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Cross National Patterns of Retirement and Poverty Among Men and Women in the 1980 s: Full Stop or Gradual Withdrawal?

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Luxembourg Income Study Working Paper Series

Working Paper No. 69

**Cross National Patterns of Retirement and Poverty
Among Men and Women in the 1980's:
Full Stop or Gradual Withdrawal?**

Timothy Smeeding

October 1991

(scanned copy)



**CROSS NATIONAL PATTERNS OF RETIREMENT AND POVERTY
AMONG MEN AND WOMEN IN THE 1980S: FULL STOP
OR GRADUAL WITHDRAWAL?**

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October 20, 1991

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I. Introduction

The purpose of this paper is to explore patterns of retirement across seven different nations during the mid-1980s. In so doing, we hope to answer the following questions:

1. How does one measure retirement?
2. Does retirement differ systematically between women and men?
3. Does work stoppage mean receipt of retirement income, and vice versa?
4. Does retirement mean impoverishment?
5. Finally, does retirement mean full work stoppage or a more gradual withdrawal from the labor market?

We will argue that retirement means different things to workers—both men and women—depending on the nature of each nation's disability and retirement system, and on their labor market institutions. Before we discuss data and definitions to provide the bases on which we will measure retirement, we begin by reviewing some of the potential uses and operational meanings of the term "retirement."

II. Measuring Retirement: To What Purpose?

The term "retirement" or "retired" is often used in social science research on public policy and the aged. But one would be hard pressed to find a less murky term. Is retirement like pornography, i.e., hard to define, but we know it when we see it? Is it a state behavior or a transitional behavior? From the perspective of individual welfare and well-being, does retirement connote social uselessness and lack of productivity; or does retirement connote the pursuit of leisure, hobbies, gardening, grandchildren, and carefree travel? From a social policy point of view, does retirement connote poverty and the inability to meet basic economic needs, or does retirement mean a comfortable standard of living for retirees from the earliest stage of eligibility, and therefore carrying with it a high budgetary costs of social retirement passed on to younger generations and businesses via higher social insurance taxes (Schmähl, 1991). Or is retirement

a tool of social and business policy which can be used to buy off older workers and thereby create new job openings for younger, cheaper and/or more productive workers? Are workers pushed or pulled into the state of retirement, do they go willingly or unwillingly? Is health a major or minor factor in the retirement process? And finally then from a simple statistical/social indicator point of view, does retirement mean receipt of pension benefit, or exit from the labor market, or both?

Do patterns of retirement differ for men and women? We know that labor force participation at older ages differs substantially between men and women, and that female labor force participation rates are generally rising. But we know little about differences between these groups with respect to retirement behavior.

Once older workers leave the labor market, do they return? If so, where, doing what, and for how long? Does receipt of retirement benefits mean stoppage of work? What is "early" retirement? Is it measured by age, tenure on a job, proportion of life spent working? In short, how one defines retirement has a lot to do with the uses to which one would want to make of the term.

The first goal of this paper is much more modest than to answer all of these questions. Rather, the goal is to demonstrate the complexity of defining retirement within a country and across countries. An earlier paper (Smeeding, 1990), began to answer this question. Here we refine and sharpen the analysis to focus on several issues. We will create several definitions of "retirement" and examine the patterns across nations. We will look at patterns of the absence of earnings mixed with and separate from receipt of retirement income. We will investigate the impact of retirement on one aspect of economic well-being, poverty. And we will see how retirement differs among men and women in each country.

III. Data and Definitions

The data used in this paper come from the Luxembourg Income Study (LIS), a social science database which now covers over 20 nations and 40 databases. LIS and the surveys used in this paper are briefly described in the Appendix and Table A-1. A more complete description of LIS can be found in Coder, Rainwater, deTombour and Smeeding (1991) and Smeeding, Rainwater, and Simpson (1989). The LIS countries used in the paper are from the mid-1980s: Australia (reference year, 1985-1986), Canada (1987), Netherlands (1987), Sweden (1987), U.K. (1986), USA (1986) and West Germany (1984). These data allow us to separately identify earnings and retirement income receipt for family heads, spouses, and other adults.¹ However, one should remember that these data provide only a one time cross-sectional "snapshot" view of several measures of "retirement" at a particular point in time. To fully analyze the dynamic process of retirement from a cross-national perspective, comparable panel data such as that used by Burkhauser, et al. (1991) to study divorce is necessary.

The major variables used to define retirement are lack of earnings and/or receipt of retirement income. Earnings include cash compensation from all types of employment (wages and salaries, self-employment and farming). Retirement income is here defined to include all forms of social pensions, occupational pensions, and all types of government employee pensions. Retirement income does not include unemployment compensation or short-term worker disability benefits, nor does it include means-tested or "welfare" benefits (except in Australia where all "old age pensions" are income tested).

Retirement income is defined to include long-term disability pensions and other types of special younger age pensions offered to workers by enterprises and/or governments. While long-term disability benefits could be excluded, they serve as an early retirement device in many nations. In fact, the inclusion or exclusion of long term disability income can create large

differences across nations. For instance, the inclusion of long term disability benefits as retirement income, changes the fraction of Australian heads age 55-59 having retirement income from 10.1 to 20.5 percent. In The Netherlands, the proportion of heads in this same age range with retirement income rises from 2.7 to 32.0 percent once disability is included. At ages 60-64 in The Netherlands, the fraction rises from 20.0 to 50.5 percent once disability income is included. While the difference is larger for males than females, the widespread use of disability benefits as a bridge to retirement income is most of the nations studied here is widely acknowledged (Burkhauser, Haveman and Halberstadt, 1984).

All of our analyses define the retirement status of families based on characteristics of the "head" of the family (which is the male in two adult families). Families are generally defined to include all persons related by blood, marriage, or adoption. Single persons living alone or with or without other unrelated persons are called one-person families (Coder, 1990). Female heads may therefore be single individuals or women living with children or other adults to whom they are not married. One problem that we cannot overcome here is the difference between survivors', or widows' benefits versus "own" pension for female heads. This issue is discussed below.

While retirement may be an individual phenomenon, social policy analysts are generally concerned about the way that retirement effects family economic status. Since lack of earnings or receipt of retirement income by an individual head may or may not coincide with family low income, we concentrate on persons in families as the main unit of analysis in all comparisons of family economic status. To measure poverty or low income, we adopt a relative measure based on equivalence adjusted disposable cash income for the entire nation. Disposable cash income includes all forms of money income received by the family including retirement income, earnings, and all forms of transfers and property income net of direct income and payroll taxes.

