

Preparing the Labor Market for an Aging Population

Designing public policy to increase labor force participation

by

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A COMMON VIEW among policymakers is that population aging represents a growing threat to European economies. Because pensions and old age health insurance are largely funded out of public budgets, increases in the percentage of the population past retirement age must eventually cause a steep increase in the fraction of government budgets devoted to old age consumption and a rise in public spending. According to some economists, either taxes or government debt will be pushed to unsustainable levels unless public programs are significantly reformed to curtail health and pension benefits.

The extra burden of an aging population could be reduced if labor force participation rates among the working-age and elderly populations increased. Employment rates among the nonaged have risen in many rich industrialized countries as a growing percentage of women has entered the work force. In addition, many countries have adopted policies to actively encourage work among people past the traditional retirement age.

This essay will examine ways in which the burden of an older population can be reduced by increasing participation rates among the aged. The effects of this kind of policy depend critically on three factors. First, what is the current level of labor force participation among working-age and older workers? Second, can we identify labor market policies that will increase participation among groups, like the elderly, who have traditionally had low participation rates? And third, will policies that increase labor force participation in the elderly population depress employment rates among the non-elderly, especially among young adults who are trying to enter the labor force?

Participation rates in southeastern Europe

The analysis in this essay focuses on the situation in nine southeast European countries – Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Romania, Serbia and Montenegro, and Slovenia. Chart 1 shows estimates of labor force participation rates, or economic activity rates, by age in the nine countries. Activity rates displayed in Chart 1 represent the combined rate for both men and women. The estimates reflect the unweighted nine-country average of participation rates as estimated by the International Labour Organization (ILO) for three years of the past quarter century – 1980, 1995, and 2005.

In each year we see a characteristic pattern of rising activity rates between ages 15 and 25, relatively stable rates between ages 25 and 44, and accelerating declines in

participation after age 45. In 2005 the peak participation rate was attained between ages 35 and 39. Among adults between 55 and 59 the participation rate is only about half the rate of adults age 35-39, and among adults past age 65 it is only one-seventh the rate among 35-39 year-olds.

Population ageing in southeastern Europe has gradually increased the importance of adults in older age groups, which have very low economic activity rates. According to United Nations estimates, the proportion of the adult population that is 55 or older increased from 22% in 1980 to 29% in 2005. U.N. population projections imply that the percentage of adults in southeast Europe who are past age 55 will increase to 36% by 2020.¹ This trend will increase the importance of old-age labor force participation rates in the determination of the overall adult participation rate. Between 1980 and 2005 the economic activity rate of people over age 15 would have declined 2.8 percentage points, from 65.0% to 62.2%, even if participation rates in each age group had remained unchanged. Between 2005 and 2020, the overall participation rate should fall an additional 1.1 percentage points as a result of population ageing, even if there is no change in age-specific participation rates.

The impact of a growing number of elderly adults has been partially offset by the steep decline in relative size of young adult cohorts. Between 1980 and 2005 the proportion of the adult population that is between 15 and 24 years old has fallen 4.8 percentage points, and it is expected to fall an additional 5.7 percentage points between 2005 and 2020.² Like adults past 55, people between 15 and 24 have sharply lower labor force participation rates than the population between 25 and 54. Thus, the decline in the proportion of young adults in the population has tended to increase the overall activity rate among the population 15 and older.

Population ageing is not the main source of change in overall activity rates, however. The adult labor force participation in southeast Europe has declined mainly because activity rates have declined *within* age groups, especially among young adults and the near-aged (adults between 55 and 64). Chart 2 shows the trend in southeast European activity rates by age between 1980 and 2005. The participation rate of people 15 and older fell 8.0 percentage points in that period. As we have seen, the change in the population age structure can account for only 2.8 percentage points of this 8.0-point decline. The remaining decline was due to a fall in activity rates *within* each age group.

Comparison with other regions. Activity rates in southeast Europe can be compared with those in neighboring countries. A useful comparison is to countries that maintain retirement systems with different incentives to retire or leave paid employment. Austria and Switzerland are interesting comparison countries, because public policies in those countries provide very different incentives for workers to withdraw from the labor force in their late 50s and early 60s.

¹ These estimates represent the unweighted averages for all nine southeast European countries. Of course, the trends will differ from this average in individual countries.

² These estimates again reflect the unweighted nine-country average.

Chart 3 compares labor force participation rates, by age, in southeast Europe and Austria. Labor force participation rates are higher in Austria than in southeast Europe for every age group below age 60. At higher ages, activity rates are higher in southeast Europe than they are in Austria. Compared with pensions available in southeast Europe, the Austrian public pension system provides much more comfortable incomes to the aged population, and this almost certainly contributes to Austria's lower participation rates at ages past 60.

The contrast between southeast Europe and Switzerland is also striking (see Chart 4). Switzerland has higher labor force participation rates than southeast Europe at every age up through age 65. The gap is particularly large at younger ages (15-24) and older ages (50-64).

Austrian and Swiss participation rates were not always above those in southeast Europe. In 1980 southeast European participation rates were higher than those in Austria in every age group older than age 20. Southeast European rates were also higher than Swiss participation rates in every age group between 25 and 54. As shown in Chart 2, however, southeast European activity rates declined after 1980. At the same time, participation rates of 25-59 year-olds increased strongly in Austria and Switzerland (see Chart 5). Nearly all of the increase occurred among women, who had activity rates in 1980 that were much lower than female activity rates in southeast Europe.

The trends in activity rates at older ages in Austria and Switzerland generally mirror long-term trends in other wealthy OECD countries. Chart 6 shows average trends in 21 OECD countries for three older age groups, 50-54, 55-59, and 60-64. The time span covered by the chart extends from 1950 to 2000. Activity rates of men, which are displayed in the top panel, show monotonic declines in each of the three age groups covered by the chart. The decline is small for 50-54 year-old men, but it is considerably larger both absolutely and proportionately in the two older age groups. Between 1950 and 2000 the OECD average participation rate of 60-64 year-old men declined by roughly half. Participation trends among older women, displayed in the bottom panel, show a strong contrast with the trends for men. Female activity rates increased or at least remained roughly constant at older ages, offsetting some of the impact of lower male participation.

