

## ***Poverty Among Single Elderly Women Under Different Systems of Old-Age Security: A Comparative Review***

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This study takes stock of available comparative research on the economic status of elderly single women in six industrialized countries: France, Germany, the Netherlands, Sweden, Switzerland, and the United States. A systematic comparison of income has become easier due to such standardized data bases as the Luxembourg Income Study.

But an explanation for different poverty rates among older women who are on their own requires a further, differentiated assessment of the countries' retirement benefit structures. This article attempts such a review. It makes use of a variety of single-country sources and takes into account the institutional heterogeneity of old-age security systems. The study concludes with a view of the effectiveness of different old-age security systems in preventing poverty among older single women.

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Comparisons of the economic position of single older women in industrialized countries have shown substantial differences, especially regarding the proportion of widows, divorcees, and never-married women experiencing poverty. An examination of these differences may shed some light on the role of different structural features of old-age security plans in limiting poverty. This article focuses on six "first-world" nations that offer a representative variety of system features: France, Germany, the Netherlands, Sweden, Switzerland, and the United States. It makes use of earlier published comparative income and benefit studies, and probes into the economic impact of institutional arrangements of old-age security schemes on aged women who are on their own.

The review comprises four sections:

1. Section I reviews comparative studies that offer information on incomes of the elderly, ranking countries in terms of poverty rates for older single women. A brief discussion of the different approaches and measures used will show why consistent comparisons are difficult;
2. Section II presents findings from comparative benefit studies. Comparisons of benefit levels have been included in a few of the research efforts mentioned in the previous section, but mostly, one must turn to different sources when it comes to cross-national benefit information. Their considerable heterogeneity raises additional questions of comparability, but they are useful for establishing the relative ranking of different systems;
3. Section III examines the main characteristics of old-age security provisions separately for each country, focusing specifically on measures dedicated to the prevention and alleviation of poverty among older women. Here again we aim at comparability, but must be sensitive to institutional differences that are not always sufficiently appreciated in more general comparative benefit research. The measures assessed include the size of social security benefits, the extent of earnings and

asset income, the role of minimum benefits, the availability of complementary occupational pensions, and the role of social assistance; and

4. Section IV rounds out the comparison and synthesizes the findings. It also assesses the relative effectiveness of different types of old-age security provisions in preventing poverty among single elderly women.

### ***Section I: Comparative Income Studies***

Answers to questions about older single women's economic well-being can sometimes be found in general studies of income that use a cross-national perspective. Although conducted with a broader focus, some of these studies are of use for judging the adequacy of social benefits (that is, transfer payments) for older recipients. Comparative income studies are therefore the first, and basic, source reviewed here.

Cross-national studies have frequently paid attention to poverty rates. In some cases, this was due to an explicit focus on poverty. However, comparing relative poverty rates has become a general methodological convention that eases the interpretation of results. We will adhere to that convention.

There are two main lines of relevant research; one based on activities by the Statistical Office of the European Union (Eurostat), the other initiated by the Luxembourg Income Study (LIS). Tables 1 and 2 list comparative studies of economic well-being focusing on single elderly individuals. The order in which they appear represents increasing specificity and completeness of the research efforts for the group being measured.

#### ***Statistical Office of the European Union***

Early efforts at compiling comparable income data were based on the Statistical Office of the European Union (Eurostat) figures, starting in 1978. Several Eurostat publications have offered comparable poverty statistics on European Union (EU) member countries, often based on household *expenditures* and referring to the 1980's (for example, Hagenaaers et al. 1994). O'Higgins and Jenkins (1990) published comparative poverty rate data based on Eurostat household *income* statistics. A study of Belgium, the Netherlands, Luxembourg, Ireland, Greece, and the regions of Lorraine and Catalonia conducted by Deleecq et al. (1992), at the Antwerp Centre for Social Policy, assessed not only income and poverty differences, but also the adequacy of social security systems to deal with the economic needs of older persons. For some of these countries, panel data for two waves (1-3 years apart, in the mid- and late 1980's) were examined. Tsakoglou (1994) provided a comparison of both income- and expenditure-based rates, using the 1988 household budget survey data of Eurostat.

The Eurostat studies have several limitations for our purposes. None of the EU comparisons described earlier includes data specifically on older women. The closest any of them approaches this is by looking at older one-person households, which contain predominantly single women (Hagenaaers et al. 1994; Deleecq et al. 1992). Another drawback is the absence

of Sweden (until recently), Switzerland, and the United States from the various EU data collection efforts. Finally, the Eurostat data have not been generally available to researchers. In the future, these access limitations are expected to change (Hagenaaers et al. 1994, p. 1).

Eurostat has continued work on methodological aspects of the study of poverty, in part through contracts with research institutes in various countries of the Union (Ramprakash 1994). One of its priorities is to capture the multi-dimensional character of poverty (as income, expenditure patterns, self-assessment, and so forth). But because it relies on household budget surveys (the latest dating back to the late 1980's), Eurostat has tended to stress mean expenditure-based measures of poverty. Recent efforts have turned more consistently to income variables and have included a focus on noncash benefits as a component of economic well-being. Most important, a new European Panel on Household Income and Living Conditions, launched in 1994, has a focus on the over-time dimension of relative well-being (Ramprakash 1994).

The European emphasis on a range of different conceptual and methodological approaches in research on poverty has yielded worthwhile findings on several important factors: the use of modified Organization of Economic Cooperation and Development (OECD) equivalence scales (table 2, note 1), the overstatement of poverty when surveys do not adjust results by household size, and experience with the statistical matching of household data from different sources (Ramprakash 1994). For the purposes of the present comparative review, Deleecq et al. (1992) and Hagenaaers et al. (1994) are included as representative studies.

#### ***Luxembourg Income Study***

Independently, from 1983, the Luxembourg Income Study began to build an extensive data base offering opportunities for comparative assessments of economic well-being in a larger number of countries. A wave of income data from the early 1990's, covering some of the countries included in the present review, is now becoming available. A long line of research papers based on these standardized microdata have shown their applicability to income-related research questions. There have also been larger scale syntheses, probing key methodological questions of cross-national comparison in depth, as well as more general concerns. Mitchell (1991), in particular, was able to draw conclusions on issues such as measurement of inequality, comparing income transfer systems, and poverty reduction by means of a thorough analysis of the early LIS files.

From the many LIS-inspired research efforts, we refer here to three other contributions in particular (Buhmann et al. 1988; Smeeding et al. 1993; Whiteford and Kennedy 1995), which included an examination of household incomes among single elderly women in at least five of our comparison countries. Because these studies took into account differences in living arrangements and gender, they set benchmarks for the present review (tables 1 and 2).

Whiteford and Kennedy (1995) greatly refined the comparative use of LIS data on a broad front. Their research constitutes the most thorough effort of comparative elderly income analysis to date. They devised a more comprehensive "final income" measure that included the effects of indirect taxes and benefits in kind (health and education); used a range of equivalence scales, while conducting a sensitivity analysis of the choice of equivalence scales; and examined in some detail the differences among income distributions of the elderly in different countries (Whiteford and Kennedy 1995, Appendices 1 and 4). One departure in their study of interest for our comparison in section III is that relative poverty levels are measured in terms of 50 percent of mean income rather than median income for the respective populations. This has the effect of making their estimates of shares of persons in "poverty" (thus defined) relatively high for all countries studied (table 3, row 6). This table provides a synopsis of findings from comparative income studies that are relevant for the purpose at hand.