All family disposable incomes are normalized to the income of a three-person family using an equivalence scale with family size adjustments which weights the first person at 1.0 and each additional person as .5. Hence, a three-person family has its income divided by 1.0, a single person by .5, two persons by .75, five by 1.5, etc.² Poverty is therefore defined as all persons living in families with adjusted incomes less than half of the national median adjusted income, the most common relative poverty definition (e.g., see Rainwater and Rein, 1990; Smeeding and Torrey, 1991).

IV. Differences in Retirement Patterns by Retirement Definition

We begin by investigating families ranked by age of head and head's earnings and retirement income patterns in seven countries between 1984 and 1987 (Table 1). Three potential definitions of retirement are presented: families with heads having zero earnings (Panel I), families with heads receiving retirement income (Panel II); and families with heads having both zero earnings and head receiving retirement income (Panel III).

The first definition of "retirement" is lack of earnings. Because not all LIS datasets measure head's labor force status, it is not possible to discern whether the family with a nonearning head is unemployed or not looking for work due to claiming retirement. Because of this weakness, zero earnings may be a poor proxy for retirement. However, other income sources, e.g., other family members' earnings or receipt of retirement income by the head can be used to supplement this definition. The older the head, the more likely is the cause of lack of earnings to be retirement. However, the correlation between no earnings and receipt of retirement income is far from perfect.

The second definition of retirement requires that the family have a head who is receiving retirement income (Panel II). This definition says nothing of the labor force status of the head

TABLE 1
TOTAL POPULATION PATTERNS OF EARNINGS AND RETIREMENT INCOME*
IN THE MID-1980S AMONG FAMILIES DEFINED BY CHARACTERISTICS
OF FAMILY HEADS IN SEVEN COUNTRIES
 (percent of families with heads having given
 characteristics in each cell)

		Age			
		55-59	60-64	65-74	75+
All Heads with Zero Earnings^b (Panel I)					
Australia	1985	40.1	62.4	92.8	98.6
Canada	1987	28.2	46.3	87.7	97.4
Netherlands	1987	49.9	82.9	98.7	97.8
Sweden	1987	14.1	33.5	81.8	96.2
United Kingdom	1986	43.5	63.2	94.8	98.7
United States	1986	28.5	47.6	78.1	95.1
West Germany	1984	32.3	57.2	94.8	99.4
All Heads with Retirement Income^c (Panel II)					
Australia	1985	20.5	48.8	86.9	89.8
Canada	1987	18.2	38.0	95.2	99.7
Netherlands	1987	32.0	50.5	99.1	99.3
Sweden	1987	23.7	61.6	99.9	100.0
United Kingdom	1986	33.7	56.4	98.7	99.8
United States	1986	23.6	49.6	90.9	96.6
West Germany	1984	11.3	52.3	96.6	97.5
All Heads with Both Zero Earnings and Retirement Income^d (Panel III)					
Australia	1985	15.8	42.6	83.2	89.0
Canada	1987	9.9	27.5	85.3	97.1
Netherlands	1987	27.3	48.6	98.0	97.4
Sweden	1987	8.9	28.0	81.8	96.2
United Kingdom	1986	24.0	45.8	93.5	98.5
United States	1986	11.9	35.5	74.6	92.2
West Germany	1984	9.1	46.0	92.8	96.9
<p>*Retirement income includes disability payments. ^bPercent of families with head who has zero earnings during the survey period. Labor force status is unknown. ^cPercent of families with head who is receiving retirement income. ^dPercent of families with head who has both zero earnings and head is receiving retirement income.</p>					

or her/his earnings. A head may have a job in addition to having retirement income. If retirement means work stoppage this definition is inadequate. However, for those interested in the budgetary cost of retirement to society (in the case of social retirement outlays) and/or the effect of retirement on capital markets, savings, or job status (occupational retirement), this definition of retirement may be preferred.

If one wants to be more certain that a head is fully retired, one could look only at families whose heads are both zero earners and in receipt of retirement income (Panel III). Such a definition produces many fewer retired families in the younger age ranges, as one might expect. Of course, we cannot tell if the head will ever return to work. Analyses of panel data in the United States indicate that less than 10 percent of those in this state will return to work (Burkhauser and Quinn, 1990). Comparable German panel data indicates a much lower fraction of Germans, about 4 percent, will return to work (Merz, 1990). For analyses of economic well-being, e.g., poverty status and the adequacy of retirement income, this definition may be the preferable one.

For those who feel that retirement is a matter of degree and not a discrete variable, one can choose a point between these extremes, and define retired as families whose head receives retirement income, but earns less than some fraction of family income. Our earlier research (Smeeding, 1991), indicates that if one defines this group as heads who earn less than 25 percent of disposable income, the results are not much different from those in Panel III. Clearly, as the definition moves to lower percentages of earnings relative to family income, the closer it gets to Panel III, while dropping the earnings condition altogether moves the numbers back towards Panel II. Hence, Panels II and III probably bracket most acceptable definitions of retirement.

The entries in this table display considerable heterogeneity across countries, particularly at younger ages. The only generalizable conclusion to be reached here is that retirement,

however defined, increases with age. The imposition of dual criteria (Panel III) reduces the variance in the single criteria measures (Panels I and II) considerably. Still, the intercountry variation is large, particularly in the 55-59 and 60-64 age brackets where the fraction retired is both large and quite variable. Between 11.3 (Germany) and 33.7 (U.K.) percent of all heads age 55-59 receive retirement income (Panel II), yet only half of all Canadian and U.S. heads with retirement income in this age group have also stopped earning income as well (compare II and III). At least 49 percent of all heads age 60-64 in every country except Canada, receive retirement income (Panel II). But the fraction who also have zero earnings can be as low as 27 or 28 percent (Canada, Sweden), depending on the nation being studied.

Focusing on the most strict definition of retirement (Panel III of Table 1), it is clear that Canada, Sweden and the United States tend to have "later" retirement patterns than do the other nations (Figure 1). Australians are above average at younger ages, but below average in later periods. The Germans start with low retirement in the youngest age group, but then quickly move to above average rates. The Dutch are, within all age groups, most likely to be fully retired.

