INCOME MAINTENANCE IN OLD AGE: WHAT CAN BE LEARNED FROM CROSS-NATIONAL COMPARISONS

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Abstract

The purpose of this paper is to review the recent evidence on the antipoverty effectiveness and other characteristics of income maintenance systems for the elderly in the rich nations of the world. As we move toward Social Security reform in the United States, we do so knowing that a comparatively high fraction of our older population experience, income poverty compared to their counterparts in other nations. Strategies to reduce the future Social Security deficit need to take into account the way that program changes affect poverty and benefit adequacy as well as fiscal soundness. Other nations offer approaches which would help us to achieve lower poverty rates while also providing fiscally responsible solutions to the future public costs of an aging society through reforms to the Social Security system.

I. Introduction

The purpose of this paper is to review the recent evidence on the antipoverty effectiveness and other characteristics of income maintenance programs for the elderly in the rich nations of the world, with an eye toward lessons which can be learned by the United States. As we move slowly toward Social Security reform in the United States, we do so knowing that a comparatively high fraction of our older population is affected by, and afflicted with, income poverty compared to their counterparts in other nations (Hauser 1998).[1] Thus, strategies to reduce the future Social Security deficit need to take into account the way that these changes will affect income poverty in the United States. Other nations might offer approaches which would help us to achieve lower poverty rates while also providing fiscally responsible solutions to the future public costs of an aging society through reforms to the Social Security system.

We will show that a wide range of poverty rates and income maintenance policies can be observed for older residents in other rich countries. Within each country, a unique set of antipoverty policies combines with other social protection policies to help reduce poverty in old age. We briefly examine the ways in which various types of policies: private (though perhaps regulated or mandated by governments) and public, affect income maintenance and poverty among the elderly in general and older women in particular.

Our objectives are three-fold: first, to describe the levels of poverty across these societies; second to assess the arithmetic effects of social protection policies in preventing poverty and maintaining incomes; and third, to focus on the issues that need to be addressed by future income maintenance policy and benefit adequacy for the aged.

We begin with a brief review of poverty concepts, measures, income maintenance categories, and a description of the data used in this paper. This is followed by a

[1]Here we use "Social Security" to refer to the popular name of the United States Old Age and Survivors Insurance (OASI) program which in international terms is the United States' social retirement program. This usage is in contrast to the European usage of "social security" to encompass their entire income maintenance systems.

presentation of the results, and finally by a discussion of our findings and their implications for the design of social protection systems for the United States elderly. The final part of the paper briefly forecasts the continuing need for improved income maintenance in the United States as the baby boom retires while suggesting potential United States solutions to this problem, based on what we have learned here from observing income maintenance policy in other nations.

We consider only income maintenance programs in this paper, and do not consider issues related to provision of healthcare or long-term care for the elderly. Because these programs are also in large part financed by public monies, one must be aware of future costs of in-kind benefits and social service provision for the aged, even if they cannot be fully addressed in this paper (e.g., see Gruber and Wise 2001; Freund and Smeeding 2001).

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

The primary measure of benefit adequacy for income maintenance systems is the fraction of the population who are still poor after receipt of these benefits. 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.[2] In most rich societies, and particularly in the United States, the aged rely heavily on the market to purchase most goods and services, and even social goods such as health care and long-term care services. Money income and wealth are the central resources in these societies. There are also other important kinds of elder resources such as transfers from family, social capital (Coleman 1988), and noncash benefits in the form of health care subsidies. In the nations we study here, the vast majority of the elderly rely on cash incomes to support their basic needs in

[2]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

old age. Family economic transfers either in money, or in the form of shared living arrangements, are not as crucial for the aged in rich nations compared to developing countries or in Central and Eastern European nations making the transition to a market economy.

In the rich societies we study, annual income—or the ability to consume—is the key measure of economic resources and the ability to avoid poverty. While "income" measurement brings with it more complicated issues of period of measurement and life cycle considerations, income is a much more appropriate and, we would argue a more easily measured index of well-being for rich nations than is consumption (Johnson and Smeeding 1997). While we would like to supplement income data with additional information on wealth status (illiquid and liquid wealth), we can rely only annually received interest, rent, and dividends on a comparable basis.[3] But in any case, income maintenance policies in most nations are either of the social insurance variety (without any means-test), or are of the social assistance (income-tested) "safety net" variety where low-income but not low-assets are the main criteria for benefit receipt. Hence, for our purposes, the omission of wealth data is not terribly problematic for the questions we address here.[4]

Our measures of elderly poverty are 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 19 rich nations which we will investigate here. Unfortunately we cannot take into account the health-related major in-kind benefits which are available to the aged in most countries—for example, health care in all, and publicly provided long-term care benefits and other social services in Germany, Austria, and Japan, and to a lesser extent in Britain, Canada, and some other nations. To the extent that the level and distribution of these resources is different in different countries,

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in Sweden does the "household" refer to a more narrow definition of the "family" unit, but among the elderly this is not an important distinction.

[3]We also could add data on home ownership but do not do so in this paper. In fact, home ownership varies widely across the rich nations of the OECD.

our analysis of money income-based income maintenance policy must be treated with some caution. Because we are interested in the effects of social insurance and safety nets on preventing income poverty, we would in any case prefer a measure of the responsiveness of government systems in providing income maintenance and social protection to the otherwise poor elderly. In such a context, noncash health and chronic care benefits are of lesser importance.

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 larger families with children (Buhmann et al. 1988; Bradbury 1989; Rainwater 1990), but not for the aged (Burkhauser, Smeeding, and Merz 1996). Because choice of equivalence scale may favor small versus large families, depending on which level 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,

[4]The United States and Australia are important exceptions to this rule since both nations have asset tests as well as income tests for their low income programs. Hence, the redesign of social assistance safety net income transfer programs for the aged in these nations need to take assets into account as well.

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, or a similar 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 sensitive to the choice of equivalence scale.[5]

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 elderly households (head aged 65 and older), or of elderly persons (men and women aged 65 and over, or aged 75 and over) living in households, in relation to the selected poverty line. That is we tabulate both the percentage of elderly 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, elderly persons, men and women), residing in each household.

Poverty Measurement—Relative or Absolute?

Needs can be measured two ways, an "absolute" definition or 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 agreeing on an "absolute" poverty line and then converting that poverty line into each nation's currency.

[5]For instance, sensitivity tests indicate that comparisons of poverty rates for children compared to the elderly are sensitive to the level of E selected (e.g., Smeeding 1997; Smeeding, Rainwater, and Burtless

The translation of an absolute poverty line to other currencies relies on the determination of the money cost of the poverty line market basket of goods and services in several countries. These so-called "purchasing power parties (PPP's) have been constructed by Summers and Hesson (1991) and updated by OECD (2000). However, PPP's are based on aggregated data and on income (consumption) concepts that are not well suited for use with microdata, and which are highly sensitive to differences in microdata quality, public goods provision, and other factors (Smeeding, Rainwater, and Burtless 2000). For instance, PPP's treat the relative amounts of such goods as healthcare which are purchased by the public (via taxes) vs. private sector (via out-of-pocket expenses) the same. Some nations pay for healthcare almost exclusively through taxes with almost free public provision of care; in others, consumption of healthcare involves substantial out-of-pocket expense. For instance, an "absolute" poverty thresholds from one nation, translated into other currencies using PPP's, does not account for the fact that out-of-pocket healthcare expenses among the elderly vary widely, from 16 percent of incomes in the United States to 8 percent in France, 4 percent in Canada, and 2 percent in the United Kingdom (Freund and Smeeding 2001). Perhaps more important, the concept of absolute poverty is almost meaningless in a rich society context. The World Bank uses an absolute poverty line of $1 or $2 per person per day for sub-Saharan African nations; Central and Eastern European analysts use $3 or $4 per person per day; the Official United States "absolute" poverty line for a one-person family is roughly $20 per day. In each case the "absolute" poverty line is only understandable within the economic and social context where it is employed. We conclude that even "absolute" poverty lines are defined relative to the living standards in the societies in which the people being observed reside.

As a result, we rely here on the relative poverty-based measure alone.[6] While we stress the half of median measure, we use one additional measure of relative poverty to

2000; Burkhauser, Smeeding, and Merz 1996). However, we make only one such comparison in this paper, using the E=.5 scale to minimize the differential effects of equivalence scales on the comparison.

[6]For poverty studies using absolute poverty rates, see Kenworthy (1998), Danziger and Jantti (1998), Smeeding, Rainwater, and Burtless (2000), and Blackburn (1993). For more on the vagaries of using PPP's to adjust "real" poverty lines, see Rainwater and Smeeding (1999); Smeeding, Ward, Castles, and Lee (2000).

test the sensitivity of our headcount measures to alternative poverty lines, and to bring the poverty measure closer to the level at which poverty is evaluated in the United States. Forty percent of the median is also chosen for comparison because it is very close to the ratio of the United States poverty line to the United States median income once we adjust for family size (Smeeding, Rainwater, and Burtless 2000).

Relative poverty measurement 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.

Our measure of poverty is the simple headcount, i.e. percent of households or persons with incomes less than half of the median income, even though measures of the income poverty gap or more sophisticated measures of poverty such as the Forster-Greer-Thorbecke (FGT) (1984) and Sen (1976) indices could also be deployed. Were the purpose of this paper poverty measurement per se, would concentrate on broader and more sophisticated measures. However, the intricacies of poverty measurement are not the major purpose of the paper. And in practice, each of the other measures of poverty suggested above may have severe computational problems in a cross-national context. For instance, the poverty gap, FGT, and Sen indexes are all very sensitive to the accuracy of the survey 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 may produce artificially different lower bound income amounts within each nation.

Disposable Income Measurement and Related Income Concepts

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.[7] 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 received in old age).[8] 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.[9] 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.[10]

Because we want to measure the efforts of public income maintenance policy on poverty alleviation, we also examine the impact of public transfers (and taxes) 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, or pre-government income, includes all forms of earnings (wages, salaries, and self-employment income) plus capital or property income (in short, interest, rent, dividends). Next we factor in "private transfers," including especially occupational pension benefits and also regular cash inter household transfers. Occupational Pensions therefore include pensions paid by former employers (including the public sector), or by unions. Together with MI, these two categories cover all sources of income *except* government transfers and taxes. We

[7]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.

[8]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).

[9]Because the lower income elderly pay relatively small direct taxes in most nations, they are not of great interest for poverty measurement in most cases (Scherer 1996). Were the low income elderly to work more, employee payroll taxes might become more important in many nations.

[10]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

also separate out the effects of two types of transfers on poverty: Universal and Social Insurance Transfers, including such items as social retirement (old age or survivors' insurance), veterans benefits, and long-term disability benefits. The great majority of the anti-poverty effect among the elderly comes from social retirement benefits in most nations. Finally, Social Safety Net Benefits (income-tested, means-tested, social assistance, 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.[11] Once we have added these together, we reach disposable personal income, which includes all types of income, including taxes and transfers, as defined above.

While we present poverty rates among the elderly by gender, age, and by living arrangements (single living alone. We also present elder poverty rates and the effect of income maintenance programs by households (age of head older than a specified age). Because of income pooling arrangements within households, the nonelderly in such households will benefit from income transfers that accrue to the elderly, and vice-versa. Therefore, we assess the antipoverty effects of income transfers using the household income and accounting unit concepts, while our main poverty incidence analyses are based on the percent of all persons who are poor.

Database

The database used to carry out this analysis is the *Luxembourg Income Study (LIS)* database, which now contains information on household incomes for 28 nations in over 100 databases covering the period 1967 to 1997 (see LIS homepage at http://lis.ceps.lu/index.htm). 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 cross-

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.

[11]We also include the very minor effects of direct taxation on poverty with social safety net benefits. In all nations, except for Sweden and The Netherlands, income taxes and payroll taxes on the elderly are very small (less than 2 percent of income) and refundable tax credits for the elderly are zero.

national 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.[12] While we begin with the most recent series of LIS-generated data (available from the LIS website, www.lis.ceps.lu/keyfigures/povertytable/ htm), most of the results presented here have been generated by additional analyses sometimes using the household or the individual as the unit of analysis.

While we begin with a league table which covers 19 rich OECD countries, we then narrow the list to eight "focus" nations for which we can conduct more compact in-depth analyses. From the larger list, we have therefore focused on eight countries to examine here in some detail: three large Anglo Saxon nations with similar but "underdeveloped" welfare states (United States, Australia, Canada); four European nations (United Kingdom, France, Germany, and The Netherlands) which span the social policy spectrum; and one "advanced" Scandinavian welfare state (Sweden). While other choices of nations were available, this set fairly well encompasses the types of social protection systems and the range of poverty levels among the elderly found in rich nations.[13]

III. Results: Poverty and Income Maintenance

Our general purpose is to assess the relative levels of poverty across the selected nations and the effect of social protection systems on these societies as compared to the United States. We begin with the level and trend in poverty (Tables 1-4). Then we look to the effects of income maintenance programs on poverty and on income distribution (Tables 5 and 6 and Figures 1 through 4).