As shown in tables 1 and 2, the conceptual and methodological approaches used in each study are quite different. Any comparison may be significantly affected by differences in definitions and procedures as well as differences in the "real" underlying variables of interest. This study must therefore

proceed cautiously. To make at least a tentative assessment, the *ranking* of countries within each row is given in each cell, in line with Atkinson's (1989, p. 3) suggestion that even without complete data, a ranking among countries, using a range of variables, can provide valid insights despite diverse measurements.

On the basis of the studies cited, the Netherlands and Sweden appear to have the best record in preventing poverty among older single women. As shown in table 2, Sweden's figures are a little less impressive once either a lower poverty threshold is used (row 4) or the use of an older age bracket is taken into consideration (row 6), but the Dutch figures document a relatively low level of poverty throughout.

Another rather consistent finding is that France's position is mostly second to that of the front runners. France protects older single women well, but in the 75-or-older age bracket, the level of poverty tends to be a little more elevated. Germany follows at a greater distance, and has often been singled out as the rich continental welfare state with the most serious poverty problem among older single women. Switzerland has rarely been included in comparative studies; the outcome of its income and benefit structure has frequently been likened to Germany's, but it is not clear whether Switzerland ranks just above or just below Germany. The United States ranks last

Table 1.—Synopsis of cross-national studies of well-being of the aged

Study	Scope	Reference years	Sources	Units of specific interest
Hagenaars et al. (1994)	Poverty in European Union (EU) member countries, by specific risk categories	1987-89	Household budget surveys; relative expenditures	One-person households, aged 65+
Deleeck et al. (1992)	Poverty in selected EU countries, by specific risk categories	1985-89	Household surveys; relative incomes (two waves for some countries)	One-person households, aged 65+
Buhmann et al. (1988)	Measurement of well-being across 10 countries	1979-82	Luxembourg Income Study (LIS) data bank: household income surveys	Single women, aged 65+
Mitchell (1991)	Incomes of families in selected countries	1979-83	LIS data bank	Single persons of official retirement age
Smeeding et al. (1993)	Economic status of elderly in selected countries	1979-83; 1984-87	LIS data bank (two waves)	Single women, aged 65+
Stapf (1994)	Old-age poverty in selected EU countries	1984-88	LIS data bank	Female one-person households, aged 65+
Whiteford and Kennedy (1995)	Incomes of older persons in selected countries	1984-87	LIS data bank	Single women, aged 65+

Table 2.—Cross-national studies: Variables and definitions

Study	Units of analysis	Age brackets	Living status	Gender, marital status	Income or expenditure measurements	Equivalence scales <sup>1</sup>	Poverty measurements	Other measurements
Hageaars et al. (1994)	Households; persons	65-74; 75+	One person; couples	N/A	Eurostat total expenditures; <sup>2</sup> Eurostat total after-tax income <sup>3</sup>	Modified Organization of Economic Cooperation and Development (OECD) 1-0.5-0.3	40, 50, 60% of average expenditures; 50% of European Union (EU) average expenditures; others	N/A
Deleeck et al. (1992)	Households	65-74; 75+	One person; couples	Marital status	Disposable income, excluding in-kind	OECD 1-0.7-0.5	EU poverty line (50% of average household income); legal poverty line (guaranteed minimum income); poverty gap; others	Includes distribution by deciles; adequacy of retirement benefits
Buhmann et al. (1988)	Families	60+	One person; couples	Men, women; married, non-married	Disposable income	Various	50% of median income ("equivalence scale-based well-being"); poverty gap	Various inequality measures
Mitchell (1991)	Families	Retirement age +	One person; couples	Marital status	Gross income (post-transfer, pre-tax) and disposable income (post-transfer, post-tax)	OECD 1-0.7-0.5 and Whiteford 1-0.56-0.32	50% of median income; poverty gap	Reduction of poverty (pre-/post-transfer); inequality and redistribution
Smecding et al. (1993)	Households	65+; 75+	Single women; couples	Men, women; married, non-married	Gross income and disposable income; liquid wealth (property income/ 5% interest rate)	Luxembourg Income Study 1-0.5-0.5	40, 50, 60% of median overall income in nation	Income distribution; liquid and housing wealth measured separately; changes waves 1, 2; benefit adequacy
Slapf (1994)	Households	-64; 65-74; 75+	One person; married couple; other units	Men, women	Disposable income	OECD 1-0.7-0.5	50, 60% of average income; poverty gap	N/A
Whiteford and Kennedy (1995)	Individuals in households	65-74; 75+	One person; couples	Men, women	Disposable income (net cash income); "final income" (disposable income - indirect taxes + benefits in-kind)	McClements 1-0.64 for couples; weights vary for additional adults and children	40, 50, 60% of average income; poverty gap	Income distribution by quintiles; liquid wealth (not for all variables)

<sup>1</sup> Abridged formulas. Figures are for first adult, additional adult, and child.

<sup>2</sup> Includes imputed rent instead of mortgage payments and consumption of own-firm produced goods.

<sup>3</sup> Includes estimated imputed rent of owner-occupied housing; excludes asset income and education and health benefits.

Note: N/A= not a variable in the particular study.

among the countries selected here in three of the four studies that included it for comparison.

Over time, the findings of comparative studies have become somewhat more consistent and tend to be based on more comprehensive data and more precise measurement, even though the purposes and, thus, the variables and definitions in these studies remain different. Future comparative efforts are expected to become even more reliable. It is already clear that considerable discrepancies persist in the well-being of older single women in different countries. Their economic security seems to be guaranteed only in the Netherlands, Sweden, and France among the six cases examined here. This leads to the question of how differing old-age benefit structures account for these outcomes. Sections II and III explore this issue.

## Section II: Comparative Benefit Studies

Many comparative studies over the years have presented relative measures of old-age benefits, sometimes in conjunction

with the question of the risk and prevalence of poverty. Once again, there is one identifiable research tradition linked to Eurostat studies and one connected with LIS research projects, along with various other efforts.

In the benefit realm, however, it is harder to locate studies that permit a focus specifically on payments for older single women. The various measures used allow only indirect inferences as to the benefit status of women. The reason for the heterogeneity of indicators is that the objectives of comparative old-age benefit studies have tended to be wider ranging than those of comparative income studies; benefit research often goes beyond the person level to address fiscal, competitiveness, or administrative questions. Some comparisons also have been much broader, encompassing whole systems, and including benefits as only one aspect. Given this diversity, reviewing all of these studies one by one would be beyond the scope of the present inquiry.

