

Early retirement as a labor force policy: an international overview

*In recent years, governments and firms
have increasingly turned to early-out schemes
to soak up excess labor supply;
the projected aging of western populations threatens
the viability of such schemes, which have the unfortunate
side effect of masking macroeconomic failings*

BARRY ALAN MIRKIN

In grappling with the problems posed by high and persistent unemployment which continue to plague the countries of Western Europe and North America, an array of labor market policies have been implemented to lower or at least contain the ranks of the unemployed. Such policies aim at influencing the supply of or the demand for labor.¹

Stimulating demand traditionally has been the main policy tool against joblessness. In recent years, however, there has been a noticeable trend away from demand expansion out of fear of rekindling the inflationary spiral. Instead, there has been a growing reliance on supply-oriented measures, such as restrictions on labor migration from abroad, repatriation of foreign guest workers, reduction of hours of work, work sharing arrangements, and increases in the legal working age and the number of years of mandatory schooling. The most frequently employed among such methods, however, have been policies to induce early retirement through various social security schemes.

These early retirement programs, many of which were initially formulated to achieve broad social goals rather

than labor market equilibrium, have taken several forms: (1) prerecession schemes, originally introduced within the framework of social policies to benefit older workers, which have been expanded or more aggressively pursued;² (2) other types of schemes, such as disability programs, into which economic and additional health criteria have been introduced;³ and (3) specific recession-oriented measures to promote premature retirement which were established in response to chronic high rates of unemployment of the 1970's and early 1980's. In practice, however, it is often difficult to distinguish among these three categories.

Only incipient in the early 1970's, the trend toward broadening eligibility for retirement and disability programs as a means of alleviating unemployment gained momentum as unemployment remained resistant to other labor market policies. This gradual blurring of the boundaries between the retirement, disability compensation, and employment objectives of the measures has contributed to enormous strains on public and private pension systems, while the extent to which the schemes have alleviated unemployment remains controversial.

Whereas public policy in the United States has been modified in recent years to encourage the postponement of retirement, in Europe, early retirement schemes have tended to be more pervasive. Several factors help to explain these differing approaches to influencing labor market developments.

Barry Alan Mirkin is an economic affairs officer with the United Nations Economic Commission for Europe, Geneva, Switzerland. This article is an earlier and somewhat expanded version of a study published in Economic Commission for Europe, *Economic Survey of Europe in 1985-1986* (New York, United Nations, 1986), pp. 96-109. The views expressed herein are those of the author and do not necessarily reflect those of the United Nations.

First, the governments of Western Europe have been under considerably more pressure than that of the United States to implement early retirement plans to alleviate high unemployment. This is a consequence of the stagnation in employment expansion in Western Europe as compared to the substantial employment generation that has taken place in the United States. One reflection of this divergence in the pattern of job creation is the unemployment rate. In 1985, the average annual unemployment rate for 13 countries of Western Europe was approximately 9.7 percent. This contrasts sharply with an unemployment rate of 7.0 percent experienced by the United States the same year.⁴ A second factor can be attributed to differences in the pace of aging. Normally defined as the population age 60 and over, the aged in Western Europe made up 14.3 percent of the total population in 1950 and 19.2 percent in 1985, while in the United States, the aged represented 12.1 percent and 16.3 percent of the population, respectively. This difference in the extent of aging is expected to continue into the near future. By the year 2000, the aged are projected to be 21.1 percent of the population in Western Europe and 16.0 percent in the United States.⁵

This article presents a brief discussion of early retirement programs in general, followed by an inventory of specific measures implemented on a country-by-country basis. The impact of the schemes on the labor force participation of older workers is then examined. Selected schemes are analyzed in greater detail and provide the basis for conclusions concerning their use in curbing unemployment.

The nature of early-out schemes

Early retirement strategies are widely used to cope with problems such as those posed by labor market rigidities, the introduction of new technologies, restructuring activities resulting in redundancies and overmanning, and job search difficulties among certain population groups. These schemes can be categorized by target group—that is, employed workers, unemployed workers, or disabled workers.

Early retirement for *employed workers* is often, though not always, pursued for the purpose of providing greater employment opportunities for young people, a group that has suffered from especially high rates of unemployment. Such schemes may encourage older workers nearing retirement age to cease labor market activity prematurely. An example is the Job Release Scheme, introduced in the United Kingdom in 1977, which made the retiree's receipt of a pension conditional on the hiring by his or her employer of an unemployed person, although not necessarily to fill the same position. In Denmark, the implementation in 1979 of a national program permitting early retirement attracted far more workers the first year than expected. The plan, however, does not stipulate that another person be recruited to fill the vacancy left by the retiree.

Early retirement for *unemployed workers* normally requires that a worker be registered as unemployed for a

specified period before becoming eligible for a pension. For example, in France, the Guarantee of Resources Agreement between the employers' federation and the labor unions provided a pension of approximately 70 percent of preretirement pay to redundant workers at age 60 if they agreed not to take other employment. Introduced in 1972, this plan was discontinued in 1984 when the normal retirement age was lowered from 65 to 60 years of age.

Disability pensions have been a standard feature of social security schemes in Western industrialized nations for several decades. Awarded to workers who have a physical or psychological disability which either precludes gainful employment or only allows employment at a reduced level, the payments were not explicitly designed to induce early retirement. Recently, however, they have taken on growing prominence as a means for early retirement as definitions of disability have become increasingly broad.

Exhibit 1 provides a summary of many of the schemes that have been devised to encourage the premature cessation of labor market activities. It indicates the diversity as well as the extent to which such plans have become firmly rooted in labor market policy. While disability pensions are not early retirement schemes per se, they have been included in the discussion because they have been manipulated to reduce labor supply and unemployment in a number of countries. Generally, early retirement pensions tend to be limited to groups of workers who meet specified qualifying conditions, such as full or partial disability, unemployment, long service, or employment in arduous or hazardous occupations. In addition, in several countries, those who meet minimum qualifying conditions and who are willing to accept an actuarially reduced benefit can elect early retirement.

Among the myriad types of schemes are those permitting partial or gradual retirement in France, the Federal Republic of Germany, Italy, Sweden, and the United Kingdom and a host of private plans, found in the United Kingdom and the United States. The schemes can operate at the national, industry, occupation, or firm level. The trend generally has been to add new early retirement options to encompass more workers. More recently, schemes based on agreements signed between the government and unions (France, the Federal Republic of Germany, and Italy), between industries and unions (France and the United States), as well as company-specific plans (the United States) have become more widespread. As exhibit 2 indicates, the availability of early retirement options is greatest in Austria, Belgium, France, the Federal Republic of Germany, Italy, and Sweden. At the other end of the spectrum are Canada, Norway,⁶ and Switzerland, where only disability pensions exist.