[12]Recent papers and publications on poverty, inequality and social protection using LIS include Gottschalk and Smeeding (1997, 2000), Smeeding and Ross-Phillips (2001); Danziger and Jantti (1998), Smeeding (1997), and Kenworthy (1998).

[13]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. For more in social policy in these nations, see Torrey, Smeeding, and Bailey (1999); Schrooten, Smeeding, and Wagner (1999). We also exclude Taiwan where most elderly live with their adult children, but we do include Japan to the extent possible.

Poverty Levels

We begin with income poverty, the ultimate measure of the effectiveness of an income maintenance system. The implicit questions we pose are three:

- How do nations compare with respect to poverty rates for the elderly as a whole?
- Which particular age and gender groups are at the highest risk of poverty within a given nation? Is any group disproportionately represented?
- What have been the trends in poverty rates among the elderly over time?

These comparisons serve as the basis for our further work on the effectiveness of income maintenance programs on poverty alleviation.

We present both the one-half (50 percent) of median and 40 percent of median poverty rates in Tables 1, 2, and 4. As mentioned earlier, the 40 percent standard is close to the United States "official" poverty measure while the one-half median measure includes what Americans would call "near poor" (100 to 125 percent poverty range) and is, in fact, the international line most used in cross-national studies.[14] We begin with a broad overview of 19 nations (Table 1) before concentrating on the eight representative countries (Tables 2, 3, and 4).

The most recent comparative relative poverty rates in 19 nations, using both thresholds, are displayed in Figure 1. All poverty rates are measured in the 1990s. The elder poverty rate using the lower poverty threshold varies between 0.8 percent in Sweden (1995) to 12.4 percent in Australia (1994), and 12.0 percent in the United States (1997), with an average rate of 4.8 percent across the 19 countries. At the 50 percent standard, the average is 11.6 percent and the range now runs from 2.7 percent (Sweden) to 29.4 percent (Australia) with the United States at 20.7 percent.[15] The fraction of people with incomes below the poverty line is obviously sensitive to where the line is

[14]The official United States poverty line ranges from roughly 38 to 42 percent of equivalence adjusted median gross cash income over the 1990s depending on the year selected. The European Community recently decided on a poverty or "low income" measure that was 60 percent of the median but we will not use that measure here (Smeeding, Rainwater, and Burtless 2000).

[15]Note that the official 1997 elder poverty rate in the United States was 10.5 percent, while the official "125 percent of poverty" rate was 17.0 percent. These are reasonably close to the 12 and 20.7 percent rates in Table 1. The official poverty rates exclude food stamps and federal income and payroll taxes, both of which are counted here, while the equivalence scale and family unit definition also differs (U.S. Bureau of the Census 1998).

drawn, but for each poverty line wide variances can be seen across nations. The overall poverty rates are generally similar to elderly rates in terms of both spread and country ranking, with the United States having the highest overall poverty rates under either measure.

On average, elder poverty is just below average overall poverty at the 40 percent standard (4.8 vs. 5.4 percent poor), but is just above the overall average at the 50 percent needs standard (11.6 to 9.3 percent). This suggests that proportionately more elderly than younger persons can be found living between the 40 and 50 percent poverty lines. This observation has been made before in the United States context, but not in a cross-national context (Smeeding and Smith 1998). It suggests that even if one can prevent poverty among the elderly, a relatively large fraction of the elderly may end up with incomes very close to the poverty line.

Overall, elderly poverty rates using the 40-percent-of-median-income standard fall into several distinct categories (see Table 1). The Australian, United States, Japanese, and Israeli rates of roughly 11 and 12 percent and are clearly the highest shown. All other nations have much lower rates, all below 7 percent. If we move to the higher needs standards, Australia at 29 percent, the United States at 20 percent, and Japan and Israel (17 to 18 percent) are the outliers. But 10 to 14 percent poverty rates can also be found in many European nations as well, and also in Norway. Elder poverty rates at the one-half median poverty line below 10 percent are found only in 8 of the 19 nations captured here.

Higher elder poverty rates are found in countries with a high level of overall inequality (United States, Australia) and in some but not all geographically large and diverse countries (United States and Australia)—but not in Canada. They tend to be higher in countries with less well-developed national welfare states (Spain, Japan), but can still be high in advanced Scandinavian nations such as Norway. Low poverty rates are more common in smaller, well-developed welfare states (Northern Europe, Scandinavia), but not always. Most nations have managed to keep their elderly poverty rates far below 10 percent at the most stringent 40 percent needs standard, but Australia and the United States have elder poverty rates which are roughly twice as high as are the

rates in European nations, and almost three times the overall average poverty rates of all nations.

In order to more clearly understand the results, and to concentrate on subgroup analyses, we move to a more focused analysis of a smaller number of countries. Hence, in Table 2, we find the eight bold type countries from Table 1: Australia, the United States, and the United Kingdom with relatively higher poverty rates; France and Germany in the middle range poverty rate range; and Canada, The Netherlands, and especially Sweden with generally lower elder poverty levels. The eight nations we focus on below pretty much span the 19 nation range in Table 1. The United States and Australia stand out with the highest overall poverty rate using either standard. These two particularly stand out at the 40 percent of median line as no other nation has an elder poverty rate higher than 4 percent (Table 2, panel A). They also stand out at the 50 percent line, though the United Kingdom also has double digit elder poverty.

The intent of our analysis is to move to the subgroup level and particularly to look at poverty among elder subgroups such as older women. We find that older women in general (Table 2, panel B), women living alone (panel C), and the oldest (aged 75 and over) women living alone (panel D), do progressively worse on average and in almost every country. In some places the differences are very large. The general pattern is that poverty rates rise within countries as one moves down the table and to the right, suggesting that gender, age, and living arrangements among women all tend to increase poverty status. The average fraction of women who are poor increases as we move down the table, while the difference between the 40 and 50 percent poverty standards also widen. This suggests that a very large fraction of older women living alone have living standards that are between these two poverty standards. In some nations—e.g., Sweden, The Netherlands, and Canada—older women generally do better than in others—United States, Australia, and the United Kingdom. In these last three countries, between 16 and 33 percent of women aged 65 and older, and even higher fractions of the oldest women living alone have incomes less than 50 percent of the median. In all nations except The Netherlands, Sweden, and Canada poverty rates for the oldest women living alone at the one-half median poverty standard, are 17 percent or more. The United States, with 42 percent of older women living alone in poverty at the higher standard is exceeded only by

Australia. At the 40 percent of needs level, the poverty of older women is highest in the United States, especially the 26 percent rates among older women living alone. Moreover, older women aged 75 and over are the fastest growing group of the elderly in each nation (Smeeding and Smith 1998).

Because of differences in life expectancy, older women make up the majority of the elderly population in every rich country. The fraction of the elderly poor who are women in general, and women living alone in particular, is also shown in Table 3. Here we see that while 55 percent of all persons aged 65 and over are elderly women, 69 to 70 percent of the poor (on average) are elderly women. Older women living alone average about 28 percent of all persons 65 and over, but are nearly one-half (49 percent) of all poor persons. At still older ages (aged 75 and over, Table 3, panel B), 72 to 73 percent of the poor are women and 58 to 59 percent are women living alone. The results are very similar for either poverty line and with few exceptions, for every country. And the fraction of women who are poor exceeds the fraction of all women in each category, with rare exceptions. Often—for example, among older women living alone—the proportion of the poor who are elderly women living alone is almost twice as high as is the fraction of all elderly women who live alone..

To summarize, we find that in each of the nations studied (with The Netherlands, the single exception), the poor are overwhelmingly women regardless of the level of poverty within a nation. This relationship holds for both the 65 and over, and the 75 and over age groups, and for either the 40 or 50 percent of median poverty line. The differences are particularly large for older women living alone who make up 28 to 38 percent of the elderly population, but 49 to 59 percent of the poor. Thus, to be old and poor is disproportionately to be a woman in general, and a single woman in particular.[16]

Trends in Poverty

The final datum on elderly poverty shows its trend compared to that for other groups: the overall population and children (under age 17) as updated from a recent United Nations publication and other papers (Smeeding 1997; Smeeding, Rainwater, and

[16]This phenomenon has been noted earlier in the United States (Smeeding, Estes, and Glasse 1998).

Burtless 2000). Here we see that trends in elder poverty show almost as much variance as do levels of poverty across the nations studied here.

Overall poverty rose in most of the eight nations studied here in the 1980s and 1990s, especially in Australia and in the United Kingdom, but also in The Netherlands (though from a very low base). The only two nations who did not exhibit a general rise in the poverty rate at either poverty standard over the 1980s and 1990s were France (where poverty actually declined) and Canada, where there were no changes. In the United States, poverty rose lightly over this period at the 50 percent level, but not at the 40 percent level.[17]

Different patterns are found among the aged and children and here we concentrate mainly on the aged. Among the old, substantive changes in poverty rates in both directions are evident within the nations studied here, especially at the higher poverty line. Elder poverty decreased dramatically in the United States (4 to 6 percentage point drop, depending on the poverty standard), despite the much smaller changes in overall poverty noted above. In the United Kingdom elder poverty fell at the 50 percent level with no change at the 40 percent line. However, poverty levels remain relatively high in both nations (see Tables 1 and 2). Elder poverty decreased by a large amount in Canada and France and increased by a large amount only in Australia (by 4 to 5 points). A lesser rise is noted in The Netherlands (2.7 percentage point rise), though elder poverty rates remained low at the end of the period (6.4 percent rate in Table 2). In general, there were fewer and smaller changes at the lower 40 percent poverty standard. And in contrast to elder poverty changes which were quite mixed, child poverty rose in almost every nation (with the exception of France) over this period.

It is important to note that changes in relative poverty rates are not always the same as changes in income inequality. While income inequality rose precipitously in the United Kingdom, and overall poverty with it, overall income inequality rose in Sweden and the United States with no appreciable effect on overall poverty rates in these nations (Gottschalk and Smeeding 2000). In many countries, elder poverty rates moved opposite to the change in overall inequality, e.g., United States, United Kingdom; or fell while

overall inequality did not change, e.g., Canada, and France. While some changes in survey practices might have affected these results, especially in Australia where the 1994 survey differs from the earlier surveys, the general pattern is one of falling poverty among the old, which is generally in contrast to changes in the overall poverty rate or the poverty rate for children.[18]

We conclude that both the level and trend in poverty among the old differ by nation and by sub-group. In one or two nations, elder poverty has risen. While it still remains modest in absolute and comparative terms in The Netherlands, it began high in Australia and has surged. Elder poverty has fallen substantially in Canada and France to single digits, and it has also declined in two other nations where it remains relatively high (United States and to some extent the United Kingdom). The most at-risk group remains older single women living alone. Based on their relatively high poverty rates, it appears likely that the income maintenance systems in many nations continued to fail some elders (older women in particular), while the poverty situation has improved for many others. Now we turn to more careful analysis of the impact of the income maintenance systems which play a large role in determining these outcomes.

Income Maintenance

Most nations fight poverty among the old by combining two programmatic income maintenance strategies:

- Social retirement (social insurance)
- Social safety net (social assistance)

The first strategy usually consists of a universal (or nearly universal), pay-as-you-go, defined benefit, social retirement scheme. Whether in the Germanic-Bismark or British-Beveridgian tradition, "social retirement" systems are designed to provide both income replacement and some modicum of benefit adequacy to all of its participants. In most such systems one finds a two (or more) tier benefit design: a lower tier with a higher replacement rate for lower lifetime earners (or a high minimum benefit), coupled with an upper tier which is more closely related to contributions but which pays out benefits at a

[17]To be more precise, the 1979 and 1997 United States poverty rates were about the same despite the fact that poverty rose in the 1980s but fell back down in the latter 1990s.

[18]Smeeding, Rainwater, and Burtless (2000) find similar results.

much lower fraction of lifetime earnings for high earners. In most societies, these social retirement schemes are the major source of income of the aged.