Table 4 brings together the results available from comparative research on general characteristics of benefits, overall

Table 3.—Comparative income studies: Poverty rates (proportions below respective relative income thresholds) and rankings of countries

Measure	France	Germany	Netherlands	Sweden	Switzerland	United States
(1) One-person households, aged 65+, 50% of mean disposable income (Deleeck et al. 1992).....	19.3 (2)	N/A	1.6 (1)	N/A	N/A	N/A
(2) Single women, aged 60+, 50% of median disposable income (Buhmann et al. 1988)...	N/A	10.2 (3)	5.9 (2)	0.0 (1)	11.3 (4)	30.5 (5)
(3) Single person of retirement age, 50% of median gross income (Mitchell 1991).....	2.0 (2)	30.7 (6)	8.3 (3)	.0 (1)	26.7 (5)	18.5 (4)
(4) Single women, aged 65+, 40% of median total money income (Smeeding et al. 1993)..	.8 (2)	2.4 (4)	.0 (1)	1.7 (3)	N/A	17.6 (5)
(5) Female one-person households, aged 75+, 50% of mean disposable income (Stapf 1994).....	1.2 (2)	15.9 (3)	.0 (1)	N/A	N/A	N/A
(6) Single women, aged 75+, 50% of mean income (Whiteford and Kennedy 1995).....	6.0 (2)	14.7 (4)	.9 (1)	6.4 (3)	N/A	37.8 (5)

Note: Figures refer to mid- to late 1980's except for Buhmann and Mitchell, whose reference years are 1979-83.

Further details on the studies are provided in tables 1 and 2.

Rankings in parentheses range from low poverty rates (1) to high poverty rates (6).

N/A= not a variable in the particular study.

replacement rates, and minima, as well as findings somewhat more closely related to the research question at hand. One unambiguous finding stands out in the table: the Dutch benefits are the most generous. Whether the standard is a social minimum, a replacement rate (comparing old-age benefits to former earnings levels), or minimum benefits, those standards are met best in the Netherlands. When Sweden is included in comparative benefit studies, it ranks highest when complementary pension benefits are included in the measure. The relative ranking for France, Germany, and Switzerland differs considerably across the various measures. We are thus left with rather diverse assessments of their relative payment levels.

The subject is not an easy one to address, and an in-depth discussion of the approaches chosen (see table 4, notes) is not attempted here. Part of the debate on different approaches involves the relative merits of replacement rate measures as against minimum benefit levels (Whiteford 1995). The country-by-country review in section III will offer at least a glance at the main variations just reviewed.

The diversity of basic, complementary, and supplementary (that is, means-tested) benefits as well as benefit floors, requires a more detailed approach. In the following sections, the average and minimum provisions and payment amounts for older single women will be examined country by country.

Table 4.—Comparative benefit studies: Various measures and rankings of countries

Measure	France	Germany	Netherlands	Sweden	Switzerland	United States
(1) General replacement rates (Ellison 1994, p. 8) <sup>1</sup> .....	70 (2)	66 (4)	70 (2)	72 (1)	67 (3)	N/A
(2) Replacement rate for single person with 20 insurance years (Casmir 1990, pp. 504-512) <sup>2</sup> .....	N/A	35 (3)	55 (1)	N/A	48 (2)	35 (3)
(3) "Social minima," European Currency Units/month (Commission of the European Union 1994, p. 62) <sup>3</sup> .....	448 (3)	507 (2)	552 (1)	N/A	N/A	N/A
(4) Minimum benefits for single older person: Index; U.S.=100 (Whiteford 1995, p. 26) <sup>4</sup> .....	119 (2)	93 (6)	143 (1)	114 (3)	95 (5)	100 (4)
(5) Minimum or basic pension, single person, DM/month (Kohl 1990, p. 14a) <sup>5</sup> .....	N/A	635 (4)	1074 (1)	795 (2)	789 (3)	N/A
(6) Minimum old-age benefit in percent of median income, single person (Smeeding et al. 1993, p. 14) <sup>6</sup> .....	48 (4)	52 (3)	72 (1)	66 (2)	N/A	34 (5)

<sup>1</sup> Refer to social security and typical private plan benefits as percentage of final average earnings. For a very similar profile, see Voirin (1995).

<sup>2</sup> Calculations specific to benefit formulas. See source for methodology.

<sup>3</sup> Refer to social security payments to a single person who has reached the age of retirement with no entitlement to complementary pension and no other source of income. Eurostat data.

<sup>4</sup> From a Council of Europe study and Whiteford's own calculations. See Whiteford (1995) for methodology and reasons why a comparison of minima may be more accurate than a comparison of replacement rates.

<sup>5</sup> Luxembourg Income Study data. See source for methodology.

<sup>6</sup> Combination of benefits determined by Organization for Economic Cooperation and Development, except for U.S., where figure includes SSI benefit, OASI disregard, and foodstamps. See source for methodology.

Note: Rankings in parentheses range from high generosity (1) to low generosity (5).

Comparisons will then be attempted, but only after the review of the main institutional factors that determine how single women draw their respective benefits in old age.

### ***Section III: Country-by-Country Review***

The following review examines each of the six countries, one by one, to see what combinations of income sources and benefit provisions work for or against the avoidance of poverty among older single women. The most recent generally available data are used. Most of them are not in LIS data bases or Eurostat compilations (except as indicated), nor can comparative benefit studies be utilized.

To gauge the relative economic standing of older single women and to arrive at an assessment of what helps keep them from being poor, the following key figures are presented for each country:

- a *relative poverty level* of 50 percent of the mean income of single women of retirement age is used as a general comparative benchmark;
- savings and earnings incomes as *percentages of total money income* of single older women;
- the social security benefits of single women compared with the above relative poverty level; this figure will generally indicate the relative "*adequacy*" of basic provision when it comes to women who are on their own;
- benefits received from *complementary pension schemes*, expressed throughout as mean amounts per single woman of retirement age, along with coverage data;
- statutory or other *minimum benefits*;
- *social assistance* provisions and levels of benefits; and
- any official *poverty threshold* that may be in use.

Benefit structures, qualifying conditions, and benefit formulas are generally complex and have many special provisions and qualifications. These cannot be discussed in detail, but a description will be provided of the main system-specific characteristics that seem important for addressing research questions on the standing of older single women. This review involves not only a look at general measures listed above (the 50-percent benchmark, the average retirement benefit, shares of income from earnings and assets, and so forth), but also a brief characterization of the respective institutional arrangements (for example, a single- or multi-tier system, targeted benefits, and coverage provisions).

One complication in this review is that benefits are in all cases paid in local currency. The comparison of these amounts is complicated by several factors. Exchange rates offered by banks and similar institutions have varied considerably over the time span reviewed. In addition, much of the consumption

of elderly women is in the form of goods and services (notably housing, medical care, and personal assistance), which are not tradable to any meaningful extent across borders. The so-called "purchasing power parity" of given currency amounts is therefore likely to vary from what is suggested by exchange rates. Nonetheless, as a very general guide to overall magnitudes, the reader may wish to refer to the following rounded spot exchange rates in effect on the New York market on September 16, 1996:

France	Fr (franc) =	US 20¢;
Germany	DM (mark) =	US 66¢;
Netherlands	NLG (guilder) =	US 60¢;
Sweden	SEK (krona) =	US 15¢; and
Switzerland	SFr (franc) =	US 81¢.