V. Do Men and Women Retire Differently?

Men and women differ substantially with respect to labor force participation rates, length of work life, earnings levels and other labor force parameters, e.g., part-time versus full-time work, and career interruptions for childbearing, child care and homemaking. This is true both within and across nations. But do men and women retire differently? To answer this question, we have separated all heads in Table 1 into two tables, one for men (Table 2) and one for women (Table 3). In general, female heads make up 10-15 percent of all heads age 55-59, 15 to 20 percent of those 60-64, 20 to 30 percent of units with heads age 65-74, and 40 to 45 percent of

FIGURE 1

Percent of Families with Head Receiving

Zero Earnings and Retirement Income

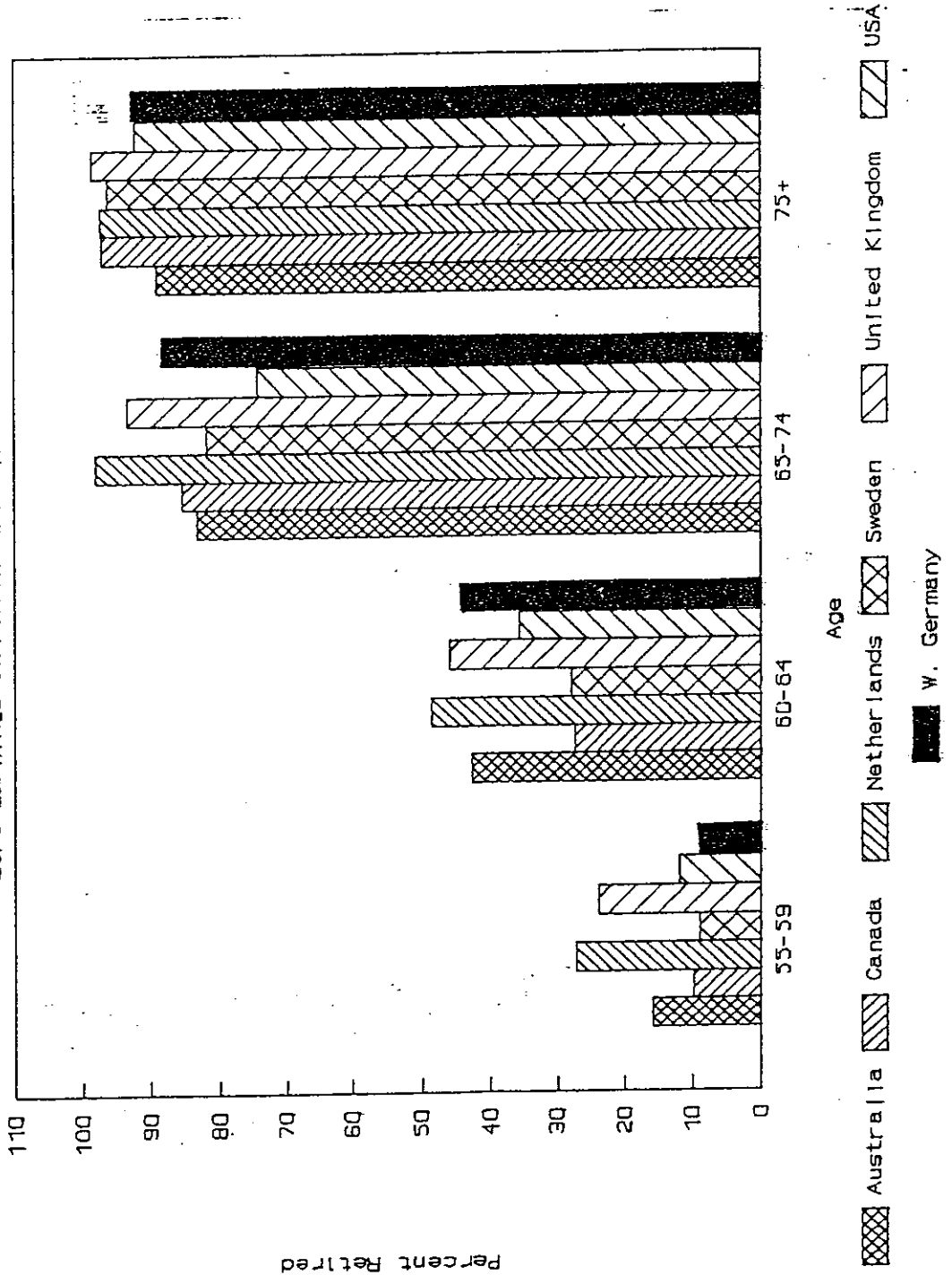


TABLE 2
MALE HEADED HOUSEHOLDS PATTERNS OF EARNINGS AND RETIREMENT INCOME*
IN THE MID-1980S AMONG FAMILIES DEFINED BY CHARACTERISTICS
OF MALE HEADS IN SEVEN COUNTRIES
 (percent of families with male heads having given
 characteristics in each cell)

		Age			
		55-59	60-64	65-74	75+
Male Heads with Zero Earnings^b (Panel I)					
Australia	1985	38.2	58.7	91.3	98.2
Canada	1987	25.0	42.0	85.9	96.0
Netherlands	1987	44.7	79.9	99.0	96.7
Sweden	1987	12.8	29.2	79.5	94.5
United Kingdom	1986	40.8	59.5	94.0	98.2
United States	1986	25.2	45.3	76.0	94.7
West Germany	1984	31.2	50.7	93.7	99.5
Male Heads with Retirement Income^c (Panel II)					
Australia	1985	16.7	43.2	86.1	87.6
Canada	1987	16.0	34.7	94.0	99.9
Netherlands	1987	33.7	55.2	99.3	99.5
Sweden	1987	20.2	57.6	99.8	100.0
United Kingdom	1986	27.9	49.2	98.4	99.7
United States	1986	21.0	47.8	90.3	98.5
West Germany	1984	7.5	44.5	95.4	96.9
Male Heads with Both Zero Earnings and Retirement Income^d (Panel III)					
Australia	1985	13.1	36.8	81.7	86.8
Canada	1987	8.4	24.1	83.0	95.9
Netherlands	1987	28.3	53.0	98.5	96.7
Sweden	1987	7.2	23.2	79.5	94.5
United Kingdom	1986	20.6	39.2	92.4	97.8
United States	1986	10.2	33.7	72.9	93.5
West Germany	1984	6.5	38.5	91.0	96.3
<p>^aRetirement income includes disability payments. ^bPercent of families with male head who has zero earnings during the survey period. Labor force status is unknown. ^cPercent of families with male head who is receiving retirement income. ^dPercent of families with male head who has both zero earnings and head is receiving retirement income.</p>					

TABLE 3
FEMALE HEADED FAMILIES PATTERNS OF EARNINGS AND RETIREMENT INCOME*
IN THE MID-1980S AMONG FAMILIES DEFINED BY CHARACTERISTICS
OF FEMALE HEADS IN SEVEN COUNTRIES
 (percent of families with female heads having given characteristics in each cell)

