1999

Social Protection for the Poor in the Developed World: The Evidence from LIS

Timothy Smeeding
Syracuse University, Center for Policy Research

Katherine Ross
Syracuse University, Center for Policy Research

Social Protection for the Poor in the Developed World: The Evidence from LIS*

Timothy M. Smeeding
Katherin Ross
Center for Policy Research
Syracuse University

Prepared for:
The Conference on Social Protection and Poverty
Session on "Design of Appropriate Safety Nets (IV)"
Inter-American Development Bank (IDB)
February 4-5, 1999

April 1999
[revised]

*The authors would like to thank Kati Foley, Esther Gray, and Mary Santy for their help in preparing the manuscript, and Gary Burtless for comments on an earlier version of this paper. Support for the paper was provided by the IDB, Ford Foundation, and the MacArthur Network on Families and Children. The paper is also available as LIS Working Paper #204. The authors assume responsibility for all errors of comission and omission. Please address all correspondence to Smeeding (tmsmeeding@maxwell.syr.edu).

Abstract

This paper presents data and analysis on the antipoverty effectiveness of safety nets in eight rich nations using data from the Luxembourg Income Study (LIS). We find that national safety nets are quite varied and that the most expensive ones (in terms of budgetary cost) are also the most effective. The paper concludes with some suggestions for the construction of effective safety nets in developing nations.

I. Introduction

The purpose of this paper is to review the recent evidence on the antipoverty effectiveness and other characteristics of social protection for the poor in the rich nations of the world. We will show that a wide range of poverty rates and antipoverty policies can be found amongst these countries. Within each country a unique set of antipoverty policies combines with other social protection policies to help reduce poverty. We examine the ways in which various types of policies: private (though perhaps regulated or mandated by governments) and public, affect poverty amongst the overall population and amongst several key policy groups: middle aged workers, including those who are fully or partially employed and those with no earnings (or earners); childless and childful families (including solo parents); extended families (where living together produces economies of scale to reduce poverty); and the elderly.

Our objectives are two fold: first, to describe the arithmetic effects of social protection policies in poverty, and secondly to attempt to infer their lessons for the design of social protection systems and safety nets in Latin America. In so doing so, we discuss the responsiveness of modern society to a number of social risks: traditional risks such as old age, unemployment and disability, and new risks such as single parenthood, care for children when parents are employed, and the effects of demographic cycles on the costs of aging societies.

We begin with a brief review of poverty concepts and measures and a brief description of the data used in this paper. This is followed by a presentation of the results, and finally by a discussion of our findings and their implications for the design of Latin American social protection systems.

In the short space allotted to this paper, we are limited in the extent to which we can examine different measures of poverty and specific programs. We present results for a set of rich nations at a point in time, with no direct analysis of poverty trend over time. We do not discuss social investments in health care, human capital, and education very much, despite the fact that they may be the most effective of long-run anti-poverty policies for Latin America (Inter-American Development Bank 1998; Lustig and Deutsch 1998). We also concentrate on money based poverty, with only a summary discussion of the effects of noncash benefits on poverty. And we limit our poverty measures to relative income based headcounts of the poor. We are less concerned with this final limitation than if we were writing a paper on poverty measurement where a number of poverty concepts and measures should be explored. Yet, because the antipoverty effects of social protection systems is similar whether one uses absolute or relative poverty concepts, the main points we make in this paper can be argued regardless of the poverty concept employed (Kenworthy 1998; Smeeding 1997).

II. Concepts of Well-Being, Poverty, and Resource Measures in Rich and Poor Nations

The measurement of economic poverty in all nations, rich or poor, involves the calculation of economic well-being or resources relative to needs. Economic well-being refers to the material resources available to households.[1] The concern with these resources is not with material consumption itself but rather with the capabilities they give household members to participate in their societies (Sen 1992). These capabilities are inputs to social activities and participation in these activities produces a particular level of well-being (Rainwater 1990; Coleman and Rainwater 1978). Measurement of these capabilities differs according to the

context in which one chooses to measure them, particularly within rich nations as compared to within poor nations.

All advanced or rich societies are highly stratified socially. Some individuals have more resources than others. The opportunities for social participation are vitally affected by the resources that the family disposes, particularly in nations like the United States, where there is heavy reliance on the market to purchase such social goods as health care, education, and child care services (Rainwater 1974). Money income is the central resource in these societies. But there are still other important kinds of resources such as social capital (Coleman 1988), noncash benefits, education, and access to basic health care, all of which add to human capabilities. There are also many forces in rich societies which reduce well-being by limiting capabilities to participate fully in society: for instance, violent, geographically and socially isolated neighborhoods; poor quality public education. And earnings and job instability increases economic insecurity in many rich countries.

In poor nations, where poverty is more basic—often the difference between life and death—real consumption of food and shelter is the preferred measure of well-being. Economic poverty emerges and is measured by having too few resources for survival, or living on life's edge. Here life expectancy, mortality rates at young ages, lack of access to public health, illiteracy, and other basic measures of "poverty" and social exclusion are much more common and more easily measured than is "income. And "social capital" in the form of family support may be the major form of social protection in developing nations, particularly in rural communities. In fact, such organizations as the United Nations (1997, 1998) seem to have adopted such an approach via their measurement of "human development indices " for poor nations.[2]

But in rich societies, we argue that income—or the ability to consume—is the key measure of economic resources and the ability to avoid poverty. While income—consumption

plus change in net worth—brings with it more complicated issues of period of measurement and life cycle considerations, it is a much more appropriate and, we would argue, more easily measured index of well-being for rich nations than is consumption (see Johnson and Smeeding 1997 on this topic). Further, an emphasis on "income" in addition to consumption, allows researchers to focus not only on today's consumption but also on ability to protect future consumption, i.e., "savings' and access to credit markets. International bodies such as the World Bank, which emphasize individual, responsibility and self-protection for risks of economic downturn must examine not just consumption but also savings and access to credit markets (e.g., Holtzmann and Jorgensen 1999).

In rich nations one measures poverty based on annual disposable money income. Detailed comparable information exists on money income by source, taxes paid, and certain kinds of transfers which have a cashlike character, such as housing allowances, fuel assistance, and food stamps, for the almost 25 nations, 9 of which we will investigate here. Unfortunately we cannot take into account the major in-kind benefits which are available in most countries—for example, health care, education, day care and preschool, general subsidies to housing, and the like. To the extent that the level and distribution of these resources is different in different countries, our analysis of money income must be treated with some caution. While, their inclusion would be attractive to those interested in capabilities and their effects on longer term poverty (e.g., Ravallian 1998), we are interested here in the effects of safety nets on poverty. Hence, we prefer a measure of poverty which focuses on the short term responsiveness of governments and other agencies in providing social protection to the otherwise poor.

Equivalence Scales

Households differ not only in terms of resources but also in terms of their needs. We take differing needs, due to differences in household size and other factors (e.g., urban-rural differences), into account by adjusting income for family size using an equivalence scale. The

adjustment for household size is designed to account for the different requirements families of different sizes and different circumstances have for participating in society at a given level. Different equivalence scales will yield different distributions of well-being. Several studies in Europe, the United States, and Australia point to an equivalence scale which implies fairly large economies of scale in the conversion of money incomes to social participation among families with children (Buhmann et al. 1988; Bradbury 1989; Rainwater 1990), and also for the aged (Burkhauser, Smeeding, and Merz 1996). Because choice of equivalence scale may favor small versus large families, depending on which scale is selected, we aim to find a middle ground value which is appropriate for measuring vulnerability for both large families (e.g., those with two or more children) and smaller units (e.g., single elderly women living alone).

Buhmann et al. (1988) have proposed that disposable income be adjusted for family size in the following way:

$$\text{Adjusted income} = \text{Disposable Income}/\text{Size}^{E} \qquad (1)$$

The equivalence elasticity or "equivalence factor" E, varies between 0 and 1; the larger is E, the smaller are the economies of scale assumed by the equivalence scale. The various studies reviewed in the survey from Buhmann et al. (1988) and later Atkinson, Rainwater, and Smeeding (1995) make use of equivalence scales for analyses of per capita income ranging from E = 0 (or no adjustment for size), to E=1 (which ignore all economies of scale). Between these extremes, the range of possible values is evenly covered. The reader should keep in mind that all money income estimates in the paper are based on adjusted or equivalent income calculated according to the above formula.

The obvious question is which measure of E to use for this study. Following Atkinson, Rainwater, and Smeeding (1995, especially chapters 2, 3, and 7), we have selected an E value of 0.5, similar to that used by OECD (Forster 1994), and Eurostat (Hagenaars et al. 1994). For the

most part, national rankings by *overall* poverty rates are not sensitive to the measure of E selected (Burkhauser, Merz, and Smeeding 1996; Smeeding, 1997).

However, subgroup poverty rates are very sensitive to the choice of equivalence scale. As demonstrated in Appendix Figure A-1 for Spain, poverty rates among the elderly (usually small families in rich nations) and children (larger families, particularly in developing nations and in richer Catholic nations) vary systematically according to the level of the equivalence factor. When E=0, there are complete economies of scale and smaller households have higher poverty rates (due to the correlation between income and household size) than do larger ones. The opposite result is obtained at higher levels of the equivalence factor, all the way to E=1 where there are no economies of scale and each additional person needs as much as the next person to be nonpoor. Two important notes can be added here. First of all, this same relationship obtains for **every** rich nation. The crossing of the lines in Figure A-1 is **not** unique to Spain. Secondly, there is far too little research on the appropriate measure of E in developing nations. Simplistic nations of poverty such as "$1.50 per person per day" imply E=1 equivalence scales and hence the likely family size biases apparent in Figure A-1 (World Bank 1990; Ravallion et. al. 1991).

Having defined equivalent income in this way, we determine the equivalent income of all households and all individuals in each country. We then examine the distribution of equivalent incomes of households and of persons in households in relation to the selected poverty line. That is we tabulate both the percentage of persons who have given characteristics, and the percentage of households with given characteristics. In technical terms, our person calculations are weighted by the number of persons of each type (all persons including children, adults, elderly), residing in each household type.

Poverty Measurement

Needs can be measured two ways, an absolute definition and a relative definition. Relative poverty involves deciding on the income concept for relativity (median or mean) and on the fraction of adjusted income which signifies poverty. Absolute poverty measurement means locating the "absolute" poverty line and then converting that poverty line into national currency.

We rely here on a relative concept of poverty, the percent of persons living with incomes below half of median income. This income is in line with a well-established theoretical perspective on poverty (Sen 1992; Townsend 1979). Such a measure is now commonly calculated by the European Commission (Hagenaars et. al. 1994; Ramprakash, 1995), by the OECD (Förster 1993) and by other international groups. Only the British and one other major international study (Cantillion, Marx, and van den Bosch 1996) use a fraction of mean income as a standard, though Cantillion et al. use both mean and median income-based poverty rates in their study.

In fact, most studies use the "average" or median household as the point of reference, as do we. Using the average or mean income means measuring social distance from something other than the average household. Moreover, the decision to use one measure versus the other can lead to quite different results in poverty trends when inequality is changing. In the United States from 1973 to 1994, the mean income grew 15 percent more than the median income, thus assuring that poverty measured relative to the mean grew much more than poverty relative to the median (Burtless 1996).

Our measure of poverty is the headcount, i.e., percent of households or persons with incomes less than half of the median income. We use only the headcount in this paper, although measures of poverty gap or more sophisticated measures of poverty such as the Forster-Greer-Thorbecke (FGH) (1984) and Sen (1976) index could be deployed. Were the purpose of this paper poverty measurement, would stress more measures of both absolute and relative poverty.