Most nations also couple their social retirement system with some form of social assistance or safety net benefit. Such benefits are targeted at the low-income population and supplement social retirement with an income-related safety net. In some cases these programs are separate from the social retirement program (e.g., the United States' Supplemental Security Income or SSI program which is also means- or asset-tested) while in others which are more successful in reducing poverty, they are folded directly into the social retirement scheme (e.g., the Canadian Guaranteed Income Supplement or GIS program which is only income-tested). These systems are specifically targeted at low income elders and are most often determined on a household or family income basis. In contrast, social retirement schemes are usually based on individual earnings supplemented by a spousal benefit package (including survivors benefits) for those who spent less career time in the paid labor force. It should also be noted that one nation we have decided to study, Australia, has only an income-tested system of old age benefit and no contributory social retirement scheme.

The effects of both types of benefits on household poverty rates are clearly laid out in Table 5 where we progress from market income (MI), poverty rates (in column A) to disposable income (DI) poverty rates (in column D), factoring in both types of social spending outlined above. We also include the effects of occupational pensions which are contributory old age income schemes, related to either private or public employment and more directly related to previous earnings.[19] We include two separate panels: one for all households, the other for female-headed households, both measured at the 50 percent needs standard.[20]

Moving from left to right, we can identify the sequential impact of each type of old age income support. As expected, poverty rates are highest based on market income

[19]Such schemes may be either of a defined contribution or defined benefit nature. However, benefits are determined, the systems are usually pre-funded by employer and employee contributions.

[20]The poverty rates are for households—not for persons. Household poverty rates for the elderly tend to be higher than person poverty rates because larger numbers of single women households (see Table 3). The 40 percent poverty line calculations are not shown here because they are very similar to those at the 50 percent standard.

alone. Most elderly households do not have sufficient earnings and property income (interest, rent, dividends) to by themselves eliminate poverty. This is particularly true for female-headed units (panel B). Countries which have higher labor force participation rates or large accumulated financial wealth stocks at older ages have lower MI-based poverty rates (e.g., United States) than do other nations. The second column (B) adds in occupational pensions (and other private transfers). In nations which rely more heavily on such schemes, poverty rates are lower. For instance, elder poverty, including occupational pension benefits, is in the 60 to 67 percent range in the United States, United Kingdom, Canada, and The Netherlands for all of the elderly, and in the 77 to 79 percent range for older women in the United States and The Netherlands. It is much higher in societies which have much lower (or fewer) occupational pensions, e.g., Sweden and France.

Counting these several sources of income sets the stage for measuring the impact of the income maintenance system. First (column C), we note the impact of social retirement and next (column D) the impact of the social assistance "safety net" programs. The largest affect on old age poverty in every nation (except Australia) comes from the social retirement system in both panels. In general, the larger and more inclusive the social insurance system, and the higher the first tier benefit for lower wage earners, the larger the antipoverty effect (column E). Thus, Sweden, Germany, France, and The Netherlands have the largest effects on poverty with 60 to 78 percentage point reductions for the elderly in general, and 68 to 86 percent declines for older women. In lower spending nations like Canada, United States, and the United Kingdom, the effect on poverty is also less, with social retirement reducing elder poverty by only 36 to 49 percentage points overall. For older women, the effects of social retirement on poverty run from 29 to 35 percent reductions in the United States and the United Kingdom, up to 60 percent in reductions in Canada. Because elder women are liable to have less in terms of occupational pensions, earnings, and wealth, they are more likely to be dependent on social insurance or social assistance (safety net) programs to keep them from poverty. This is true in all of these nations, United States included (Smeeding, Estes, and Glasse 1998). But these social retirement systems can also be very expensive and blunt

instruments, spending quite a large amount of public funds to achieve a low poverty result (Smeeding and Smith 1998; Gruber and Wise 2001).

These benefits set the scene for the final stage impacts of the social assistance or "safety net" programs (in column F). Here skillfully targeted supplements with high participation rates may produce large marginal antipoverty effects. In Australia the limits and benefits of income testing are both apparent. Take up rates and other features of the Australian system produce the largest effect for safety net transfers, but when coupled with Australia's nonexistent social insurance system, have one of the lowest overall antipoverty effects (columns F and G). In the United Kingdom and Canada, the safety net impacts are largest followed by France and The Netherlands, where they are very small. In the other countries the effects are small with most of the "heavy lifting" of the elderly from poverty being accomplished by their social retirement system. In the United States, the effects are weak, owing to the less than full integration of SSI with social retirement, the relatively low SSI benefit guarantee, relatively low Food Stamp take-up rates among the elderly, and the stringent liquid asset tests in both programs (U.S. Congress 2000).

The effects for older women show much the same cross-national pattern but with larger safety net impacts, especially in Canada and the United Kingdom. In the United States, the safety net effects are a below 1 percent overall reduction in poverty, and an almost zero impact for older women. Thus, while the SSI program and Food Stamps provide some help to low income older Americans, the benefits do not seem to be sufficient to lift them out of poverty.

The net effect of these systems (column G) are to produce widely varying poverty outcomes depending on the mix and strength of each component of the system. Those systems which spend more especially on social insurance (e.g., Sweden, Germany, The Netherlands, and France) end up with lower poverty rates. Those whose spending is modest, but with well-targeted social assistance benefits also seem to do well (e.g., Canada), while those without strong or well-targeted systems do not do as well, e.g., Australia, the United Kingdom, and especially the United States.

Income Composition

Another way to consider the effects of the income maintenance system are to examine the composition of the gross (before direct tax) incomes of the aged at various income levels. We examine five sources of income: earnings, capital/property income, occupational pensions (from private or public sector employees), social retirement, and other safety net income which is largely from means- or income-tested benefits in most nations and which also includes private income transfers from others outside the household as "other" income (Table 6).[21] We look at these sources at three points in the distribution: in the lowest income decile, the middle income decile, and the highest income decile, and we do so for all ages and for single elder women households.

Several patterns emerge:

- In all nations (except Australia), social retirement is overwhelmingly the most important source of income for the lowest decile and for the median decile. Means-tested income is usually the second most important source for the lowest decile indicating that the standard of living among the low and middle income aged is largely determined by public sector income maintenance, particularly by the benefits from social retirement but also by the level and composition of safety net benefits.
- At higher income levels one finds a more balanced portfolio in almost all nations. Earnings, property income, occupational pensions, and social retirement all help support the economic status of the better off aged (except for Sweden, where social retirement continues to dominate): and Australia, where the income-tested old age benefit system peters out.
- Middle income elderly still receive two-thirds or more of their incomes from social retirement in every nation studied here. In fact, middle income older persons rely as much or more on social retirement as do low income persons in the United States, Germany, and Sweden.

[21]France is excluded here because we cannot reliably separate their earnings and capital income components at this time.

- Older women (final three columns) look remarkably like all of the aged in terms of their income sources, with an even greater reliance on social retirement as an income source, and a lesser reliance on earnings.

We conclude that there is greater diversity among the aged with respect to poverty, but much greater similarity with respect to reliance on income sources. All of the aged, and particularly those at low and middle income levels rely on social retirement as a source of economic well-being. Property income and occupational pensions account for more than 25 percent of incomes only among the well-to-do elderly. The three-legged support stool of work, transfers, and savings is apparent only among the affluent elderly.

Spending and Benefit Levels

In the end it seems three key factors help determine the antipoverty effectiveness of income maintenance schemes for the elderly:

- How much one spends
- How well it is targeted
- How generous is the minimally adequate benefit level (or safety net guarantee).

Clearly social insurance and safety net expenditure help reduce elder poverty. Social insurance spending includes social retirement, disability, survivors' benefits and a host of other non-income-tested programs which benefit the near-elderly as well as the old. The various nations observed here spend from 8 to 20 percent of GDP on cash and near-cash social programs which affect poverty rates. Also important is the level and amount spent on social safety nets alone, which add to these totals. We also find that benefit receipt and benefit generosity are not always closely linked. So one can find that the elderly in the bottom quintile, particularly older women living alone, receive 7 to 14 percent of their incomes from these programs (Table 6), but unless the benefits are generous enough, the antipoverty effectiveness may be less than we might expect (e.g., Table 5, Panel B, Column F).

A final set of diagrams nicely summarize these findings. In fact, what you spend (amount) and how you spend it (targeting) both make a difference. Figures 1 and 2 are based on OECD Social Expenditure data and person-based 50 percent elder poverty rates

(Tables 1 and 2). The top panel of Figure 1 is for all nations (excluding Austria and Italy where the figures are not available); the bottom panel is for our eight "focus" nations alone. There is a clear relationship between expenditure level and poverty, with high spending income maintenance nations having lower poverty rates and the low spending Anglo-Saxon nations being at the opposite end of the line. For each extra 1 percent of GDP spent on social transfers, poverty declines between .8 and 1.5 percentage points. A similar diagram and a similar pattern is also found for the 40 percent of median rates (Figure A-2). Older women, especially those living alone, exhibit the same general pattern (see Figure 2), with an even larger reduction in poverty for increased social spending.[22]

We observe that targeting is also important. Countries who fall below and to the left of the regression lines in Figures 1 and 2 have poverty rates that are less than what one would predict, given their level of spending. For instance, a country like Canada has a very efficient income-related lower tier benefit which produces a low poverty rate for a modest level of social expenditure (Figures 1 and 2). In contrast, Sweden and Finland have lower elder poverty rates, but spend almost twice as much as do the Canadians to reach these levels. In general then, nations with better targeted income maintenance schemes are found below the regression line in Figures 1 and 2 while those who do worse are above the line.

Figures 3 and 4 suggest that the minimum old age benefit for a single person from the combined social retirement/social safety net package is also an important determinant of poverty. Here we examine the minimum income package for single elderly in our eight focus countries in two periods, expressed as a percent of adjusted median income. The first set of numbers in Figure 3 for the 1980s were calculated by the OECD in the early 1990s. The second set were calculated from both OECD and LIS data for the 1990s. Both sets of estimates tell the same story. In general, safety nets have kept up

[22]The Appendix Table A-1 contains the data for each diagram. Note that Gruber and Wise (2001, Figure 3) find essentially the same result using older LIS poverty results and their own measure of social spending. When we use the Gruber and Wise social expenditure data and our most recent poverty rates, we find the same relationship holds. Finally, OECD (1999) publishes a separate series on cash social expenditures in the elderly which excludes near-cash benefits, disability, and other social insurance. These data also correlate highly with elderly poverty. Thus, the relationships found in Figures 1 and 2 obtain, for a large range of nations, LIS poverty definitions and OECD social spending definitions.

with the growth in overall adjusted median incomes. However, the level of the safety net benefit varies considerably across countries. If a nation has a low minimum benefit package, poverty rates will be higher than if it has a higher level of minimum benefit generosity. In fact, Figure 4 shows that the poverty rates among the elderly are also correlated with the more recent set of minimum benefit levels presented in Figure 3. In both figures the nation which stands out most clearly is the United States, which has the least generous minimum benefit level of all the nations studied here, far below the next nearest country (England) and even farther below the eight-country average (Figure 3 and 4).

IV. The Future of Income Maintenance for the Elderly: Discussion and Policy Lessons

If the benefit of an expensive but successful system of income maintenance program, is low elder poverty, the cost is fiscal unsustainability. Numerous authors and organizations have suggested that pay-as-you-go social retirement schemes will require 2 to 8 percentage point increases in the fraction of GDP that need be devoted to these schemes to maintain current benefits over the next 30 years (e.g., OECD 1998; Smeeding and Smith 1998; Gruber and Wise 2001). And the costs of providing health care benefits to a rapidly growing older population will only add to these pressures (Freund and Smeeding 2001; OECD 1998). The choices for social retirement systems in these nations are really very simple: either taxes (or charges for health care) must be raised to support these levels of expenditures or benefits must be curtailed. Almost every nation examined here is embarking upon a scheme to curtail benefits by raising retirement ages, tightening eligibility for early retirement benefits, or both. Few are considering tax increases at this time. Some nations are contemplating a changeover to a contributory defined contribution scheme as a second tier benefit, and at least one, the United Kingdom, has already made such a change. Others (e.g., Sweden) have added a third tier benefit which is much like a contributory private pension, but which has little antipoverty effect (Anderson and Hussey 2000). The vast majority of nations are also counting on economic growth, willingness of taxpayers to raise taxes to pay for added benefits (especially for health care costs), or other benefit changes to save the day. In response to

fiscal pressures, changes in the retirement income system will be played out over the coming decades. And one might ask how these changes will affect the income maintenance systems in each of these nations? That is, can the antipoverty effectiveness evidenced here be maintained when systems become less generous or differentially targeted?