In one respect the male and female trends are identical, however. The falloff in participation rates as people grow older was considerably faster in 2000 than it was in 1950, and this is true for workers of both sexes. In 1950 the average activity rate of 60-64 year-old men was 13 percentage points (or 13 percent) lower than that of 50-54 year-olds. By 2000 the participation-rate difference between the two age groups was 46 percentage points (or 52 percent). If activity rates in both years are treated as estimates of a stable lifetime participation pattern in the two years, they imply much faster exit rates from the workforce in 2000 than in 1950. In 1950 13 percent of participating men exited the workforce between ages 50-54 and 60-64. Fifty years later the exit rate was 52 percent. A similar change in exit rates occurred among women. In 1950 women aged 60-64 had a participation rate that was 9 percentage points (or 30 percent) lower than that of women aged 50-54. By 2000 the gap was 42 percentage

points (or 67 percent). Female exit rates between ages 50-54 and 60-64 increased from 30 percent in 1950 to 67 percent in 2000.

Without reliable historical data on activity rates by age in the nine southeast European countries, it is impossible to track the long-term trend in labor force exit rates in those countries. It is obvious in Chart 3, however, that exit rates from the labor force were faster in southeast Europe than in Austria between ages 50 and 59 and considerably faster than in Switzerland between ages 50 and 64. Either weak demand for older workers or powerful incentives to leave work for retirement must explain the difference.

Slowing exit from the labor force: Supply side incentives

One reason that workers leave the labor force is their eligibility for benefits that replace lost earnings when they become unemployed or reach the retirement age. Compared with 1960s or 1980s, jobless workers past age 50 are now more likely to qualify for unemployment and disability benefits, and larger percentages of aged workers are eligible for an early pension. The impact of these benefits has been extensively studied in recent years by economists at the Organization of Economic Cooperation and Development (OECD), Brookings, and National Bureau of Economic Research (NBER). Their studies have uncovered sizeable effects of disability and pension programs and special unemployment benefits for older workers on the activity rates of people past age 55 (see Blöndal and Scarpetta, 1999; Gruber and Wise, 1999; and Duval, 2003).

Incentives in the pension system. Pension systems can affect the age of labor force withdrawal for three reasons. First, they affect workers' lifetime wealth in comparison with what it would be in a world without pensions. For many workers, a public pension system increases lifetime wealth. The addition to wealth increases the capacity of these workers to consume during their lifetimes. Workers can use the extra wealth for higher consumption of goods, services, or retirement leisure. Many workers probably use the extra wealth to retire at a younger age.

On average, the lifetime wealth gains provided by public pension programs have shrunk over time. A smaller percentage of current and future workers will obtain wealth gains under most public pension systems. In countries with slow growth or an actual decline in their working-age populations, workers under a fully mature pay-as-you-go (PAYGO) pension system can often anticipate losses in lifetime wealth. Many workers will receive smaller lifetime pensions than their contributions would have entitled them to if their contributions had been invested in safe assets. Compared with early generations retiring under a PAYGO system, more recent generations will be able to consume less goods, services, and retirement leisure over their lifetime as a result of their participation in the pension system. Some may respond to these wealth losses by retiring at a somewhat older age.

A second feature of pensions accelerates labor market withdrawal. Public pensions provide earnings replacement for workers who have attained the eligibility age for pensions. This almost certainly hastens labor force exit among workers who do not make long-term plans for retirement or lifetime wealth accumulation. Workers with short

time horizons or high rates of time preference often accumulate little savings over their careers. A worker with little saving may decide to retire when the earnings replacement provided by a pension is high enough so that the worker does not experience a large drop in consumption if he stops working. Workers who are short-horizon planners will be more likely to retire the higher is the immediate income replacement provided by a pension.

Third, public pensions can influence the net return from working an additional year. If the net return from work is small enough, many workers will withdraw from the labor force. The fact that a pension becomes available at a particular entitlement age, such as 60, does not directly affect the net return from working at that age, however. The net return is determined by eligibility rules for the pension, the formula that links monthly pension benefits to the worker's past and current earnings, pension contribution requirements, and the relative taxation of wages and pensions.

It is a common misconception to think that when a worker reaches the earliest eligibility age for pensions he must sacrifice one month of potential pensions for every one month that he delays retirement. If this were true, the marginal return to work would drop dramatically at the earliest entitlement age, especially in countries offering generous pensions. But no sacrifice is required in a pension system that allows pensioners to continue working and receive unreduced pensions. When workers attain the pensionable age in this kind of system they can continue to earn their pre-retirement wage and still collect a full pension. The worker's net wage does not change simply because he has become eligible to receive a pension. Under this kind of a system, workers who choose to retire at the pensionable age have done so because the availability of extra unearned income or social custom have induced them to leave the labor force at that age.

Many public pension systems have a retirement earnings test, of course. Workers who attain the pensionable age must stop working or substantially reduce their earnings in order to qualify for an unreduced pension. Casey B. Mulligan and Xavier Sala-i-Martin (2003) estimate that over half the world's public pension systems require workers to exit the labor force or limit their earnings in order to collect a pension.

Even in this case, however, it is not obvious whether attainment of the pensionable age affects the worker's marginal return to continued employment. This depends on another feature of the pension formula, the actuarial adjustment for deferred retirement. In some pension systems there is no adjustment for deferred retirement. Workers who delay claiming a pension for one year sacrifice forever twelve months of potential pension income. In this kind of a system, a worker who attains the pensionable age and remains employed pays a substantial penalty for continued employment. The worker faces a sharp reduction in his net return to working as soon as he reaches the pensionable age. His lifetime pension wealth is lower if he postpones retirement after the first eligibility age than if he stops working at that age.

A retirement earnings test does not necessarily reduce the net return from working, however. Many public pension programs offer an actuarial adjustment to workers who delay claiming a pension until after the first pensionable age. If the adjustment is large

enough, pensions lost as a result of continued employment past the first pensionable age are made up through higher monthly pension payments once workers retire and claim a pension. Even though workers must give up an immediate pension when they continue to work past the pensionable age, they may be fairly compensated with higher monthly pensions in every month after they stop working. If the compensation is actuarially fair, workers enrolled in a pension scheme with a retirement earnings test face no penalty as a result of remaining employed after the first pensionable age.

A benefit calculation rule that is age-neutral for the average worker can still provide strong financial incentives to retire for workers who have below-average life expectancy. These workers may not expect to live long enough for the future benefit increase to make up for the benefits given up by delaying retirement for one more year. Similarly, workers who apply high discount rates when evaluating future benefits may not be impressed that the pension adjustment is “fair” for an average worker. For workers who are impatient to consume, a 10-percent hike in benefits starting one year from today may not be enough to compensate for the loss of twelve monthly benefit checks over the next year.