However, poverty measurement is **not** the major purpose of the paper. And in practice, each of the other measures of poverty suggested above may have severe computational problems. For instance, the poverty gap, FGH, and Sen indexes are all very sensitive to the accuracy of the income measure at the bottom of the income ladder. Differences in survey reporting, survey editing and bounding of incomes by survey agencies may each drastically affect these measures of poverty as they in effect, artificially create different lower bound income figures across nations.

The determination of "absolute" poverty lines requires both the selection of an absolute poverty line in one currency and its translation into other currencies. Such translations rely on "purchasing power parties (PPP's) such as those constructed by Hester and Summers (1991) or by OECD (1998). However, PPP's are based on aggregated data and income (consumption) concepts that are not well suited for use with microdata, which are highly sensitive to the price deflator used when rapid inflation (as is often the case in Latin America) takes place and which are sensitive to the overall quality of the income data reported on the survey in question. Hence, we rely on the relative poverty-based headcount measure alone.[3]

While we stress the half of median measure, we use one additional measure of relative poverty to test the sensitivity of our headcount measures to alternative poverty lines. Forty percent of the median is chosen for comparison because it is almost exactly the ratio of the United States poverty line to the United States median. This poverty measure is used in Figure 1 and Table A-3 below.

Measuring Resources: Disposable Income, Market Income and Independent Income Measures

Cross-national comparisons of poverty have focused primarily on the distribution of disposable money income after direct taxes (income and employee payroll) and after transfer payments.[4] While this definition of post-tax and transfer disposable income is broad, it falls

considerably short of the Haig-Simons comprehensive income definition, typically by excluding much of capital gains, imputed rents, home production, and in-kind income (including employment related benefits).[5] Most cross-national studies of poverty employ either a measure of income gross of all taxes, or a measure that subtracts "direct taxes"—income and employee payroll taxes—alone. In general, studies do not count personal property or wealth taxes as direct taxes. Employer payroll taxes are implicitly assumed to fall on employees, and indirect taxes are ignored.[6]

Measuring the Effects of Policy on Poverty

Because we want to measure the efforts of public policy on poverty alleviation, we also examine the impact of public taxes and transfers on well-being by estimating the percent of persons with incomes below half of adjusted median disposable income based on their adjusted **Market Incomes** (MI). MI includes all forms of earnings (wages, salaries, and self-employment income) plus capital income. Next we factor in "private transfers," including occupational pension benefits, inter household transfers, and private transfers such as child support. **Private Income Transfers** therefore includes everything but government transfers and taxes. We also separate out the effects of two types of transfers on poverty: **Universal and Social Insurance Transfers,** including such items as child allowances and unemployment, disability and old age insurance. Next the effects of payroll and income **Taxes** are estimated as defined above. Finally, **Social Assistance,** or means-tested and emergency benefits are counted. The latter category includes cash and near cash transfers which are assumed equivalent to cash income. These near-cash benefits include such items as food stamps in the United States and housing allowances in Sweden, each of which are easily measured in national currency terms. Once we have added these together, we reach **Disposable Personal Income** or DI, which includes all types of income, including taxes and transfers.

These comparisons are designed to illustrate how universal benefits, social insurance, and social assistance "welfare" programs—the social safety net—help reduce poverty. They also tells us how the tax system, including negative taxes such as refundable personal tax credits (e.g., the United States' Earned Income Tax Credit (EITC) and the United Kingdom's Family Tax Credit), help raise the incomes of some families relative to others.

Because poverty is of greater concern when it is concentrated among vulnerable groups (children, aged, unemployed) as compared to others (e.g., able childless adults), we present poverty rates for several groups as well as for all persons (Figures 1 and 2 and Table A-2). We first consider household poverty rates amongst households headed by a prime age adult (aged 25 to 64). Here we break the aggregates into three groups: those with a head or a spouse working full year-full time (to assess wage adequacy); those with only part-time workers (head or spouse) as a residual; and those with no earners (who are either full year unemployed or not into the labor force, including the totally disabled). These analyses clearly focus on the question of whether or not participation in the labor market can by itself reduce poverty and also how social protection affects poverty amongst working age households.

We then turn (Table 2) to poverty amongst adults (all persons aged 25 to 64) broken down into various demographic categories: couples (two adults present); and "extended families" (multigenerational families with children and adult other than the head and partner). These are compared to childless prime age adults (adults 21-64 in households with out children) and to the elderly (adults age 65 and over). We do not directly assess child poverty in this paper. All income and poverty definitions are more completely summarized in Appendix Table A-1.

Database

The database used to carry out this analysis is the *Luxembourg Income Study (LIS)* database, which now contains information on child poverty for 25 nations in 80 databases covering the period 1967 to 1996 (see LIS homepage at http://lissy.ceps.lu/index.htm and

Figure A-2). The LIS consists of a set of existing household income microdatasets which have been "harmonized" (categories of income and demography are made consistent) producing output files which are more comparable than are the raw files. While the LIS process certainly raises the ratio of "signal" to "noise" in crossnational comparisons of income, poverty and economic well-being, some of the noise remains. Hence, footnotes on noncomparabilities that have been reduced but not eliminated still are worthy of note.[7]

From the list of 25 rich LIS nations (Appendix Figure A-2) we have selected nine to examine here: Three young large Anglo Saxon nations with "underdeveloped" welfare states (United States, Australia, Canada); five European nations (United Kingdom, Spain, France, Germany and The Netherlands) which span their social policy spectrum; and one "advanced" Scandinavian welfare state (Sweden). While other choices of nations were available, this set fairly well represents the types of social protection systems available in rich nations.[8]

III. Results

Our purpose is to assess the relative levels of poverty across the selected nations and the effect of social protection systems on these societies. We begin with two all-inclusive figures (based on Table A-2) which paint the broad outline of poverty patterns and anti-poverty effects across these nations. These pictures help set the stage for the detailed results that follow.

Overview

There is a wide range of relative income-based poverty rates based on disposable income (DI) for all persons across these nine countries as seen in Figure 1 (derived from Table A-2). The United States is clearly the outlier at either the 40 or 50 percent poverty line, with an 18.4 percent rate at our preferred 50 percent of median standard. Australia comes next at 15.7 percent and then a grouping of the United Kingdom, Canada, Spain, and France all in the 10 to 12

percent range. Finally, poverty is lowest in (West) Germany, Sweden, and The Netherlands, all in the 6 to 7 percent range. At the more stringent 40 percent poverty standard, only the United States has poverty in double digits, while Australia has an 8 percent rate. The next four nations (United Kingdom, Canada, Spain, and France) are all around the 6 percent poverty level, while the lowest three (Germany, Sweden, and The Netherlands) are all around 4 percent. Beyond the United States and Australia, which always rank highest, and The Netherlands which is always lowest (or tied for lowest), there is no unique ranking. But while country-by-country rankings vary by the level of median income at which poverty is measured, three or four distinct groupings of nations, and large differences across these nations are apparent in Figure 1. The range of poverty rates varies by two to three times across the extremes depending on which level of poverty line is selected.

Market income (MI) based poverty rates (Figure 2) are more closely clustered than are DI-based rates, with all countries facing pre-tax and transfer poverty rates of between 30 and 38 percent at the 50 percent of median poverty standard. The antipoverty effects of taxes and transfers, however, differ greatly. In fact, the United States and Australia begin with the two lowest MI-based poverty rates, but end up with the highest DI-based rates (see dark bars in Figure 2). Canada begins at a point close to the United States figure, but then ends up with a better after-tax and transfer poverty rate. In the low DI poverty countries (e.g., Sweden and The Netherlands, but also France and Germany), there is a much larger antipoverty effect, but also a larger "target" MI-based pre-tax and transfer poverty group. The patterns at the 50 percent level are largely similar to those at the 40 percent poverty level.

A closer look at Table A-2 itself indicates that in every nation with the exception of Australia and the United Kingdom, universal and social insurance transfers have by far the largest impacts on poverty. In the United Kingdom, social assistance also has a large and roughly equal effect on poverty. While all other nations make use of social assistance payments, they

play a far less significant role than does social insurance in most nations. In every nation, private transfers play a small positive role, while taxes play a small negative roll, but neither is a prime mover for poverty reduction. In the expansive welfare states of Sweden, Germany, France, and even in Spain, social insurance benefits account for 80 percent or more of the poverty reduction derived from the social protection system. In Canada, The Netherlands, and the United States, about two-thirds of the anti-poverty effect can be attributed to social insurance and universal transfers.

Social insurance includes old age and survivors benefits, temporary and permanent disability payments, unemployment compensation, and in some countries, maternity allowances. Universal benefits include child allowances, maternity allowances and in some countries, guaranteed child support (child support assurance). Because the effects of social insurance may be dominated by one or more of these specific types of benefits, it behooves us to take a closer look at which types of benefits are most prevalent, and which packages have the greatest impact on poverty. We accomplish this decomposition by examining impacts by more detailed demographic groups in the next section of the paper. We are not able to complete a program-by-program analysis for each type of social assistance or social insurance benefit. Indeed, because there is no one particular type of social protection instrument which dominates across several nations, such a detailed analysis would be fruitless in any case. Rather we seek to demonstrate the general type of programs which affect the poor and to document the extent of the impacts for each type.

The preliminary figures suggest hat there may be a relationship between social protection efforts (e.g., as measured by the percent of GDP spent on cash social protection) and reductions in poverty. Indeed, Figures 3A and 3B indicate that when one examines the percentage change in poverty from MI to DI (as in Tables A-2, and Tables 1 and 2 following), and compare it to social protection expenditures (e.g., those from the OECD 1999),[9] among the nonelderly

(Figure 3A) and among all persons including the elderly (Figure 3B), there is a strong relationship between social protection budgetary efforts and poverty reduction. In general, higher spending produces lower poverty rates. And this overall relationship (Figure 3B) is not solely driven by social retirement expenses because the result also holds true for the nonelderly (Figure 3A).[10] In both charts the United States is an outlier, suggesting that it not only spends little on social protection (relative to GDP) but also that this spending is not well targeted to the otherwise poor (as denoted by its being far below the trend line in Figure 3A and 3B). For instance, among the nonelderly, Australia has a larger but still below average anti-poverty impact for roughly the same level of expenditure, while among all persons, they drop closer to the United States level.[11] And among the mid-level countries in terms of expenditures and poverty reduction, on the nonelderly, France seem to achieve a larger impact than the United Kingdom, Germany, or Canada. Sweden and The Netherlands achieve high levels of poverty reduction, but they also spend large fractions of GDP on social protection. To investigate these results more closely, we now turn to the more detailed results.

Working Age Household Poverty and Social Protection

We begin by examining the effects of social protection on poverty among households headed by middle aged (aged 25 to 64) householders (household heads). Because of the importance of labor market income supplements, we break this group into three subgroups in each country:

(a) households with either the head or spouse working full-year, full-time

(b) households with neither the head nor the spouse employed ("no earner" households)

(c) households with a part-time employed head or spouse (or both) and with neither working full-year full-time (the residual of (a) and (b) above).