		Age			
		55-59	60-64	65-74	75+
Female Heads with Zero Earnings^b (Panel I)					
Australia	1985	58.2	84.7	97.6	99.2
Canada	1987	49.0	69.5	94.5	99.8
Netherlands	1987	83.6	98.6	97.9	99.5
Sweden	1987	24.1	52.1	90.6	98.7
United Kingdom	1986	59.6	83.2	97.3	99.4
United States	1986	45.8	56.8	84.0	95.5
West Germany	1984	43.9	82.7	97.1	99.4
Female Heads with Retirement Income^c (Panel II)					
Australia	1985	56.5	81.5	89.5	93.1
Canada	1987	32.6	56.0	99.7	99.3
Netherlands	1987	20.8	25.9	98.7	99.0
Sweden	1987	50.7	78.4	100.0	100.0
United Kingdom	1986	69.0	95.1	99.8	100.0
United States	1986	37.0	56.8	92.4	94.3
West Germany	1984	50.0	82.9	99.3	98.3
Female Heads with Both Zero Earnings and Retirement Income^d (Panel III)					
Australia	1985	41.8	76.4	88.1	92.3
Canada	1987	19.6	46.3	94.2	99.1
Netherlands	1987	20.8	25.9	96.6	98.4
Sweden	1987	21.8	48.5	90.6	98.7
United Kingdom	1986	45.0	81.6	97.1	99.4
United States	1986	20.8	42.7	79.2	90.7
West Germany	1984	35.3	75.2	96.9	97.7
<p>*Retirement income includes disability payments. ^bPercent of families with female head who has zero earnings during the survey period. Labor force status is unknown. ^cPercent of families with female head who is receiving retirement income. ^dPercent of families with female head who has both zero earnings and head is receiving retirement income.</p>					

the 75 and older groups (Table A-2). Their influence on the overall figures thus increases with age.

As mentioned earlier, we are not able to separate survivor or widows benefits from own retirement income for females. Hence, "retired" female heads (e.g., having retirement income and zero earnings) are liable to have never worked at all in many cases. This probably explains why larger fractions of women than men receive retirement income (Panel II, Tables 2 and 3) at younger ages. However, Table 3 indicates that fairly large fractions of female heads work in all nations (the inverse of Panel I in Table 3 is female heads with earnings), except in The Netherlands. Excluding The Netherlands, between 51-76 percent of 55-59 year old female heads have some earnings in every country studied.

The patterns of retirement among male heads are generally closer to the overall patterns than are those of female heads in most nations. Focusing again on the third panel of Tables 2 and 3 (and implicitly on their weighted sum in Table 1), we find female heads much more likely to be retired than are male heads in almost every nation, Netherlands being the one clear exception.³ Thus, the range of 9 to 28 percent of all heads age 50-59 with retirement income and zero earning (Table 1, Panel III) breaks down into a 77 to 28 percent range among male heads (Table 2) and a 21 to 45 percent range among female heads (Table 3). Large differences can also be found between men and women in the 60-64 age range. However, the inclusion of female heads in Table 1 does little to reduce the variance in the fraction of heads defined as retired across nations. The variance among male heads (Table 2) is almost as great as the variance among all heads (Table 1) in any panel or age grouping. At older ages, men and women look much the same with high fractions of both having retirement income and zero earnings.

VI. Less Strict Definitions of Retirement

So far we have concentrated on the most strict definition of retired, i.e., zero earnings, and retirement income. What if we used one of the other less strict definitions, i.e., zero earnings or receipt of retirement income to denote the "retired"?

The next two tables are based on the first three. They are designed to show that zero earnings among older heads does not always infer receipt of retirement income (Table 4), while receipt of retirement income by a family head does not always infer zero earnings (Table 5). In each of these cases, the variance is large across all countries. Hence, absence or presence of one characteristic should not be used to infer another, particularly for those heads between 55 and 64 years of age.

Zero earnings for the head (Table 4, Panel I), correlates with receipt of retirement income at a 60 percent or higher rate only among Swedes in the youngest age group (55-59). Among males the correlation is less than among females. Among the latter group, (Table 4, Panel III), the correlation can run as high as 90 percent in Sweden. The correlation between zero earnings and retirement income is better in the second youngest group (60-64 year olds), but even there only two countries, Sweden and Germany, have a higher than 90 percent correlation. In other nations, zero earning heads must receive income support from some source other than retirement income. At older ages, zero earnings is a much better proxy for receipt of retirement income in all nations.

The fraction of families with heads for whom receipt of retirement income means total work stoppage is 75 percent or more among heads 55-59 (Table 5, Panel I) in Australia, The Netherlands and West Germany. In Canada, Sweden and the U.S. it is 55 percent or below. Due to work tests for benefits receipt, work after retirement is uncommon in Germany and The Netherlands, while the Australian income superannuation scheme is means tested leading to

TABLE 4					
DO FAMILIES WITH NONEARNING HEADS ALWAYS GET RETIREMENT INCOME?^a					
(percent of families with heads who are zero earners who also have retirement income) ^b					
		Age			
		55-59	60-64	65-74	75+
All Heads (Panel I)					
Australia	1985	39.2	68.1	89.6	90.3
Canada	1987	35.1	59.4	97.3	99.7
Netherlands	1987	54.7	58.6	99.3	99.5
Sweden	1987	63.1	83.6	100.0	100.0
United Kingdom	1986	55.2	72.5	98.7	99.8
United States	1986	41.8	74.6	95.5	97.0
West Germany	1984	28.2	80.4	97.9	97.5
Male Heads (Panel II)					
Australia	1985	34.2	62.7	89.4	88.5
Canada	1987	33.6	57.4	96.6	99.9
Netherlands	1987	63.4	66.4	99.4	100.0
Sweden	1987	56.3	79.5	100.0	100.0
United Kingdom	1986	50.4	65.8	98.3	99.7
United States	1986	40.5	74.4	95.9	98.7
West Germany	1984	20.8	75.9	97.1	96.8
Female Heads (Panel III)					
Australia	1985	70.6	90.3	90.4	93.0
Canada	1987	40.0	66.6	99.7	99.3
Netherlands	1987	24.7	26.1	98.4	98.9
Sweden	1987	90.5	93.1	100.0	100.0
United Kingdom	1986	75.5	98.1	99.8	100.0
United States	1986	45.4	75.2	94.3	95.0
West Germany	1984	80.4	90.9	99.8	98.3
^a Retirement income includes disability payments. ^b Ratio of Panel III, Table 1 to Panel I, Table 1. Ratio of Panel III, Table 2 to Panel I, Table 2. Ratio of Panel III, Table 3 to Panel I, Table 3.					