As a consequence of the long-term trend in improving the conditions of workers and the implementation of broad socioeconomic goals, legislative modifications of pension schemes have generally expanded the population covered, increased benefits, lowered the entitlement age, and relaxed

Exhibit 1. Inventory of early retirement and disability schemes in Europe and North America, 1961-85

Country	Retirement age		Program	Conditions for eligibility	Amount of pension
	M-male	F-female			
	Normal	Early			
Austria	65 M 60 F	55 M 50 F	Early retirement for the unemployed (began 1961)	180 months of insurance (24 in previous 3 years) and unemployed 1 year for economic or structural reasons	30 percent of earnings in last 5 years
		60 M 55 F	Special retirement benefit (began 1961)	In certain sectors after 35 years of service; also for those engaged in physically demanding work (57 M, 52 F)	67 percent of earnings during previous year
			Disability	Loss of 50 percent of normal earnings capacity	67 percent of earnings during previous year or percent of full pension corresponding to percentage loss of earnings capacity
Belgium	65 M 60 F	55	Contractual early retirement for redundant older workers (began 1974)	Workers in private sector or temporary workers in public sector unemployed for at least 1 year; in certain cases, early retirement age is below 55	Unemployment benefit supplemented by allowance of 1,000 francs per month until normal retirement age
		60 M 55 F	Replacement of workers taking early retirement (1976-83)	Employer must replace the worker by a person under age 30 who must work for at least 1 year	Unemployment benefit supplemented by early retirement pension equal to one-half of the difference between the reference wage and the unemployment benefit
		60 M 55 F	Special early retirement benefit (1978-82)	Unemployed for at least 1 year	Person can choose between unemployment benefit plus 1,000 francs/month or old-age pension based on previous salary
		64 M	Pension for long-service or arduous occupations (began 1976)	Employed for 45 years with at least 185 days in each year or employed in arduous occupations for 5 of previous 15 years	Full pension
			Early retirement for border commuters	Frontier workers unemployed for at least 2 years	Unemployment benefit supplemented by allowance of 10 percent of previous net salary
		60 M 55 F	Early retirement (began 1983 to replace second Belgian scheme above)	Retiree must be replaced by another worker	Pension entitled to at normal retirement age
		55	Exceptions for the unemployed over age 55 (Royal decree of December 29, 1984)	Person must have been unemployed for 624 days during the previous 4 years	Unemployment benefit
		Disability	Loss of two-thirds of earnings capacity	If totally disabled, 100 percent of earnings; if partially disabled, percentage of full pension corresponding to degree of incapacity	

Exhibit 1. Continued—Inventory of early retirement and disability schemes in Europe and North America, 1961–85					
Country	Retirement age		Program	Conditions for eligibility	Amount of pension
	M-male	F-female			
	Normal	Early			
Canada	65		Disability	Prolonged incapacity for substantial gainful activity	If totally disabled, 75 percent to 90 percent of earnings depending on Province; if partially disabled, proportion of full pension corresponding to impairment
Denmark	67	60	Social Pensions Act of 1984: ¹ Voluntary early retirement (began 1979)	Member of an unemployment insurance fund for at least 10 of the last 15 years or, in case of unemployment, satisfy conditions for daily cash benefits; part-time workers also eligible	For full-time workers, 70,000 kroner for first 2½ years, 56,000 kroner for next 2 years, and 42,000 kroner until normal retirement age
		18	Early retirement (began 1977)	Earnings capacity that is permanently reduced by at least 50 percent; for those aged 50 to 66, ill health or social circumstances	Old-age pension
			Disability	Earnings capacity that is permanently reduced by at least two-thirds	75 percent of average earnings if totally disabled; if 50-percent to 99-percent disabled, percentage of full pension proportionate to loss of earnings capacity
Finland	65	60	Unemployment Pension (began 1961)	Person who has received unemployment benefits or assistance for 200 days in previous 60 weeks and for whom authorities cannot find work; retirement age was temporarily reduced to 55 in 1983, increasing annually thereafter to 60 in 1988	Up to 80 percent of earnings
		63	Pension Support (1979–80)	Retiree is replaced by unemployed person under age 25	
		55	Special early retirement	Under certain circumstances, veterans or farmers who sell or transfer ownership of their farms	
			Disability	Unable to work because of permanent physical or mental disability	Up to 80 percent of earnings; if working ability reduced to 40 percent to 60 percent, one-half of full disability pension
France	65 (until 1983) 60 (from 1984) ²	60	Special Contracts of the National Employment Fund (began 1962)	Workers made redundant for economic reasons	80 percent to 90 percent of previous salary
		60	Income guarantee -for redundant workers (1972–83) -for workers resigning (1977–83)		70 percent of salary in the previous 6 months
		60	Early retirement	Hazardous working conditions, manual workers, mothers with 3 or more children, prisoners of war, veterans	

Exhibit 1. Continued—Inventory of early retirement and disability schemes in Europe and North America, 1961–85

Country	Retirement age		Program	Conditions for eligibility	Amount of pension
	M-male	F-female			
	Normal	Early			
France— continued		55	Agreement for Social Protection in the Steel Industry (1977, 1979)	Workers in the steel industry which was in the process of restructuring	70 percent of previous gross salary; government contributes to costs, as does the EEC in some cases
		56	Contracts of the National Employment Fund (began 1980)	Workers made redundant for economic reasons	65 percent of net salary
		55	Solidarity Contracts (1982–88)	Youth or unemployed worker must be hired for 2 years; also possibility of partial retirement whereby worker receives one-half of previous salary	65 percent of salary
		55 (50 in certain cases)	General Agreement for the Protection of Workers in the Steel Industry undergoing restructuring (began 1984)	Workers whose jobs have been abolished	75 percent of former gross monthly salary and 20 percent of a year's wage until retirement age
			Disability	Disability of 50 percent	100 percent of earnings
Federal Republic of Germany	63–65	60	Early retirement (began 1957)	Women with at least 15 years of contributions	Full pension
		60	Early retirement for unemployment	15 years of contributions and unemployed for at least 52 weeks within the previous 18 months	Full pension
		63	Early retirement for long service (began 1973)	35 years of contributions	Full pension
		59	Social Plan (began 1979) by some major steel producers such as Thyssen Co. ³	None	Unemployment compensation plus a supplement from the company until age 60, then normal early retirement benefits
			Automobile Industry (Opel, Daimler-Benz, Volkswagen)	Varies according to company	Varies according to company
			Program for individual sectors:		
		60	Metal industry (began 1981)	None	90 percent of previous net salary
		58	Chemical industry (began 1982)	None	75 percent of previous net salary
	58	Collective agreements (1984–88)	Vacancy must be filled by person outside the firm and no company required to grant pension to more than 5 percent of employees; conditions among agreements differ; partial early retirement also possible	At least 65 percent of previous salary; under certain conditions, government pays 35 percent of pension	
		Disability	Totally unable to work or earn sufficient salary; person must have worked for at least 3 years in previous 5-year period; partial disability available if ability to earn in relation to healthy person with same qualifications is reduced by one-half because of medical reasons	Full pension; if partial disability, two-thirds of full pension or 49 percent of earnings less of 20 percent to 49 percent, pension corresponds to this loss	

Exhibit 1. Continued—Inventory of early retirement and disability schemes in Europe and North America, 1961–85					
Country	Retirement age		Program	Conditions for eligibility	Amount of pension
	M-male	F-female			
	Normal	Early			
Greece	65 M 60 F	60 M 55 F or 62 M 57 F	Early retirement	Arduous work or 10,000 days of insured work	Full pension
Italy	60 M 55 F	55 M 50 F 58 M 53 W	Early retirement (began 1979)	Unemployed due to economic crisis or industrial reorganization and member of pension scheme for at least 15 years	Not available
			Early retirement	35 years of contribution	Not available
			Solidarity contracts (began 1984)	Company has not dismissed any workers in the previous year and signs a collective agreement to increase employment accordingly; worker reduces working time by 50 percent	Normal pension
			Disability (began 1965)	Total inability to work	If totally disabled, 100 percent of earnings in previous year; if 61-percent to 79-percent disabled, pension proportionate to percentage of incapacity; if 11-percent to 60-percent disabled, pension is 50 percent to 60 percent of percentage of incapacity
Netherlands	65	60 62	Unemployment Benefits Act (wvv)	Workers unemployed for preceding 2½ years	Unemployment benefit
			Early retirement, collective agreements in specific sectors ⁴ (vut, began 1977)	10 years of employment	80 percent to 85 percent of final salary
			Disability Security Act (wao, began 1967)	Employees with a disability of at least 15 percent and unemployed for at least 1 year	Between 50 percent and 90 percent of previous salary, depending on degree of disability
			General Disability Act (aaw, began 1976)	Employees and non-employees with an income of at least 4,447 guilders in year preceding disability	Can not exceed net statutory wage
Norway	67	18	Disability (began 1971)	Working capacity reduced by at least 50 percent due to physical or mental impairment; account is also taken of likelihood of finding employment	Up to 100 percent of base amount (22,800 kroner in 1983); if partial disability, pension proportional to loss of earning capacity
Portugal	65 M 62 F	60 55	Early retirement for the unemployed	Unemployed for 720 days	Not available
			Early retirement for workers in physically demanding occupations	Miners, fishermen, longshoremen, and sailors	Not available
			Disability	Loss of two-thirds of earnings capacity	The higher of two-thirds of minimum wage or one-half of earnings; if disability 30 percent or more, percentage of full pension corresponding to degree of disability