Overall poverty rates are also tabulated. In Table 1 we examine the household (not the person). Because countries often try to construct "income packages" for different types of households

whereby all earnings, social insurance, and other factors are taken into account (see Rainwater, Smeeding, and Danziger 1997) one could argue that the household is the proper accounting unit and poverty reference group.[12] The breakdown into these types is to help tell us how various labor market groups are affected by the social protection systems in each country.[13] In both Table 1 and Table 2, column A presents MI poverty rates, column E presents DI poverty rates, and the final column presents the overall percent reduction in poverty from MI to DI.

There are both large and subtle differences across countries in these results (Table 1). One of the most clear findings is that full-year full-time workers begin with low poverty rates and improve from there. The highest poverty rates among this group (United States, 6.2 percent; Australia, 3.3 percent; Canada, 2.9 percent) are also low wage countries, i.e., those with a large fraction of workers earning less than two-thirds of the median wage (Smeeding 1997a). But even in these countries and for full-year full-time workers, the tax transfer system further reduces poverty. DI poverty is less than MI poverty in each nation.

At the other end of the spectrum, nonearners almost by definition, have extremely high MI poverty rates and hence must rely on the transfer system to bring these above the poverty level. Since the "no-earners" can run as high as 20 to 30 percent of all such households (e.g., see the United Kingdom and The Netherlands in Table A-4), this is a major problem in some nations. Both social insurance and social assistance are combined to bring about large poverty reductions in some nations for this group (e.g., The Netherlands, Sweden), while those who do not have such strong institutions are much less likely to reduce poverty rates to reasonable levels (e.g., the United States).

In between these extremes, we find part-time (or part-year) worker households where again outcomes vary according to the strength of the social protection system. Resulting DI poverty rates vary from 3.5 to 35.4 percent for this group, with social insurance playing the strongest role in poverty reduction efforts.

In every country , private income transfers and taxes play small, offsetting roles with taxes raising poverty by 1 to 2 percentage points, and private transfers having the opposite effect. The overall results at the bottom of each country's breakdowns reflect these patterns (and also the relative numbers of households in each of the three categories). In almost all of the countries, social insurance benefits, disability, unemployment, child allowances, workers compensation, and maternity benefits play the largest role in reducing poverty. Only in Australia, which has a set of expansive income-tested social assistance schemes, and in the United Kingdom where income-tested social assistance benefits are a relatively large part of the safety net, do we find that social insurance is not the largest source of poverty reduction. In all the rest of these nations, social insurance transfers provide two-thirds or more of the anti-poverty effect of the social protection system.

Adults and Elderly by Family Type

Another way to examine the effects of social protection is to look at individual adults according to their household living arrangement status, not their work status (Table 2). Different nations treat adults in different ways depending on their family situation: presence or absence of children; presence or absence of other adults (extended families or solo parents). Because older retired households also receive large amounts of social transfer, we examine the population aged 65 and over as well.[14]

The most striking findings here are the diversity of social transfer effectiveness across the population types and the continued importance of social insurance transfers in most nations. Adults aged 25 to 64 (Table 2) not surprisingly look by and large like adult households with heads in the same prime age range: social insurance drives the antipoverty system (with the exception of Australia and the United Kingdom). Overall, there is a wide range in adult MI and DI poverty rates, with the latter ranging from 3.1 percent in Sweden to 15.4 percent in the United

States. Among childless adults and extended families, this same pattern persists: wide ranging DI poverty rates and social insurance as the primary anti-poverty tool.

Among families with children, social assistance plays a somewhat larger role. Couples with children still rely heavily on social insurance, but the presence of children adds to the role of social assistance in most nations, especially in the United Kingdom, but also in Canada, France, and Sweden. Childful couples have DI poverty rates that range from 2 percent in Sweden to double digits in Australia (10.6 percent), Spain (10.9 percent), the United States (11.8 percent), and the United Kingdom (12.3 percent).

Single parents are a quite varied group with MI poverty rates from 40 percent in Sweden to 78 percent in the United Kingdom and The Netherlands and with DI poverty rates ranging from 4 percent in Sweden to over 50 percent in Australia, Canada, Germany, and the United States. Even in France and The Netherlands, sole parent poverty rates run in the 28 to 30 percent range. In France, Germany, and The Netherlands, we find that social assistance now tops social insurance in its antipoverty effect for solo parents. Clearly most nations have not done well in providing social protection to this vulnerable group. In Sweden (and in Norway, Finland, and Denmark, not shown here), MI-based poverty rates run below DI-based poverty rates in many other nations, indicating that Sweden (and to some extent also France and Spain) have found a way to encourage single parents to become more self-supporting through part-time or full-time work, thus reducing MI poverty by more than in other nations.

While the elders are a much better protected group in all nations except Sweden where everyone is well-protected, a wide range of DI poverty rates emerge, ranging from almost 33 percent in Australia (where an income-tested benefit system substitutes for social retirement) to below 5 percent in The Netherlands. Only Canada and Germany also have single digit elder poverty rates. In the United States 22.7 percent of elders are poor as are 13 to 17 percent of elders in Spain, Germany, and France. For the first time, we see that private transfers, here in the

form of occupational pensions, have a large role in reducing poverty, especially in The Netherlands, but also in the United Kingdom, Canada, Germany, and the United States. Social retirement still plays the largest role, but in Sweden, the United Kingdom, Canada, France, and Spain, social assistance also plays a not-insignificant role among the elderly.

Summary

The LIS data reveal a rich and varied pattern of social protection among the nations examined here. Self-protection, in the form of low MI or pre-tax and transfer poverty rates produces the best results for childless couples, extended families, and households with at least one full-time earner. While they may not always be classified as a social protection, the labor market and the extended family are clearly a strong anti-poverty device in all rich nations. Full employment policies and extended family have definite measurable economic benefits.

Private transfers and taxes largely offset one another for most nonelderly groups. Social assistance plays a large and often significant role in many nations (e.g., Australia, the United Kingdom) and for some specific groups (e.g., single parents, elderly). But it is the overall expense, extent and generosity of the social insurance system that provides the bulk of antipoverty effect for working age adults (including those who are not at all employed) and for the elderly in all nations (with the singular exception of Australia). While many nations have responded well to the "traditional" needs for social protection, e.g., old age, extended unemployment, disability, not all have done so. And only Sweden, and to a far lesser extent France, Spain, and The Netherlands, appear to have dealt at all well with social protection against the "new risk" of single parenthood (Overbye 1997).

IV. Discussion and Conclusion

The ultimate question posed for this paper seems to be what, if any, lessons can social protection policy for the poor in Latin America take from the social protection policies and results in the developed world? The short answer is "that depends."

Expansive social insurance systems are a double-edged sword. On the one hand, large amounts of social protection have strong antipoverty effects as demonstrated above. While extensive social assistance systems prevent widespread poverty for most groups, without the problems of stigma or take-up found in social assistance schemes, three negative factors associated with these programs need also be taken into account: their aggregate expense; their effect on labor markets; and the current nonsustainability of social insurance for the aged in pay as you go pension schemes. I will deal with each in turn.

As seen in Figure 3, the more that a nation spends on social protection, the better the anti-poverty effects for working age adults and for the elderly and near elderly. But social protection is expensive: more than 12 percent of GDP for cash programs for the nonelderly alone in The Netherlands and Sweden; 18 to 21 percent of GDP or more in overall elderly and nonelderly cash outlays for the Untied Kingdom, France, and Germany; and 25 percent or more in Sweden and The Netherlands. And this does not count public expenditure for health care or public education! These astounding outlays have large effects on labor markets in three ways.

First and foremost, large social retirement systems, complete with early retirement (at aged 55 or over) in the guise of disability transfers or unemployment insurance (or clearly stated as "early retirement" or "unemployment retirement" benefits) have reduced labor force participation for men at relatively young ages throughout Europe and Scandinavia. One striking statistic: only 16 percent of Dutch men aged 61 or over participate in the labor force; in The Netherlands, France, Germany, and many other European nations, the fraction of men who work

is now less than 35 percent for 62-year-olds (e.g., see Gruber and Wise 1998; Quinn and Smeeding 1998). The extension of early retirement benefits leads to work stoppage in every nation studied, but especially in the high unemployment nation of northern and central Europe where "joblessness" is passively fought by finance ministers and social ministers with social insurance programs which effectively remove most older workers from the labor market. In the face of ever expanding life expectancy in old age, these policies suggest the strong possibility of near future fiscal catastrophe as suggested below.

Second, extended unemployment benefits are notorious for their negative effects on work and labor supply behavior in such wide ranging nations as Poland (Schmidt and Gora 1998) and Canada (Lemieux and Macleod 1998). Another rule of thumb here is the more recent the study, the greater the negative effects of social insurance on labor markets. Disability insurance at younger ages has similar impacts in every rich nation (Aarts, Burkhauser, and de Jong 1996).

Finally, income-tested (or means-tested) social assistance has negative effects on work in most nations, though these are probably of a lesser magnitude than is popularly believed. Some nations, e.g., Sweden, France, have found good ways to mix work and income support for low income single parents (or couples). Most nations, however, e.g., the United Kingdom, have not done well on this front, creating social assistance systems with severe work disincentives or so-called "poverty traps." Whether United States style "welfare reform" will work in these nations is open to question.

Most of the "classic" studies of the work-reducing effects of social transfers are either out of date (e.g., Danziger, Haveman, and Plotnick 1981) or focus to a large extent on the third type of problem mentioned above—i.e., social assistance—at the expense of extended unemployment or retirement income studies. The work-reducing effects of early retirement are largely ignored by such studies as Atkinson and Mogenson (1993), Burtless and Haveman (1987), and Moffitt (1992).

The third major shortcoming of expansive pay-as-you-go social insurance systems for the elderly is their economic and demographic unsustainability. The United States publicly worries about a projected 2 percent of GDP shortfall between revenues and expenses for social retirement in the year 2030. The Germans, French, Canadians, and Dutch only wish their situation was so favorable! Early retirement and generous benefits mix with ever-growing life expectancy at older ages and declining birthrates to produce revenue shortfalls of 4 to 6 percent of GDP for social retirement schemes over this same horizon in these nations (Smeeding and Sullivan 1998). Even at this time, attempts to raise retirement ages, cut pensions, or build-in added tiers for occupational retirement are meeting increased resistance.

Finally, we should mention the "new risks" of rich societies: social protection for single parents and work enabling policies for mothers, married and unmarried (Overbye 1997). Few western nations have met this challenge in a meaningful way. Child support by absent parents is either largely unpaid (United States, Canada) or subsumed by "advance maintenance" social insurance benefits which provide for guarantees in the absence of payment by absent parents while more-or-less ignoring the parental obligation (Skovik 1997). The problems of adequate levels of support for single parents is an issue which is unsolved by most rich societies (e.g., Smeeding, Ross, England, Christopher, and McLanahan 1998).

And so what advice can be offered for social protection design in Latin America? First and foremost, it seems that social investments in education and health care will pay long-run dividends in the form of higher rates of economic growth with wider spread benefits than in the past. The demography of Latin America (Duryea and Székely 1997) is poised for such growth as seen from the supply side. While poverty and inequality are peaking in the 1990s in many Latin American nations (Londono and Székely 1997; Lustig and Deutsch 1998), and while the benefits of economic growth have not yet trickled down to the poor, self-protection via employment growth seems a prudent long-run policy, and one that may eventually form the economic base for

formal (and ultimately expensive) systems of social protection. The demographics of Latin America offers the opportunity to benefit from economic growth in the near-term, before the issue of population aging comes along in the middle of the new century before us. The challenge will be to better spread the benefits of this growth among the lower classes—a problem not unlike that which faces the United States (e.g., Ravallion 1997; Smeeding 1997; Burtless 1998).