Only after this review can we assess which countries have succeeded and in which ways in protecting the economic well-being of older women. Comparative measures are therefore gathered in section IV, where they are integrated with the overall conclusions.

#### ***France***

*Income.*—Currently available income data on the elderly date back to 1988, with 1990 figures expected to be available some time in 1996 (CERC 1993). In line with the comparatively low legal retirement age of 60, the 1988 statistics refer to the category aged 60 or older, which has consequences for comparability that will be pointed out. In 1988, single women aged 60 or older received an average annual income of Fr 67,300; the 50-percent threshold we will use for a relative assessment thus came to Fr 33,650. On average, income included 6.5 percent from earnings and 10.5 percent from assets.

*Benefits.*—Data on coverage and reciprocity of benefits were much improved by the institution of an inter-scheme retiree survey in 1988 (Dangerfield and Prangère 1994, p. 10). The average retirement benefit per single woman aged 60 or older in 1988 was Fr 51,890 (154 percent of our "standardized" poverty threshold). This includes both a basic, earnings-related old-age benefit and a compulsory complementary, occupational benefit.

*Occupational pensions.*—The occupational second tier consists of a variety of different schemes, which have become well integrated with each other over time, as has this second tier with the first tier. Because of this portability, more than 70 percent of pensioners get benefits from several complementary schemes rather than just one (Dangerfield and Prangère 1994, p. 9). Another characteristic of the French retirement benefit is that 85 percent of it, on average, is made up of direct entitlements from the basic compulsory and complementary second-tier schemes; the remainder consists of accessory and "solidarity" payments such as a benefit for child-rearing, a housing benefit, and the old-age minimum (discussed next).

*Minimum benefits.*—Two minima are relevant for French retirees. One is a minimum basic old-age pension, payable if a complete contribution record of 150 quarters is in place, amounting to Fr 31,765 per year in 1988. The other is the “*minimum vieillesse*” (old-age solidarity minimum), jointly financed by social security and general revenue. Slightly higher, it guaranteed Fr 33,150 per year, beginning at age 65 (or 60 in case of inability to work). It is means-tested on the basis of the whole household income, and, thus to the advantage of women living alone. The *minimum vieillesse* amounts to 89.5 percent of the 50-percent “poverty” threshold.

*Social assistance.*—In France, social assistance is triggered by special needs rather than by low income alone. It is administered at the departmental level and, for the elderly, is geared to those needing home care or institutional care due to ill health. Regularly published statistics unfortunately do not allow a breakdown by gender, but only 2.3 percent of the population aged 60 or older in 1988 received social assistance, averaging Fr 13,050 per recipient if residing in one’s own home or Fr 32,200 for those in a nursing home (INSEE 1994, pp. 161-163).

*National poverty standard.*—Reciprocity of the *minimum vieillesse* is often considered an indicator of old-age poverty (CNAV 1994). Neither the *minimum vieillesse* nor social assistance should necessarily be seen as poor relief, given that the measures are rather consistently linked with social security and long-term care provision. The elderly poor who appear in international comparisons seen above (table 3) are persons with no, or only small, occupational benefits who fail to claim available means-tested support. Officially, such shortfalls in the system do not exist, as it is assumed that all French elderly who are entitled are receiving the *minimum vieillesse*.

## Germany

*Income.*—A variety of data sources are available for the periodic assessment of German retiree well-being. Apart from the income information covering the whole population, recent special surveys on old-age security in 1986 and 1992 (Bundesamt für Arbeit und Sozialordnung 1994) offer an in-depth picture of the economic situation, and particularly the detailed benefits, of the elderly in Germany. To focus on income and benefits of elderly single women, we turn to the Household Income and Expenditure Survey (Statistisches Bundesamt n.d.), which collected data for 1988. Women aged 65 or older, living alone, received an average gross income of DM 23,600 per year in 1988. The 50-percent threshold thus amounted to DM 11,800. On average, 2.2 percent of income was from earnings and 12.5 percent from assets.

*Benefits.*—The basic, old-age security benefit (Gesetzliche Renten-Versicherung, GRV) amounted to DM 14,376 per year on average for women who were on their own. Much as in France, supplements are paid for child-rearing, additional years of education, housing expenses, and for war victims. A more representative figure that includes these amounts, to-

gether with civil service pensions, is the average DM 18,640 in total public transfers.

*Occupational pensions.*—Unlike the situation in France, complementary, occupational pensions are separate and do not form part of a combined benefit. They are voluntary in Germany, and far from commonly available for women. The coverage of women aged 65 or older in Germany by complementary, private pension benefits has often been criticized as insufficient. Payments from private pensions amounted to only DM 587 per year on average in 1988 for all older women living alone. In 1992, even among the group that was best off (women aged 65 or older who were never married), only 19 percent received private pension benefits. Among widows, only 4 percent of elderly women had their own private pension coverage, and another 11 percent had private pension benefits derived from their husbands’ plans (Bundesministerium für Arbeit und Sozialordnung 1994, table B-79).

*Minimum benefit.*—Germany does not offer a general minimum benefit. The closest equivalent is a GRV pension benefit derived from a special formula, available to low-wage employees with at least 25 years of contributions (which is somewhat similar to the “special minimum” available in the United States). It is set at the benefit level corresponding to the benefit paid to someone having 75 percent of the average income. However, this “minimum” is not available to the many women whose working careers did not extend over a long enough period: Only 20 percent of women’s pensions are augmented using this special formula (Kohl 1990, pp. 3-4).

*Social assistance.*—This ultimate means of avoiding poverty is not integrated with social security. Even the statistical sources for assessing social assistance are very limited. Of all women aged 65 or older, 1.8 percent received some amount of social assistance benefits in 1989 (Ruland 1993, p. 348). As the situation of married couples is generally secure, we can infer that it is mainly single women who must fall back on social assistance.

According to the Income and Expenditure Survey, 4.7 percent of older single women (in this case, aged 70 or older) were on social assistance and their benefits amounted to an average of DM 4,860 per year per recipient (Statistisches Bundesamt n.d.). The 1992 old-age security survey reported that 4 percent of widowed, 12 percent of divorced, and 4 percent of never-married women aged 65 or older received social assistance (Bundesministerium für Arbeit und Sozialordnung 1994). One qualification always pointed out regarding German social assistance for the elderly, however, is that the take-up is estimated only at 50 percent (Ruland 1993; Veil et al. 1992).

The amount of the social assistance benefit reflects a basic benefit set according to fairly uniform scales at the state (Länder) level, augmented by 20 percent for persons aged 60 or older, and supplemented by payments in special circumstances such as illness or disability (another 15-20 percent) and for housing costs. All these components equaled an average of about DM 9,600 per year in 1985 for a single pensioner. The benefit is not adjusted on a regular basis to reflect increases in



the cost of living, and has thus fallen behind increases in public pensions.