This discussion implies that a worker’s net return to employment at the earliest eligibility age is affected by two critical features of the pension formula: the presence or absence of a retirement earnings test, and the generosity of actuarial adjustment when a pension is deferred after the earliest eligibility age. Workers only face a reduction in their net wage at the first pensionable age if there is a retirement earnings test *and* if the pension formula does not provide fair actuarial adjustment for deferred retirement.

Unemployment insurance incentives. Almost all countries offer workers who suffer involuntary job loss income replacement for earnings that are lost as a result of unemployment. Some countries, especially in western Europe, offer particularly generous or long-lasting benefits to older unemployed workers. In a few cases, these benefits can last two or three years, allowing workers to collect unemployment benefits until they reach the youngest pensionable age. The availability of generous unemployment benefits or special early retirement benefits may reduce the incentive for older unemployed workers to try hard to find another job. Generous benefits may also weaken the incentive for an unemployed worker to accept a job offer, especially the offer of a job that pays relatively low wages.

Reducing the incentives to accept early retirement. This discussion of supply-side incentives suggests several policy steps that might delay workers’ exit from the labor force.

- Reductions in the value of pensions or unemployment benefits
- Delays in the earliest eligibility age for pensions
- Changes in the pension formula to reward workers for delaying their labor force exit
- Modifications in the pension “earnings test” to allow pensioners to work while collecting a pension

The attractiveness of each of these reforms will depend on the current generosity of pensions and unemployment benefits, the rules that determine when workers become eligible for pensions, and the existing formula for calculating pension benefits. Countries that offer meager pensions or have a high retirement age may not find it practical to implement any of these reforms.

Is there any evidence that the reforms will cause workers to delay their exit from the labor force? Such evidence exists, but it is not easy to use the evidence to estimate the impact of specific reforms on labor force participation rates in old age. Moreover, some reforms that succeed in increasing old-age participation rates may have undesirable effects on pension costs and tax burdens. For example, one way to increase activity rates among people who are older than the pensionable age is to permit them to earn wages or self-employment income while they are collecting a pension. Depending on how this reform is implemented, pension costs may increase at the same time that old-age activity rates rise. Suppose that 10% of workers delayed collecting a pension until 5 years after the earliest pensionable age before the reform was implemented. Suppose further that the reform allows pensioners to begin earning wages without any reduction in their pensions. In this case, the 10% of workers who delayed collecting a pension would immediately claim a pension at the earliest pensionable age, substantially increasing the cost of pensions.³ The reforms that are most likely to simultaneously increase old-age participation rates and improve public finances are ones that reduce or delay benefits available to workers who retire at younger ages.

One reason for believing pension reform can boost participation rates in old age is that cross-national evidence suggests this will be the case. Analysts who have examined cross-national differences in pension incentives generally find they have predictable and significant effects on labor force withdrawal. Countries with early pension ages, generous income replacement, and heavy implicit taxes on earnings in old age tend to have earlier exit from the labor force than countries with pension systems that provide fewer work disincentives.

Even though there are broad similarities in labor force participation trends across rich countries, there have been striking differences in the long-term trend toward earlier retirement. Some countries, such as Austria, have seen a sharp drop in the typical age of labor market withdrawal. Other countries, including Switzerland, have seen a much slower and smaller trend in this direction.

One way to summarize a country's attitudes toward early retirement is to estimate the percentage of middle-age labor force participants who exit the labor force by subsequent ages. To measure trends in labor force exit, these calculations can be repeated at different historical intervals. Such estimates can be derived with considerable precision for countries that have detailed historical data on labor force

³ It is of course possible that the reform would encourage many retired pensioners to re-enter the workforce, and the extra tax contributions of re-entering workers might be large enough to pay for the extra pensions paid to the workers who formerly delayed claiming a pension. The crucial point, however, is that a reform that has the intended effect on old-age labor force participation rates may have unwanted consequences for pension costs and public budgets.

participation and usual hours of work for people at successive years of age. For example, labor force exit rates for U.S. workers can be calculated by exact year of age for cohorts born in 1906 and later years (Bosworth and Burtless, 2004). In the absence of detailed labor force data, it is possible to calculate exit rates using activity rate data for five-year age groups. Table 1 shows estimates of exit rates for twenty-one OECD countries based on activity rate data for 1960, 1970, 1990, and 2000 supplied by the ILO.⁴ The estimates are intended to reflect the exit rates that would prevail in the long run if the one-decade *change* in labor force participation for given birth cohorts could be assumed to represent a stable pattern of labor market withdrawal. The base for this calculation is the labor force participation rate of men who were 45-49 years old at the beginning of the decade. Estimates in columns 1 and 3 show my estimates of the proportion of these men who withdraw from the labor force in ten years' time, when they reach ages 55-59. Estimates in columns 2 and 4 show the estimated proportion which withdraws in fifteen years' time, when the cohort reaches age 60-64. The two right-hand columns show the change in exit rates between the 1960s and 1990s. Countries are ranked in the table according to their exit rates by age 60-64 for the later decade.

The tabulations show wide disparities in labor force exit across OECD countries. Moreover, the differences have grown much larger over time. All countries have seen an increase in labor force exits by the time workers reach their late 50s and early 60s, but the increases vary widely. In Japan, Norway, Sweden, and Switzerland there are small differences between the exit patterns of the 1960s and 1990s among 55-59 year-olds, and the changes in exit rates among 60-64 years olds are comparatively modest. The changes in other countries, especially in Europe, are often startling. Exit rates through ages 55-59 increased at least 15 percentage points in seven countries, and exit rates through ages 60-64 increased at least 30 percentage points in nine.

The cross-national differences in labor force exit rates are strongly associated with cross-national differences in pension generosity. One measure of generosity is the percentage of net earnings that is replaced by the public pension available at a specified age. Chart 7 shows the association between this measure of the pension replacement rate and the rate of labor force exit. Estimates of the replacement rate are taken from the net replacement rate tabulations published by Casey et al. (2003), and the estimated withdrawal rates are those shown in column 4 of Table 1. The scatter plot shows a clear pattern of increasing exit rates as net income replacement at the standard retirement age rises. Cross-national differences in replacement rates account for 25 percent of the variance in cross-national male exit rates. The regression line implies that an increase in the replacement rate of 10 percentage points (the approximate gap between the United States and Spain) will increase the proportion of 45-49 year-olds who exit the labor force by age 60-64 by an additional 6 percentage

⁴ The entries in columns 1 – 4 of Table 1 reflect my best estimates of the steady-state exit rates that would prevail if the one-decade change in labor force participation rates for the cohorts which were 45-49 and 50-54 years old at the beginning of the decade were assumed to be stable. This calculation is less reliable when the percentage of 45-49 year-olds and 50-54 year-olds in the labor force is changing rapidly, as it was in the case of women during much of the post-war period.

points. When I use other measures of income replacement I obtain smaller and less significant estimates of the impact of the replacement rates on labor force exit. In every case, however, there is a positive association between exit rates and the level of income replacement provided to older workers.