Social protection systems that stress self-reliance seem next on the pecking order. From micro-credit programs to defined contribution pension plans, more savings and targeted savings programs can provide an economic base for capital accumulation and growth and a self-insurance-based safety net for working families. One key factor in this development, however, is the creation of sound, reliable and noncorrupt institutions which provide both pension assurance and boost public confidence (Holzman 1998; Mitchell 1998). Such schemes should increase economic growth and produce a self-funded pension scheme which, in time, will provide for old age poverty protection.

Finally, as national incomes grow, Latin America could begin to institute some of the social protection institutions found in the developed world. Smart policy designers will focus on programs which compliment and encourage work to a greater extent than traditional programs (e.g., the United States' EITC) or programs which provide an extra modicum of assistance for larger families (e.g., child allowances). In general, social insurance and social assistance schemes need be carefully designed to avoid the disincentive effects found in many western societies and hence, their sometimes overwhelming expense.

The challenge is, of course, to find more efficient ways to establish effective systems of social protection which eradicate poverty, are of modest cost, and which encourage work, thrift and other means of self-protection. So far, no single nation has fully met this challenge.

Endnotes

1. We use the terms household and family interchangeably. Our formal unit of aggregation is the household—all persons living together and sharing the same housing facilities—in almost all nations. Only in Sweden does the "household" refer to a more narrow definition of the "family" unit.

2. Another method is the aggrative poverty measurement approach whereby individuals place themselves on an economic ladder from poor to rich. For an application to Russia, see Ravallion and Lokshin (1998).

3. For poverty studies using absolute poverty rates, see Kenworthy (1998), Danziger and Jantti (1998), and Blackburn (1993). For more on the vagaries of using PPP's to adjust "real" poverty lines, see Gottschalk and Smeeding (1998); Smeeding (1997).

4. Direct taxes are most often estimated from tax imputation models rather than official tax records. For example, the after-tax data for Australia, Germany, and the United States are obtained using a tax imputation model at the level of the individual household to estimate direct taxes. Sweden uses official records of taxes paid.

5. Still, this definition is broader than some. For instance, the United States Census Bureau's annually reported household income and poverty statistics use data from the United States Current Population Survey that include cash transfers but exclude taxes, thus making it difficult to ascertain the long-term effects of even income taxes on income inequality in the United States. United States Bureau of the Census (1998).

6.. Because of differential reliance on employer and employee social security contributions across nations, and because of the differential mix of personal, business, earnings, income, property, and goods (expenditure, V.A.T., sales) taxes across rich nations, the manner in which taxes are collected may have some effect on the results of cross-national comparative analyses of poverty. But in order to calculate the burden of indirect taxes, a great deal of additional information is needed. Incidence assumptions (consumers, labor, and capital) need to be made and relative types and amounts of consumption need to be identified. Largely because of these additional requirements, we know of no studies of poverty, which include the effect of indirect as well as direct taxes.

7. Recent papers and publications on poverty, inequality and social protection using LIS include Gottschalk and Smeeding (1997, 1999), Danziger and Jantti (1998), Smeeding (1997), and Kenworthy (1998).

8. We deliberately exclude the newly reformed Central and Eastern European nations on the grounds that their welfare states are in some ways remounts of the former Warsaw block and are hence in a state of transition.

9. The OECD Social Expenditures database allows users to separate benefits paid to the elderly (households with a head or recipient aged 65 or older) and the nonelderly. It also permits us to separate health care spending from cash and nearcash benefits as in Figures 3A and 3B.

10. The indirect effects of social expenditure on pre-tax and transfer poverty are discussed below.

11. This is not to recommend Australian income and means-tested social protection system to anyone, but just to note that targeted spending produces greater poverty reduction per dollar spent.

12. In Table 2 we use persons poverty rates but maintain the same household accounting framework.

13. In Table 1 we exclude Spain and France because of the lack of comparable data on type of worker.

14 The age line which separates the retired from workers is not always clear and may be less than age 65 in many countries. See Quinn and Smeeding (1998) on this topic.

Table 1

Household Poverty Rates by Income Source and Household Working Status[1]

(Household Head Aged 25-64)

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Australia 1994						
Full-year, full-time worker[2]	5.1	4.9	4.9	5.2	3.3	-35.3
Part-time worker, other[3]	31.6	30.3	30.3	30.9	18.5	-41.5
No Earners[4]	86.3	82.5	82.5	83.2	56.7	-34.3
Overall[5]	23.2	22.2	22.2	22.8	14.8	-36.2
Canada 1994						
Full-year, full-time worker	4.9	4.4	2.6	3.3	2.9	-40.8
Part-time worker, other	42.8	38.7	25.3	28.0	23.9	-44.2
No Earners	90.7	77.9	65.0	66.9	58.8	-35.2
Overall	23.9	21.1	15.4	16.6	14.5	-39.3
Germany 1994						
Full-year, full-time worker	1.4	1.4	1.0	1.7	1.4	0.0
Part-time worker, other	32.4	28.8	16.2	21.8	17.1	-47.2
No Earners	89.8	85.5	49.8	50.3	38.3	-57.3
Overall	19.0	17.7	10.3	12.1	9.4	-50.5
The Netherlands 1991						
Full-year, full-time worker	2.5	0.5	0.3	1.0	0.8	-68.0
Part-time worker, other	31.3	26.7	16.5	22.2	14.6	-53.4
No Earners	91.2	69.8	32.6	36.8	17.9	-80.4
Overall	24.1	19.1	9.8	12.2	6.9	-71.4
Sweden 1992						
Full-year, full-time worker	4.4	4.3	1.2	2.3	1.8	-59.1
Part-time worker, other	29.2	28.0	6.4	10.2	3.5	-88.0
No Earners	94.8	94.6	24.7	42.0	17.3	-81.8
Overall	20.7	20.1	5.0	8.5	3.8	-81.6
United Kingdom 1995						
Full-year, full-time worker	1.6	1.5	0.6	1.6	0.9	-43.8
Part-time worker, other	34.2	27.7	20.9	24.1	13.6	-60.2
No Earners	77.2	66.6	56.8	57.6	34.0	-56.0
Overall	30.2	25.9	21.2	22.6	13.2	-56.3
United States 1994						
Full-year, full-time worker	6.5	6.0	5.4	7.2	6.2	-4.6
Part-time worker, other	43.7	39.7	34.3	38.1	35.4	-19.0
No Earners	90.4	81.1	70.9	72.1	68.4	-24.3
Overall	23.2	21.0	18.4	20.5	18.9	-18.5

[1] Poverty measured at 50 percent of median adjusted household disposable income. See Appendix Table A1 for definitions of income categories and poverty rates. All households are headed by an adult aged 25 to 64.

[2] Either the head or the spouse (or both) works full-year, full-time. Full year is defined as 50 or more weeks of employment. Full-time is defined as 35 or more hours of employment. For Australia 1994 number of weeks of employment is missing so full-year, full-time employment is identified by 35 or more hours and the labor force status of "employed full-time."

[3] Either the head or the spouse (or both) works part-year and/or part-time and has earnings, but neither works full-year, full-time. This is the residual of the first and third categories.

[4] Neither the head nor the spouse reports any earnings.

[5] All households headed by an adult aged 25-54.

Table 2

Adult and Elderly Poverty Rates by Income Source[1]

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Australia 1994						
All Adults (aged 25-64)	21.8	20.8	20.8	21.3	12.3	-43.6
Couples with children[2]	16.2	15.8	15.8	16.4	10.6	-34.6
Solo Parents[3]	69.8	67.7	67.7	69.3	48.5	-30.5
Extended Families[4]	19.8	19.8	19.8	20.5	8.2	-58.6
Childless Adults[5]	23.1	21.7	21.7	22.1	12.2	-47.2
Elderly (65 and over)	79.5	73.0	73.0	73.2	32.8	-58.7
Canada 1994						
All Adults (aged 25-64)	21.6	18.6	12.3	13.4	11.3	-47.7
Couples with children	16.3	15.6	10.1	11.4	9.9	-39.3
Solo Parents	61.8	59.4	52.3	53.3	47.6	-23.0
Extended Families	15.0	13.6	8.3	9.1	6.2	-58.7
Childless Adults	23.5	18.8	11.9	12.9	10.9	-53.6
Elderly (65 and over)	78.9	61.6	8.4	8.9	6.1	-92.3
France 1989						
All Adults (aged 25-64)	27.3	26.7	9.8	10.4	8.5	-68.9
Couples with children	20.1	19.7	8.1	8.5	6.1	-69.7
Solo Parents	47.9	46.3	40.5	41.3	28.5	-40.5
Extended Families	28.2	28.1	11.0	11.8	8.6	-69.5
Childless Adults	31.6	30.8	9.5	10.2	9.3	-70.6
Elderly (65 and over)	86.6	86.2	17.9	18.7	16.7	-80.7
Germany 1994						
All Adults (aged 25-64)	16.8	15.6	7.8	9.3	7.0	-58.3
Couples with children	9.0	9.0	6.3	7.9	5.9	-34.4
Solo Parents	62.5	56.5	51.2	55.8	50.4	-19.4
Extended Families	11.9	11.9	5.3	6.1	3.5	-70.6
Childless Adults	19.9	18.0	7.1	8.6	6.2	-68.8
Elderly (65 and over)	88.0	77.6	9.3	9.5	8.3	-90.6
The Netherlands 1991						
All Adults (aged 25-64)	22.0	16.8	7.4	9.7	5.9	-73.2
Couples with children	9.0	8.7	5.0	7.0	5.6	-37.8
Solo Parents	79.5	72.0	55.3	59.9	31.5	-60.4
Extended Families	11.1	10.1	4.4	6.1	5.1	-54.1
Childless Adults	29.3	20.5	7.2	9.6	5.1	-82.6
Elderly (65 and over)	92.3	65.8	3.5	5.0	4.4	-95.2
Spain 1990[6]						
All Adults (aged 25-64)	24.3	23.4	10.6	na	9.9	-59.3
Couples with children	15.3	14.7	11.2	na	10.9	-28.8
Solo Parents	53.0	43.6	32.4	na	32.4	-38.9
Extended Families	22.9	22.1	9.5	na	8.9	-61.1
Childless Adults	31.4	30.4	10.5	na	9.5	-69.7
Elderly (65 and over)	72.0	68.6	15.6	na	13.0	-81.9

Table 2 (continued)

Adult and Elderly Poverty Rates by Income Source[1]

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Sweden 1992[7]						
All Adults (aged 25-64)	18.1	17.7	4.0	6.6	3.1	-82.9
Couples with children	10.7	10.6	3.1	4.5	2.2	-79.4
Solo Parents	40.5	34.5	9.3	13.5	3.7	-90.9
Extended Families	na	na	na	na	na	na
Childless Adults	20.9	20.9	4.1	7.4	3.6	-82.8
Elderly (65 and over)	91.6	91.6	13.1	19.2	6.4	-93.0
United Kingdom 1995						
All Adults (aged 25-64)	27.2	22.5	17.1	18.5	11.0	-59.6
Couples with children	20.4	19.5	16.9	18.8	12.3	-39.7
Solo Parents	77.8	74.2	71.8	72.6	43.2	-44.5
Extended Families	23.1	22.2	15.8	20.2	9.6	-58.4
Childless Adults	27.6	20.0	12.7	13.6	7.6	-72.5
Elderly (65 and over)	83.3	65.5	29.3	29.8	13.9	-83.3
United States 1994						
All Adults (aged 25-64)	20.7	18.4	15.2	17.1	15.4	-25.6
Couples with children	13.1	12.6	11.3	13.3	11.8	-9.9
Solo Parents	59.0	55.2	52.0	55.0	48.7	-17.5
Extended Families	26.7	25.0	21.8	24.6	20.3	-24.0
Childless Adults	20.7	17.2	12.9	14.4	13.7	-33.8
Elderly (65 and over)	73.8	60.2	23.5	23.8	22.7	-69.2

[1] Poverty measured at 50 percent of median adjusted household disposable income. See Appendix Table A1 for definitions of income categories and poverty rates.