Exhibit 1. Continued—Inventory of early retirement and disability schemes in Europe and North America, 1961–85

Country	Retirement age M-male F-female		Program	Conditions for eligibility	Amount of pension
	Normal	Early			
Spain	65	64	Early retirement	Employer must replace retiree with youth seeking first job; the normal retirement age is lower than 65 for those doing difficult, dangerous, or unhealthy work	Minimum of 21,000 pesetas per month
			Disability	100-percent reduction of capacity to work in own trade or profession; for partial pension, 33-percent reduction in work capacity	100 percent of actual earnings with minimum of 23,565 pesetas per month
Sweden	65	60	Actuarially reduced pension (began 1963)		Pension reduced by 0.6 percent per month for each month prior to age 65
			Early retirement (began 1972)	Unemployment benefit has been paid for maximum period or labor market assistance has been paid for 450 days and opportunity to earn a salary is permanently reduced by one-half	Full pension
			Collective agreement with large firms and some industries (began 1975)		70 percent of salary
			Flexible retirement with part-time employment (began 1976)	Employed 5 out of the last 12 months; worker must transfer from full- to part-time work and work at least 17 hours a week	50 percent of salary lost due to part-time employment
			Disability (began 1970)	Working capacity reduced by one-half due to physical or mental impairment or on grounds of redundancy (special medical examination not required); partial disability available on grounds of premature aging or mental incapacity	Full pension
Switzerland	65 M 62 F		Disability (began 1960)	Earnings capacity must be reduced by at least two-thirds or 360 days of total incapacity for work followed by at least 50-percent loss of earning capacity	Same as old-age pension plus supplement to guarantee a minimum subsistence level
United Kingdom	65 M 60 F	62–64 M 59 F	Job Release Scheme ⁵ (began 1977)	Employer must replace retiree with someone from unemployment register; can be indirectly replaced by promotion or transfer; early retirement age for men also depends on marital status and income of spouse; lowered to age 60 for the disabled	£50–71 a week depending on marital status and degree of disability
			60 M	Early Retirement Pension (began 1981)	Men unemployed for at least 1 year
		62–64 M 59 F	Part-time Job Release Scheme (began 1983)	Worker must shift to part-time work and unemployed person recruited for other one-half of job; from May 1985, employers recruiting unemployed replacement workers that meet certain conditions receive grant of up to £840	£29–41 a week depending on marital status, with supplement of £4
			Disability	100-percent disabled	Up to £54 a week plus unemployment supplement of £31 a week; if 20-percent to 90-percent disabled, £11–48 a week

Exhibit 1. Continued—Inventory of early retirement and disability schemes in Europe and North America, 1961–85					
Country	Retirement age		Program	Conditions for eligibility	Amount of pension
	M-male	F-female			
	Normal	Early			
United States	65 ⁶	62	Early Retirement Option (began 1956 for women, 1961 for men)		Benefits reduced 5/9 of 1 percent for each month prior to normal age ⁷
		55 ⁸	Private pension plans	Depends on plan	Depends on plan
			Public employee plans	Depends on plan	Depends on plan
			Basic steel collective agreements ⁹	Employees whose service is interrupted by a plant or department shutdown	Varies
			Early retirement in individual firms (for example, Dupont, Caterpillar Tractor, began 1985)	Varies with firm	Varies with firm
Disability Insurance Program	Person is unable to work due to physical or medical impairment expected to last at least 1 year or result in death	Varies			
Commission of the European Communities		55	Social <i>volet</i> , 1981 ¹⁰	Workers in steel companies undergoing restructuring; retirement age is 50 in special cases	Given for up to 3 years

¹ In 1984, the Danish Parliament passed Act No. 217 which codified into a single act all the previous schemes.
² Incentive of 5 percent a year for delaying retirement has been eliminated.
³ Under the reorganization plan adopted in the Saar in 1977, the early retirement age was set at 55.
⁴ In 1979, it was extended to include public sector workers.
⁵ Originally applicable only in Assisted Areas, it was extended to rest of country.
⁶ In 1983, eligibility age for full retirement benefits was raised from 65 to 67, to be gradually phased in between 2002 and 2027.
⁷ In 1983, the early retirement reduction in benefits claimed at age 62 was raised from 20 percent to 30 percent, to be phased in gradually between 2002 and 2027.
⁸ Most common minimum age.
⁹ For example, Pension Agreement Between the United States Steel Corporation and the United Steelworkers of America, July 31, 1980.
¹⁰ Matching contribution from member state.
 SOURCES: See Economic Commission for Europe, *Economic Survey of Europe in 1985–1986* (New York, United Nations, 1986), p. 109.

eligibility requirements. However, since the early 1970's, a number of strategies have been implemented based upon short-run cyclical considerations, rather than on long-term perspectives. As unfavorable developments in the world economy beginning in the late 1960's generally raised unemployment levels and reduced the ability of economically vulnerable groups, including the aged and the disabled, to find and retain suitable employment, pressures mounted for additional initiatives. The result was a series of new plans combined with a relaxation and reinterpretation of existing laws. By 1975, for example, Italy had adopted provisions for early retirement with full benefits for long service, while Belgium, Finland, France, and Sweden permitted early retirement for reasons of involuntary unemployment, and in Austria and the Federal Republic of Germany either condition was sufficient.

In recent years, governments have shied away from lowering statutory retirement ages, preferring instead to rely on early retirement schemes. One possible explanation for this preference is the intended temporary character of these schemes, while modifying the statutory retirement age im-

plies a permanent change. Such strategies permit a review and adjustment of early retirement schemes in the light of changing employment conditions and minimize the possibility of early retirement being enshrined as a right.

As already noted, other developments have involved disability pensions. In the Federal Republic of Germany, Finland, and the Netherlands, a series of changes in the definition of disability in the 1960's and 1970's provoked a substantial jump in the awarding of benefits on these grounds. In Germany, the Federal Social Court issued rulings in 1969 and 1976 requiring pension institutions to place greater emphasis on whether an appropriate job existed in adequate numbers before reaching an unfavorable disability determination. In 1973, legislation in Finland eased the statutory disability definition to permit a person's overall social situation to be taken into account. That same year, the Netherlands also broadened the definition of disability in the light of prevailing labor market conditions by taking into consideration the likelihood of the disabled finding suitable employment. In Sweden, disability pensions can be awarded on the grounds of redundancy without a medical

examination of the applicant, and in Norway, the employment situation is one of the factors used in determining the degree of disability. In addition, Norway and Sweden permit early retirement on grounds of "premature aging." Consequently, in a number of countries many awards for total disability have been granted to those only partially incapacitated but for whom no suitable job was available.