Analysts have also found large effects of the implicit social security tax on earned income. Probably the most striking estimate of this impact was uncovered by Gruber and Wise (1999). They regressed their preferred measure of the implicit tax burden of the pension formula on labor force participation rates between ages 55 and 64 and found that 82 percent of the variance in the latter could be explained by cross-country differences in implicit social security taxes.

One reform mentioned earlier in this section is a modification in the penalty imposed on pensioners who continue to earn wage or self-employment income. By reducing this penalty, or allowing pensioners to earn higher wages while collecting an unreduced pension, some workers may be induced to remain in paid jobs or re-enter the workforce. Evidence from the U.S. public pension system shows that workers are quite sensitive to the penalty imposed by the so-called “retirement earnings test.” In the early 1970s, U.S. pensioners were permitted to earn up to a specified annual amount, known as the “earnings exempt amount,” without any penalty. Workers who earned more than the exempt amount had their social security pension reduced by \$0.50 for every \$1.00 in earnings above the exempt amount. Chart 8 shows the distribution of pensioner earnings around the exempt amount, which is indicated by 100 on the horizontal axis. Note that 16% of all pensioners who had wages earned exactly the exempt amount; 37% earned between 90% and 110% of the exempt amount; and slightly more than half earned within 20% of the exempt amount. When the U.S. Congress increased the exempt amount in later years, working pensioners also increased their earnings in line with the increase in the exempt amount. This evidence indicates that many pensioners are quite sensitive to the exact details of the earnings penalty imposed on working pensioners.

Although some older workers show extreme sensitivity to the incentives embodied in their nation’s pension system, other workers are much less sensitive. They may choose their retirement ages on the basis of social norms or imitation of their friends’ or relatives’ behavior. Even in this case, however, worker behavior may be powerfully influenced by the design of a national pension system, at least in the long run. For example, in most countries there are two critical ages that are well known to most older workers. One is the early entitlement age for public pensions, that is, the earliest age when a public pension can be claimed (often with an actuarial reduction). The second critical age, sometimes called the “normal retirement age,” is the earliest age at which a worker can claim an unreduced pension (that is, a pension that is not subject to actuarial reduction). In many cases, workers may not have a sophisticated understanding of the factors that determine their pensions, but they are nonetheless well aware of the early and normal retirement ages. Because the national pension system has selected these two critical ages, some workers may feel they are socially sanctioned ages for healthy workers to leave their jobs. By changing the early or normal retirement ages, policymakers may in the long run change social norms with regard to retiring at one age rather than another.

Slowing exit from the labor force: Demand side incentives

Although researchers have devoted more effort to uncovering the influence of supply-side factors than demand-side factors, it is well known that labor force exit is strongly influenced by the level of demand for workers. In the United States, for example, the labor force participation rates of the aged tended to fall much faster in recessions and weak labor markets than during periods of robust economic growth (Burtless and Quinn, 2001). It is not very helpful to tell policymakers they should aim to maintain low unemployment and devise policies that stimulate economic growth. Policymakers generally aim to achieve these goals for reasons that are independent of their desire to boost old-age activity rates. Other demand-side policies, however, may encourage employers to hire or retain older workers.

Mandatory retirement. In many countries it is or was customary for employers to require their workers to accept retirement at a specified age, such as 60 or 65. Except in rare circumstances, workers were not permitted to remain in their jobs past this mandatory retirement age. As long as there are some employers who do not have mandatory retirement rules, workers who are forced out of their jobs can always find new jobs or become self-employed. However, it is typically harder for older unemployed workers to find work than it is for people who are between 25 and 50. Experienced older workers who have earned good wages and attained a responsible position may reject the prospect of accepting a new job where their wages will be lower and their work less fulfilling. For that reason, mandatory retirement may lead to involuntary and premature exit from the labor force.

Some countries, including the United States, have outlawed mandatory retirement except in a very small percentage of jobs where advanced age may seriously impair a worker's performance. Although it is unclear whether the elimination of mandatory retirement had a major impact on overall activity rates, it almost certainly increased employment tenures in certain occupations where many workers would like to remain employed past the normal retirement age.

Targeted employment subsidies or tax reductions to encourage retention of older workers. Another policy alternative is tax incentives or employment subsidies, payable to employers, that encourage hiring or retention of older workers. To my knowledge, few countries have tried this approach so it is unclear whether it would significantly boost employment rates in old age. Governments more commonly use tax incentives and targeted employment subsidies to encourage hiring in other disadvantaged groups – young first-time job seekers, the economically disadvantaged, and working-age people with disabilities.

Impact of higher old-age participation rates on employment rates of the young

Many policymakers hesitate to institute policies that will boost employment rates among the aged because they fear the consequences on the employment rates of younger workers. Political leaders are particularly concerned about hurting the employment prospects of young job seekers who are trying to enter the workforce for the first time. Their fear is based on an understandable but mistaken belief that the employment gains of one group must necessarily be counterbalanced by employment losses in some other group. This theory of labor demand, known to economists as the “lump of labor fallacy,” may occasionally be true in a very rigid labor market and over a very short period of time. The theory is unlikely to be valid over longer periods of time, especially when a nation’s laws, customs, and labor market institutions give employers and workers some flexibility in setting wages and adjusting the content of jobs.

In countries which have flexible institutions for setting average and relative wages, employment gains of the elderly do not translate into job losses for young or middle-age workers. Switzerland, which has exceptionally high labor force participation and employment rates among older adults, has achieved a high rate of employment and an enviably low rate of involuntary unemployment among its young and middle-age citizens. It is notable in Table 1 that nearly all of the countries with low labor force exit rates also enjoy below-average unemployment. Policies that encourage older workers to remain in the labor force later in life have not been associated with high joblessness among the young .