*National poverty standard.*—The full-entitlement social assistance amount, augmented as described earlier, comes closest to a quasi-official poverty line (Kohl 1990, pp. 4-5).

## Netherlands

*Income.*—The Dutch data systems are among the best available. Apart from the basic income statistics produced by Statistics Netherlands, regular-interval studies by the Dutch Social and Cultural Planning Office extract data from administrative records, add information from its own surveys, and break out data that are specifically applicable to the economic standing of the aged (Timmermans 1994). In addition, special inquiries on the position of women (for example, Hooghiemstra and Niphuis-Nell 1993) provide employment and income information.

Statistics Netherlands conducts the Income Panel Study to collect income data on old-age insurance (AOW) benefit recipients. According to the most recently published information, the 1992 income of single women aged 65 or older amounted to an average of NLG 32,300 per year. The 50-percent comparison threshold would thus stand at NLG 16,150. Some 2.8 percent of this income stemmed from earnings and 17.6 percent from assets (Bos 1995, pp. 70-72).

*Benefits.*—The Netherlands' basic scheme of old-age provision, largely contribution-financed and near-universal, offers a flat-rate benefit that amounted to NLG 17,600 yearly for older women living alone in 1992. It is complemented by pensions paid from voluntary occupational schemes, from which older single women drew NLG 7,100 on average (Bos 1995, pp. 71-72). However, the average amount hides situations in which only the flat-rate basic retirement benefit is received. The AOW and average complementary benefit together, NLG 24,700, amounted to 153 percent of the 50-percent income threshold.

*Occupational pensions.*—Extensive discussion in the mid-1980's made it clear that income shortfalls were experienced primarily by older women, compared with couples and single men, when complementary pension coverage was lacking. Only 35 percent of widows were entitled to widows' benefits under such plans (Emancipatieraad 1990, p. 13). While it had been assumed that the voluntary occupational pension schemes would soon cover everyone, 18 percent of employees turned out to have no such coverage. Women working part-time and nonworking married women were at particular risk of being under-protected, and faced a future old age of relative deprivation (de Kemp 1992, p. 164). More recent figures indicate that 29.3 percent of single women aged 65 or older do not receive any benefits out of complementary schemes, either as survivors or on their own (Bos 1995, p. 69).

*Minimum benefit.*—The benefit floor in the Netherlands is formed by the standard flat-rate payment for virtually all Dutch elderly, NLG 17,600 in 1992. This is determined by the level of the minimum wage, and not the level of contributions or the

length of enrollment (except where the latter is interrupted by extended periods of living abroad). It thus amounts to a fixed social minimum (Pöhler 1992, pp. 32-33), equivalent to 109 percent of the 50-percent poverty threshold.

*Social assistance.*—This is similarly standardized nationwide and linked with the minimum wage, but it is of little significance for most of the elderly, who are protected by the higher AOW pension. A small minority, 1.4 percent of single women aged 65 or older, have suffered some shortfall of the flat-rate benefit and receive social assistance payments averaging NLG 5,700 in supplementary support (Statistics Netherlands 1994, p. 20).

*National poverty standard.*—The Dutch discussion of pockets of old-age poverty refers not so much to problems of falling below an economic minimum as to a sense of relative adequacy.

## Sweden

*Income.*—Statistics Sweden provides several annual income data series. The two main sources are (1) the Income and Tax Statistics, which employ data exclusively from different administrative registers and cover all citizens, and (2) the Income Distribution Survey, based on a sample of 10,000 households and combining data from administrative registers, tax returns, and a questionnaire (for a complete review of sources, see Jansson 1994b). The Income Distribution Survey is included in the LIS databases. In addition, special reports have been prepared with regard to the standard of living of the elderly (Socialdepartementet 1993).

According to the Income and Tax Statistics (Statistics Sweden 1995a), the average annual 1993 income of single women aged 65 or older came to SEK 87,700 for those previously married and SEK 91,200 for those never married. Conservatively, the 50 percent "poverty" threshold can be set at SEK 44,750. This income included about 3.5 percent from earnings and 11.2 percent from assets (Statistics Sweden 1995b, table 13).

*Benefits.*—Sweden's social security system offers a flat-rate basic benefit for all elderly, together with an earnings-related benefit (ATP). All social security pensions are calculated using the so-called base amount, a price-index-adjusted figure determined each year (SEK 34,400 in 1993). The ATP's link to the length of employment is not very strong, but whether one's wages are high enough to make one qualify for the scheme, and the level of contributions do matter, especially for women. Whereas, in the "typical" case for men, the earnings-related component is much larger than the basic payment and collectively negotiated occupational pension benefits are generally more ample than they are for typical women (Scherman 1994, p. 10); only 60 percent of women aged 65 or older (in contrast to 95 percent of men) were covered for and thus received ATP benefits (Jansson 1994a, p. 4).

Figures on benefit levels by gender are available for all women (single or currently married) aged 65 or older in 1992. For them, the flat-rate benefit amounted to SEK 41,700 and the

earnings-related ATP payment to SEK 22,500 on average (Statistics Sweden 1995b, pp. 303-304).

*Occupational pensions.*—In addition, there are voluntary occupational pension plans that complement the public old-age benefits. Coverage for women here is even lower than it is for the earnings-based ATP, at 47 percent (Jansson 1994a, p. 4). For this reason, women, on average, only draw approximately another SEK 8,000 per year from occupational pension plans. The sum of the three averages—flat-rate benefit, earnings-related benefit, and occupational pension benefits—amounted to SEK 72,000 or 168 percent of the 50-percent income threshold recalculated for 1992 to correspond to the benefits figure.)

*Minimum benefit.*—A complete picture must take into account *minimum* and *supplementary* provisions. A floor is provided by an old-age pension *supplement* of a little less than half the flat-rate benefit (SEK 34,400) to those seniors who have no or very little earnings-related entitlement (Scherman 1994, p. 10); 45 percent of women pensioners received this supplement in 1992 (Statistics Sweden 1994, p. 303). This basic pension-plus-supplement payment is sometimes identified as the “minimum old-age benefit.” In 1993, it amounted to SEK 51,074 for a single elderly person, or 114 percent of the 50-percent income threshold (Nordic Social-Statistical Committee 1995, p. 159). But 27 percent of all pensioners qualify for a housing supplement that boosts the benefits of economically vulnerable retirees.

The combined effect of all supplementary benefits could guarantee qualifying single pensioners (men or women) a benefit of as much as SEK 71,000 a year in 1993 (Smedmark 1993), 159 percent of the 50-percent income threshold. An additional minimum safeguard also applies to widows. The general survivor’s payment is a temporary adjustment benefit, but if basic and earnings-related benefits are not sufficient after adjustment, a permanent widow’s benefit is available (National Social Insurance Board 1994, pp. 60-61).

*Social assistance.*—Given this rather comprehensive minimum and supplementary protection, social assistance benefits for the elderly are not very prevalent in Sweden, and the proportion of elderly who have had to turn to this support has been declining. Only 1.3 percent of all seniors receive such assistance, amounting to about SEK 14,000 per recipient per year (Nordic Social-Statistical Committee 1990 pp. 44, 169, 224). Statistics broken out by sex are not published, but given the lower benefit levels previously observed, the percentage among single women, while still quite small, is presumably higher.