Two cautionary tales can be told. The first tale is that of the United Kingdom where the privatization of SERPS, the public retirement system, has benefited the well-to-do more than it has the lowest income tier of elderly beneficiaries (Williamson 2000; Evans and Falkingham 1997). Benefit adequacy for those at the bottom of the elderly income distribution is a serious issue in the United Kingdom as minimum benefits have so far kept up with the rest of the growing economy, but may not keep up in the future (Figure 3). A new "White Paper" on pension reform sets out to fix this problem, but the issue has yet to be addressed. This situation suggests that we must be wary of the way in which fiscally driven social retirement reform and prioritization affects the benefit adequacy and safety net features of social retirement systems (Williamson 2000; Anderson and Hussey 2000; Smeeding and Sullivan 1998).

The second tale is one of demographic change. In America, the future Social Security financing situation has not yet been addressed (Center on Budget and Policy Priorities 2001). However the fiscal deficit (about 2 percent of GDP) is made up, additional changes will be needed if Americans wish to continue to experience lower poverty rates for its elderly and older women in 20 years time. Figure 5 suggests that the fraction of older women who fall below the official United States government poverty line (an "absolute" line adjusted only for price changes and not income changes, and set at about 40 percent of adjusted gross median income in 1991), will be the same in 2020 as it was in 1991, if only the fiscal deficit is addressed (Smeeding, Estes, and Glasse 1999; Smeeding 1999).

The reason for this disappointing performance is entirely due to the changing demographics of older women. In the United States, as in many other rich western countries, the fraction of older women who will spend their old age as divorcees or never-married will greatly increase over the coming decades (Overbye 1997). Thus, even if poverty rates decline among widows, elderly couples, and divorcees, overall poverty rates

may not change as the fraction of divorced beneficiaries increases from 6 percent (1991) to 19 percent (2020). And as never-married older women increasingly become never married single parents, their poverty rate is expected to increase in 2020 compared to 1991.

Policy Lessons for the United States

As the elderly in America have become richer, poverty rates have fallen. The large majority of this effect is no doubt due to the blunt instrument of Social Security which has allowed our grandmothers to live alone, even if just above the poverty level (Smeeding and Smith 1998; Schoeni and McGarry 2000). However, if we want to make additional progress in improving the antipoverty effectiveness of our income security system in old age, and in further reducing poverty we must change the current system. The lessons learned from other countries can help us to make changes which can ensure greater economic security and benefit adequacy at reasonable cost.

- **Establish an adequate first tier to the Social Security system in the longer term**. Clearly the low poverty northern European nations have found an effective, through costly way to fight elder poverty. While the United States could never expect to have a European style high first tier, the idea of a two-tier system, with the first tier being universal is not such a far-fetched idea. Scheiber and Shoven (2000) have sketched such a system. The problem with their solution, from an anti-poverty point of view is that the first tier is still too low—about two-thirds of the poverty line. Thus, a higher tier or some supplementation to the lower tier is in order. In the longer term, a mandatory add on defined benefit contribution (as in Schieber and Shoven 2000) would help add a second tier to the minimum benefit for all persons, assuming that these plans could be maintained until old age, through divorce, and then turned into life annuities at reasonable rates. But, if these savings could not be maintained, or in case of poor investments yielding a low return, and because these changes will take some 20 to 30 years time to achieve, a better safety net program will still be an important ingredient for income maintenance policy in the United States.

- **Reform SSI to meet the needs of low income older persons in the shorter term**. The Canadians have found a way to integrate a high take-up safety net program with their social retirement scheme. This Guaranteed Income Supplement (or GIS) is very target-efficient and has pulled hundreds of thousands of elder Canadians from poverty at a very reasonable cost (Battle 1997). Were we to abolish or drastically ease the SSI assets test and to better integrate it into the social retirement system, the United States could also achieve a high antipoverty effect at low cost. If we are to deal with the future issue of low income older women who are divorced or never-married or widowed in old age, we need to create a system such as the Canadian system, to deal with the basic economic security in a way that does not produce high costs but which does produce the antipoverty results we seek from our system.

It seems that while we may pursue the former strategy, we must also pursue the second, particularly because it will be less costly, more certain in its antipoverty effect, and can be much more quickly implemented. And to the extent that the more basic systemic reforms are successful, the costs of the SSI safety net program will decline in future decades.

V. Conclusion

Different schemes for income maintenance in old age produce very different anti-poverty results. More spending, well targeted spending and adequate minimum benefits all result in lower poverty rates. Spending which is not well targeted, which is unreasonably expensive, programs which suffer take-up problems, or systems with relatively low minimum benefits, either fail to produce low elder poverty rates or result in lower rates only at unreasonably high public cost.

Fiscal realities suggest that income maintenance in general and social retirement in particular will change in the future. But in so doing, these systems must address not only the fiscal realities of low fertility demographic change, but also the realities of maintaining or improving their safety net when faced with a changing distribution of beneficiaries and needs. How benefits are structured and the levels at which minimum benefits are set for workers, survivors, and spouses will still be an important determinant

of old age poverty, far into this century. Moreover, old age income maintenance systems will need to also address the needs of divorced, separated and never-married older women all of which are on the increase in the countries studied here, if we are to further reduce elder poverty (or maintain low elder poverty rates) in rich nations. Americans can learn much from the successes of other nations in providing an adequate income in old age, perhaps especially from Canada. But in the end we can only achieve a similar result if we are willing to make the policy and fiscal efforts that other nations have made on behalf of their most vulnerable populations.

References

Atkinson, Anthony B., Lee Rainwater, and Timothy M. Smeeding. 1995. Income Distribution in OECD Countries: The Evidence from LIS. Paris: OECD.

Anderson, Gerald F. and P.S. Hussey. 2000. "Population Aging: A Comparison among Industrialized Countries." *Health Affairs* 19(3) (May-June): 191-93.

Bailey, Debra., Timothy M. Smeeding, and Barbara B. Torrey. 1999. "Income Transitions in Central European Households." *Economic Development and Cultural Change* 47(2) (January): 237-57.

Battle, Ken. 1997. "A New Old Age Pension." In K. Banting and R. Boadway, eds., Reform of Retirement Income Policy, School of Policy Studies. Kingston, Ontario, Canada: Queens University: 135-89.

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

Bradbury, Bruce and Markus Jäntti. 1999. "Child Poverty across Industrialized Nations," Economic and Social Policy Series 71, Innocenti Occasional Papers. Florence: UNICEF International Child Development Centre, September.

Buhmann, Brigitte., Lee Rainwater, Gunther Schmaus, and Timothy Smeeding. 1988. "Equivalence Scales, Well-Being, Inequality and Poverty." *Review of Income and Wealth* 34(2) (June): 115-42.

Burkhauser, Richard V. and Timothy M. Smeeding. 1994. "Social Security Reform: A Budget Neutral Approach to Reducing Older Women's Disproportionate Risk of Poverty," Center for Policy Research Policy Brief No. 2, The Maxwell School. Syracuse, NY: Syracuse University.

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): 242-63.

Burtless, Gary. 1996. "Trends in the Level and Distribution of U.S. Living Standards: 1973-1993." *Eastern Economic Journal*, 22(3) (Summer): 271-90.

Butrica, Barbara A., Lee M. Cohen, and Howard M. Iams. 1999. "Introduction and Findings from the MINT Project." Paper presented at the First Annual Joint Conference for the Retirement Research Consortium, "New Developments in Retirement Research," Washington, DC, May 20-21.

Cantillion, Bea, Yves Marx, and Karen 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.

Center on Budget and Policy Priorities. 2001. "What the Trustees Report to Indicates about the Financial Status of Social Security." Washington, DC: Center on Budget and Policy Priorities, March 19.

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

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

Danziger, Sheldon and Markus Jäntti. 2000. "Income Poverty in Advanced Countries." In Anthony B. Atkinson and François Bourgignon, eds., Handbook on Income Distribution. New York: Elsevier-North Holland Publishers.

European Community. 2000. The Social Situation in the European Union, 2000. Brussels: Directorate General for Employment and Social Affairs, Unit E.1, April.

Eurostat. 2000. "Report of the Working Group: Statistics on Income, Social Exclusion and Poverty." Luxembourg: European Statistical Office. http://europa.eu.int/eurostat.html 5/2/00.

Evans, Martin and Jane Falkingham. 1997. "Minimum Pensions and Safety Nets in Old Age: A Comparative Analysis," Welfare State Programme Paper No. 131. London, England: London School of Economics and Political Science, June.

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

Foster, James, John Greer, and Eric Thorbecke. 1984. "A Class of Decomposable Poverty Measures." *Econometrica* 52: 761-65.

Freund, Deborah and Timothy Smeeding. 2001. "The Future Costs of Healthcare in Aging Societies: Is the Glass Half Full or Half Empty?" unpublished manuscript, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, March.

Gottschalk, Peter and Timothy Smeeding. 2000. "Empirical Evidence on Income Inequality in Industrialized Countries." In Anthony B. Atkinson and François Bourgignon, eds), Handbook of Income Distribution: Handbooks in Economics Series. New York: Elsevier-North Holland Publishers: 261-308.

_____. 1997. "Cross-National Comparisons of Earnings and Income Inequality." *Journal of Economic Literature* 35 (June): 633-86.

Gruber, John and David Wise. 2001. "An International Perspective in Policies for an Aging Society," NBER Working Paper No. 8103. Cambridge, MA: National Bureau for Economic Research, January.

Hagenaars, Aldi, Klaus DeVos, and Azghar 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.

Hauser, Richard. 1998. "Adequacy and Poverty among the Retired," Luxembourg Income Study Working Paper #182, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, May.

Iams, Howard M. and Barbara Butrica. 1999. "Projected Trends from the MINT Model." Paper presented to the 1999 Technical Advisory Panel to the Social Security Trustees, Washington, DC, April 30.

Jäntti, Markus and Sheldon Danziger. 2000. "Income Poverty in Advanced Countries." In Anthony B. Atkinson and François Bourguignon, eds., Handbook of Income Distribution. New York: Elsevier-North Holland Publishers.

Johnson, David and Timothy Smeeding. 1997. "Measuring the Trend in Inequality among Individuals and Families: Consumption or Income?" unpublished manuscript, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, June.

Kenworthy, Lane. 1998. "Do Social Welfare Policies Reduce Poverty? A Cross-National Assessment," Luxembourg Income Study Working Paper #191, Center for Policy Research, The Maxwell School. Syracuse, NY: Luxembourg Income Study, Syracuse University. http://www.lis.ceps.lu/wpapersd.htm.

Luxembourg Income Study. 2000. LIS Quick Reference Guide. Syracuse, NY: Center for Policy Research, Luxembourg Income Study, The Maxwell School. Syracuse, NY: Syracuse University. http://www.lis.ceps.lu/lisquick.htm.

Organization for Economic Cooperation and Development (OECD). 2000. "Purchasing Power Parities for OECD Countries, 1970-1997." Created by Organization for Economic Cooperation and Development. http://www.oecd.org/std/pppoecd.xls.

_____. 1999. Social Expenditure Database, 1980-1997. Paris: OECD.

_____. 1998. Maintaining Prosperity in an Ageing Society. Paris: OECD.

Overbye, Erin. 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.

Rainwater, Lee. 1990. "Poverty and Equivalence as Social Constructions," Luxembourg Income Study Working Paper #91, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University.

_____. 1974. What Money Buys. New York: Basic Books.

Rainwater, Lee and Timothy M. Smeeding. 1999. "From 'Relative' to 'Real' Income: Purchase Power Parities, Household Income Microdata, Problems and Prospects." Papers and Final Report of the Third Meeting on Household Income Statistics. Ottawa, Canada: Statistics Canada: 139-63. http://www.lis.ceps.lu/Canberra/ottawareport/ottasession5.pdf.

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

Saunders, Peter and Timothy M. Smeeding. 1999. "How do the Elderly in Taiwan Fare Cross-Nationally?" In E. Chen, J. Smith, S.C. Hu, and A. Hermalin, eds., Emerging Social Economic Welfare Programs for Aging in Taiwan in a World Context. Taipei, Taiwan, Republic of China: Academica Sinica: 205-37.

Schactman, David. and Stuart H. Altman. 2000. "The United States Confront the Policy Dilemmas of an Aging Society." *Health Affairs*, 19(3) (May-June).

Scherer, Peter. 1996. "Social Policy Developments and Crucial Directions in the OECD Countries." Lecture presented to the "Queen's International Institute on Social Policy: Canada in an International Perspective," Kingston, Ontario, August 26.

Scheiber, Sylvester and John Shoven. 2000. The Real Deal. Stanford, CA: Stanford University Press.

Schoeni, Robert and Kathleen McGarry. 2000. "Social Security, Economic Growth and the Rise of Independence for Elderly Widows in the 20th Century," unpublished manuscript. Santa Monica: RAND.