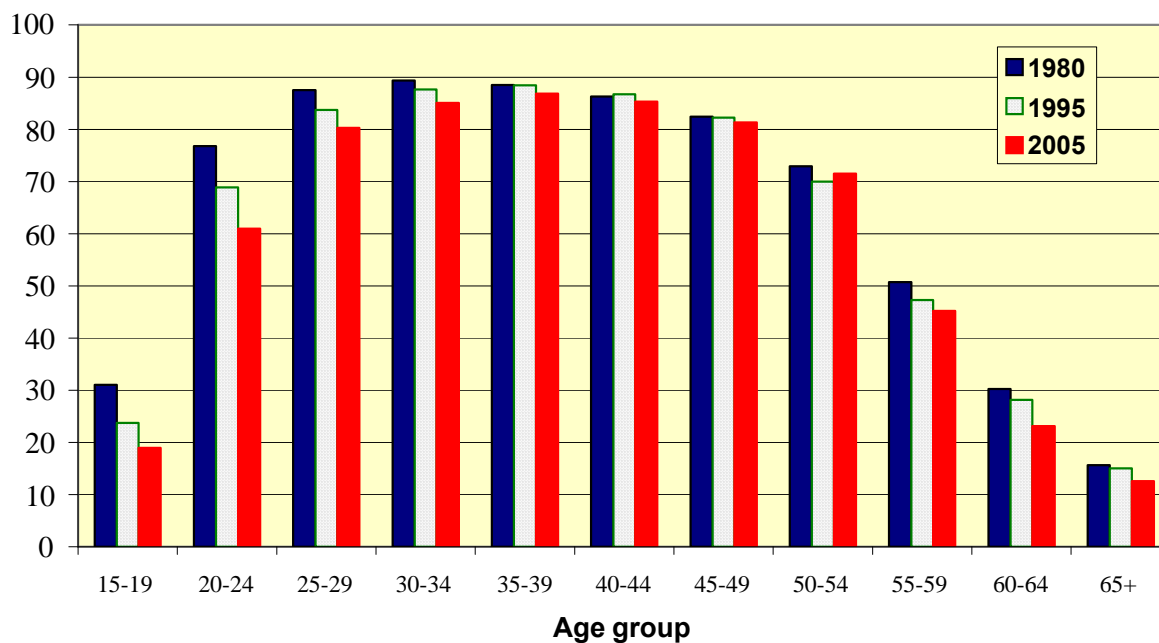
– Gary Burtless
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Chart 1. Labor force participation rates by age, both sexes, 1980-2005

Percent of age group in active labor force

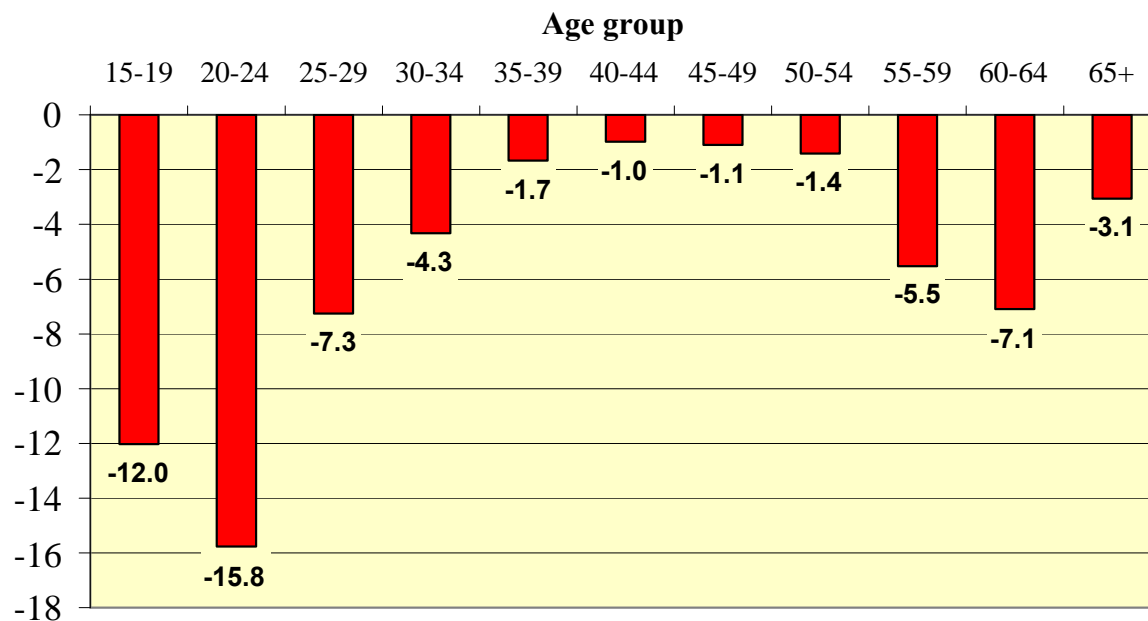


Note: Unweighted average for nine countries in southeastern Europe.

Source: ILO and United Nations.

Chart 2. Change in labor force participation rates by age, both sexes, 1980-2005

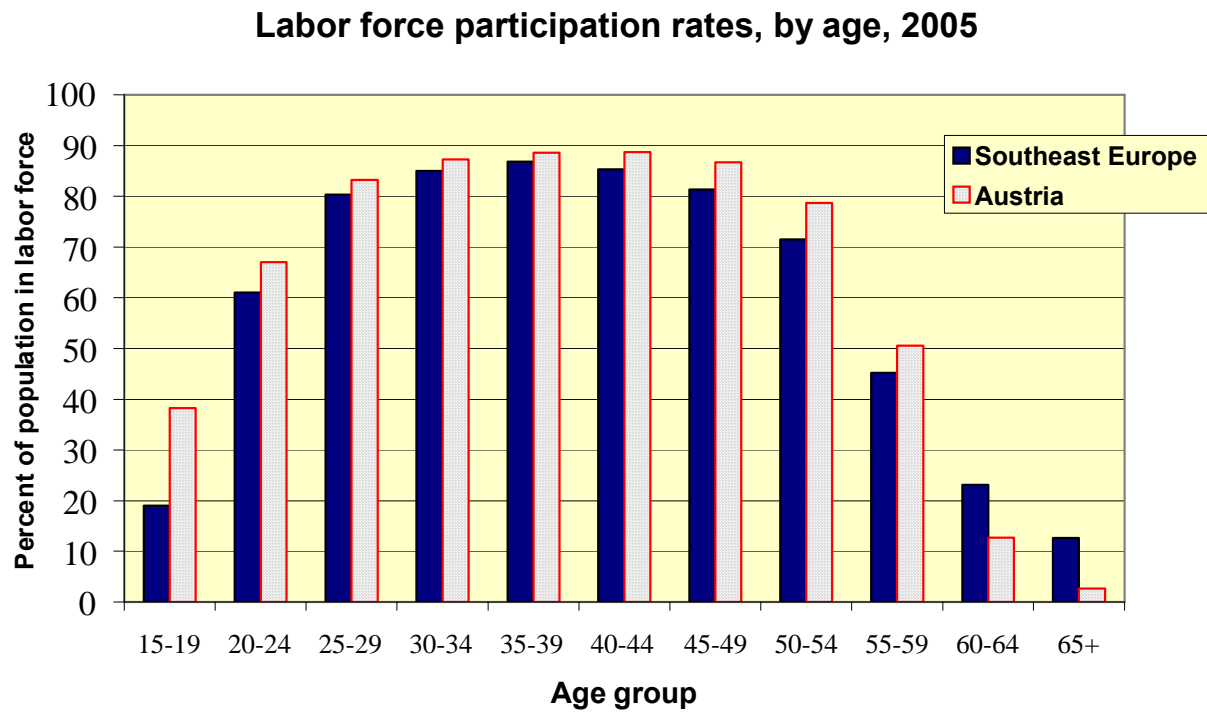
Percentage point change in labor force participation rate