*Poverty standard.*—There is no official poverty standard in use in Sweden.

## Switzerland

*Income.*—Monitoring the economic situation of older Swiss has been difficult because of comparatively spotty data collection. To date, only a 1986 income and wealth survey has captured the whole adult resident population to permit reliable statements about income in 1982 (Frey and Leu 1988; Buhmann 1988); 1976 survey data exist but are not directly

comparable. The 1986 study, which was included in LIS data holdings, has recently been replicated, and findings for 1992 are expected to be available in fall 1996.

In 1982, the average money income of single women of retirement age (62 or older) amounted to about SFr 29,000 (Buhmann 1988 pp. 287-307). The 50-percent threshold in this case thus came to SFr 14,500. An estimated 13.8 percent of income came from earnings and 24.1 percent from assets.

*Benefits.*—Swiss old-age security (AHV) offers a basic old-age pension beginning at age 62 for women, which combines flat-rate and earnings-related formulas with a relatively narrow band of minimum and maximum benefits. The average AHV benefit amount for women aged 62 or older in 1982 was SFr 10,700 (Bundesamt für Sozialversicherung 1994, pp. 12, 15). By itself, this amount was significantly below the 50-percent poverty standard.

*Occupational pensions.*—Complementary occupational old-age security today stems from a mandatory, publicly regulated system of private pensions mostly on a defined contribution basis—funded and offering full vesting and full portability. The objective of this complementary scheme, in force since 1985, is to assure a combined replacement rate from retirement benefits (including social security) of 60 percent of covered earnings after 40 years of contributions. Not all women, however, are covered, because their level of earnings may not reach the minimum necessary for enrollment (SFr 16,560 in 1985).

For the comparison year of 1982, coverage of women under occupational pensions—which were not yet mandatory—was only about 30 percent (Rossini 1992, p. 51). An average benefit amount from occupational old-age security alone is not available. The 1986 income and wealth survey gave a figure of SFr 6,000 for all transfers other than social security per single woman aged 62 or older, which encompasses mainly occupational pension benefits (Buhmann 1988, pp. 287-307). The total of these benefits and AHV benefits came to SFr 16,700, equivalent to 115 percent of the 50-percent threshold.

*Minimum benefits.*—A *minimum* is established in the Swiss system not so much by the minimum AHV payment (SFr 7,400 in 1982), but by the income threshold for eligibility to the means-tested supplementary public old-age and disability benefit scheme (EL), which stood at SFr 10,000 in 1982 (Rossini 1992, p. 37). Whoever does not reach this threshold income can obtain EL payments to lift him or her to what is defined as a “customary standard of living” in old age. However, this minimum amounted to only 69 percent of the 50-percent income threshold.

On average, the EL benefit amounted to SFr 3,600 for older female recipients in 1982 (Bundesamt für Statistik 1994, p. 285). Take-up for the supplementary payments is relatively low, however, and estimated at about 50 percent of those eligible. Official statistics on how many retired women draw supplementary benefits yielded proportions of 15.2 percent for widows, 22.9 percent for never-married women, and 34.4 percent for divorcees in 1983 (Office fédéral des assurances sociales 1984, p. 148).

*Social assistance.*—Additional social assistance, for those

who do not manage to avoid poverty despite AHV and EL, is available from state and local public funds, which are administered almost entirely at the municipal level. Efforts to create comparable data on this highly decentralized assistance nationwide are only now emerging. From pilot studies it may be estimated that, at present, about 2 percent of all elderly aged 65 or older resort to social assistance at some time during the year due to insufficient pension resources (Rüst 1994, p. 76).

*National poverty standard.*—There is no official poverty standard in use in Switzerland.

### **United States**

*Income.*—The best compilation of data on the income of the elderly is offered by the biennial *Income of the Population 55 or Older* (Grad 1994, pp. 35-39, 50), based on the Current Population Survey, which allows breakdowns by age units, sex, living status, and marital status. These data are also the ones used to measure U.S. conditions in the LIS. There are other sources of income data that can support extensive analysis, such as the Survey of Income and Program Participation and the recently initiated Health and Retirement Survey, but they are currently available primarily in the form of computerized databases whose analysis is beyond the scope of this study.

While Grad (1994) and many other U.S. studies emphasize median income, for present comparative purposes the figure used here is the mean income—\$13,363—received by women aged 65 or older living alone in 1992 (U.S. Bureau of the Census 1993). The 50-percent poverty threshold thus amounted to \$6,682 in that year. About 8.5 percent of these women's income stemmed from earnings and 21.1 percent from assets (Grad 1994, pp. 110, 114).

*Benefits.*—Average retirement benefits from Social Security (Old-Age, Survivor, and Disability Insurance) amounted to \$6,744 and \$7,356 in 1992 for single women who were entitled to benefits on the basis of their own past work and for widows, respectively (Social Security Administration 1993, p. 199, table 5.A15).

*Occupational pensions.*—Coverage by occupational pensions is voluntary in the United States. Only 22 percent of nonmarried women aged 65 or older received private occupational pension benefits; 34 percent if government pensions are included (Grad 1994, p. 20). Women's coverage, unlike that of men, has increased steadily over the last two decades (Woods 1994, p. 15), but it still reflects women's frequently interrupted job careers and concentration at the lower end of the wage distribution (Korczyk 1993, pp. 60-61). On average, for all older single women aged 65 or older, the benefit amount from private pensions was \$1,293 in 1992 (U.S. Bureau of the Census 1993). The mean amounts of Social Security and private pension benefits together totaled \$8,343, which constituted 125 percent of the 50-percent threshold.

*Minimum benefit.*—Social Security does not guarantee any minimum benefit. A so-called *special minimum* does guarantee a floor for persons with a long work history of low earnings, but in practice, this is received by very few of the elderly;

the regular formula generally generates a larger benefit.

*Social assistance.*—The official poverty threshold does not constitute a criterion for making supplementary old-age benefits available. Rather, the separate Supplemental Security Income (SSI) scheme, which is means-tested and general-revenue-funded, awards benefits to persons who are disabled or older than age 64 who meet rather stringent eligibility requirements involving the value of assets as well as income. In 1992, the Federal component of SSI guaranteed individuals an income level of \$5,064 (married couples are treated as units and receive less than two persons would receive separately). State SSI supplements, in the aggregate, are small relative to Federal payments, vary considerably in size, and are not available in a number of States. Supplemental Security Income thus does not guarantee a poverty-level income, and it also suffers from less than complete take-up.

Only 9 percent of nonmarried aged women who were Old-Age and Survivors Insurance beneficiaries received SSI benefits in 1992 (Grad 1994, p. 6). An unofficial source has estimated that more than one million eligible older women are not receiving benefits (Older Women's League 1995, p. 6). A variety of other programs also provide benefits to needy persons, but only 1 percent of nonmarried older women indicate receiving other public assistance (Grad 1994, p. 5).