TABLE 5					
DOES RETIREMENT MEAN TOTAL WORK STOPPAGE? (percent of families with heads receiving retirement income ^a where the head also has zero earnings) ^b					
		Age			
		55-59	60-64	65-74	75+
All Heads (Panel I)					
Australia	1985	76.7	87.3	95.8	99.0
Canada	1987	54.4	72.4	89.6	97.4
Netherlands	1987	85.4	96.3	98.8	98.0
Sweden	1987	37.6	45.5	81.9	96.2
United Kingdom	1986	71.3	81.3	94.7	98.7
United States	1986	50.4	71.6	82.1	95.4
West Germany	1984	80.5	88.0	96.1	99.4
Male Heads (Panel II)					
Australia	1985	78.4	85.2	94.9	99.0
Canada	1987	52.5	69.5	88.3	96.0
Netherlands	1987	84.0	96.0	99.2	97.0
Sweden	1987	35.6	40.3	79.7	94.5
United Kingdom	1986	73.7	79.6	93.9	98.2
United States	1986	48.6	70.5	80.7	94.9
West Germany	1984	86.7	86.5	95.4	99.4
Female Heads (Panel III)					
Australia	1985	73.5	93.9	98.7	99.1
Canada	1987	60.1	82.7	94.5	99.8
Netherlands	1987	100.0	100.0	97.7	99.6
Sweden	1987	43.0	61.9	90.6	98.7
United Kingdom	1986	65.5	85.8	97.3	99.4
United States	1986	56.2	75.2	85.7	96.2
West Germany	1984	70.6	90.7	97.6	99.4
^a Retirement income includes disability payments. ^b Ratio of Panel III, Table 1 to Panel II, Table 1. Ratio of Panel III, Table 2 to Panel II, Table 2. Ratio of Panel III, Table 3 to Panel II, Table 3.					

reduced work effort among Australians in the 55-64 age range. In Canada, Sweden, and the United States, high fractions of heads with retirement income continue to work at older ages. About 18 percent of these heads age 65-74 in Sweden and the U.S. still have earnings. The proportion of men still working at this age to supplement retirement income exceeds that of women. But even among 60-64 year old women, 18 percent in Canada, 38 percent in Sweden and 25 percent in the USA continue to work even after receipt of retirement income.

VII. Does Retirement Mean Impoverishment?

Perhaps the most important question asked about "retirement" is its effect on poverty status. Regardless of whether they are pushed or pulled out of the labor market, are retirees significantly more (or less?) likely to be among the low income population? To examine this question, we have prepared three final tables which show the rate of low income or poverty among persons living in all families (Table 6), in male-headed families (Table 7) and in female headed families (Table 8). As mentioned earlier, poverty is defined for all persons living in families with adjusted income less than half the median adjusted income for all families. Estimates are for three groups of persons: all persons in the age group (Panel I); all persons living with heads having retirement income (Panel II). The final group (Panel III) covers those with both retirement income and zero earnings. The final column presents overall population poverty rates so that older age groups can be compared to others.

The first result to note is that poverty varies more across countries than across age groups within countries (Table 7, Panel I). For instance, the difference between the U.S. overall poverty rate and the German, Swedish or Dutch poverty rates are greater than the difference between the all age and individual older age poverty rates in each of these countries. Poverty rates are

TABLE 6
TOTAL POPULATION
DOES RETIREMENT MEAN IMPOVERISHMENT?
 (percent of persons living in families with head having
 various characteristics defined as poor^a)

		Age				
		55-59	60-64	65-74	75+	All Ages
Whole Population^b (Panel I)						
Australia	1985	7.6	8.0	9.1	4.9	12.2
Canada	1987	9.2	12.4	6.7	5.5	12.4
Netherlands	1987	4.0	6.2	0.3	0.0	6.4
Sweden	1987	4.3	3.6	0.8	2.4	6.1
United Kingdom	1986	6.2	4.8	2.5	0.8	9.6
United States	1986	17.4	13.8	17.5	25.0	20.0
West Germany	1984	6.0	3.5	4.8	11.3	6.5
Head Receives Retirement Income^c (Panel II)						
Australia	1985	11.4	6.9	6.6	3.8	
Canada	1987	6.8	9.8	5.7	5.5	
Netherlands	1987	0.9	4.2	0.3	0.0	
Sweden	1987	3.2	1.6	0.8	2.4	
United Kingdom	1986	2.7	1.9	2.0	0.8	
United States	1986	16.0	14.3	17.3	23.7	
West Germany	1984	14.5	4.1	4.4	10.8	
Head with Both Zero Earnings and Retirement Income^d (Panel III)						
Australia	1985	14.6	6.8	6.7	3.8	
Canada	1987	11.4	11.7	6.3	5.6	
Netherlands	1987	0.0	4.3	0.3	0.0	
Sweden	1987	8.0	2.9	0.7	2.5	
United Kingdom	1986	3.8	2.4	2.1	0.8	
United States	1986	25.7	16.8	20.4	24.7	
West Germany	1984	18.0	3.8	4.5	10.8	

^aPoor are persons in families with adjusted incomes below half of median adjusted income.
^bAll persons in all families.
^cPersons in families with head receiving retirement income.
^dPersons in families with head having both zero earnings and head receiving retirement income.

TABLE 7
MALE HEADED HOUSEHOLDS
DOES RETIREMENT MEAN IMPOVERISHMENT?
 (percent of persons living in families with male head having various characteristics defined as poor^a)

		Age				
		55-59	60-64	65-74	75+	All Ages
Whole Population^b (Panel I)						
Australia	1985	7.3	6.8	8.2	3.4	10.2
Canada	1987	7.3	11.3	6.4	2.6	10.1
Netherlands	1987	3.9	6.7	0.4	0.0	5.8
Sweden	1987	4.1	2.7	0.7	1.3	5.1
United Kingdom	1986	6.3	5.6	2.6	0.3	9.6
United States	1986	12.5	10.8	12.6	19.6	14.7
West Germany	1984	5.4	2.7	3.3	10.3	5.5
Head Receives Retirement Income^c (Panel II)						
Australia	1985	11.0	4.5	5.7	2.0	
Canada	1987	3.7	11.1	5.0	2.6	
Netherlands	1987	1.0	4.1	0.4	0.0	
Sweden	1987	1.8	0.7	0.7	1.3	
United Kingdom	1986	1.7	2.4	1.9	0.3	
United States	1986	10.9	12.0	12.2	18.8	
West Germany	1984	12.3	2.7	2.7	10.0	
Head with Both Zero Earnings and Retirement Income^d (Panel III)						
Australia	1985	14.1	4.0	5.8	2.0	
Canada	1987	5.4	13.5	5.7	2.7	
Netherlands	1987	0.0	4.3	0.4	0.0	
Sweden	1987	4.4	1.2	0.8	1.4	
United Kingdom	1986	2.3	3.1	2.0	0.3	
United States	1986	20.9	14.4	14.7	19.6	
West Germany	1984	14.2	1.8	2.8	10.0	

^aPoor are persons in male headed families with adjusted incomes below half of median adjusted income.