Note: Unweighted average for nine countries in southeastern Europe.

Source: ILO and United Nations.

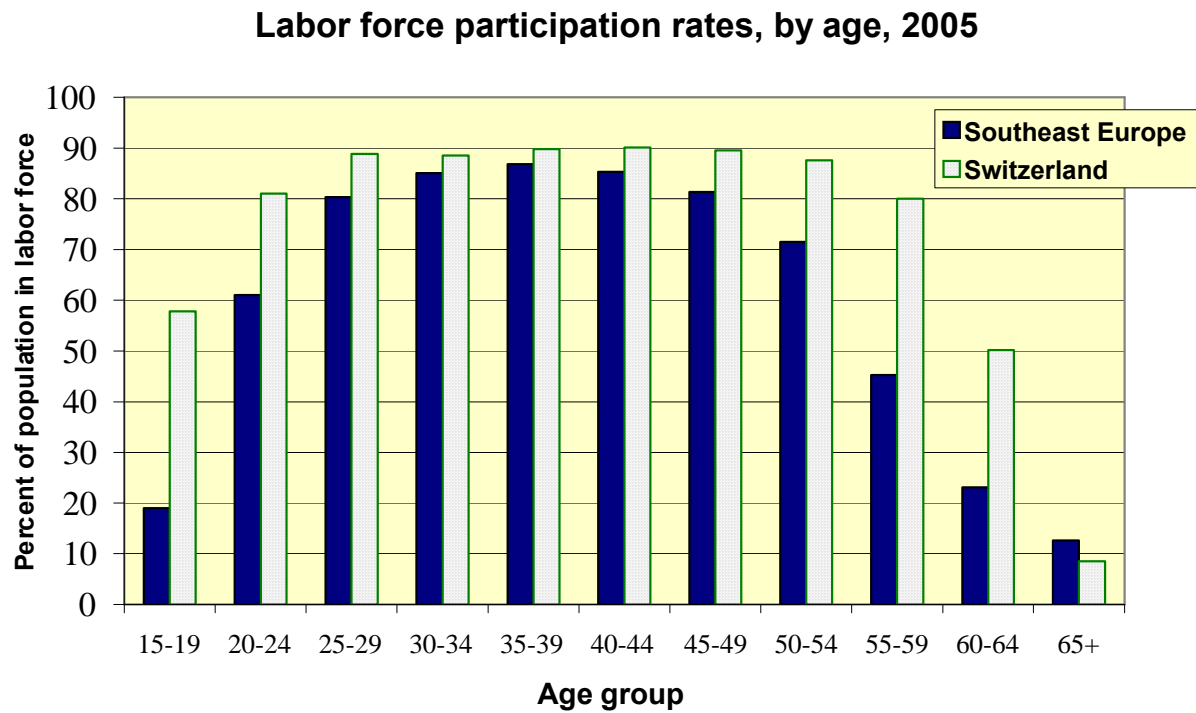
Chart 3. Labor force participation rates by age, Southeast Europe and Austria, 2005



Note: Unweighted average for nine countries in southeastern Europe.

Source: ILO and United Nations.

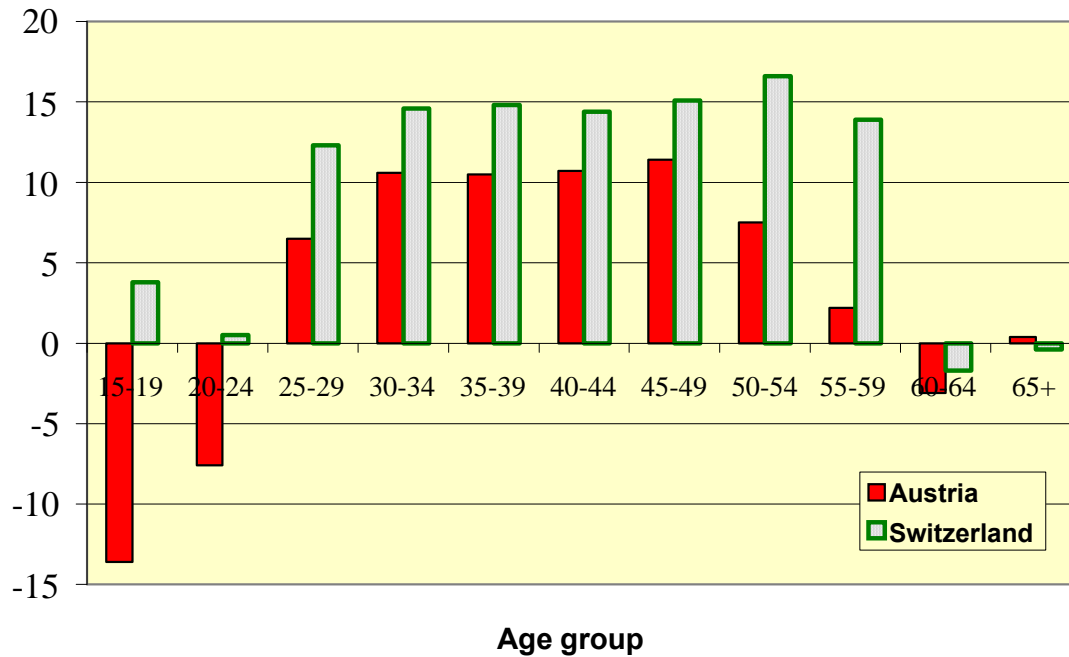
Chart 4. Labor force participation rates by age, Southeast Europe and Switzerland, 2005



Note: Unweighted average for nine countries in southeastern Europe.
Source: ILO and United Nations.