[2] Adults aged 25-64 living in households with children headed by a married or cohabiting couple with no other adults present.

[3] Adults aged 25-64 living in households with children headed by an unmarried adult with no other adults present.

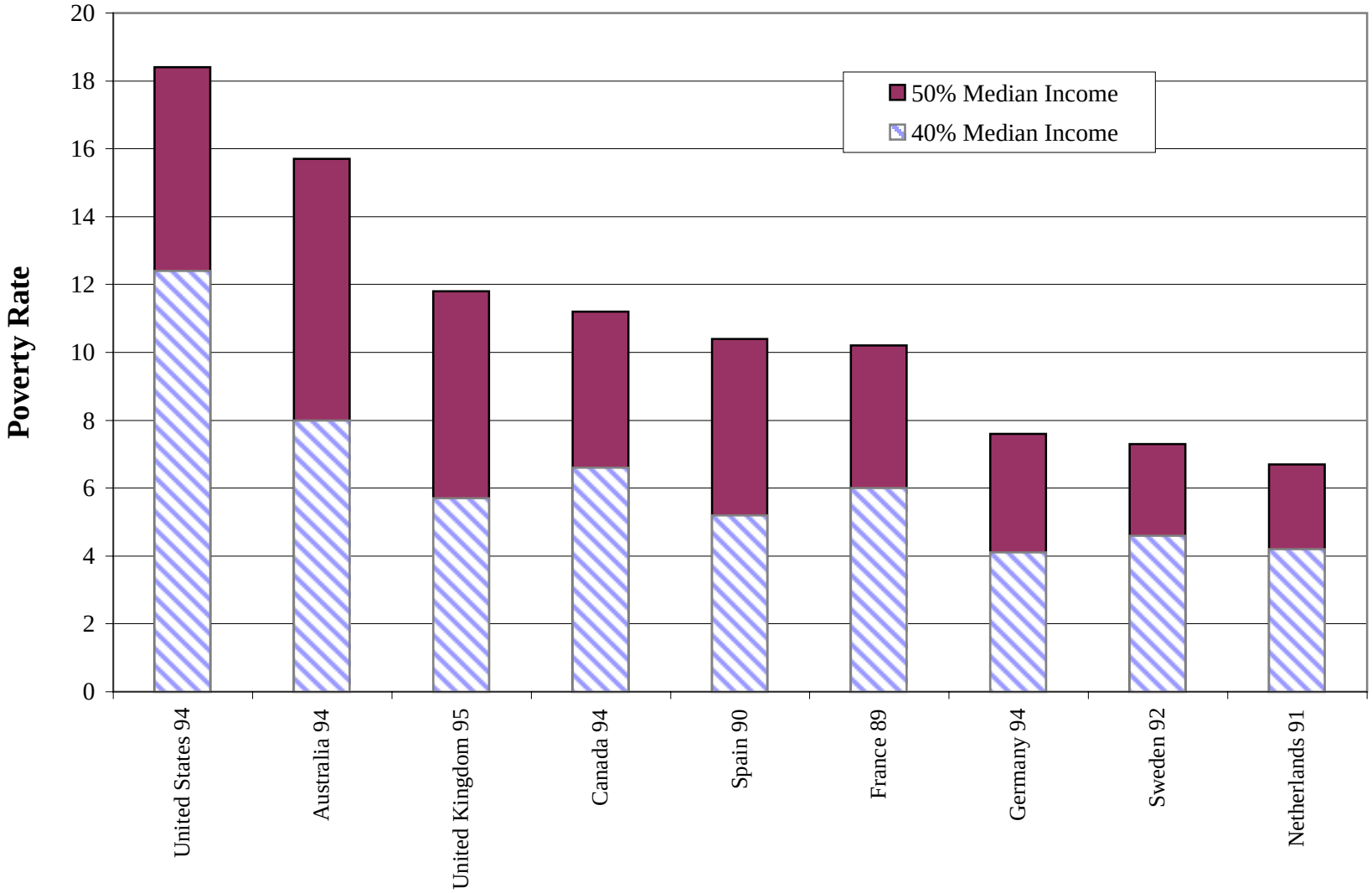
[4] Adults aged 25-64 living in households with children and adults other than the head and partner (if married or cohabiting).

[5] Adults aged 25-64 living in households with no children present.

[6] Tax information is not available for Spain 1990.

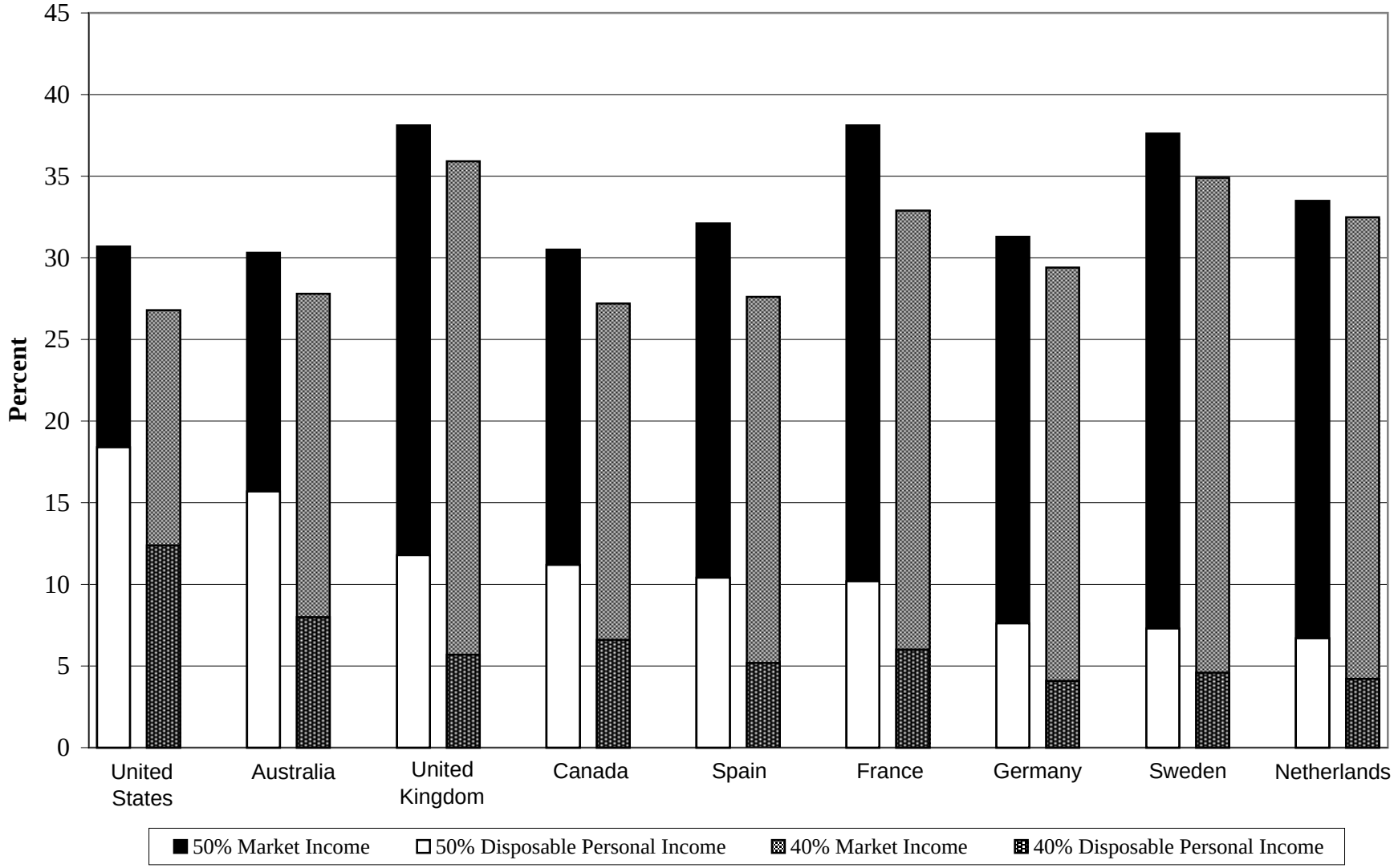
[7] Can not identify extended families in Sweden 1992.

Figure 1
Incidence of Poverty across Modern Nations[1]



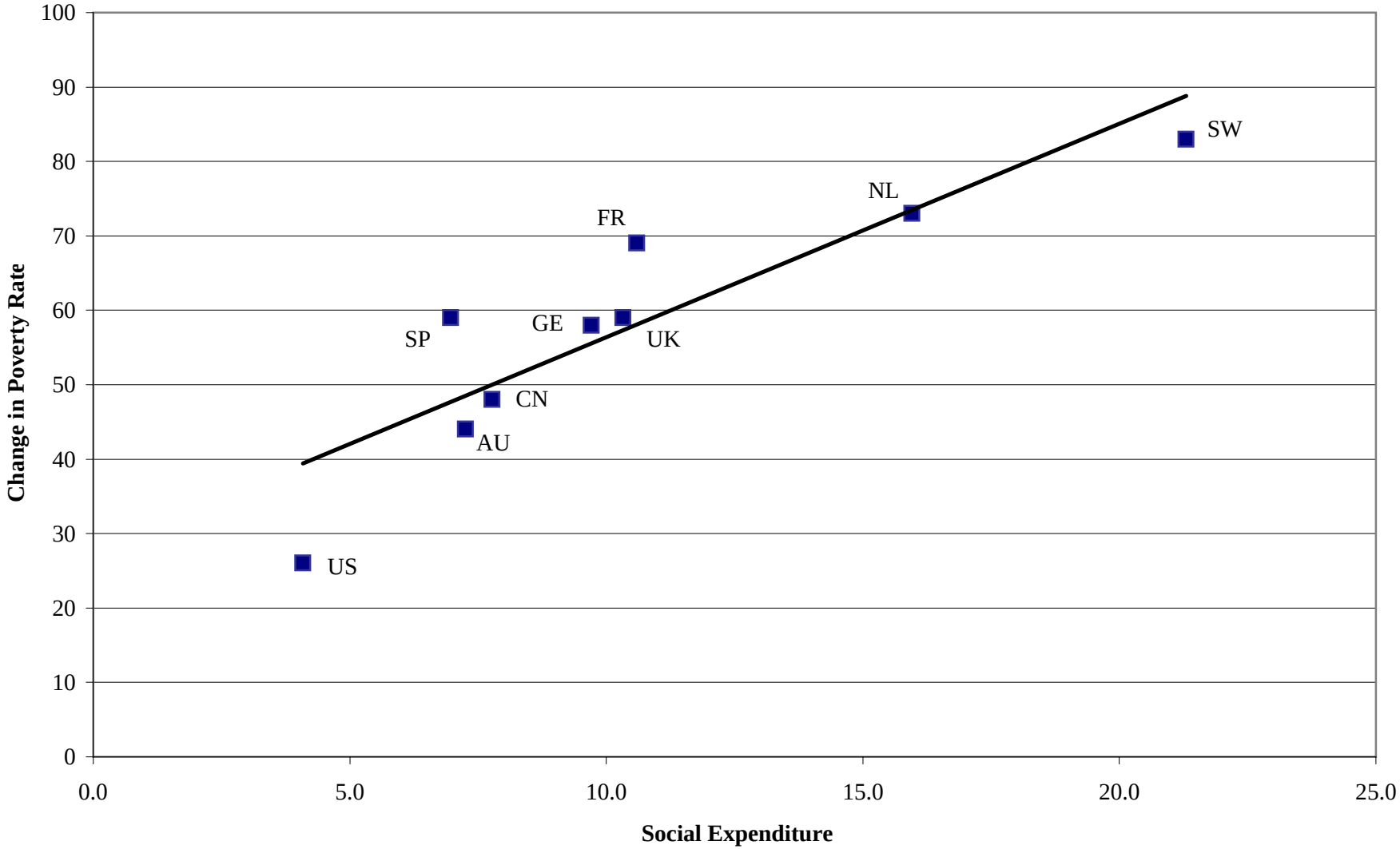
[1]Percent of all persons with adjusted disposable incomes less than 40 or 50 percent of adjusted median disposable income.
Source: Author's calculations from Luxembourg Income Study and Table A-2