^bAll persons in all male headed families.

^cPersons in families with male head receiving retirement income (includes disability payments).

^dPersons in families with male head having both zero earnings and female head receiving retirement income (retirement income includes disability payments).

TABLE 8
FEMALE HEADED HOUSEHOLDS
DOES RETIREMENT MEAN IMPOVERISHMENT?
 (percent of persons living in families with female head having various characteristics defined as poor^a)

		Age				
		55-59	60-64	65-74	75+	All Ages
Whole Population^b (Panel I)						
Australia	1985	10.2	15.0	12.1	7.2	25.9
Canada	1987	21.2	18.6	8.2	10.4	26.8
Netherlands	1987	4.9	3.6	0.0	0.0	9.3
Sweden	1987	5.6	7.6	1.0	3.9	10.5
United Kingdom	1986	5.8	0.5	2.4	1.5	9.4
United States	1986	43.2	25.7	31.2	31.8	42.3
West Germany	1984	11.8	6.7	8.2	12.4	13.2
Head Receives Retirement Income^c (Panel II)						
Australia	1985	12.4	14.4	9.3	6.4	
Canada	1987	11.5	6.3	8.0	10.4	
Netherlands	1987	0.0	5.0	0.0	0.0	
Sweden	1987	7.4	4.3	1.0	3.9	
United Kingdom	1986	5.1	0.6	2.2	1.5	
United States	1986	29.0	22.8	30.7	29.8	
West Germany	1984	15.2	6.8	8.1	11.8	
Head with Both Zero Earnings and Retirement Income^d (Panel III)						
Australia	1985	15.9	14.6	9.4	6.4	
Canada	1987	38.2	13.8	10.0	11.8	
Netherlands	1987	0.0	5.0	0.0	0.0	
Sweden	1987	12.4	5.1	0.0	4.1	
United Kingdom	1986	7.8	0.7	2.3	1.5	
United States	1986	36.7	37.5	38.4	35.3	
West Germany	1984	31.7	9.4	8.5	13.0	

^aPoor are persons in female headed families with adjusted incomes below half of median adjusted income.

^bAll persons in all female headed families.

^cPersons in families with female head receiving retirement income (includes disability payments).

^dPersons in families with female head having both zero earnings and female head receiving retirement income (retirement income includes disability payments).

generally lower for males than for females (Panel I of Tables 7 and 8), with the latter showing the most variance across countries and age groups.

Poverty rates for persons in families with retirement income (Panel 6) are usually no more likely to be poor than is the entire population. In most age/country cells, poverty rates are actually lower for those with retirement income than are those for the population at large. This is true for men and particularly for persons living with older female heads. The highest poverty rates among these units within almost all age group are those who do not have retirement income. For instance, 43.2 percent of persons living with the average American female head age 55-59 were poor in the U.S. as compared to 29.0 percent when retirement income was present. Even the most strict definition of retirement in Panel III results in below average poverty rates for those with retirement income everywhere but in the U.S. (and in Australia and Germany in the youngest age group only).

In the United States, double digit poverty is commonplace among the aged and nonaged alike. Double digit poverty is much less frequent in other countries, except for younger early retirees. In most European nations, poverty never reaches double digits. Ignoring the U.S., "early retirement" in the form of work stoppage and receipt of retirement income raises poverty to double digit levels in very few cases (Table 6, Panel III). There is less poverty for males than for females in most nations.

Based on these data, one would be hard pressed to argue that families with heads at or near retirement age who fall into these "retired" categories are particularly disadvantaged relative to others in the same age group or among the population at large. While certain pockets of poverty arise, e.g., for older women with no earnings in Canada, U.S., and even Germany (Table 8, Panel III), the argument that retirees fall into poverty is not borne out by the facts.

VIII. Conclusion and Policy Implications

To borrow the title of a recent U.S. book (Burkhauser, Myers and Quinn, 1991), older workers seem to "pass the torch" to younger ones in various ways. Full and abrupt work stoppage coupled with retirement income receipt does not well describe the situation of 55-59 and 60-64 year old household heads in most nations. While this pattern can be found, it is most likely in nations such as Germany and the Netherlands where once a pension is received, the rewards for working more are nil, and the penalties are high. It also is more likely among female heads than among males. In other nations with less strict earnings tests, various combinations of work and retirement are commonplace. Sweden, the United States and Canada seem to be such societies (Palme, 1990) as is Japan (Clark and Ogawa, 1991).

Moreover, the retirement of a family head in the countries studied does not seem to connote an increased risk of poverty or low income compared to others at similar ages or the population at large in the countries studied. While this conclusion need be tempered by our lack of sensitivity analyses to just how far away from poverty these families incomes lie, the conclusion is robust. And while it is less true for women than for men, it seems that whatever "deindustrialization" and "disadvantaged worker" stories about older workers being forced into retirement that could be told 20 or 30 years ago cannot be told today. These situations appear more likely to be isolated incidents than general patterns by the mid- to late-1980s in the countries studied. Women generally face higher poverty rates than men, but even here the variance across nations is less than the variance between the retired and the non-retired in most nations.

While the trends of the 1980s were increasingly toward earlier retirement, this need not always be the case. As life expectancy at older ages continues to increase in modern nations, there appears to be some flexibility to scale back retirement ages and to encourage partial or later

retirement. As governments begin to factor the aging of the population into the longer time in retirement enjoyed by young retirees, costs will rise and pressure to reduce retirement benefits will increase. To the extent that the pro-early retirement policies of both governments and firms in the late 1970s and early 1980s encouraged early benefit receipt, current policy actions to reduce early retirement benefits in the U.S. and to encourage partial retirement in Germany may help to arrest it (Schmähl, 1991). If tight labor markets in the latter part of this decade boost wages for older workers and thereby increase the opportunity cost of early retirement, these policies will be even more effective. The patterns of retirement noted in this paper suggest that the process of easing into retirement will be amenable to policy influence in most Western nations for the next several decades.