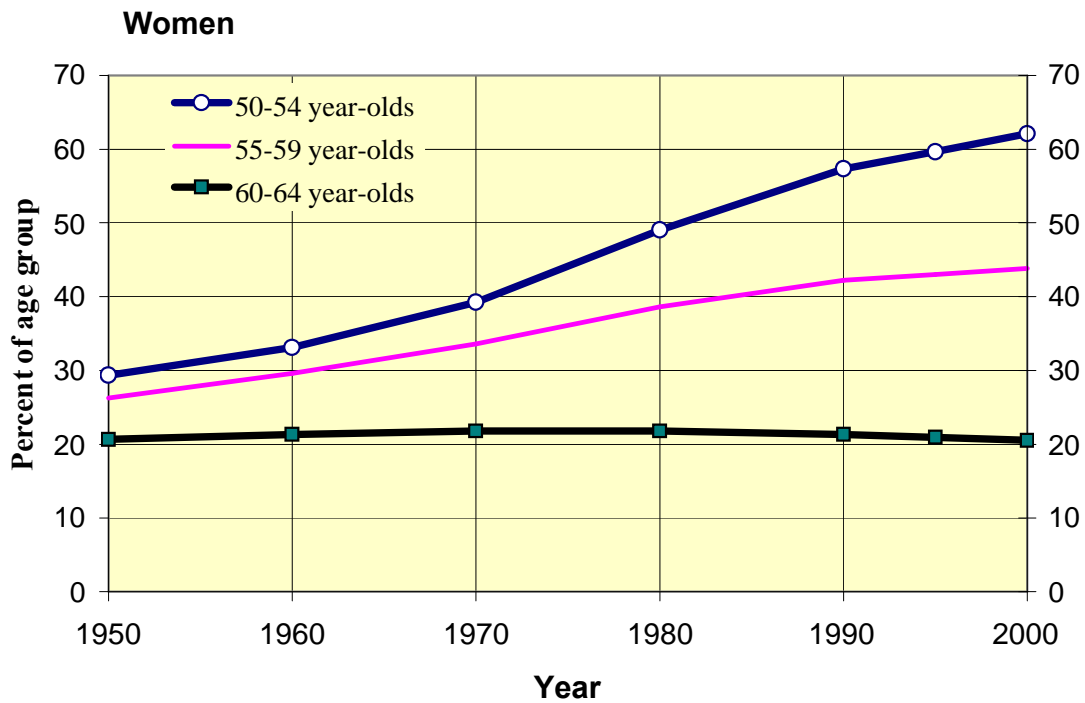
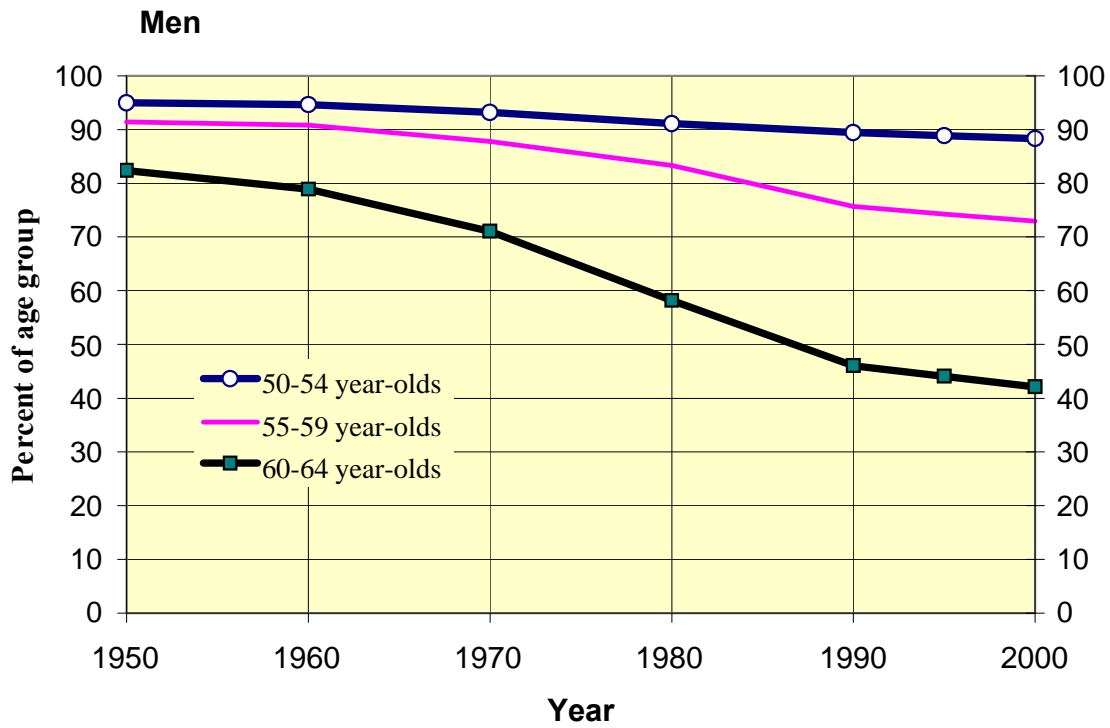
Chart 5. Change in labor force participation rates by age, Austria and Switzerland, 1980-2005

Percentage point change in labor force participation rate



Note: Unweighted average for nine countries in southeastern Europe.
Source: ILO and United Nations.