Schrooten, Matilde., Timothy M. Smeeding, and Gert G. Wagner. 1999. "Fiscal and Distributional Consequences of Social Security Reforms in Central-Eastern Europe: The Cases of Czech Republic, Hungary and Poland." In K. Mueller, A. Ryll, and H.J. Wagener, eds., Transformation of Social Security: Pensions in Central-Eastern Europe. London, UK: Ashgate Publishers: 275-89.

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

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

Smeeding, Timothy. 1999. "Social Security Reform: Improving Benefit Adequacy and Economic Security for Women," Center for Policy Research Policy Brief No. 16, The Maxwell School. Syracuse, NY: Syracuse University, November.

_____. 1998. "Reshuffling Responsibilities in Old Age; The United States in a Comparative Perspective." In J. Gonyea, ed., Re-Securing Social Security and Medicare: Understanding Privatization and Risk. Washington, DC: Gerontological Society of America, Monograph: 24-36.

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

_____. 1996. "Economics, Individual." Encyclopedia of Gerontology, Volume 1. New York: Academic Press: 455-67.

Smeeding, Timothy M., Carol Estes, and Lou Glasse. 1999. "Social Security Reform and Older Women: Improving the System," Income Security Policy Paper Series No. 22, Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, June.

Smeeding, Timothy M., Lee Rainwater and Gary Burtless. 2000. "United States Poverty in a Crossnational Context." In Sheldon Danziger, Richard. Haveman and Barbara Wolfe, eds., Understanding Poverty. Russell Sage and Harvard University Press, in press.

Smeeding, Timothy M. and Katherin Ross Phillips. 2001. "Social Protection for the Poor in the Developed World." In N. Lustig, ed., Shielding the Poor: Social Protection in the Developing World. Washington, DC: Brookings Press: 267-304.

Smeeding, Timothy M. and James P. Smith. 1998. "The Economic Status of the Elderly on the Eve of Social Security Reform." Washington, DC: Progressive Policy Institute, November.

Smeeding, Timothy M. and Dennis Sullivan. 1998. "Generations and the Distribution of Economic Well-Being: A Cross-National View." *American Economic Review, Papers and Proceedings* 88(2) (May): 254-58.

Smeeding, Timothy M., Michael Ward, Ian Castles, and Haeduck Lee. 2000. "Making Cross-Country Comparisons of Income Distributions," unpublished manuscript,

Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University, August.

Summers, Robert and Alan Heston. 1991. "The Penn World Table (Mark 5): An Expanded Set of International Comparisons." *Quarterly Journal of Economics* 105(2): 327-68.

Torrey, Barbara B., Timothy M. Smeeding, and Debra Bailey. 1999. "Income Transitions in Central European Households." *Economic Development and Cultural Change* 47(2) (January): 237-57.

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

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, September.

U.S. Congress. 2000. "The Green Book: Programs and Benefits under the Administration of the Committee on Ways and Means," U.S. House of Representatives. Washington, DC: Government Printing Office.

Williamson, John. 2000. "Social Security Privatization: Lessons from the United Kingdom," Center for Retirement Research, WP#2000-10. Boston, MA: Boston College, Center for Retirement Research, November.

Table 1
Poverty Rates for Older Persons, and All Persons in Nineteen Rich Countries During the 1990s

		Elderly				All					
		40% Level of Poverty		50% Level of Poverty				40% Level of Poverty		50% Level of Poverty	
Country	Year	Rate	Rank	Rate	Rank	Country	Year	Rate	Rank	Rate	Rank
Australia	**1994**	**12.4**	**1**	**29.4**	**1**	United States	1997	10.8	1	16.9	1
United States	**1997**	**12.0**	**2**	**20.7**	**2**	Italy	1995	9.4	2	14.2	3
Japan	1992	11.4	3	18.4	3	Austria	1995	7.4	3	10.6	7
Israel	1992	11.2	4	17.2	4	Canada	1997	7.3	4	11.9	5
Austria	1995	6.9	5	10.3	11	Australia	1994	7.1	5	14.3	2
Switzerland	1992	4.7	6	8.4	13	Japan	1992	6.9	6	11.8	6
Italy	1995	4.5	7	12.2	7	Switzerland	1992	6.7	7	9.3	10
Belgium	1992	4.2	8	12.1	8	United Kingdom	1995	6.1	8	13.4	4
United Kingdom	**1995**	**4.0**	**9**	**13.7**	**6**	Spain	1990	5.2	9	10.1	9
Germany	**1994**	**4.0**	**9**	**7.0**	**14**	Israel	1992	5.0	10	10.2	8
Spain	1990	3.9	11	11.3	9	Netherlands	1994	4.9	11	8.1	11
Denmark	1992	3.7	12	11.1	10	Sweden	1995	4.7	12	6.6	16
France	**1994**	**3.4**	**13**	**9.8**	**12**	Germany	1994	4.2	13	7.5	13
Netherlands	**1994**	**3.3**	**14**	**6.4**	**16**	Denmark	1992	3.8	14	7.2	14
Canada	**1997**	**1.4**	**15**	**5.3**	**17**	France	1994	3.4	15	8.0	12
Finland	1995	1.2	16	5.3	17	Norway	1995	3.1	16	6.9	15
Luxembourg	1994	0.9	17	6.7	15	Finland	1995	2.2	17	5.2	17
Norway	1995	0.9	17	14.0	5	Belgium	1992	1.9	18	5.2	17
Sweden	**1995**	**0.8**	**19**	**2.7**	**19**	Luxembourg	1994	1.3	19	3.9	19
Overall Average		4.8		11.6		Overall Average		5.4		9.3	

Note: Countries in bold are included in Tables 2, 3 and later analyses.
Source: LIS database (http://lisweb.ceps.lu/keyfigures/povertytable.htm) and Smeeding (1997) for Japan.

Table 2. Poverty [1] Rates Among the Aged[2]: Being Old and Being Female

Percent of Population with Incomes Less than Given Percent of Adjusted National Median Disposable Income

	Country	Year	40%	50%
A.	**Elderly**			
	United States	1997	12.0	20.7
	Australia	1994	12.4	29.4
	United Kingdom	1995	4.0	13.7
	Germany (West)	1994	4.0	7.0
	France	1994	3.4	9.8
	Netherlands	1994	3.3	6.4
	Canada	1997	1.4	5.3
	Sweden	1995	0.8	2.7
	Average		**5.2**	**11.9**
B.	**Elderly Women (65+)**			
	United States	1997	14.8	25.0
	Australia	1994	12.2	33.9
	United Kingdom	1995	5.3	16.1
	Germany (West)	1994	5.7	10.4
	France	1994	4.0	11.2
	Netherlands	1994	3.6	7.1
	Canada	1997	1.2	6.6
	Sweden	1995	0.9	3.2
	Average		**6.0**	**14.2**
C.	**Elderly Women (65+) Living Alone**			
	United States	1997	25.5	40.8
	Australia	1994	15.2	62.3
	United Kingdom	1995	9.7	23.7
	Germany (West)	1994	10.1	16.0
	France	1994	6.3	17.3
	Netherlands	1994	3.0	6.0
	Canada	1997	1.7	12.7
	Sweden	1995	1.3	5.0
	Average		**9.1**	**23.0**
D.	**Elderly Women (75+) Living Alone**			
	United States	1997	25.8	41.9
	Australia	1994	19.7	68.7
	United Kingdom	1995	8.6	25.7
	Germany (West)	1994	10.6	17.5
	France	1994	7.3	21.0
	Netherlands	1994	2.8	7.2
	Canada	1997	0.9	12.4
	Sweden	1995	1.5	5.8
	Average		**9.7**	**25.0**

Source: Luxembourg Income Study.

Notes:

[1] Poverty is defined as percentage of elderly living in households with adjusted disposable income less than given percent of median adjusted disposable income for all persons. Incomes are adjusted by E=0.5 where adjusted DPI=actual DPI divided by household size (s) to the power E: Adjusted DPI=DPI/s^E.

[2] Aged are all persons at least aged 65 and older. Person level and household level files were matched and income data weighted by the person sample weight from the person level file.

Table 3. Gender Composition by Living Arrangements and Poverty: Is Poverty Among the Old a Woman's (or a Man's) Problem?

A. 65 and Over Population

	Of All Persons: Percent Who are Female:		Below 50% Poverty Line: Percent Who Are Female		Below 40% Poverty Line: Percent Who Are Female	
Country	**All**	**Living Alone**	**All**	**Living Alone**	**All**	**Living Alone**
United States	58	24	69	44	77	50
United Kindom	58	26	67	43	71	55
Australia	55	23	63	48	57	33
Canada	57	23	72	56	66	45
France	58	25	81	43	70	81
Germany	66	38	67	70	85	44
Netherlands	58	30	62	25	61	22
Sweden	57	33	67	64	70	62
Average	**55**	**28**	**69**	**49**	**70**	**49**

B. 75 and Over Population

	Of All Persons: Percent Who are Female:		Below 50% Poverty Line: Percent Who Are Female		Below 40% Poverty Line: Percent Who Are Female	
Country	**All**	**Living Alone**	**All**	**Living Alone**	**All**	**Living Alone**
United States	61	32	72	53	75	59
United Kindom	62	36	63	47	68	54
Australia	59	33	67	53	62	40
Canada	60	32	81	69	81	67
France	60	33	71	52	74	52
Germany	71	54	86	83	96	93
Netherlands	61	40	63	43	56	37
Sweden	61	46	68	67	68	68
Average	**62**	**38**	**72**	**58**	**73**	**59**

Source: Luxembourg Income Study; and Table 2

Table 4. Overall Trends in Poverty

Panel A. Persons with Income Less than Half of Median Income

Country	Years	Final Year Overall Rate	Change in Poverty Rate					
			Overall		Aged		Children	
United States	1979-1997	16.9	+	(1.1)	- - -	(-6.6)	+ +	(1.9)
United Kingdom	1979-1995	13.4	+ + +	(4.2)	- - -	(-7.2)	+ + +	(10.1)
Australia	1981-1994	14.3	+ +	(3.0)	+ + +	(5.4)	+ +	(2.0)
Canada	1981-1997	11.9	0	(-0.5)	- - -	(-16.8)	0	(.9)
Sweden	1975-1995	6.6	0	(.1)	0	(-.2)	0	(.2)
France	1984-1994	8.0	- -	(-3.5)	- - -	(-9.5)	-	(-1.9)
Germany [1]	1984-1994	7.5	+	(1.0)	- -	(-3.3)	+ +	(3.8)
Netherlands	1983-1994	8.1	+ +	(3.8)	+ +	(2.7)	+ + +	(5.4)

Panel B. Trends in Poverty: Persons with Income Less than 40 Percent of the Median (Change in Points)

Country	Year	Final Year Overall Rate	Change in Poverty Rate					
			Overall		Aged		Children	
United States	1979-1997	10.8	0	(.8)	- -	(-3.8)	+	(1.7)
Australia	1981-1994	7.1	+	(1.8)	+ +	(3.9)	0	(.5)
Canada	1981-1997	7.3	0	(-.2)	- - -	(-5.3)	0	(0)
United Kingdom	1979-1995	6.1	+ +	(3.8)	0	(.5)	+ +	(3.8)
Netherlands	1983-1994	4.9	+ +	(2.6)	0	(.5)	+ +	(2.6)
Sweden	1981-1995	4.7	+	(1.7)	0	(.7)	+	(1.7)
Germany [1]	1984-1994	4.1	+	(1.3)	0	(.6)	+	(1.3)
France	1984-1994	3.4	0	(-.8)	-	(-1.9)	0	(-.8)

Legend of Change from Beginning to End of Period

0 = +/- 1.0 points
+ = increase of 1.0 to 1.9 points
+ + = increase of 2.0 to 3.9 points
+ + + = increase of 4.0 points or more
- = decrease of 1.0 to 1.9 points
- - = decrease of 2.0 to 3.9 points
- - - = decrease of 4.0 points or more

Source: Author's calculations based on Luxembourg Income Study (http://lisweb.ceps.lu/keyfigures/povertytable.htm) and Smeeding (1997).

Note: [1] West Germany only.