*National poverty standard.*—The official U.S. poverty threshold (derived indirectly from the cost of a specified minimum nutritional standard), was \$6,729 for one person aged 65 or older in 1992; note that the 50-percent standard that has been used throughout this article yields a rather similar figure of \$6,682, despite its very different derivation. According to the official poverty line, 23 percent of single women aged 65 or older are poor (Grad 1994, p. 129).

### **Section IV: Conclusion**

Table 5 summarizes the information on retirement benefits and poverty obtained in the country-by-country review. The relative rankings that were found in section II are generally confirmed by this comparison. Across the six countries, average retirement benefits (including both public and private pensions) are quite uniform, except for the rather "lean" Swiss and United States systems (the Swiss benefits began to be more ample when complementary occupational pensions became compulsory in 1985).

As pointed out earlier, average figures are only general indicators that do not speak directly to the prevalence of poverty and its prevention among older single women. Row 2 displays the safeguards that have kept the poverty rate of elderly women low in France, the Netherlands, and Sweden; elsewhere, the lower strata in the income distribution have been more likely to experience poverty in old age. In Germany, a minimum safeguard is missing, but the risk of poverty is obscured by a high average benefit, augmented by quite generous government pensions from which relatively many women benefit.

In closing, a few tentative suggestions can be advanced as

Table 5.—Average retirement benefits and minimum benefits as a percentage of the 50-percent relative poverty thresholds<sup>1</sup>

Benefit	France 1988	Germany 1988	Netherlands 1992	Sweden 1992	Switzerland 1982	United States 1992
(1) Average retirement benefit.....	154	163	153	168	115	125
(2) Minimums.....	90	(2)	109	114	69	76

<sup>1</sup> The sources are those listed in the country-by-country review, section III.

<sup>2</sup> No national-level minimum.

to what characteristics of old-age security systems emerge as most suitable for protecting older single women from poverty. There is no doubt that a minimum available to all, set above a customary relative poverty level, will be the most effective in that regard. Among our comparison group of countries, only the Netherlands has committed itself to that generous but relatively costly solution.

The second most effective arrangement would seem to be a compulsory, complementary, earnings-related second tier, either devised as such in one scheme (Sweden's ATP) or consolidated as such out of formerly diverse occupational pension plans (France, Switzerland as of 1985). Risks remain under such arrangements, as women continue to have less complete work histories. Where complementary schemes remain voluntary (Germany, Switzerland before 1985, and the United States), the prevalence of old-age poverty among single women is clearly higher. Interestingly enough, such poverty issues have been debated in a relative sense even in the comparatively generous Netherlands, which also has a voluntary complementary scheme.

The third most effective arrangement appears to be providing means-tested supplements that bring up the benefit to some "adequate" level. We may speak of a mode of "packaging" or "bundling" old-age benefits, where France has been a pioneer. The French system has not only merged a heterogeneous array of basic and complementary plans, but also added various case-specific, means-tested supplements, ranging from extra benefits for former working mothers with large families to the *minimum vieillesse* and home-care subsidies. This approach, in less multi-faceted form, is also part of the Dutch, Swedish, and Swiss systems. The primary risk of relying on such an approach is that take-up by those in need may be less than complete.

The least effective means to cope with poverty among single elderly women is social assistance. In most countries, it is a rather residual factor that tends to be decentralized in its administration and uneven in its levels of support, as well as neglected in terms of adjustment to cost-of-living increases. Take-up of benefits tends to be low. None of the countries in our comparison that show a relatively high risk of poverty among older women (Germany, Switzerland, and the United States) have made great headway in coping with the problem by relying on social assistance payments.

## References

- Atkinson, A. 1989. *Poverty and Social Security*. London: Harvester Wheatsheaf.
- Bos, W. 1995. "Inkomen van AOW-ers, 1992." *Sociaal-Economische Maandstatistiek* 12 (June), pp. 40-77.
- Buhmann, Brigitte I. 1988. *Wohlstand und Armut in der Schweiz: Eine empirische Analyse für 1982*. Grösch: Rüegg.
- Buhmann, Brigitte; Lee Rainwater; Guenther Schmaus; and Timothy M. Smeeding. 1988. "Equivalence Scales, Well-Being, Inequality, and Poverty: Sensitivity Estimates Across Ten Countries Using the Luxembourg Income Study (LIS) Database." *The Review of Income and Wealth*, Series 34 (June), pp. 115-142.
- Bundesamt für Sozialversicherung. 1994. *Zahlenspiegel der Sozialen Sicherheit der Schweiz*. Berne: BSV.
- Bundesamt für Statistik. 1994. *Statistisches Jahrbuch der Schweiz 1995*. Berne: BFS.
- Bundesministerium für Arbeit und Sozialordnung. 1994. *Alterssicherung in Deutschland 1992. Forschungsbericht, Band I, Strukturdaten zur Einkommenssituation von Personen und Ehepartnern ab 55 Jahren*. Munich: Infratest Sozialforschung.
- Casimir, Bernd. 1990. *Staatliche Rentenversicherungssysteme im internationalen Vergleich*. Frankfurt am Main: Peter Lang.
- CERC (Centre d'étude des revenus et des coûts). 1993. *Revenus et conditions d'existence des personnes de plus de soixante ans. 1. Les revenus*, Paris: La documentation française.
- CNAV (Caisse nationale d'assurance vieillesse). 1994. "Les revenus des personnes âgées." *Retraite et Société*, No. spécial, pp. 61-85.
- Commission of the European Union, Directorate General V. 1994. *Social Protection in Europe 1993*. Luxembourg: Commission of the European Union.
- Dangerfield, Odile and Danièle Prangère. 1994. "Les retraites en 1993: Des situations très différentes selon les parcours professionnels." *Solidarité santé*, No. 4, pp. 9-42.
- de Kemp, A.A.M. 1992. *Ouderen tussen pensioen en bijstand*. Rijswijk: SCP.
- Deleeck, Herman et al. (eds.). 1992. *Poverty and the Adequacy of Social Security in the European Community: A Comparative Analysis*. Aldershot: Avebury.

