 1991 U.S. dollars.

14. In 1975, 45% of General Social Survey (GSS) respondents felt that the U.S. federal government spent too much money on welfare programs. By 1996, 58% felt that way.

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