Table 5

Elderly Poverty Rates by Income Maintenance Source[1] and Income Definition at 50 Percent Needs Standard

A. Poverty Rates for All Elders Household by Income Definition:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
					Role of Income Maintenance:		
	Market Income (MI)	*Col. A* + Occupational Pensions	*Col. B* + Universal and Social Income Transfers	*Col. C* + Social Safety Net Transfers [3]	Social Insurance *B* to *C*	Safety Net *C* to *D*	Total System Effect *Cols. E + F*
Australia [2]	79.5	73.0	72.7	32.8	0.3	39.9	42.2
Canada	78.9	61.6	12.4	6.1	49.2	6.3	55.3
France	87.9	87.5	11.9	10.5	75.6	1.4	77.0
Germany	88.1	77.8	9.7	8.7	68.1	1.0	69.8
Netherlands	88.7	67.2	7.4	4.9	59.8	2.5	62.3
Sweden	91.9	81.3	3.0	2.8	78.3	0.2	78.5
United Kingdom	83.3	65.5	29.3	17.4	36.2	11.9	48.2
United States	73.8	60.2	23.5	22.7	36.7	0.8	37.5

B. Poverty Rates for Female Headed Households by Income Definition:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
					Role of Income Maintenance:		
	Market Income (MI)	*Col. A* + Occupational Pensions	*Col. B* + Universal and Social Income Transfers	*Col. C* + Social Safety Net Transfers [3]	Social Insurance *B* to *C*	Safety Net *C* to *D*	Total System Effect *Cols. E + F*
Australia [2]	94.8	90.9	90.5	37.2	0.4	53.3	53.7
Canada	94.0	85.4	24.8	14.6	60.6	10.2	70.8
France	94.7	94.1	22.5	18.2	71.6	4.3	75.9
Germany	94.9	85.8	17.6	15.9	68.2	1.7	60.9
Netherlands	95.7	77.9	6.2	3.8	71.7	2.4	74.1
Sweden	97.5	92.1	6.0	5.3	86.1	0.7	86.8
United Kingdom	94.7	84.2	54.9	29.0	29.3	25.9	55.2
United States	87.9	78.5	43.3	43.1	35.2	0.2	35.4

Source: Luxembourg Income Study.

Notes:

[1] Poverty measured as percent of households with incomes below 50 percent of median adjusted household disposable income, where E=.5 and ADI=DI/s^E.

[2] Australia has no social insurnace based retirement system for the elderly.

[3] Column D presents disposable income household poverty rates; Social Safety Net also includes the effects of direct taxes on poverty.

Table 6
Within Decile Gross Income Composition of Aged[1]

	All Aged			Single Women 65+		
	Decile 1	Decile 5	Decile 10	Decile 1	Decile 5	Decile 10
United States						
Earnings	2.61	9.58	37.90	0.63	1.88	17.17
Capital or Property Income	6.12	9.16	23.16	9.28	5.79	34.64
Occupational Pension	3.68	14.68	20.05	2.65	6.56	21.22
Social Retirement	69.73	65.73	18.75	68.63	84.25	26.75
Safety Net and Other Income	17.87	0.85	0.14	18.81	1.54	0.21
United Kingdom						
Earnings	0.00	1.98	25.30	0.00	0.27	3.14
Capital or Property Income	4.03	7.74	28.62	3.77	2.49	32.57
Occupational Pension	3.37	16.14	30.15	2.98	4.44	37.48
Social Retirement	85.04	65.52	15.32	85.51	64.65	26.75
Safety Net and Other Income	7.56	8.51	0.62	7.74	28.14	0.06
Canada						
Earnings	1.23	5.42	30.22	0.06	0.18	5.97
Capital or Property Income	2.21	8.23	20.37	1.64	6.39	25.39
Occupational Pension	1.66	14.77	27.25	2.72	3.44	32.97
Social Retirement	87.04	68.14	20.07	88.42	85.33	19.92
Safety Net and Other Income	7.85	3.56	2.08	7.15	4.69	1.89
Germany						
Earnings	0.71	5.42	25.29	0.80	1.26	6.16
Capital or Property Income	0.34	8.23	10.47	0.20	0.32	17.24
Occupational Pension	1.02	14.77	28.92	1.01	15.70	31.20
Social Retirement	88.87	68.14	34.09	85.38	80.80	43.29
Safety Net and Other Income	9.07	3.56	1.22	12.61	1.92	2.10
Netherlands						
Earnings	0.21	1.71	11.14	0.00	0.00	0.87
Capital or Property Income	1.89	0.78	14.70	2.25	1.29	16.78
Occupational Pension	5.99	7.97	48.61	5.99	11.96	51.63
Social Retirement	81.54	88.35	24.73	74.91	82.20	30.23
Safety Net and Other Income	10.37	1.19	0.82	16.85	4.55	0.49
Sweden						
Earnings	0.38	1.74	16.46	0.00	0.15	5.09
Capital or Property Income	7.01	7.09	12.37	7.28	12.09	10.65
Social Retirement[2]	76.80	90.58	71.17	78.98	74.66	84.18
Safety Net and Other Income	15.80	0.60	0.00	13.74	13.10	0.08
Australia						
Earnings	1.17	0.95	42.93	0.00	0.00	10.01
Capital or Property Income	16.44	15.63	40.50	23.04	6.15	46.44
Occupational Pension	2.17	2.94	9.56	3.79	1.88	29.55
Social Insurance[3]	75.73	80.47	6.22	64.89	91.97	12.61
Safety Net and Other Income	4.50	0.02	0.78	8.28	0.00	1.40

Source: Author's calculations from Luxembourg Income Study.

Notes:

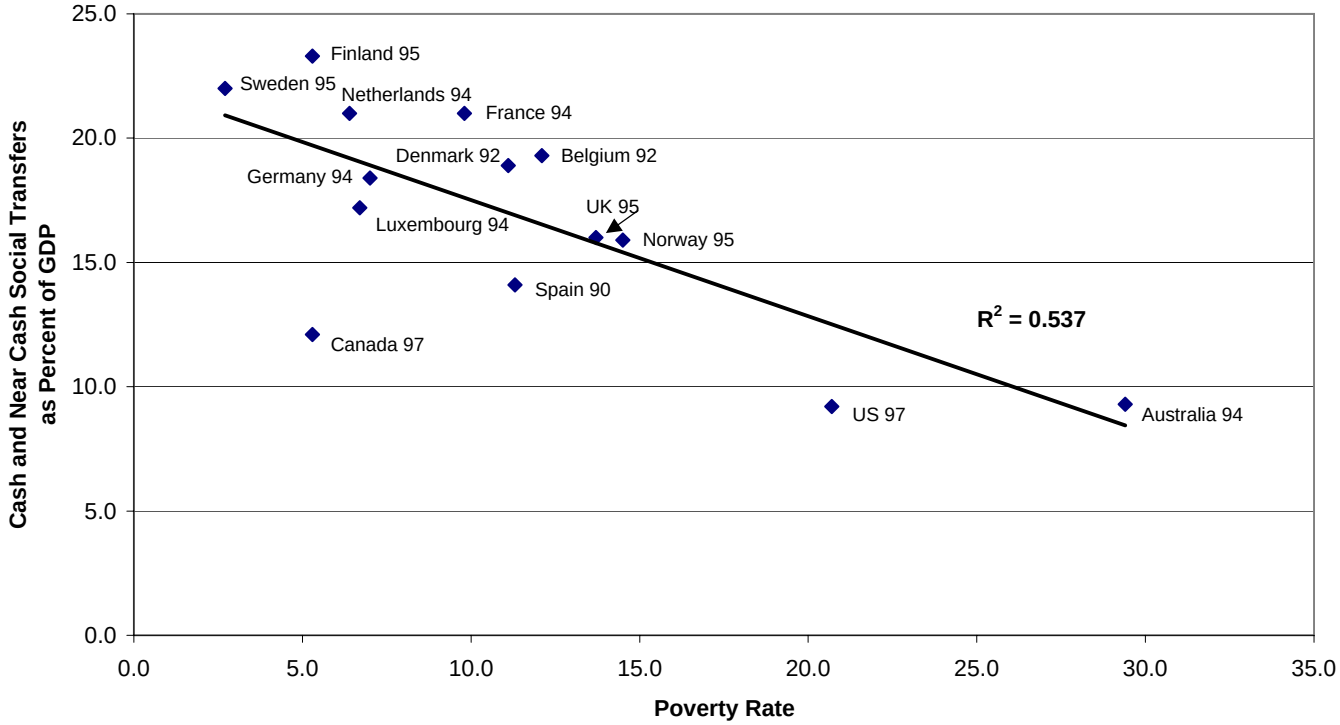
[1] Incomes are adjusted for family size using an equivalence elasticity of E=.5 where EGI=GI/s ^{E} and GI is gross income.

[2] In Sweden, occupational pensions are included with social retirement.

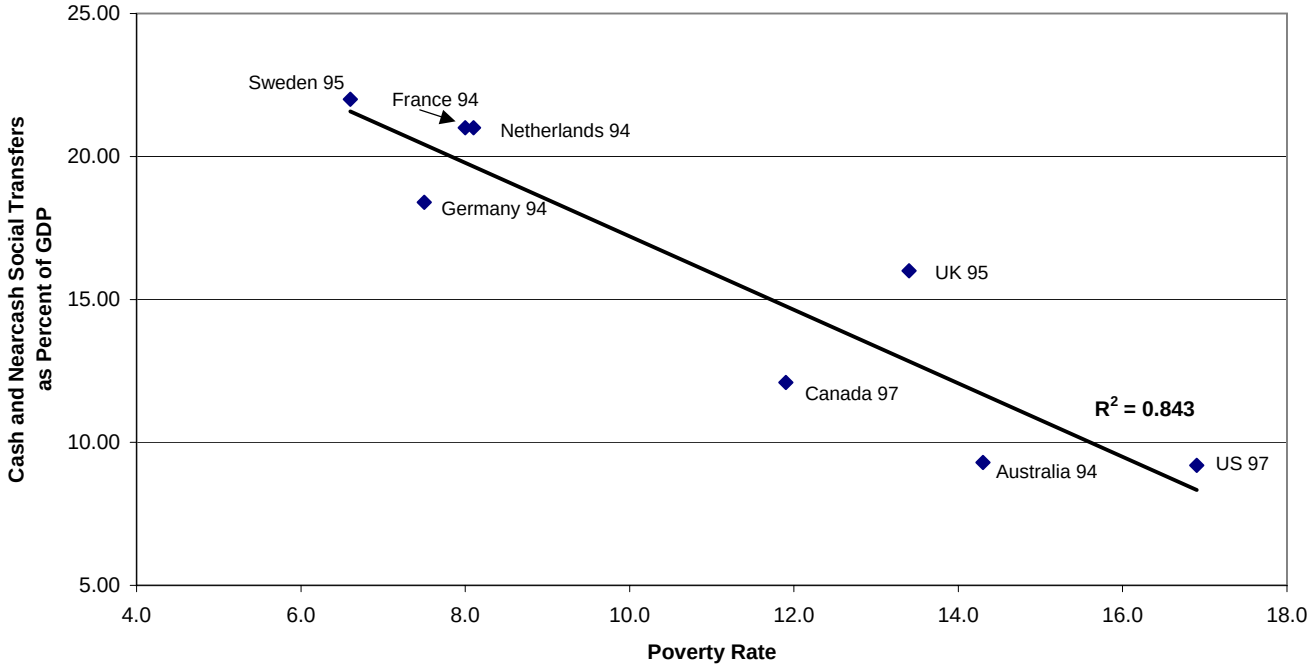
[3] In Australia, social insurance and other income includes small programs for veterans, disabled and unemployed.