Figure 2
Anti Poverty Effectiveness of Social Protection Systems:
Transfers and Taxes in Rich Nations circa 1990-1995[1]



[1]Percent of all persons with adjusted market income and then adjusted disposable income below the 50 or 40 percent of median adjusted disposable income.
Source: Author's calculations from the Luxembourg Income Study and Table A-2.

Figure 3A
Relationship between Social Expenditure as a Percent of GDP[1]
and Poverty Reduction[2] amongst Non-elderly Persons

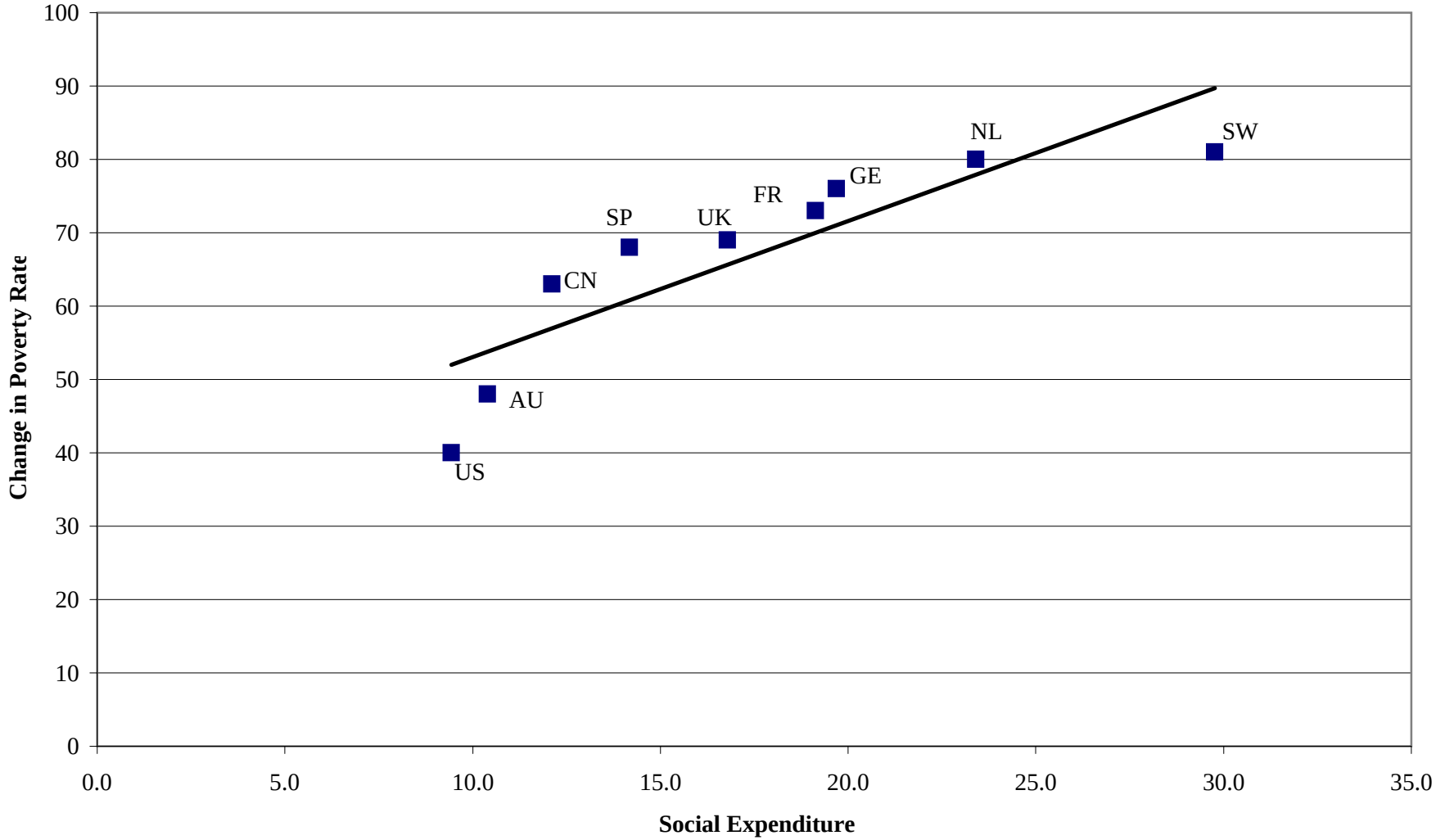


Notes: [1]Social Expenditure as a percent of GDP is taken from OECD (1999). The most recent year is used in cases where the exact year is not available. Social Expenditure includes all public cash and near-cash expenditure for social protection. Health care is excluded.

[2]Poverty reduction is measured by the percentage reduction in poverty rates between market income and disposable income poverty (last column of Table 2).

Source: Author's calculations from Luxembourg Income Study.

Figure 3B
Relationship between Social Expenditure as a Percent of GDP[1]
and Poverty Reduction[2] amongst All Persons

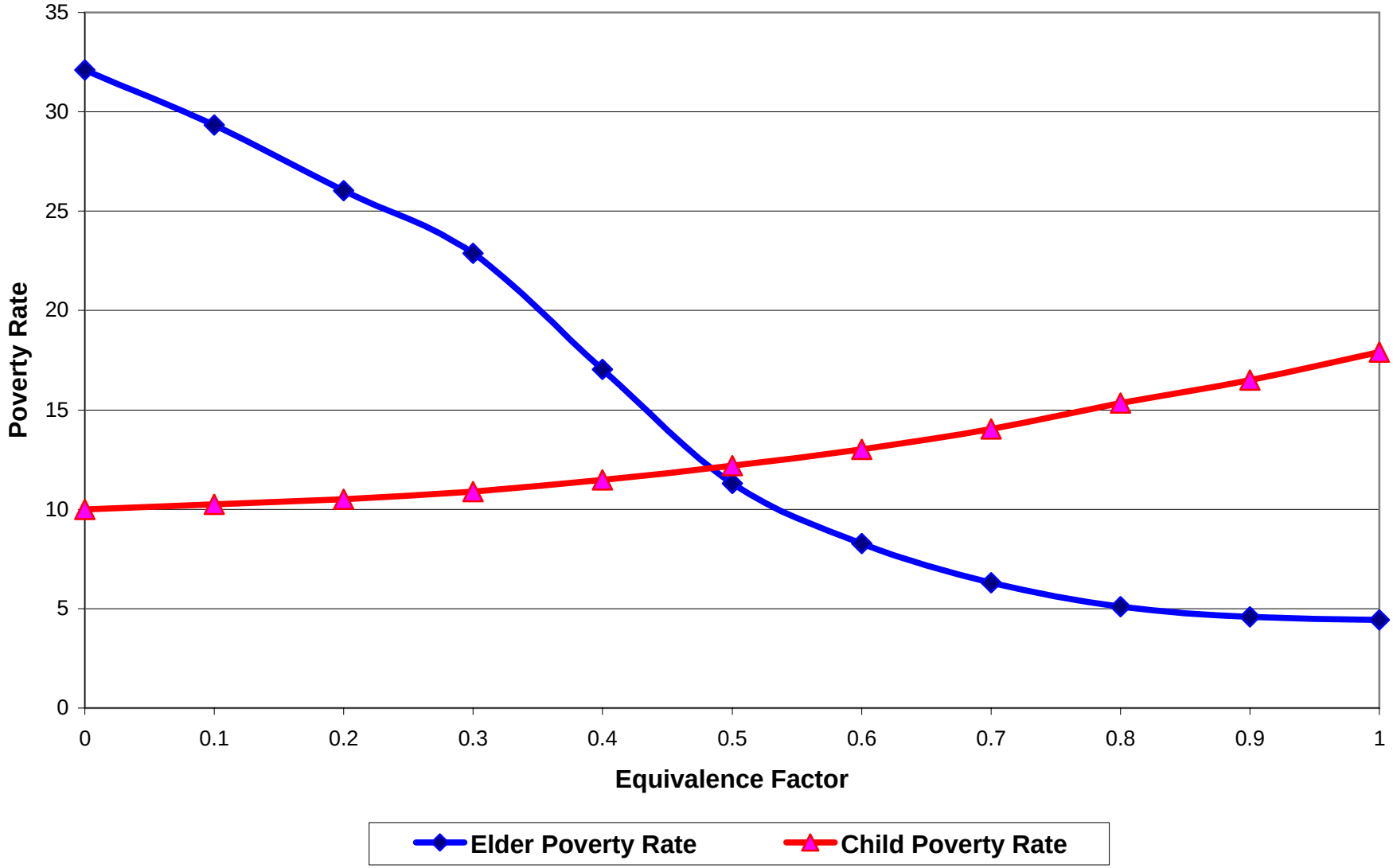


Notes: [1]Social Expenditure as a percent of GDP is taken from OECD (1999). The most recent year is used in cases where the exact year is not available. Social Expenditure includes all public cash and near-cash expenditure for social protection except for those received by the aged and survivors. Health care is also excluded.

[2]Poverty reduction is measured by the percentage reduction in poverty rates between market income and disposable income poverty (last column of Table 2).

Source: Author's calculations from Luxembourg Income Study.

Figure A-1
Poverty Rates as A Function of The Equivalence Factor: Spain 1990



Source: Author's calculations from Luxembourg Income Study.