The nature of the retirement decision

A multitude of factors, alone or in conjunction, influence a worker's decision to withdraw prematurely from the labor force. These factors include the difference between post- and pre-retirement income, the unemployment rate, the extent of social security benefits and availability of private pension plans, the tax structure, and the inflation rate. Other factors, while not economic (and more difficult to quantify), are no less important in the decision to opt for early retirement. These are job satisfaction, stress, ill health or disability, the desire for leisure, marital status, and the presence of dependents.

By encouraging workers to retire prematurely, the schemes described above have contributed to one of the most prominent labor market developments since the early 1960's, namely the unprecedented drop in the participation rates of older men.⁷ Since 1960 (and particularly after 1970), participation rates have fallen precipitously among men aged 60 to 64, while declining less sharply, but in most cases still substantially, for those aged 55 to 59. This despite modest increases in life expectancy at older ages, improvements in health conditions and levels of educational attainment, and a long-term trend towards higher levels of inflation, all of which would provide a stimulus for labor market activity.

Table 1 presents comparative data on the labor force

participation rates of older workers for selected years. For 11 countries of Western Europe and North America, the unweighted average of activity rates for men aged 60 to 64 fell from 60.6 percent in 1975 to 44.0 percent by around 1984. Within the relatively brief 14-year span between 1970 and 1984, labor market activity rates of such men plummeted by more than 2.5 percentage points annually in Belgium, Denmark, France, Germany, and the Netherlands; fell to a lesser extent in Austria, Finland, and the United Kingdom (between 1.5 and 2.5 percentage points a year); and declined more modestly in Italy, Sweden, and the United States (less than 1.5 points a year). An average decline of 2.8 points took place in France, despite pension rates which are very progressive between the ages of 60 and 65 and which thus would discourage early retirement.⁸

Falling participation has also characterized men aged 55 to 59 in 9 of the 10 countries for which data are available. However, in all of those countries, the decline was considerably less steep than for men in the subsequent 5-year age group. This is not surprising given the fact that, for the majority of early retirement schemes, eligibility is limited to workers aged 60 to 64. For all countries, the average unweighted activity rate of men 55 to 59 declined from 83.2 percent to 77.2 percent between 1975 and 1984.

Generalizations concerning the pace of changes in participation rates are difficult. Since 1980, the rate of decline in male participation for those aged 60 to 64 has tapered off in six countries (Belgium, Denmark, Finland, Germany, Sweden, and the United States), and it is likely that a lower limit is being approached in these countries. In France, the Netherlands, and the United Kingdom, the declines in participation rates have accelerated since 1980.

Trends in women's participation rates display a greater degree of divergence than those for men. Between 1970 and

Exhibit 2. Availability of early retirement options in 14 countries, 1985

Country	Early retirement option					
	Disability	Unemployment	Reduced benefit	Long service	Arduous occupations	Partial retirement
Austria	X	X	—	X	X	—
Belgium	X	X	—	X	X	—
Denmark	X	X	—	—	—	—
Finland	X	X	—	—	—	—
France	X	X	X	—	X	X
Federal Republic of Germany	X	X	—	X	—	X
Italy	X	X	—	X	—	X
Netherlands	X	X	—	—	—	—
Norway	X	—	—	—	—	—
Sweden	X	X	X	—	—	X
Switzerland	X	—	—	—	—	—
United Kingdom	X	X	—	—	—	X
Canada	X	—	—	—	—	—
United States	X	—	X	—	—	—

Table 1. Labor force participation rates of older workers by age and sex, selected years, 1970-84

Country and sex	55-59 years					60-64 years					65 years and over				
	1970	1975	1980	1984	Average annual change	1970	1975	1980	1984	Average annual change	1970	1975	1980	1984	Average annual change
Men															
Austria	-	-	-	175.1	-	47.7	37.1	27.5	121.5	-2.0	-	-	25.9	126.7	0.3
Belgium	-	82.2	374.0	470.5	-2.0	-	58.3	340.1	434.1	-4.0	-	212.4	238.8	246.2	-1.0
Denmark	-	584.5	81.8	687.8	0.5	-	574.5	59.7	656.9	-2.9	-	2,547.0	236.0	634.5	-2.1
Finland	76.6	71.3	67.6	70.0	-0.5	65.0	52.8	43.0	43.0	-1.6	19.0	10.4	17.0	12.0	-0.5
France	-	83.3	80.9	68.1	-1.7	-	56.7	47.6	31.1	-2.8	-	222.7	214.3	211.0	-1.3
Germany	89.2	85.7	82.3	80.1	-0.7	74.7	58.3	44.2	35.2	-2.8	230.6	11.0	7.4	29.4	-1.5
Italy	81.0	77.8	74.8	173.3	-0.6	48.2	42.4	39.6	136.8	-0.9	12.9	10.4	12.6	116.3	0.3
Netherlands	786.9	80.3	74.2	472.6	-1.4	773.9	64.9	50.1	443.7	-3.0	711.4	8.0	4.8	44.1	-0.7
Sweden	790.9	89.7	87.7	687.2	-0.3	778.1	74.0	69.0	668.4	-0.9	728.9	19.9	14.2	11.1	-1.6
United Kingdom ⁶	793.1	93.0	90.1	82.0	-0.8	782.9	82.3	71.2	56.7	-2.0	2,730.4	225.9	216.6	213.5	-1.3
Canada	-	-	-	-	-	-	-	-	-	-	24.3	18.5	14.7	12.6	-3.2
United States	89.5	84.4	81.9	80.2	-0.7	75.0	65.7	61.0	56.1	-1.4	26.8	21.7	19.1	16.3	-0.8
Average	86.7	83.2	79.5	77.2	-0.8	68.2	60.6	50.3	44.0	-2.2	23.0	18.9	14.3	12.8	-1.3
Women															
Austria	-	-	-	125.9	-	-	-	8.8	17.6	-0.4	-	-	22.7	124.0	0.4
Belgium	-	21.3	319.1	417.2	-0.7	-	7.8	36.4	45.8	-0.3	-	22.5	231.7	242.5	0.0
Denmark	-	547.6	52.0	658.5	1.8	-	531.2	28.9	630.4	-0.1	-	12.1	212.7	613.1	0.2
Finland	56.1	56.4	57.0	66.0	0.7	35.9	32.5	27.4	38.0	0.2	4.4	2,529	6.0	4.0	0.0
France	-	43.5	47.3	42.9	-0.1	-	29.8	27.3	19.0	-1.2	-	211.7	26.8	225.9	-0.6
Germany	37.2	38.4	38.7	40.2	0.2	22.5	16.4	13.0	11.8	-0.8	210.7	4.4	3.0	24.5	-0.4
Italy	18.2	17.3	21.4	120.8	0.2	10.6	8.5	11.0	110.5	0.0	2.6	2.1	3.5	14.3	0.1
Netherlands	717.7	17.9	18.2	420.2	0.3	711.9	10.7	9.8	49.9	-0.2	72.2	1.7	0.9	40.8	-0.1
Sweden	754.6	60.8	68.8	672.1	1.6	734.5	38.3	41.0	646.2	1.1	78.7	6.1	3.7	3.8	-0.4
United Kingdom ⁶	750.9	52.4	53.6	51.1	0.0	728.8	28.6	22.4	21.2	-0.6	2,763.3	24.9	23.6	23.0	-0.3
Canada	-	-	-	-	-	-	-	-	-	-	-	-	4.3	4.7	-1.8
United States	49.0	47.9	48.6	49.8	0.1	36.1	33.3	33.3	33.4	-0.2	9.7	8.3	8.1	7.5	-0.2
Average	40.5	40.4	42.5	42.2	0.4	25.8	23.7	20.8	21.3	-0.2	6.4	5.7	4.8	4.8	-0.4

1 Data relate to 1983.

2 Data relate to persons age 65 to 69 years.

3 Data relate to 1979.

4 Data relate to 1981.

5 Data relate to 1976.

6 Data relate to 1982.

7 Data relate to 1971.

8 Data relate to Great Britain only.

NOTE: Dashes indicate data are not available.