Endnotes

1. For these countries, "family" means all persons related by blood marriage and adoption in most countries. Single persons living alone are counted as one person families. The Australian, German, Canadian, and U.S. datasets use the same family definition. The Netherlands data are based on households and thus a Dutch unit may contain one or more families. The Swedish family definition is more narrow, treating all unmarried units aged 65 and over as separate persons. For an analysis of the older segment of the population, these nuances might take a marginal, though not significant difference. For more on LIS family definitions, see Coder (1990).
2. The entire equivalence scale is as follows:

Family Size	Adjustment Weight	Equivalence Scale (Normalized to a 3-Person Family)
1	1.0	.50
2	1.5	.75
3	2.0	1.00
4	2.5	1.25
5	3.0	1.50
6	3.5	1.75
7 or more	4.0	2.00

Equivalence adjusted income is derived by dividing family income by the equivalence scale corresponding to the family's size.

3. Due in large part to the generous nature of the Dutch disability system (Aarts and DeJong, 1991), early exit from the labor force is high among both men and women in The Netherlands. About 11 percent of all prime age (25-59) workers in the Netherlands are classified as disabled.

Appendix

Introduction and Overview of the LIS Databases

The Luxembourg Income Study (LIS) project began in 1983 under the joint sponsorship of the government of Luxembourg and the Center for Population, Poverty, and Policy Studies (CEPS) in Walferdange. It is now funded on a continuing basis by CEPS/INSTEAD and by the national science foundations of its member countries.

Objectives

1. to test the feasibility of creating a database containing social and economic data collected in household surveys from different countries;
2. to provide a method which allows researchers to use the data under restrictions required by the countries providing the data;
3. to create a system that allows research requests to be received from and returned to users at remote locations;
4. to promote comparative research on the social and economic status of various populations and subgroups in different countries.

Since its inception in 1983, the experiment has grown into a cooperative research project with a membership that includes countries in Europe, North America and Australia. The database contains information for some 20 countries for one or more years (see over). Negotiations are in process to add data from additional countries. The LIS databank will have a total of over 40 datasets covering the period 1960 to 1988. In 1993, additional surveys will be added to represent the period of the early 1990s. Extensive documentation concerning technical aspects of the survey data, and the social institutions of income provision in member countries is being made available to users. This work is being supported by the U.S. National Institute of Aging, the Statistical Office of the European Community, and the OECD.

Reports by participants in the LIS project have appeared in several books, articles and dissertations. Each completed study is published in the LIS working paper series, which currently numbers more than 60 papers. The project conducts annual summer workshops to introduce researchers to the database, and to give scholars experience in cross-national analysis of social policy issues related to income distribution. Over 75 students attended the 1988, 1989 and 1990 sessions. A LIS Newsletter is published twice yearly and mailed to over 1100 scholars in 20 nations.

The LIS project is supervised by Timothy M. Smeeding (Project Director), Lee Rainwater (Research Director) and Gaston Schaber (President, CEPS/INSTEAD). Further information is available from Caroline deTombreur at the LIS address below or Timothy M. Smeeding, Metropolitan Studies Program, 400 Maxwell Hall, Syracuse, NY 13244-1090. Telephone: (315) 443-9045; FAX (315) 443-1081; BITNET Smeeding@SUVM.

Countries Available in LIS Databank:				
Australia			1982	1986
Austria				1987*
Belgium				1985*
Canada	1971	1975	1981	1987
Czechoslovakia			1983	1988
France		1974*	1979	1984
Germany	1968*	1978*	1981	1984
Hungary			1983	1988
Ireland				1987*
Israel			1979	1987
Italy				1986
Luxembourg				1985
Netherlands			1983	1987
Norway			1979	1986*
Poland				1986
Sweden	1968	1975*	1981	1987
Switzerland			1982	
United Kingdom	1969	1974	1979	1986
United States	1971	1975	1979	1986

*Available after July 1, 1991.

Partial List of Variables:			
V1	GROSS WAGES AND SALARIES	D7	GEOGRAPHIC LOCATION
V4	FARM SELF-EMPLOYMENT INCOME	D22	TENURE (OWNED OR RENTED)
V5	NONFARM SELF-EMPLOYMENT INC.	D27	NUMBER OF CHILDREN
V8	CASH PROPERTY INCOME	D28	AGE OF THE YOUNGEST CHILD
V10	MARKET VALUE OF RESIDENCE	MARRIED	MARRIED COUPLE INDICATOR
V11	INCOME TAXES	D1	AGE OF FAMILY HEAD
V16	SICK PAY	D2	AGE OF SPOUSE OF FAMILY HEAD
V17	ACCIDENT PAY	D3	SEX OF FAMILY HEAD
V18	DISABILITY PAY	D8	ETHNICITY/RACE OF HEAD
V19	SOCIAL RETIREMENT BENEFITS	D10	HEAD LEVEL OF EDUCATION
V20	CHILD OR FAMILY ALLOWANCES	D11	SPOUSE LEVEL OF EDUCATION
V21	UNEMPLOYMENT COMPENSATION	D14	HEAD'S OCCUPATION
V22	MATERNITY ALLOWANCES	D15	SPOUSE'S OCCUPATION
V23	MILITARY/VET/WAR BENEFITS	D16	HEAD INDUSTRY CLASSIFICATION
V25	MEANS-TESTED CASH BENEFITS	D17	SPOUSE INDUSTRY CLASSIFICATION
V26	ALL NEAR CASH BENEFITS	D18	HEAD STATUS OF WORKER GROUP
V32	PRIVATE PENSIONS	D19	SPOUSE STATUS OF WORKER
V33	PUBLIC SECTOR PENSIONS	D21	MARITAL STATUS OF FAMILY HEAD
V34	ALIMONY OR CHILD SUPPORT	D25	HEAD DISABILITY STATUS
V39	GROSS WAGE/SALARY HEAD	D26	SPOUSE DISABILITY STATUS
V40	HOURLY WAGE RATE HEAD	LFSHD	LABOR FORCE STATUS OF HEAD
V41	GROSS WAGE/SALARY SPOUSE	LFSSP	LABOR FORCE STATUS OF SPOUSE
V42	HOURLY WAGE RATE SPOUSE	HRSHD	HOURS WORKED PER WEEK HEAD
D4	NUMBER OF PERSONS IN FAMILY	HRSSP	HOURS WORKED PER WEEK SPOUSE
D5	FAMILY STRUCTURE	YTAXHD	INCOME TAX HEAD
D6	NUMBER OF EARNERS	YTAXSP	INCOME TAX SPOUSE