Figure A-2
LIS DATABASE LIST: Country and Year[1]

COUNTRY[2]	Historical Databases		Wave I	Wave II	Wave III	Wave IV
Australia			AS81	AS85	AS89	**AS94**
Austria				OS87	OS91	OS95[6]
Belgium				BE85	BE88/BE92	BE97[5]
Canada	CN71	CN75	CN81	CN87	CN91	**CN94**
Czech Republic					CZ92	CZ96[6]
Denmark				DK87	DK92	DK95[6]
Finland			FI81	FI87	FI91	FI95[6]
France[3]			FR79/FR81	FR84/FB84	FR89/**FB89**	FR94[5]
Germany[4]	GE73	GE78	GE81/GE83	GE84	GE89	**GE94**
Hungary					HU91	HU95
Ireland				IR87		IR95[5]
Israel			IS79	IS86	IS92	IS97
Italy				IT86	IT91	IT95
Luxembourg				LX85	LX91	LX94
Netherlands			NL83	NL86 /NL87	**NL91**	NL94[5]
Norway			NW79	NW86	NW91	NW95
Poland				PL86	PL92	PL95
R.O.C.-Taiwan			RC81	RC86	RC91	RC95
Russia					RL92	RL95
Slovak Republic					SV92	SV96[6]
Spain			SP80		**SP90**	SP95[6]
Sweden	SW67	SW75	SW81	SW87	**SW92**	SW95[5]
Switzerland			CH82		CH92	CH95[6]
United Kingdom	UK69	UK74	UK79	UK86	UK91	**UK95**
United States	US69	US74	US79	US86	US91	**US94**/97[6]

[1]Year given is reference year, not necessarily the year that the data were collected. Codes within the cells are the LIS database country/year abbreviations.

[2]We are also in negotiation with Greece (1995), Korea (1993), Mexico (1990), South Africa (1993). Japan (1993), and New Zealand (1995).

[3]France has an income survey (1979, 1984) and a budget survey (1984, 1989, 1994).

[4]Germany has three different databases: an income and expenditure survey (1973, 1978, 1983); a transfer income survey (1981); and three cross-sections from the Socio-Economic Panel Study (GSOEP) (1984,1989,1994)

[5]Anticipated that this will be available during 1999.

[6]Will be available in 1999 or later.

Appendix Table A-1

Poverty Measurement and Definitions of Income Categories

Poverty Measurement

The poverty rate is the percentage of households (Table 1) or adults/elders (Table 2 and Appendix Table A-3), or all persons (adults/elders/children (Figures 1, 2 and Appendix Table A-2), with income less than a given percent of median adjusted disposable income for all persons.

In Tables 1 and 2 the poverty percent of the medican is 50; in Appendix Table A-3 it is 40 percent; in Table A-2 rates for 50 and 40 percent of the median are shown.

Incomes are adjusted by E=0.5 where adjusted income = actual income divided by household size (s) to the power E. Adjusted Income = Income/S^E

Income Categories

All income amounts are adjusted by E=0.5, as described above.

Market Income	Earnings and cash property income.
Private Transfers	Occupational pension income, alimony, child support, private interfamily transfers and other cash income.
Universal and Social Transfers	Universal benefits and social insurance, including social retirement, survivors' benefits, unemployment compensation, short and long term disability, maternal and paternal benefits, sickness benefits and child allowances.
Taxes	Payroll and income taxes.
Social Assistance Transfers	Income-tested benefits, means-tested (income and wealth-tested) benefits, and emergency benefits, both and nearcash. The Earned Income Tax Credit in the United States and the Family Tax Credit are counted as social assistance in these nations, not as "negative taxes."

Appendix Table A-2

Poverty Rates for All Persons by Income Source[1]

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Australia 1994						
50% median income	30.3	28.6	25.6	26.1	15.7	-48.2
40% median income	27.8	25.8	22.8	23.0	8.0	-71.2
Canada 1994						
50% median income	30.5	25.5	12.5	13.5	11.2	-63.3
40% median income	27.2	21.9	9.0	9.3	6.6	-75.7
France 1989						
50% median income	38.1	37.1	11.9	12.5	10.2	-73.2
40% median income	32.9	31.7	6.8	7.3	6.0	-81.8
Germany 1994						
50% median income	31.3	28.2	8.5	9.8	7.6	-75.7
40% median income	29.4	25.9	5.8	6.6	4.1	-86.1
The Netherlands 1991						
50% median income	33.5	25.3	8.0	10.4	6.7	-80.0
40% median income	32.5	23.6	7.2	8.3	4.2	-87.1
Spain 1990[2]						
50% median income	32.1	30.7	11.3	na	10.4	-67.6
40% median income	27.6	26.3	6.0	na	5.2	-81.2
Sweden 1992						
50% median income	37.6	37.3	9.7	13.5	7.3	-80.6
40% median income	34.9	34.7	6.0	7.3	4.6	-86.8
United Kingdom 1995						
50% median income	38.1	31.1	20.0	21.3	11.8	-69.0
40% median income	35.9	28.3	14.9	15.5	5.7	-84.1
United States 1994						
50% median income	30.7	26.7	18.3	20.1	18.4	-40.1
40% median income	26.8	22.6	13.7	14.8	12.4	-53.7

[1] See Appendix Table A1 for definitions of income categories and poverty rates.

[2] Tax information is not available for Spain 1990.

Appendix Table A-3

Adult and Elderly Poverty Rates for Persons by Income Source: 40 Percent of Median Poverty Line[1]

Sensitivity of Poverty Rates to Income Cutoff

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Australia 1994						
All Adults (aged 25-64)	19.1	17.9	17.9	18.1	6.3	-67.0
Couples with children[2]	13.0	12.6	12.6	12.9	5.7	-56.2
Solo Parents[3]	65.2	62.6	62.6	62.6	22.4	-65.6
Extended Families[4]	16.0	15.7	15.7	15.8	3.2	-80.0
Childless Adults[5]	21.0	19.3	19.3	19.5	6.3	-70.0
Elderly (65 and over)	78.0	70.1	70.1	70.1	14.4	-81.5
Canada 1994						
All Adults (aged 25-64)	18.4	15.4	9.4	9.8	6.9	-62.5
Couples with children	12.8	12.2	7.0	7.3	5.3	-58.6
Solo Parents	56.9	54.2	46.4	46.7	29.8	-47.6
Extended Families	12.0	10.8	5.9	6.3	3.5	-70.8
Childless Adults	20.6	15.8	9.3	9.6	7.1	-65.5
Elderly (65 and over)	75.6	56.2	2.1	2.2	1.3	-98.3
France 1989						
All Adults (aged 25-64)	21.9	21.2	5.9	6.4	5.2	-76.3
Couples with children	11.7	11.4	4.2	4.6	3.5	-70.1
Solo Parents	41.2	39.3	29.3	29.3	12.3	-70.1
Extended Families	20.2	19.9	6.3	6.6	4.8	-76.2
Childless Adults	28.9	27.9	6.1	6.8	6.2	-78.5
Elderly (65 and over)	84.2	83.8	8.9	9.5	9.1	-89.2
Germany 1994						
All Adults (aged 25-64)	14.9	13.6	5.5	6.3	3.5	-76.5
Couples with children	7.2	7.0	4.3	5.3	2.7	-62.5
Solo Parents	57.5	53.1	45.3	49.5	32.7	-43.1
Extended Families	6.3	6.1	3.4	4.8	2.2	-65.1
Childless Adults	18.5	16.5	4.8	5.3	2.9	-84.3
Elderly (65 and over)	88.6	74.8	5.1	5.1	4.4	-95.0
The Netherlands 1991						
All Adults (aged 25-64)	21.1	15.6	6.5	7.7	3.6	-82.9
Couples with children	8.3	8.0	4.3	5.3	3.6	-56.6
Solo Parents	78.6	70.6	51.9	54.4	14.3	-81.8
Extended Families	9.9	8.1	4.4	4.4	2.8	-71.7
Childless Adults	28.2	19.1	6.3	7.6	3.3	-88.3
Elderly (65 and over)	91.1	61.8	3.2	3.2	3.0	-96.7
Spain 1990[6]						
All Adults (aged 25-64)	19.7	18.9	5.9	na	5.4	-72.6
Couples with children	10.7	10.2	6.3	na	6.2	-42.1
Solo Parents	46.3	31.4	17.2	na	17.2	-62.9
Extended Families	16.8	16.1	5.6	na	5.1	-69.6
Childless Adults	27.7	26.7	5.5	na	4.8	-82.7
Elderly (65 and over)	68.3	64.8	6.6	na	4.6	-93.3

Appendix Table A-3 (continued)

Adult and Elderly Poverty Rates by Income Source: 40 Percent of Median Poverty Line[1]

Sensitivity of Poverty Rates to Income Cutoff

	(A) Market Income	(B) *Col. A* + Private Income Transfers	(C) *Col. B* + Universal and Social Transfers	(D) *Col. C* - Taxes	(E) *Col. D* + Social Assistance Transfers	Percent Change Columns A to E
Sweden 1992[7]						
All Adults (aged 25-64)	15.8	15.6	3.1	4.1	1.8	-88.6
Couples with children	8.5	8.4	2.4	3.2	1.4	-83.5
Solo Parents	34.2	31.7	6.6	8.1	1.3	-96.2
Extended Families	na	na	na	na	na	na
Childless Adults	19.0	19.0	3.3	4.3	2.2	-88.4
Elderly (65 and over)	89.1	89.1	1.5	2.2	1.5	-98.3
United Kingdom 1995						
All Adults (aged 25-64)	25.0	20.4	14.4	15.1	5.9	-76.4
Couples with children	17.9	17.2	14.4	15.4	7.2	-59.8
Solo Parents	75.4	71.0	65.8	67.3	16.2	-78.5
Extended Families	20.7	19.2	13.5	15.0	3.7	-82.1
Childless Adults	25.6	18.2	10.3	10.6	4.4	-82.8
Elderly (65 and over)	81.1	60.3	13.5	13.8	13.8	-83.0
United States 1994						
All Adults (aged 25-64)	17.2	14.9	11.7	12.9	10.6	-38.4
Couples with children	9.5	9.1	7.9	9.1	6.6	-30.5
Solo Parents	51.8	48.3	45.1	46.9	38.3	-26.1
Extended Families	21.5	20.2	17.3	18.8	14.1	-34.4
Childless Adults	17.9	14.4	9.9	10.8	9.8	-45.3
Elderly (65 and over)	70.0	54.8	14.8	15.0	13.3	-81.0

[1] Poverty measured at 40 percent of median adjusted household disposable income. See Appendix Table A1 for definitions of income categories and poverty rates.

[2] Adults aged 25-64 living in households with children headed by a married or cohabiting couple with no other adults present.

[3] Adults aged 25-64 in households with children headed by an unmarried adult with no other adults present.

[4] Adults aged 25-64 in households with children and adults other than the head and partner (if married or cohabiting).

[5] Adults aged 25-64 in households with no children present.

[6] Tax information is not available for Spain 1990.

[7] Can not identify extended families in Sweden 1992.