SOURCE: Mikrozensus 1983, Beiträge Zur Österreichischen Statistik, Vienna, 1984; Statistisches Handbuch für die Republik Österreich, various issues, Österreichischen Statistisches Zentralamt; Eurostat, Labour Force Sample Surveys, various issues, Luxembourg; Arbejdsmarkedet, Danmarks Statistik, various issues, Copenhagen; Labour Reports, various issues, Ministry of Labour, Helsinki, Finland; Annuaire Statistique de la France, 1984, INSEE, Paris; Enquête Sur l'Emploi de 1984, les Collections de l'INSEE, D 105; Statistisches Jahrbuch, various issues, Statistisches Bundesamt, Wiesbaden; Annuario di Statistica del Lavoro, various issues, Istituto Centrale di Statistica, Rome; Netherlands, unpublished data provided by the Central Statistical Office, 1985; För Gammal För Arbeta? Beträkande fran äldrearbetskommittén, Stockholm, 1983; The Labour Force Surveys 1970-1980, Statistiska Meddelanden, AM 1981:33, Stockholm; Arbetskraftsundersökningarna 1984, Statistiska Meddelanden, AM 12 SM 8501; Employment Gazette, July 1985, Department of Employment, London; The Labour Force, various issues, Statistics Canada, Ottawa; Employment and Earnings, various issues, Department of Labor, Washington DC.

1984, women aged 60 to 64 reduced their rates by more than 0.5 point a year in three of the countries studied, while in six countries the activity rate changed little (between -0.3 and +0.2 point on an average annual basis). Sweden was exceptional in that a significant increase took place (1.1 percentage points a year). For women aged 55 to 59, participation rates declined only in Belgium and France. Generally, the male-female ratio of early pensioners for Western Europe as a whole has been approximately 3 to 1, whereas the ratio of men to women in the labor force has been around 1.6 in recent years. One conclusion to be drawn from the data is that older women, particularly those not married, display a stronger labor force attachment than their male counterparts. Among the possible reasons for this phenomenon is that the shorter time women spend in the labor force and lower wages of female workers result in smaller lifetime earnings upon which pension benefits are based. In addition, early retirement programs have been concentrated in the industrial

sector, and particularly manufacturing. It is in this sector that men predominate to a greater degree than in the total labor force.

Program characteristics and costs

Despite the extensive number and coverage of early retirement schemes, data do not exist in sufficient detail to permit the scope and effects of the schemes to be quantified. One difficulty is the fact that several different funds in a single country may dispense pensions, with no agency collecting data on a national basis. (In France, for example, there are currently more than 100 different pension funds.) Thus, information on numbers of early retirees, their previous occupational and industrial characteristics, and the costs incurred for early-out programs is for the most part not published regularly, if at all. In the United States, the existence of a vast array of private pension schemes (about 500,000) operating independently of the Social Security

system makes data collection virtually impossible.⁹ In recent years, a number of U.S. companies have offered “golden handshakes,” or early retirement, to employees as a means of thinning out their work forces, but data on such programs are, of course, not reported to Social Security authorities.¹⁰ Table 2 provides some estimates of the size of the various programs, which, if aggregated, indicate that in Western Europe and North America there were more than 5 million recipients of early retirement pensions and at least 11 million recipients of disability pensions in 1984. To the extent that private pension plans are operating, these numbers are understated. To gauge the relative size of such programs, the numbers of disabled as a proportion of the total labor force and of early retirees as a proportion of the appropriate age group have also been calculated.

Many of the legislative and policy changes of recent years are reflected in the data. The number of disability pensions in force as a percentage of the labor force increased from 6.4 percent to 8.7 percent in the Federal Republic of Germany between 1975 and 1984, went from 7.9 percent to 9.4 percent in Finland between 1970 and 1983, and almost tripled, from 4.4 percent to 12.2 percent, in the Netherlands between 1970 and 1984. For many years of the study period, the number of disability pensions awarded to men in the Federal Republic of Germany exceeded the number of retirement pensions. During the 1970's, the proportion of traditional pensions fell from 40 percent to 10 percent of the total as a consequence of the high takeup of early retirement and disability schemes. Another contributing factor in the flourishing of disability pensions in a number of countries is a replacement ratio (benefits as a proportion of previous earnings) for disability payments that often is higher than that for unemployment payments. In some cases, the pension exceeds predisability income. The rapid growth in the United States disability program, however, is surprising, as the criteria for disability have remained quite stringent and the program is not intended to pay benefits to either healthy unemployed workers or to those with only marginal impairments. Nevertheless, the number receiving disability benefits in that country rose sharply between 1970 and 1980.¹¹

One basic distinction among national disability systems has been the minimum reduction of work capacity required for eligibility. In the Netherlands, a reduction of only 15 percent is necessary, while in many countries, it is between 50 percent and 66 percent. The United Kingdom and the United States are at the other end of the spectrum, demanding that the recipient be totally incapable of work. It is interesting to note that in the Netherlands and in Sweden (where only a 50-percent reduction in work capacity is required), more than 85 percent of the beneficiaries were receiving the full benefit in 1978. This contrasts sharply with systems that base disability ratings on a medical scale and under which only a minority of beneficiaries receive the maximum benefit.

Lack of data severely restricts cross-national comparisons

and makes it difficult to discern any clear patterns. This is certainly the case if attempting to generalize about the relationship between early retirement and declining activity rates among older men. Of those countries with either a large proportion of early retirees—Denmark, Finland, Germany, and the United States, with more than 15 percent of the appropriate age—or a large proportion of disability pensioners—Italy, the Netherlands, and Norway, with more than 10 percent of the labor force—only in Denmark, the Federal Republic of Germany, and the Netherlands has there been a substantial fall in the labor force participation of men aged 60 to 64.

Looking at the countries with the most significant declines in participation rates (for example, Belgium, Denmark, and the Netherlands), one might conclude that the decline is a function of more favorable pension characteristics (such as higher earnings replacement ratios and lower thresholds of eligibility) than those in countries such as the United States which display much smaller declines in participation rates and less generous benefits. While this may hold true to a certain extent, it should also be borne in mind that not negligible declines also have taken place in the United States. Although Social Security policy in that country was not altered to foster early retirement over the study period, and in fact was modified to encourage the postponement of retirement, the proportion of men aged 62 to 64 who were out of the labor force rose from 31 percent to 52 percent between 1970 and 1983.¹² In the United States, the response to mounting unemployment has been to continue the historical approach of temporarily extending the duration of unemployment benefits. Given the lower unemployment benefits and shorter eligibility period as compared with most of the European countries, the United States figures suggest that a “discouraged worker” effect might be operating, whereby older workers unable to find employment are dropping out of the labor force in order to collect actuarially reduced pension benefits at an earlier age.¹³ A negative relationship between rising unemployment and older male participation is suggested by the data for Belgium, Denmark, and the Netherlands, countries that have concomitantly experienced substantial increases in unemployment and large outflows of 60- to 64-year-old men from the labor force. This contrasts with low unemployment countries such as Austria, Finland, and Sweden, where declines in the participation rates of men in the same age bracket have been of a much more modest nature.