TABLE A-1
AN OVERVIEW OF LIS DATASETS USED IN THIS PAPER

Country	Dataset Name, Income Year (and size) ^a	Country Contacts	Population Coverage ^c	Basis of Household Sampling Frame ^d	Participation of National Government ^e
Australia	<i>Income and Housing Survey</i> 1985-1986 (9,000)	B. Bradbury	97.0 ^d	Dicennial Census	CSO
Canada	<i>Survey of Consumer Finance</i> , 1987 (71,000)	R. Love; M. Wolfson	98.1 ^d	Dicennial Census	CSO
United States	<i>Current Population Survey</i> , 1986	J. Coder	97.6 ^d	Dicennial Census	CSO
West Germany	<i>German Panel Survey</i> , ^b 1985 (4,800)	W. Dobroszke-Kohn; R. Hauser	96.0 ^e	Electoral Register	FUND
Sweden	<i>Swedish Income Distribution Survey</i> , 1986 (9,400)	K. Lundquist	98.1 ^d	Income Register	CSO
United Kingdom	<i>Family Expenditure Survey</i> , ^b 1986 (7,000)	Frank Cowell	96.5 ^e	Electoral Register	CSO
The Netherlands	<i>Survey of Income and Program Users</i> (4,800)	Lundert; Rutbenberg	98.2 ^e	Postal and Telephone Register	GTH; GOVT

^aDataset size is the number of actual household units surveyed.

^bThe United Kingdom and German surveys collect subannual income data. The German data is normalized to annual income levels; the United Kingdom data is based on current income multiplied to annual levels.

^cAs a percent of total national population.

^dExcludes institutionalized and homeless populations. Also some far northern rural residents (Inuits, Eskimos, Lapps, etc.) may be undersampled.

^eExcludes those not on the electoral register, the homeless, and the institutionalized.

^fSampling Frame indicates the overall base from which the relevant household population sample was drawn. Actual sample may be drawn on a stratified probability basis, e.g., by area or age.

^gParticipation of National Government is coded as CSO - Official Central Statistical Office Survey; OTH GOV = other government agency survey; FUND = survey funded by national government but data controlled by research organization.

TABLE A-2
NUMBER OF FEMALE HEADED HOUSEHOLDS AND TOTAL
HOUSEHOLDS BY AGE GROUPS

	Age						
	Total	Under 18	19-54	55-59	60-64	65-74	75+
Female Heads* (Panel I)							
Australia 1985	1,778	4	1,067	87	121	267	231
Canada 1987	3,576	16	2,314	227	231	401	388
Netherlands 1987	2,132	12	1,361	116	121	259	263
Sweden 1987	1,522	38	867	53	86	182	297
United Kingdom 1986	2,784	10	1,487	171	185	452	479
United States 1986	45,665	271	29,287	2,668	2,824	5,504	5,111
West Germany 1984	7,866	NA	2,972	482	761	1,747	1,904
All Heads^b (Panel II)							
Australia 1985	14,091	10	10,567	921	839	1,170	584
Canada 1987	25,359	25	19,147	1,705	1,495	1,946	1,047
Netherlands 1987	13,235	19	9,917	856	747	1,025	671
Sweden 1987	8,215	101	5,584	455	453	892	730
United Kingdom 1986	18,330	13	12,946	1,207	1,183	1,900	1,081
United States 1986	238,731	602	175,202	16,518	14,125	20,784	11,500
West Germany 1984	58,169	11	39,007	5,371	3,737	5,664	4,379
Female Heads as a Percentage of All Heads* (Panel III)							
Australia 1985	12.6	40.0	10.1	9.4	14.4	22.8	39.6
Canada 1987	14.1	64.0	12.1	13.3	15.5	20.6	37.1
Netherlands 1987	16.1	63.2	13.7	13.6	16.2	25.3	39.2
Sweden 1987	18.5	37.6	15.5	11.6	19.0	20.4	40.7
United Kingdom 1986	15.2	76.9	11.5	14.2	15.6	23.8	44.3
United States 1986	19.1	45.0	16.7	16.2	20.0	26.5	44.4
West Germany 1984	13.5	NA	7.6	9.0	20.4	30.8	43.5

*Number of female headed households.

^bTotal number of households.

References

- Aarts, Leo and P. DeJong (1991). "Early Retirement of Older Male Workers Under the Dutch Social Security System" (this volume).
- Burkhauser, Richard, Daniel Myers, and Joseph Quinn (1990). *Passing the Torch: The Influence of Economic Incentives on Work and Retirement*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- _____, R. Haveman and V. Halberstadt (1984). *Public Policy Toward Disabled Workers: A Cross-National Analysis of Economic Impacts*. Ithaca, New York: Cornell University Press.
- _____, Greg Duncan, Richard Hauser and Roland Berntsen (1991). "Wife or Frau, Women do Worse: A Comparison of Men and Women in the United States and Germany Following Marital Dissolution," *Demography*, Vol. 28, No. 2 (May): 333-340.
- Clark, Robert and Naohiro Ogawa (1991). "The Effect of Mandatory Retirement on Earnings Profiles in Japan," *Industrial and Labor Relations Review*, forthcoming.
- Coder, John. (1990). "Technical Issues," *Luxembourg Income Study Newsletter*, Vol. II, No. 1 (April): 5-7.
- Coder, John, Lee Rainwater, Caroline deTombeur, and Tim Smeeding (1991). "LIS Information Guide," LIS at CEPS, Working Paper #7, March.
- Merz, Joachim (1990). Tabular data provided on 4 April, 1990.
- Palme, Joachim (1990). "Pension Regimes and Retirement: Age and Income in a Cross-National Perspective," FISS Conference Paper (draft), LIS at CEPS, Working Paper #51, June.
- Rainwater, Lee, and Martin Rein (1991). "Economic Well-Being among Men 55-64 Without Earnings--A Six Country Comparison," (this volume).
- Schmähl, W. (1991). "Changing the Retirement Age in Germany," presented to the European Society for Population Economics Annual Conference, Pisa, Italy, June 6.
- Smeeding, Timothy, Lee Rainwater, and Rick Simpson (1989). "Comparative Cross-National Research on Income and Economic Well-Being: The Luxembourg Income Study," *Survey of Current Business*, March: 62-67.
- _____, and Barbara B. Torrey (1991). "Comparative Economic Status of the Elderly in Eight Countries: Policy Lessons from the Luxembourg Income Study and the International Database on Aging," *International Comparisons of Economic Inequality*. Greenwich, CT: JAI Press.
- _____, (1991). "The Meaning of Retirement; Cross-National Patterns and Trends." In L. Rainwater, M. Rein and F. Naschold (eds.), *The Interplay between Social Policy and Labor Markets*. Armonk, NY: M.E. Sharpe, Inc.