Figure 1. Income Maintenance Spending and Elder Person Poverty
(50% Median Poverty Line)

Panel A. All Nations [1]



Panel B. Eight Focus Nations

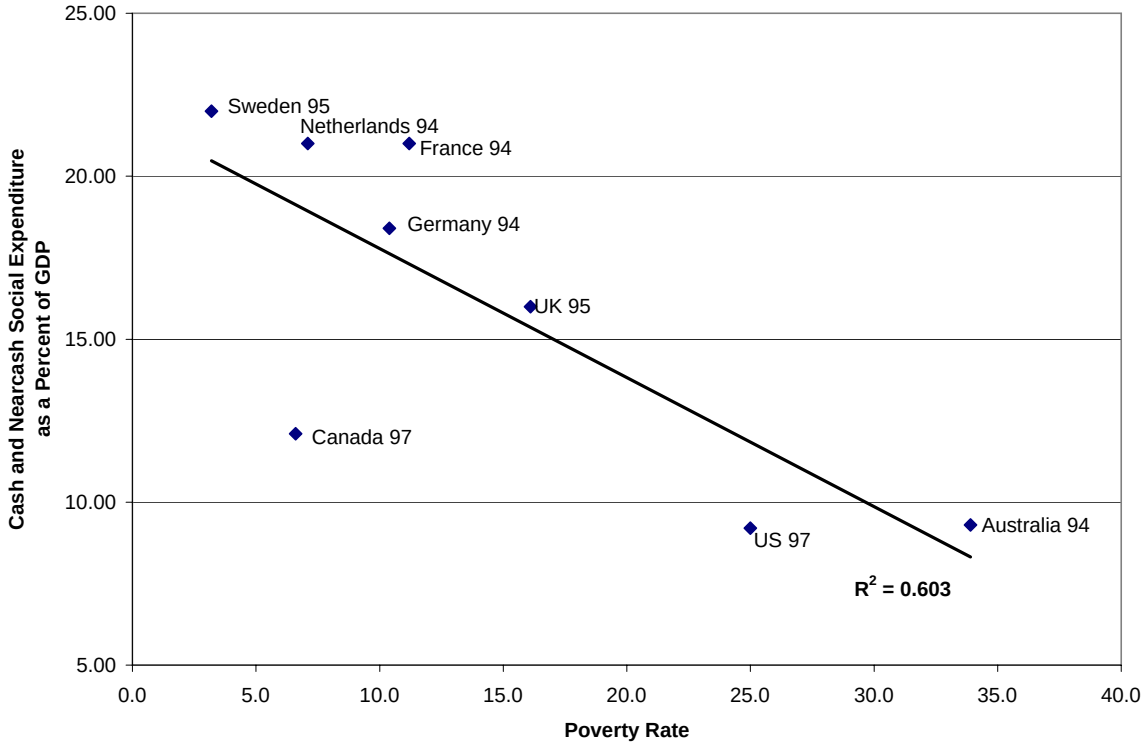


Source: OECD (1999). Cash and non-cash social expenditures exclude health, education, and social services, but include all forms of cash benefits and near cash housing subsidies and other contingent cash and other near cash benefits as a percent of GDP. (See Table A-1 for exact figures.) Poverty rates are taken from Tables 1, 2.

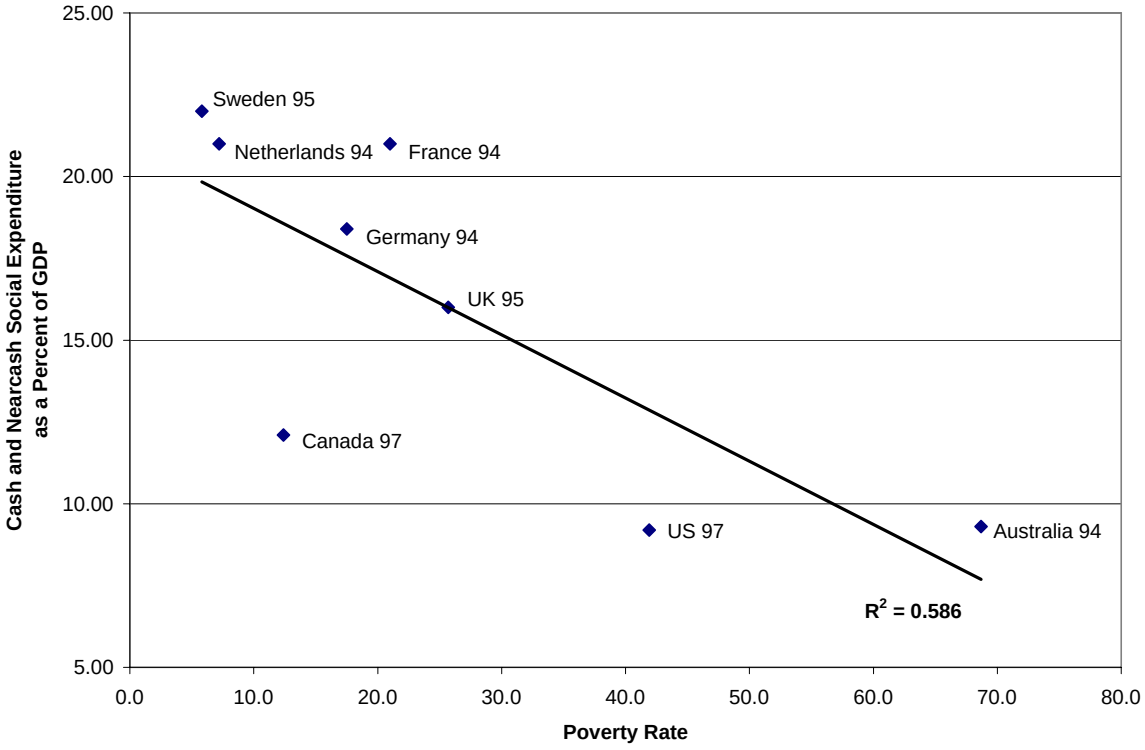
Note: [1] With the exception of Austria and Italy where OECD social transfer data are under revision.

Figure 2. Income Maintenance Spending and Elderly Women's Poverty
(50% Median Poverty Line)

A. Elderly Women (65+), Eight Focus Nations

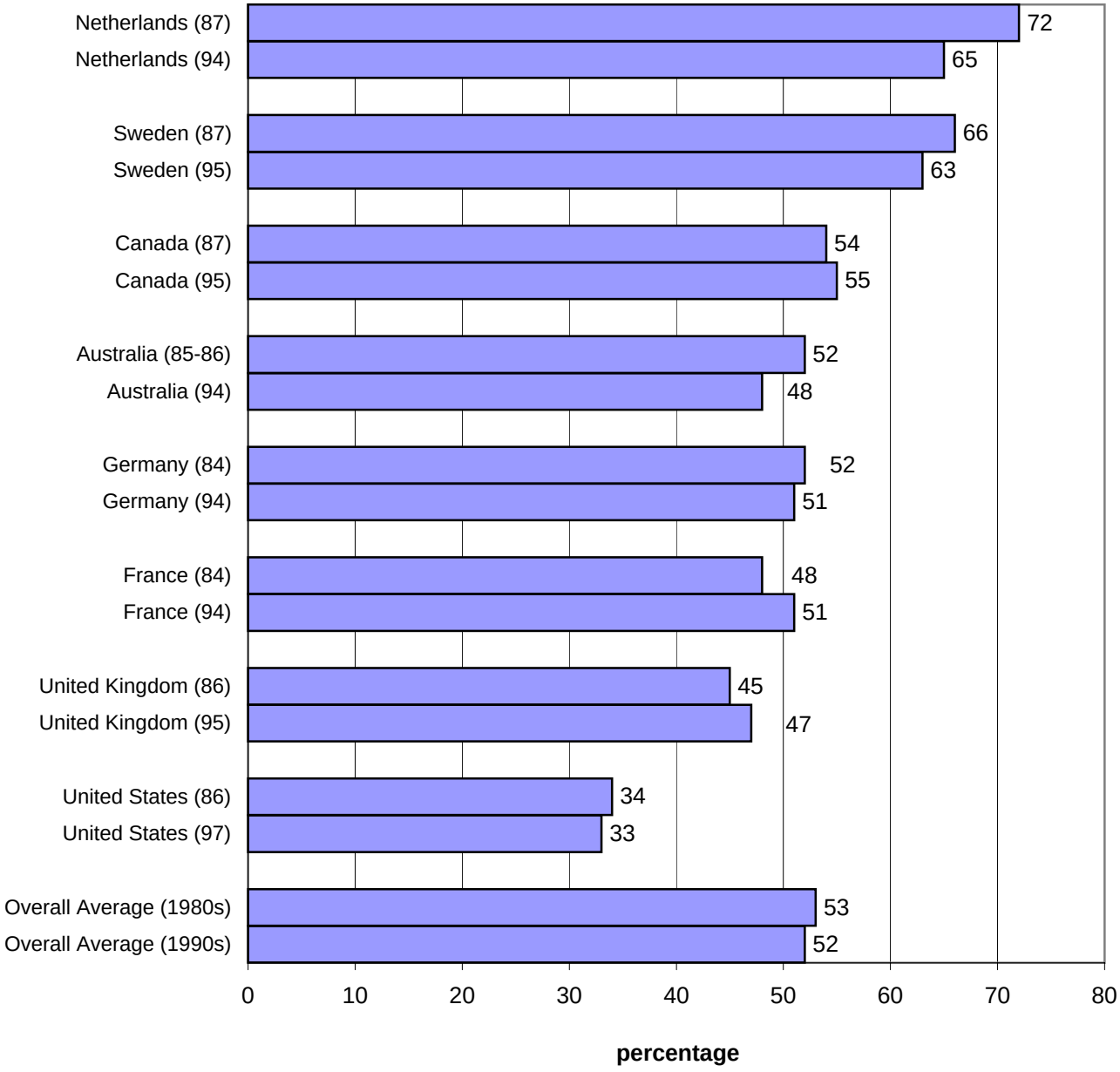


B. Elderly Women (75+) Living Alone, Eight Focus Nations



Source: OECD (1999). Cash and non-cash social expenditures exclude health, education, and social services, but include all forms of cash benefits and near cash housing subsidies and other contingent cash and other near cash benefits as a percent of GDP. Poverty rates are taken from Table 2.

Figure 3. Generosity of the Safety Net: Minimum Old Age Benefit [a] as Percentage of Adjusted Median Income [b] for Single Persons in Eight Nations

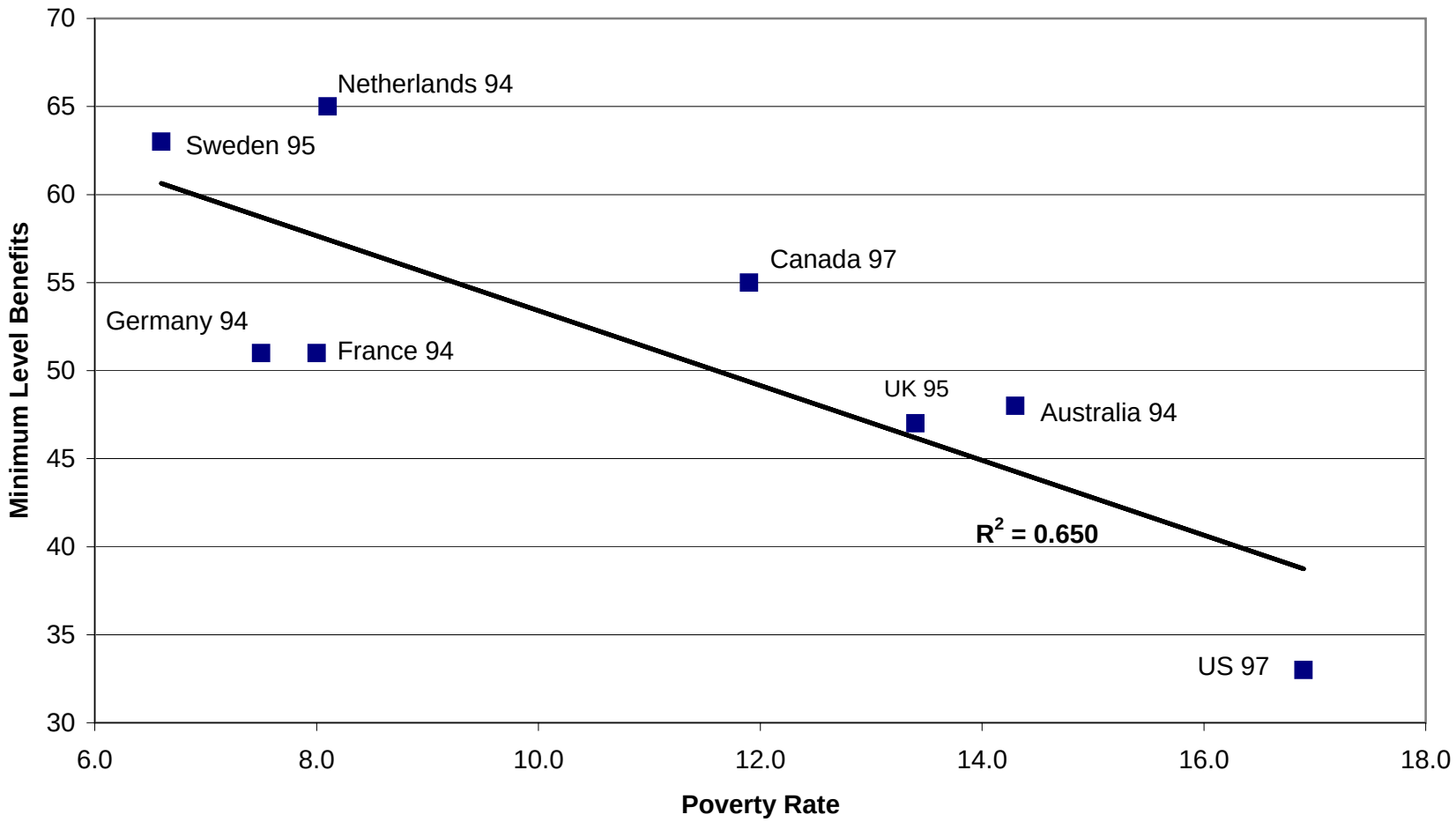


Source: Luxembourg Income Study, Burkhauser and Smeeding (1994); Smeeding (1996); U.S. Congress (2000); and author's calculations.