It can be also noted that, by around 1980, a stabilization or tapering off occurred in the growth of disability pensions in some countries—Denmark, Finland, the Netherlands, and the United States—which has been offset to some extent by an acceleration in the number of workers opting for early retirement.¹⁴ One might thus speculate that, provided with a choice, workers are showing a growing preference for early retirement pensions as opposed to disability pensions. This may also be a reaction to various caps on government

expenditures which resulted in the application of stricter criteria in the awarding of disability pensions. The lax interpretation of disability criteria which prevailed in the 1970's helped foster a situation whereby in some countries, such as Italy, the Netherlands, and Norway, the ratio of labor force participants to disability pensioners had fallen to approximately 8 to 1 by the early 1980's.¹⁵

An examination of the available data on early retirees classified by industry of previous employment reveals that early retirement is concentrated in those sectors where employment contractions have been most pronounced, such as textiles and clothing, engineering, metal industries, and construction. In Belgium, France, the Federal Republic of Germany, and the United Kingdom, participants tend to be a very atypical sample of the labor force, with unskilled and semiskilled manual workers being overly represented among early retirees and professionals and managers under-

represented. The population of disability pensioners in Sweden also exhibits such a bias, heavily weighted towards unskilled workers in declining industries.

Evaluating early retirement schemes

How effective a weapon is the promotion of early retirement in combating unemployment? Given both the popularity and enormous costs associated with early retirement schemes, the dearth of studies evaluating estimated versus real costs of the plans is surprising. One method often used to assess public expenditures, cost-benefit analysis, can serve as the basis for evaluations of early retirement schemes. However, the problems that arise with this technique are formidable and involve, firstly, the numerous factors that must be taken into consideration, and secondly, the values to impute to the factors. Leaving aside the question of imputed values, a cost-benefit taxonomy displaying

Table 2. Number of beneficiaries of selected retirement and disability pensions, 12 countries, selected years, 1970-85

[Numbers in thousands]

Country	Plan type	1970	1975	1980	1981	1982	1983	1984	1985
Austria	Long-service/unemployment	-	52	64	73	86	-	-	-
	Percent of population 55-64	-	27.3	8.7	9.6	10.9	-	-	-
Belgium	Early retirement ¹	-	333	81	99	117	129	-	-
	Percent of population 55-64	-	33.5	8.1	9.7	11.1	11.5	-	-
Denmark	Voluntary early retirement	-	-	53	63	70	76	-	-
	Percent of population 60-69	-	-	10.5	12.4	13.8	15.1	-	-
Finland	Disability	112	149	152	151	152	141	-	-
	Percent of labor force	4.7	6.0	5.7	5.7	5.7	5.3	-	-
Finland	Unemployment	1	13	17	23	33	35	-	-
	Percent of population 60-64	0.4	5.6	8.1	10.7	14.9	15.5	-	-
Finland	Special early retirement	-	-	-	-	45	-	-	-
	Percent of population 55-64	-	-	-	-	9.2	-	-	-
France	Disability	172	249	243	240	236	238	-	-
	Percent of labor force	7.9	11.0	10.0	9.7	9.3	9.4	-	-
France	Early retirement ³	13	84	215	330	488	696	675	4634
	Percent of population 55-64	0.5	2.0	4.5	6.5	9.1	12.4	11.7	-
Federal Republic of Germany	Early retirement	-	1,089	1,407	1,503	1,613	1,718	1,822	-
	Percent of population 55-64	-	18.3	23.8	24.6	25.2	25.6	27.6	-
Federal Republic of Germany	Disability ⁵	-	1,715	2,025	2,129	2,252	2,357	2,373	-
	Percent of labor force	-	6.4	7.5	7.8	8.2	8.6	8.7	-
Italy	Disability	-	-	-	-	-	3,139	3,046	-
	Percent of labor force	-	-	-	-	-	13.5	13.0	-
Netherlands	Early retirement	-	-	20	-	-	-	-	-
	Percent of population 60-64	-	-	3.4	-	-	-	-	-
Netherlands	Disability Security/General	-	-	-	-	-	-	-	-
	Disability Act	215	349	661	689	711	728	4741	757
Netherlands	Percent of labor force	4.4	6.9	12.0	12.2	12.2	12.3	12.2	-
	Disability ⁶	-	-	192	191	197	204	219	-
Norway	Percent of labor force	-	-	9.7	9.7	9.9	10.1	10.8	-
	Flexible (partial) retirement	-	715	67	63	61	54	-	-
Sweden	Percent of population 60-64	-	3.1	14.3	13.0	12.4	11.0	-	-
	Disability	212	289	293	302	309	314	-	-
Sweden	Percent of labor force	5.4	7.0	6.8	7.0	7.1	7.2	-	-
	Job release scheme	-	810	866	858	867	995	1086	1054
United Kingdom	Percent of population 60-64	-	0.4	2.6	2.2	2.5	3.4	-	-
	Early retirement	-	-	-	27	-	-	-	-
United Kingdom	Percent of population 60-64	-	-	-	1.0	-	-	-	-
	Early retirement ¹¹	1,225	1,723	2,017	2,115	2,213	2,321	2,407	102,453
United States	Percent of population 60-64	14.1	18.3	19.9	20.4	20.9	21.6	23.2	-
	Disability Insurance Program ¹²	2,665	4,352	4,682	4,456	3,973	3,813	3,822	103,857
United States	Percent of labor force	3.1	4.5	4.3	4.1	3.5	3.4	3.3	3.3

¹ Includes contractual, statutory, and special schemes.

² Data relate to 1977.

³ Data relate to December 31.

⁴ Data relate to July 31.

⁵ Includes occupation and employee disability pensions.

⁶ National insurance.

⁷ Data relate to 1976.

⁸ Data relate to April.

⁹ Data relate to September.

¹⁰ Data relate to March.

¹¹ Retired workers aged 62 to 64 receiving Social Security benefits.

¹² December of each year. Includes dependents and relates only to payments under Social Security.

NOTE: Dash indicates data not available.

SOURCE: See Economic Commission for Europe, *Economic Survey of Europe in 1985-1986* (New York, United Nations, 1986), p. 109.

Exhibit 3. Benefits and costs of early retirement schemes to the program participant, employer, and government

Party	Benefits	Costs
Program participant:		
Retiree	<ul style="list-style-type: none"> ● Value of pension ● Value of leisure ● Social and psychological benefits of not being unemployed¹ 	<ul style="list-style-type: none"> ● Value of salary forgone ● Value of unemployment benefit foregone¹
Worker replacing retiree ²	<ul style="list-style-type: none"> ● Value of salary ● Value of training and experience ● Social and psychological benefits of not being unemployed 	<ul style="list-style-type: none"> ● Value of unemployment benefit foregone
Employer	<ul style="list-style-type: none"> ● Younger age structure of the work force ● Value of lower salary expenditures 	<ul style="list-style-type: none"> ● Loss of experienced worker
Government	<ul style="list-style-type: none"> ● Reduction in expenditures for unemployment benefits and other income transfer programs ● Increase in social security contributions² ● Increase in income taxes² 	<ul style="list-style-type: none"> ● Expenditures on early retirement schemes ● Decrease in social security contributions³ ● Decrease in income taxes³

¹ Assumes retiree would have been unemployed in the absence of scheme. ³ For schemes in which retiree is not replaced with another worker.
² For schemes which require that retiree be replaced with another worker.

the gains and losses associated with early retirement schemes for participants, employers, and governments is shown in exhibit 3. Even if based on variables that are only roughly approximated, such an accounting framework can highlight the equity considerations involved, as well as focus on economic efficiency. Although not appearing in the exhibit, another cost to be factored in is that of deadweight, namely payments to persons who would have retired anyway. Depending on whether the retiree is replaced or not, the exhibit would have to be modified accordingly.