Appendix Table A-4

Estimated Population Sizes in Thousands: Persons (Panel A) and Households (Panel B)

Panel A. Persons:

	Adults Aged 25-64					Elderly	
	Couples with Children	Solo Parents	Extended Families	Childless	Overall	(65 and over)	Total
Australia 1994	2,905	233	776	4,864	8,779	1,924	10,703
% of Overall	27.1	2.2	7.2	45.4	82.0	18.0	100.0
Canada 1994	4,860	500	1,542	8,391	15,293	3,243	18,536
% of Overall	26.2	2.7	8.3	45.3	82.5	17.5	100.0
France 1989	9,782	549	2,684	13,480	26,496	7,272	33,767
% of Overall	29.0	1.6	7.9	39.9	78.5	21.5	100.0
Germany 1994	13,045	979	3,112	23,735	40,871	12,278	53,149
% of Overall	24.5	1.8	5.9	44.7	76.9	23.1	100.0
The Netherlands 1991	2,895	191	497	4,415	7,999	1,900	9,899
% of Overall	29.2	1.9	5.0	44.6	80.8	19.2	100.0
Spain 1990	5,930	110	4,676	8,040	18,755	5,321	24,077
% of Overall	24.6	0.5	19.4	33.4	77.9	22.1	100.0
Sweden 1992	1,629	215	na	2,528	4,372	1,518	5,889
% of Overall	27.7	3.6		42.9	74.2	25.8	100.0
United Kingdom 1995	9,587	1,306	1,735	15,572	28,199	8,086	36,286
% of Overall	26.4	3.6	4.8	42.9	77.7	22.3	100.0
United States 1994	40,383	5,466	17,223	68,516	131,589	31,241	162,830
% of Overall	24.8	3.4	10.6	42.1	80.8	19.2	100.0

Panel B. Households

	Households Headed by 25-64 year old			
	Full-year full-time	Part-time worker	No Earners	Overall
Australia 1994	3,219	972	793	4,985
% of Overall	64.6	19.5	15.9	100.0
Canada 1994	5,629	1,771	1,099	8,499
% of Overall	66.2	20.8	12.9	100.0
France 1989	na	na	na	na
% of Overall	-	-	-	0.0
Germany 1994	14,802	5,534	2,639	22,975
% of Overall	64.4	24.1	11.5	100.0
The Netherlands 1991	2,769	930	879	4,578
% of Overall	60.5	20.3	19.2	100.0
Spain 1990	na	na	na	na
% of Overall	-	-	-	0.0
Sweden 1992	1,642	925	253	2,820
% of Overall	58.2	32.8	9.0	100.0
United Kingdom 1995	8,433	2,335	4,931	15,698
% of Overall	53.7	14.9	31.4	100.0
United States 1994	53,290	15,852	8,386	77,528
% of Overall	68.7	20.4	10.8	100.0

Source: Luxembourg Income Study

References

Atkinson, A.B. and G. Mogenson. 1993. *Welfare and Work Incentives: A North European Perspective*. Oxford, UK: Oxford University Press.

Atkinson, A.B., L. Rainwater, and T. Smeeding. 1995. *Income Distribution in OECD Countries: The Evidence from LIS*. Paris: OECD.

Bradbury, B. 1989. "Family Size Equivalence and Survey Evaluations of Income and Well-Being," *Journal of Social Policy,* 11(3): 383-408.

Buhmann, B., L. Rainwater, G. Schmaus, and T. Smeeding. 1988. "Equivalence Scales, Well-Being, Inequality and Poverty," *Review of Income and Wealth,* 34(2) (June): 115-142.

Burkhauser, R.V., L. Aarts, and P. DeJong. 1996. *Curing the Dutch Disease: An International Perspective on Disability Reform*. Aldershot, UK: Avebury Press.

Burkhauser, Richard V., Timothy M. Smeeding, and Joachim Merz. 1996. "Relative Inequality and Poverty in Germany and the United States Using Alternative Equivalence Scales," *The Review of Income and Wealth*, 42(4) (December): 242-263.

Burtless, G. 1999. "Growing Inequality: Sources and Remedies," *Brookings Review* (Winter): 6-11.

Burtless, Gary. 1996. "Trends in the Level and Distribution of U.S. Living Standards: 1973-1993," *Eastern Economic Journal*, 22(3) (Summer): 271-290.

Burtless, G. and R. Haveman. 1987. "Taxes and Transfers: How Much Economic Loss?" *Challenge* (March-April): 45-51.

Cantillion, B., Y. Marx, and K. van den Bosch. 1996. "Poverty in Advanced Economies: Trends and Issues." Paper presented to the 24th General Conference of the International Association for Research on Income and Wealth IARIW, Lillehammer, Norway, August.

Coleman, J. 1988. "Social Capital in the Creation of Human Capital," *American Journal of Sociology*, 94: S95-S120.

Coleman, J. and L. Rainwater. 1978. *Social Standing in America*. New York: Basic Books.

Danziger, S., R. Haveman, and R. Plotnick. 1981. "How Income Transfer programs Effect Work, Savings, and Income Distribution: A Critical Assessment," *Journal of Economic Literature*, 19: 975-1028.

Danziger, S. and J. Jantti. 1998. "Income Poverty in Advanced Countries." To appear in A.B. Atkinson and F. Bourgignon (eds.), *Handbook on Income Distribution*. New York: Elsevier-North Holland Publishers, in press.

Duryea, S. and M. Székeley. 1998. "Labor Markets in Latin America: A Supply-Side Story," mimeo. Washington, DC: IADB, March.

Förster, M. 1993. "Comparing Poverty in 13 OECD Countries: Traditional and Synthetic Approaches," Studies in Social Policy Paper #10. Paris: OECD, October.

Foster, J., J. Greer, and E. Thorbecke. 1984. "A Class of Decomposable Poverty Measures," *Econometrica*, 52: 761-765.

Gottschalk, P. and T. Smeeding. 1998. "Empirical Evidence on Income Inequality in Industrialized Countries." In A.B. Atkinson and F. Bourgignon (eds.), *Handbook of Income Distribution: Handbooks in Economics Series*. New York: Elsevier-North Holland Publishers, in press.

Gottschalk, P. and T. Smeeding. 1997. "Cross-National Comparisons of Earnings and Income Inequality," *Journal of Economic Literature*, 35 (June): 633-686.

Gruber, J. and D. Wise. 1998. "Social Security Programs and Retirement Around the World," *American Economic Review*, 88(2) (May): 74-79.

Hagenaars, A., K. DeVos, and A. Zaidi. 1994. "Patterns of Poverty in Europe." Paper presented to the 23rd General Conference of the International Association for Research on Income and Wealth, IARIW, St. Andrews, Canada, August.

Heston, A. and R. Summers. 1991. "The Penn World Table (Mark 5): An Expanded Set of International Comparisons," *Quarterly Journal of Economics*, 105(2): 327-368.

Holzmann, R. 1998. "A World Bank Perspective on Pension Reform," Social Protection Discussion Paper Series #9807. Washington, DC: The World Bank, April.

Holtzmann, R. and S. Jorgenson. 1999. "Social Protection as Risk Management," mimeo. Washington, DC: World Bank, January.

Inter-American Development Bank (IDB). 1998. *Facing Up to Inequality in Latin America*. Washington, DC: Johns Hopkins Press.

Johnson, D. and T. Smeeding. 1998. "Measuring the Trend in Inequality among Individuals and Families: Consumption or Income?" mimeo, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, June.

Kenworthy, L. 1998. "Do Social Welfare Policies Reduce Poverty? A Cross-National Assessment," LIS Working Paper #191. Differdange, Luxembourg, and Syracuse, NY: Luxembourg Income Study, Syracuse University.

Lemieux, T. and W. MacLeod. 1998. "Supply Side Hysteresis: The Case of Canadian Unemployment Insurance," NBER Working Paper #6732. Cambridge, MA: National Bureau for Economic Research.

Londono, J. and M. Székeley. 1997. "Persistent Poverty and Excess Inequality: Latin America, 1970-1995," IADB Working Paper #357. Washington, Dc: Inter-American Development Bank, September.

Lustig, N. and R. Deutsch. 1998. "The IADB and Poverty Reduction: An Overview," POV-101-R. Washington, DC: IADB, May.

Mitchell, O. 1998. "Building an Environment for Pension Reform in Developing Countries," Social Protection Discussion Paper Series #9803. Washington, DC: The World Bank, January.

Moffitt, R. 1992. "Incentive Effects of the U.S. Welfare System: Athenian," *Journal of Economic Literature*, 30: 1-61.

Office for Economic Cooperation and Development (OECD). 1998. *Purchasing Power Parities*. Paris: OECD.

Office for Economic Cooperation and Development (OECD). 1999. *Social Expenditures Database*. Paris: OECD.

Overbye, E. 1997. "Policy Responses to Household Vulnerability: The Norwegian Case in an International Context." Paper presented to the Fourth International Research Seminar on Social Security, Sigtuna, Sweden, June.

Quinn, J. and T. Smeeding. 1998. "Cross-National Patterns of Labor Force Withdrawal." In P. Flora et al. (eds.), *The State of Social Welfare, 1997."* International Studies in Social Security Series #4. London: Ashgate Publishers, pp. 83-115.

Rainwater, L. 1990. "Poverty and Equivalence as Social Constructions," LIS Working Paper #91, Luxembourg Income Study. Syracuse, NY: Syracuse University.

Rainwater, L. 1974. *What Money Buys*. New York: Basic Books.

Ramprakash, D. 1995. "Poverty in Europe," *European Journal of Social Policy*, 15(1): 161-68.

Ravallion, M. 1997. "Can High Inequality Developing Countries Escape Absolute Poverty?" *Economic Letters*, 56: 51-57.

Ravallion, M. 1998. "Poverty Lines in Theory and Partners," Living Standards Measurement Paper No. 2133. Washington, DC: The World Bank, July.

Ravallion, M., G. Datt, and D. van de Walle. 1991. "Quantifying Absolute Poverty in the Developing World," *Review of Income and Wealth*, 37: 345-361.

Ravallion, M. and M. Loshkin. 1998. "Subjective Economic Welfare," mimeo. Washington, DC: The World Bank, September.

Schmidt, C. and M. Gora. 1998. "Long Term Unemployment, Unemployment Benefits and Social Assistance: The Polish Experience," *Empirical Economics*, 123: 122-139.

Sen, A. 1992. *Inequality Reexamined*. Cambridge, MA: Harvard University Press.

Sen, A. 1976. "Poverty: An Ordinal Approach to Measurement," *Econometrica*, 46: 437-446.

Skévik, A. 1997. "The State-Parent Relationship After Family Break-Up: Child Maintenance in Norway and Britain." Paper presented to the Fourth International Research Seminar on Social Security, Sigtuna, Sweden, June.

Smeeding, T. 1997. "Poverty in Developed Countries: The Evidence from LIS," *Poverty and Human Development, 1997*. New York: United Nations, pp. 195-240.

Smeeding, T. 1997a. "U.S. Income Inequality in a Cross-National Perspective: Why are We So Different?", *Looking Ahead*, XIX(2-3): 41-50. Reprinted in J. Auerbach and R. Belous (eds.), *The Inequality Paradox: Growth of Income Disparity*. Washington, DC: National Policy Association, 1998, pp. 194-217.

Smeeding, T., S. Danziger, and L. Rainwater. 1997. "Child Well-Being in the West: Toward a More Effective Antipoverty Policy." In G. Andrea Cornia and S. Danziger (eds.), *Child Poverty and Deprivation in the Industrialized Countries of the East and West*. London, UK: Oxford University Press, pp. 368-389.

Smeeding, T., K. Ross, P. England, K. Christopher, and S. McLanahan. 1998 "Poverty and Parenthood across Modern Nations: Findings from the Luxembourg Income Study," LIS Working Paper #193, Luxembourg Income Study. Syracuse, NY: Syracuse University.

Sullivan, D. and T. Smeeding. 1998. "Generations and the Distribution of Economic Well-Being: A Cross-National View," *American Economic Review, Papers and Proceedings*, 88(2) (May): 254-258.

Townsend, P. 1979. *Poverty in the United Kingdom*. Harmendsworth: Penguin Books.

United Nations. 1997. *Human Development Report*. New York: United Nations Human Development Office.

United Nations. 1998. *Human Development Report*. New York: United Nations Human Development Office.

U.S. Bureau of the Census. 1998., "Poverty in the United States: 1997," *Current Population Reports, Series*, P-60, No. 201. Washington, DC: U.S. Government Printing Office.

World Bank. 1990. *World Development Report*. New York: Oxford University Press.