- Ellison, Robin. 1994. *Pensions: Europe and Equality*. London: Longman.
- Emancipatieraad. 1990. *Vrouwen 50-plus: Analyse en advies over de maatschappelijke positie van oudere vrouwen*. The Hague: Emancipatieraad.
- Frey, René and Robert E. Leu. 1988. *Der Sozialstaat unter der Lupe: Wohlstandsverteilung und Wohlstandsumverteilung in der Schweiz*. Basel: Helbing & Lichtenhahn.
- Grad, Susan. 1994. *Income of the Population 55 or Older, 1992*. Washington, DC: Social Security Administration, Office of Research and Statistics.
- Hagenaars, Aldi J.M.; Klaas de Vos; and M. Asghar Zaidi. 1994. "Patterns of Poverty in Europe." Paper presented at the 23rd General Conference of the IARIW, St. Andrews, Canada, 21-27 August.
- Hooghiemstra, B.T.J. and M. Niphuis-Nell. 1993. *Sociale atlas van de vrouw. Deel 2. Arbeid, inkomen en faciliteiten om werken en de zorg voor kinderen te combineren*. Rijswijk: Sociaal en Cultureel Planbureau.
- Hutton, Sandra and Peter Whiteford. 1994. "Gender and Retirement Incomes: A Comparative Analysis." *Social Security and Social Change: New Challenges to the Beveridge Model*, Sally Baldwin and Jane Falkingham (eds.). New York: Harvester Wheatsheaf.
- INSEE. 1994. *Annuaire statistique de la France 1994: Résultats de 1993*. Paris: Institut national de la statistique et des études économiques.
- Jansson, Kjell. 1994a. "Fler pensionssparar—men med lagre belopp." *ValfardsBulletinen*, Nr. 2, pp. 4-6.
- . 1994b. "Use of Administrative Registers for Income Statistics in Sweden." *Statistical Journal of the United Nations ECE*, Vol. 11, pp. 211-221.
- Kohl, Jürgen. 1990. *Minimum Standards in Old Age Security and the Problem of Poverty in Old Age*. Luxembourg Income Study Working Paper 50. Walferdange: LIS.
- Korczyk, Sophie M. 1993. "Gender Issues in Employer Pensions Policy." *Pensions in a Changing Economy*, Richard V. Burkhauser and Dallas L. Salisbury (eds.). Washington, DC: Employee Benefit Research Institute.
- Mitchell, Deborah. 1991. *Income Transfers in Ten Welfare States*. Aldershot: Avebury.
- National Social Insurance Board. 1994. *Social Insurance Statistics: Facts 1993*. Stockholm: National Social Insurance Board.
- Nordic Social-Statistical Committee. 1995. *Social Security in the Nordic Countries: Scope, Expenditures and Financing*. Copenhagen: NOSOSCO.
- Office fédéral des assurances sociales. 1984. "Données statistiques concernant les bénéficiaires de PC." *Revue RCC*, No. 4 (April), pp. 147-154.
- O'Higgins, M. and S. Jenkins. 1990. "Poverty in the EC: 1975, 1980, 1985." *Analysing Poverty in the European Community*, R. Teekens and B. Van Praag (eds.). Luxembourg: Eurostat.
- Older Women's League. 1995. *The Path to Poverty: An Analysis of Women's Retirement Income*. 1995 Mother's Day Report. Washington, DC: Older Women's League.
- Pöhler, Kay. 1992. "Alterssicherung in den Niederlanden: Institutionelle Betrachtung des Kernsystems." Diskussionspapier Nr. 15. Frankfurt: ASEG-Projekt, University of Frankfurt.
- Ramprakash, Deo. 1994. "Poverty in the Countries of the European Union: A Synthesis of Eurostat's Statistical Research on Poverty." *Journal of European Social Policy*, Vol. 4, No. 2, pp. 117-128.
- Rossini, Stephane. 1992. *Les institutions de sécurité sociale en Suisse: Panorama statistique 1915-1990*. Berne: Office fédéral des assurances sociales.
- Rüst, Hanspeter. 1994. "Gesamtschweizerische Sozialhilfe-statistik." *Sozialhilfe*, Jean-Pierre Fragniere (ed.). Lausanne: PNR 29, pp. 71-82.
- Ruland, Franz. 1993. "Soziale Sicherung der Frauen—Bedarf, Ziele und Elemente einer Reform." *Deutsche Renten-Versicherung*, Heft 6 (June), pp. 337-356.
- Scherman, Karl Gustaf. 1994. "Social Security in Sweden—the Current Situation." Report to the 68th Meeting of the Bureau of the International Social Security Association, Stockholm, 6-7 October.
- Smedmark, Göran. 1993. "The Interrelation between Compulsory and Negotiated Social Insurance Schemes in Sweden." Report to an international conference in Tallinn, 2-5 August.
- Smeeding, Timothy M.; Barbara B. Torrey; and Lee Rainwater. 1993. "Going to Extremes: An International Perspective on the Economic Status of the United States Aged." Walferdange: Luxembourg Income Study.
- Socialdepartementet. 1993. *De äldres ekonomiska standard år 1993*. Stockholm: Socialdepartementet.
- Social Security Administration. 1993. *Annual Statistical Supplement to the Social Security Bulletin*. Washington, DC: U.S. Government Printing Office.
- Stapf, Heinz. 1994. *Old Age Poverty in Selected Countries of the European Community - Are Women Disproportionally Affected?* Working Paper 105. Walferdange: Luxembourg Income Study.
- Statistics Netherlands. 1993. "Personele inkomensverdeling 1990." *Income Statistic of the Netherlands*. Enriched tax file data. The Hague: CBS.
- Statistics Netherlands. 1994. *Statistiek van de Algemene Bijstand 1992*. The Hague: CBS.
- Statistics Sweden. 1994. *Statistical Yearbook of Sweden 1995*. Stockholm: SCB.
- Statistics Sweden. 1995a. "Inkomstär 1993 för den folkbok förda befolkningen." Inkopak, Tabell I B.IND. Stockholm: SCB.
- Statistics Sweden. 1995b. *Income Distribution Survey in 1993*. Stockholm: SCB.
- Statistisches Bundesamt. n.d. *Einkommens- und Verbrauchsstichprobe 1988*. Arbeitstabellen Einnahmen. Berlin: Statistisches Bundesamt.

- Statistisches Jahrbuch der Schweiz 1995*. 1994. Berne: Bundesamt für Statistik.
- Timmermans, J.M. 1994. *Report on the Elderly 1993*. Rijswijk: Social and Cultural Planning Office.
- Tsakoglou, Panos. 1994. *Living Conditions of the Elderly in EC countries on the Eve of the Single Market*. Report to the Statistical Office of the European Communities. Luxembourg: Eurostat.
- U.S. Bureau of the Census (BOC). 1993. Current Population Survey. Analysis of the BOC 1993 machine-readable data. Washington, DC: BOC.
- Veil, Mechthild; Karin Prinz; and Ute Gerhard (eds.). 1992. *Am modernen Frauenleben vorbei: Verliererinnen und Gewinnerinnen der Rentenreform 1992*. Berlin: Edition Sigma.
- Voirin, Michel. 1995. "Private and Public Pension Schemes: Elements of a Comparative Approach." *International Social Security Review*, Vol. 48, No. 3-4, pp. 91-141.
- Whiteford, Peter. 1995. "The Use of Replacement Rates in International Comparisons of Benefit Systems." *International Social Security Review*, Vol. 48, No. 2, pp. 3-30.
- Whiteford, Peter and Jonathan Bradshaw. 1994. "Benefits and Incentives for Lone Parents: A Comparative Analysis." *International Social Security Review*, Vol. 47, No. 3-4, pp. 69-89.
- Whiteford, Peter and Steven Kennedy. 1995. *Incomes and Living Standards of Older People: A Comparative Analysis*. Research Report No. 34. London: Department of Social Security.
- Woods, John R. 1994. "Pension Coverage Among the Baby Boomers: Initial Findings From a 1993 Survey." *Social Security Bulletin*, Vol. 57, No. 3 (Fall), pp. 12-25.