This raises the issue of the extent to which retirees are replaced with other workers. As few countries have monitored schemes in progress or have incorporated an evaluation component into them, estimating the overall impact on employment is hazardous. Based on various published studies, table 3 provides, for selected schemes, estimates of the proportion of early retirees that have been replaced with other workers. Apparent is the range of replacement rates, which vary from a low of 25 percent in the Netherlands to 95 percent in France, where replacement of the retired worker is mandatory. However, in Belgium, where replacement is also obligatory, the rate is only 67 percent, despite fines which can be levied against offending employers. This is one indication of the difficulty involved in monitoring compliance with the schemes. Viewed in this way, alleviating unemployment by means of early retirement is much more costly in the Netherlands, where only 1 out of 4 early retirees is replaced, than in France where, under solidarity contracts, virtually all jobs vacated by early pensioners have been filled.¹⁶ However, even in those countries where the

replacement of retirees is mandated (Belgium and France), no studies have followed the employment of newly recruited workers beyond the obligatory employment period, which is normally 6 months to a year.

Another possible avenue of analysis would be to compare early retirement costs to alternative employment policies such as unemployment benefits. Table 4 compares the two policy options in terms of replacement ratios, that is, the ratio of the pension or unemployment benefit to the previous salary. With the exceptions of France, where unemployment payments are substantially higher than those for early retirement,¹⁷ and the Netherlands, where unemployment benefits are only slightly higher, early retirement payments have been equal to or have exceeded unemployment benefits in the countries for which data are available. Thus, the strong preference shown by workers for early retirement is not surprising. Furthermore, early retirement schemes are paid until the normal retirement age is reached, while entitlement to unemployment benefits usually lasts for a maximum of 2 years.

Conclusions

Even if early retirement schemes fail to boost the overall level of employment or satisfy criteria of economic efficiency, they may still be judged beneficial if employment is redistributed in favor of groups that suffer from disproportionately high rates of unemployment. On the other hand, if workers who are already unemployed are merely redefined as early retirees, nothing has been accomplished to meet the aspirations of these workers who wish to continue working.

In fact, the very existence of early-out schemes may remove any reluctance employers have in declaring workers redundant. This then becomes a rather expensive method of disguising unemployment.

The enormous potential outflow of older workers from the labor force as a consequence of demographic aging, further reinforced by incentives to retire early, would put serious pressures on national economies through its impact on national pension schemes. Part of the strain can be traced to imposing upon pensions a function for which they were never designed, that is, a mechanism for narrowing the gap between the supply of, and demand for, labor.¹⁸

By fostering early retirement as an ad hoc method of lowering unemployment, the danger exists of institutionalizing a short-term policy response. Given the anticipated drain on pension systems due to the growing propensity for early retirement and to population aging, the ongoing viability of early-out schemes will require that a growing share of national income be devoted to the support of older dependents.¹⁹ This will have significant ramifications for macroeconomic policies, public support programs, and tax measures. Dissipating the strain on pension schemes could take

Table 4. Comparison of early retirement and unemployment benefits, selected countries

Country	Early retirement benefit ¹	Unemployment benefit ²
Belgium	67	67
Denmark	92	92
Finland	80	44
France	65-75	90
Germany	377	68
Netherlands	80-85	89
Sweden	85-90	82

¹ Percent of previous salary.
² Rate of disposable income replacement of an unemployed "typical worker" (married worker with three dependents in 1982).
³ Based on monthly net salary of 2,214 DM.
 SOURCES: Exhibit 1; and Economic Commission for Europe, *Economic Bulletin for Europe*, vol. 85, no. 3, (New York, Pergamon Press for the United Nations, September 1983), p. 292.

the form of increasing employment, boosting productivity, raising employee and employer contributions, or some combination of the three options. Because the first two options are a function of macroeconomic developments, they are extremely difficult to implement.

The third possibility, being an administrative decision, would be relatively simple to undertake, although it could have serious and unintended repercussions. Burdening employers and employees with additional payroll taxes could be counterproductive as it may shrink the demand for labor. Furthermore, it may also stimulate even more retirement and promote a shadow, or underground, economy in which workers evade the payment of taxes.²⁰ (Yet, for early retirement options to be attractive, they should not be based on actuarially discounted pensions.)

Another factor to be taken into consideration if devoting a larger slice of national product to the elderly is the possible backlash against a redistribution of wealth if it is perceived as being at the expense of other population segments, such as children. In the United States, the sheltering of the Social Security program from budget cuts has been viewed by some as contributing to the substantial reductions in national programs benefiting children.²¹

From a long-term perspective, the advisability of encouraging premature retirement seems highly questionable. Given falling birth rates and subsequent future contractions in the working-age population, labor force growth will come to a virtual standstill in developed countries by the turn of the century. In addition, the ratio of pensioners to wage earners contributing to social security programs will rise. A more appropriate future policy would thus appear to call for gradually raising the mandatory age of retirement, while eliminating the incentives to early retirement. □

Table 3. Replacement rates of early retirement schemes

Country and scheme	Percent of retirees replaced
Belgium: Early retirement pension	67
Denmark: Early retirement scheme	70-75
Finland: Early retirement for veterans	45
France: Solidarity contracts	95
Germany: Early retirement for long service	60
Netherlands: Early retirement	25
Sweden: Partial pension	50
United Kingdom: Job release scheme	70-75

SOURCES: *Social Security, Unemployment and Premature Retirement, Studies and Research*, No. 22, International Social Security Administration, Geneva, 1985, pp. 37, 47; *Efficiency of Labour Market and Employment Policy Measures*, Study No. 82/6, p. 131, Commission of the European Communities, Brussels, 1982; M. Frossard, "Crise et cessations anticipées d'activité: une comparaison internationale," *Travail et Emploi*, Ministère des affaires sociales et de la solidarité nationale, April-June 1983, No. 16, Paris, p. 24; *Monthly Labor Review*, October 1985, Department of Labor, Washington DC, p. 40; D. Metcalf, *Alternatives to Unemployment, Special Employment Measures in Britain*, Policy Studies Institute, London, 1982; R. Layard, *Unemployment in Britain, Causes and Cures*, Centre for Labour Economics Discussion Paper No. 87, London School of Economics, 1981.

—FOOTNOTES—

¹ Wage subsidy schemes, a measure designed to boost the demand for labor, were discussed in Economic Commission for Europe, *Economic Survey of Europe in 1983* (New York, United Nations, 1984), pp. 38-54.

² For example, under the Social Security system, retirement with actuarially reduced benefits prior to age 65 was initially made available to women

in 1956 and in 1961 to men. With the United States in the midst of a recession in 1961 and suffering from almost 7-percent unemployment, it was recognized that unemployed older workers would encounter enormous difficulties in finding jobs.

³ It should be noted that the expansion of disability programs was also

partly a consequence of the changing definition of good health; thus, eligibility criteria for disability have been loosened not only for employment reasons.

⁴ Economic Commission for Europe, *Economic Survey of Europe in 1985-86* (New York, United Nations, 1986), p. 45.

⁵ *World Population Prospects: Estimates and Projections as Assessed in 1984* (New York, United Nations, 1986).