[a] Minimum benefits as published by the Organization for Economic Cooperation and Development (OECD) were compared with adjusted median inomce after adjusting for national price changes using LIS data for the first period. In the second period, updated data was obtained from OECD sources; U.S. Congress (2000), and compared to bunching of incomes for the elderly using LIS data on elderly and overal median incomes.

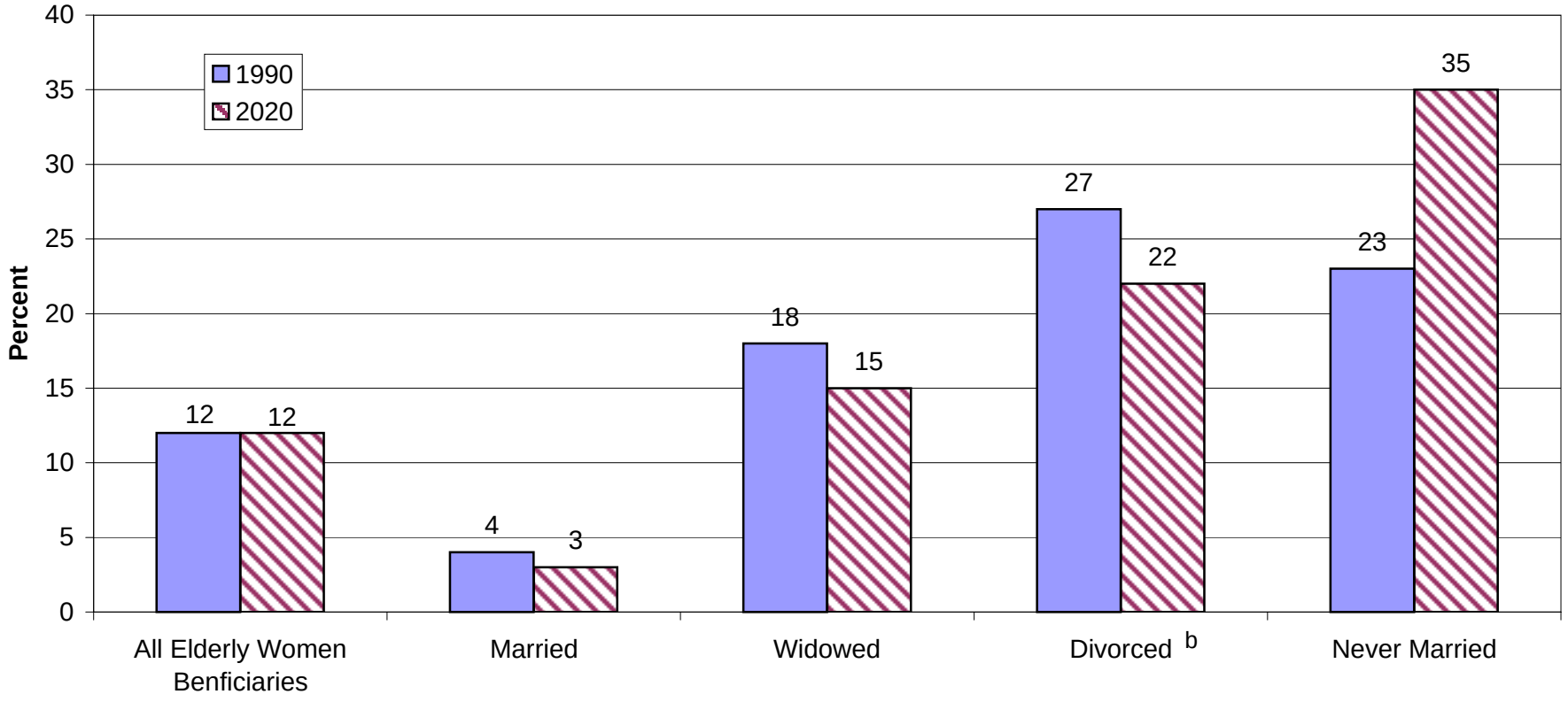
[b] Income is adjusted using the simple equivalence scale that counts the first person as 1.0 and all other persons as 0.5 regardless of age. This is slightly different from the scale where the scale is calculated as S^{E} and E=.5. See Burkhauser, Smeeding and Merz (1996) for more on this topic. Elderly persons are 65 and over.

Figure 4. Elder Poverty (at 50% Median) and Safety Net Generosity in Eight Nations



Source: Minimum Benefits from Figure 3; Poverty Rates from Table 2.

Figure 5. Poverty Rates of Elderly Women Social Security Beneficiaries by Marital Status, 1991 and 2020 [a]



1990	(100.0)	(48)	(42)	(6)	(4)
2020	(100.0)	(44)	(31)	(19)	(6)

Source: Smeeding (1999); Butrica, Cohen and Iams (1999); Iams and Butrica (1999).

Notes:

[a] Poverty rates are based on the official U.S. poverty line and gross money income levels. See U.S. Bureau of the Census (1998) for methodology. By 2020, it is estimated that 98 percent of all US elder women will be covered by Social Security.

[b] "Divorced" includes separated women as well.

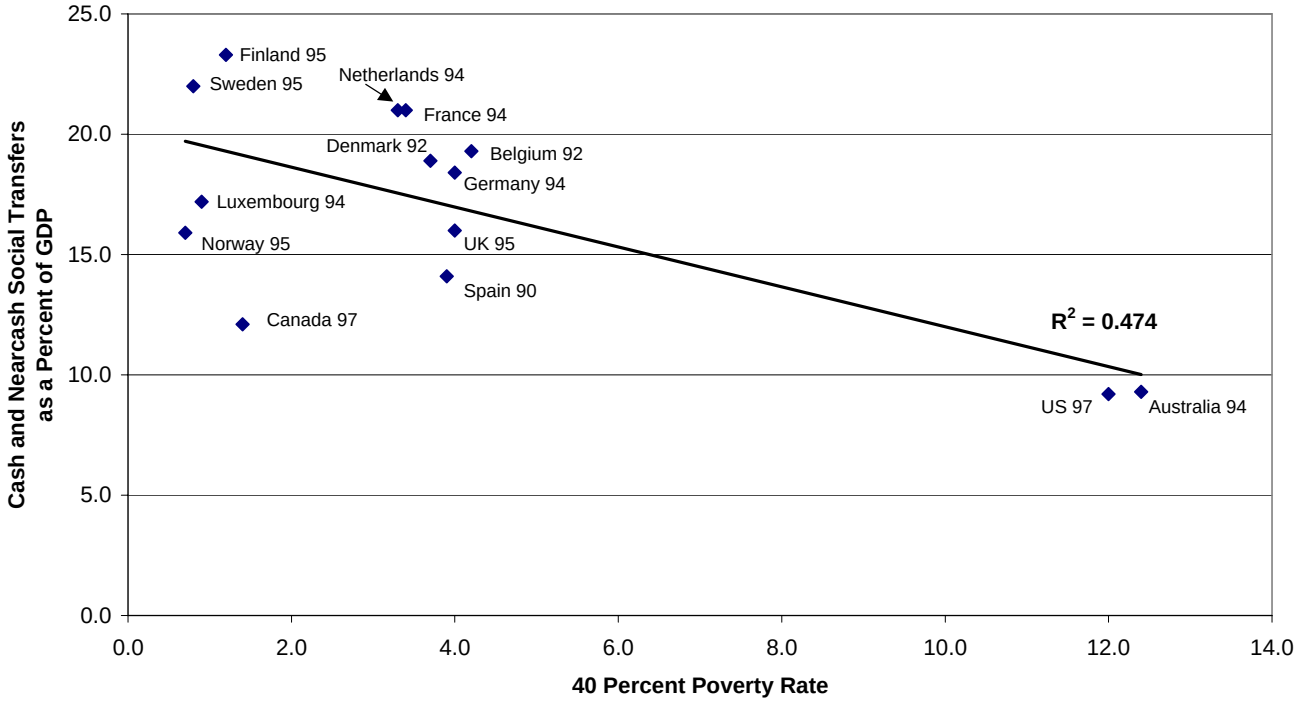
Appendix Table A-1. Social Transfers
(Source: Figures 1, 2, A-1)

Country	Year	Cash and Cash and Nearcash Social Transfers
Australia	1994	9.3
Belgium	1992	19.3
Canada	1997	12.1
Denmark	1992	18.9
Finland	1995	23.3
France	1994	21.0
Germany	1994	18.4
Luxembourg	1994	17.2
Netherlands	1994	21.0
Norway	1995	15.9
Spain	1990	14.1
Sweden	1995	22.0
United Kingdom	1995	16.0
United States	1997	9.2

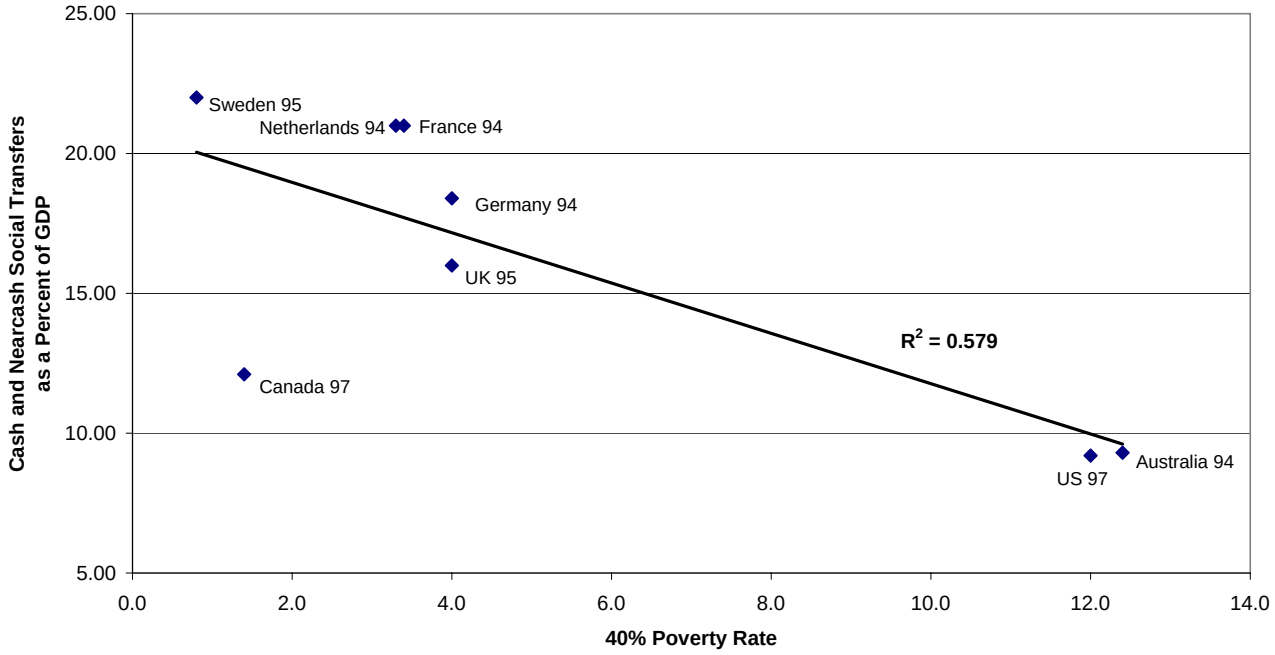
Source: OECD (1999). Cash and non-cash social expenditures exclude health, education, and social services, but include all forms of cash benefits and near cash housing subsidies and other contingent cash and other near cash benefits.

Appendix Figure A-1. Income Maintenance Spending and Elder Person Poverty
(40% Median Poverty Line)

Panel A. All Nations [1]



Panel B. Eight Focus Nations



Source: OECD (1999). Cash and non-cash social expenditures exclude health, education, and social services, but include all forms of cash benefits and near cash housing subsidies and other contingent cash and other near cash benefits as a percent of GDP. (See Table A-1 for exact figures.) Poverty rates are taken from Table 2.

Note: [1] With the exception of Austria and Italy where OECD social transfer data are under revision.