⁶ In Norway, schemes have been implemented to encourage the continuation of work beyond the normal pensionable age of 67. Given the extremely low levels of unemployment in that country, the government has not found it necessary to foster premature retirement. (Over the 1980-85 period, the unemployment rate in Norway never exceeded 3.3 percent).

⁷ A substantial amount of research exists concerning the contribution of early retirement schemes to falling male participation. See, for example, Virginia Reno and Daniel Price, "Relationship Between the Retirement, Disability and Unemployment Insurance Programs: The U.S. Experience," *Social Security Bulletin*, May 1985; *Social Security, Unemployment and Premature Retirement*, Studies and Research No. 22 (Geneva, International Social Security Association, 1985); and "Bilan de L'Emploi, 1984," *Dossiers Statistiques du Travail et de l'Emploi* (Paris), September 1985, No. 12-13.

⁸ In France, the lowering of the normal retirement age in 1984 from 65 to 60 does not appear to have had any noticeable impact yet on the trend in male participation. The activity rate for men 60-64 was 2.5 percentage points lower in 1984 than in 1983, which is in keeping with the downward movement that has been observed in the last few years. It had been predicted that a decline in the retirement age would result in 350,000 additional retirees. See Roland Cuvillier, *The Reduction of Working Time* (Geneva, International Labor Office, 1984), p. 63.

⁹ A 1979 survey of private pension plan coverage in the United States found that about 50 percent of all men and 31 percent of all women who were employed in private industry were covered by private pension plans. Gayle Rogers, *Pension Coverage and Vesting Among Private Wage and Salary Workers, 1979: Preliminary Estimates from the 1979 Survey of Pension Plan Coverage*, Working Paper No. 16 (Washington, Office of Research and Statistics, Social Security Administration, 1980).

¹⁰ In the United States, the prevalence of early retirement options in pension plans of medium and large sized firms was confirmed in a study by the Bureau of Labor Statistics which estimated that 58 percent of workers were included in plans that permitted early retirement. See *Employee Benefits in Medium and Large Firms*, Bulletin 2176 (Bureau of Labor Statistics, August 1983).

¹¹ A recent study concerning the United States concluded that the increasing relative generosity or leniency of disability programs has had a small but statistically significant impact on the work choice of older persons. Older low-wage earners with health problems are identified as those most responsive to changes in program benefits. See Robert Haveman and Barbara Wolfe, "Disability Transfers and Early Retirement: A Causal Relationship?" *Journal of Public Economics*, vol. 24, 1984, pp. 47-64.

¹² Based on a detailed analysis of longitudinal data, a recent study concluded that the accelerating decline in labor force participation of older men between 1969 and 1973 in the United States can be explained by the substantial increase in real Social Security benefits that took place in that period. See Michael Hurd and Michael Boskin, "The Effect of Social Security on Retirement in the Early 1970's," *Quarterly Journal of Economics*, November 1984, pp. 767-90.

¹³ Despite the accumulation of a considerable body of research, a comprehensive understanding of the interrelations associated with cyclical labor market behavior does not yet exist. The relationship between changes in labor force participation and unemployment in terms of added workers and discouraged workers continues to invoke controversy. If, during recessions, job hunters become discouraged and withdraw from the labor force, measured unemployment would be artificially deflated. On the other hand, if people enter the labor market looking for jobs (added worker effect), possibly due to an out-of-work spouse, recorded unemployment will be higher. An analysis of monthly employment-status transition probabilities for the United States for the years 1968-84 has led one researcher to suggest that, during recessions, the likelihood of an unemployed person

dropping out of the labor force decreases while the probability of someone outside the labor force entering the labor force increases. This casts doubt on the widely held discouraged worker effect which would predict just the opposite pattern. See Michael Keeley, "Cyclical Unemployment and Employment Effects of Labor Force Entry and Exit," *Economic Review*, Federal Reserve Bank of San Francisco, Summer 1984, pp. 3-22.

¹⁴ In a number of studies carried out in the late 1970's, it was shown that for the Nordic countries, regional variations in disability density could be explained by the regional unemployment rate, while in the United States, the increase in the number of disability benefit applications was linked to the unemployment rate. See P. Siren, "Taloudellisen tilanteen ja tyokyvyttömyyden valiset sushteet," *Työkyvyttömyys-tutkimuksen tehtävät ja mahdollisuudet* ["The Economic Situation and Disability," *Purpose and Possibility of the Study on Disability*] (Helsinki, Social Insurance Institution, 1979); and Mordechai Lando, Malcolm Coate, and Ruth Kraus, "Disability Benefit Applications and the Economy," *Social Security Bulletin*, October 1979.

¹⁵ In view of the unremitting climb in disability payments, the government of the Netherlands imposed more restrictive criteria for the determination of disability and instituted a number of budgetary cutbacks for the pension system in 1984. The same year, in Italy, legislation came into effect which eliminated linking disability to the state of the labor market. The new act refers only to a reduction in work capacity based on an assessment of the physical and mental condition of the applicant. Likewise, in 1984, the U.S. Congress passed legislation completely overhauling the disability program. At present, a review of all those on the Social Security disability rolls is being carried out. The new rules provide that individuals can only continue receiving disability benefits if there has been no medical improvement in their ability to work since the last evaluation. In a previous review process in 1981, 100,000 people lost their disability benefits.

¹⁶ Assuming 15-percent nonreplacement and 10-percent deadweight, it was estimated that under the Job Release Scheme in the United Kingdom, the net exchequer cost of removing one person from the unemployment register was 676 pounds in 1978. This was considered to be one-third the cost associated with a general reduction in retirement age. See David Metcalf, *Alternatives to Unemployment: Special Employment Measures in Britain*, no. 610 (London, Policy Studies Institute, 1982), p. 48.

¹⁷ Despite smaller early retirement payments relative to unemployment benefits in France, in 1983 the government spent 43 billion francs on early retirement as compared with 41 billion francs for unemployment benefits.

¹⁸ In the United States, the possibility of early retirement has been viewed less as a method to regulate the supply of labor and more as a means of providing a greater choice between work and leisure. Under the Social Security Amendments enacted in 1983, the eligibility age for full retirement benefits was raised from 65 to 67, to be gradually phased in between the years 2002 and 2027. In addition, the early retirement reduction in benefits claimed at age 62 was increased from 20 percent to 30 percent, while the benefit increment for delayed receipt of retirement benefits was augmented from 3 percent to 8 percent a year. These modifications were motivated by the urgent need to rescue the Social Security system from the brink of bankruptcy.

¹⁹ A series of calculations carried out for nine countries of Western Europe and North America indicated that lowering the age of retirement from 60 to 55 in 1990 would require that an additional 1.5 percent to 3.4 percent of gross domestic product be devoted to pension expenditures. See Economic Commission for Europe, *Economic Bulletin for Europe*, vol. 85, no. 3 (New York, Pergamon Press for the United Nations, September 1983), p. 314.

²⁰ Econometric studies have shown that taxes imposed on wages have a statistically significant and quantitatively important impact on the probability of retirement. This raises the spectre of a self-reinforcing trend towards early retirement, spawning even greater levels of nonparticipation on the part of those workers unwilling to shoulder the burden of additional taxes. See, for example, Harvey Rosen, "What is Labor Supply and Do Taxes Affect It?" *American Economic Review*, May 1980, pp. 171-76.

²¹ See S. Preston, "Children and the Elderly: Divergent Paths for America's Dependents," *Demography*, November 1984, pp. 435-57; and "Creating a New Class Among Young, Poor," *The International Herald Tribune*, Oct. 29, 1985, p. 1.