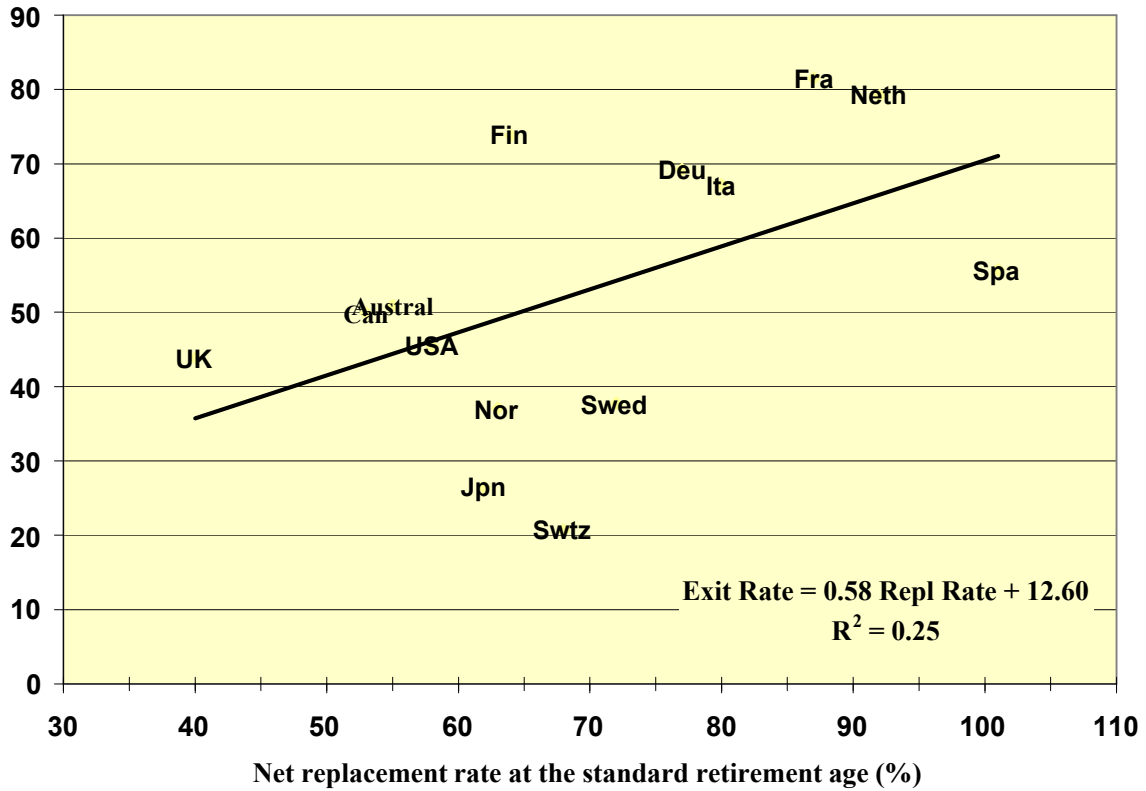
Chart 6. Trend in Economic Activity Rates at Older Ages in 21 OECD Countries, 1950-2000



Source: ILO data base.

Chart 7. Male Exit Rates and Net Earnings Replacement at the Standard Retirement Age in Fourteen OECD Countries

Exit rate through
age 60-64



Sources: Casey et al. (2003) and author's estimates of male labor force exit rates as described in the text.

Chart 8. Distribution of Post-Retirement Earnings among U.S. Men Age 62 and Older

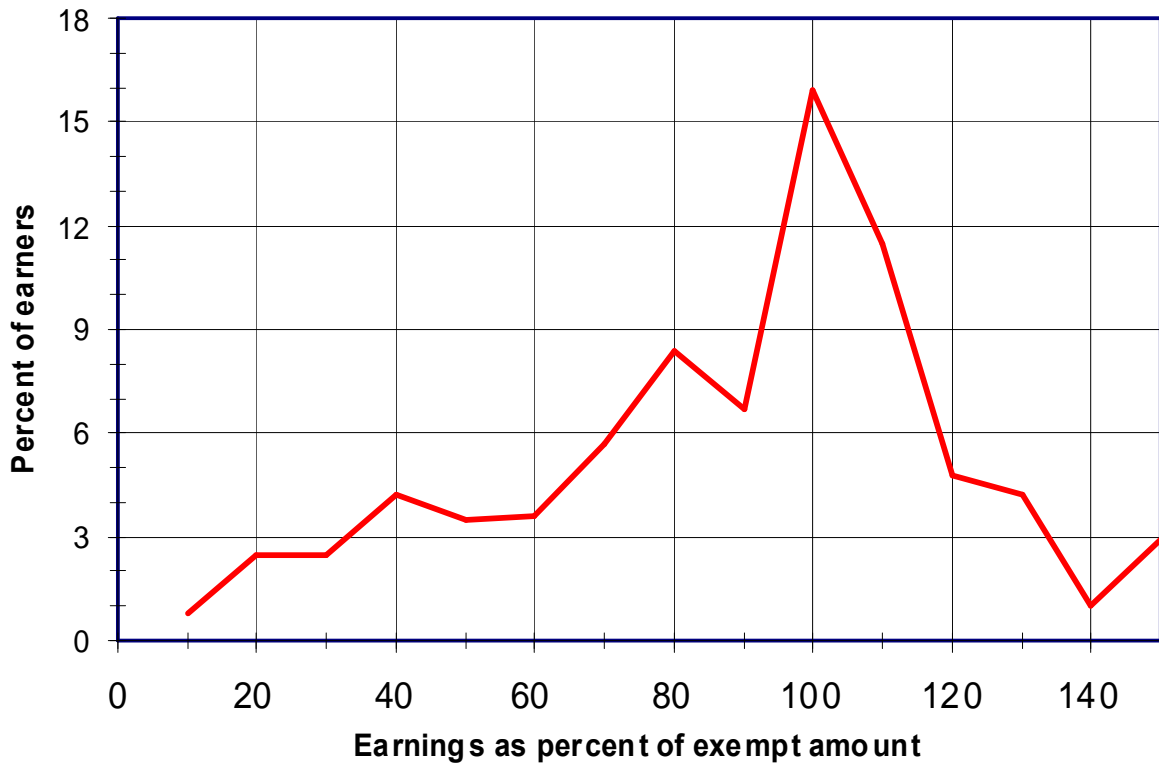


Table 1. Male Labor Force Exit Rates in Twenty-one OECD Countries, 1960s and 1990s

Percent

	1960s		1990s		1960s to 1990s	
	Exit rate through age		Exit rate through age		Change in exit rates	
	55-59 (1)	60-64 (2)	55-59 (3)	60-64 (4)	55-59 (3) - (1)	60-64 (4) - (2)
Austria	13	54	38	88	+25	+34
Belgium	14	41	50	83	+36	+42
France	17	43	32	81	+15	+39
Netherlands	12	32	35	79	+23	+47
Finland	18	40	36	74	+18	+33
Germany	8	25	23	69	+15	+45
Italy	14	50	32	67	+18	+18
New Zealand	6	31	17	65	+11	+33
Greece	12	30	27	56	+14	+26
Spain	11	24	23	56	+12	+31
OECD average	9	27	23	56	+13	+29
Denmark	5	15	14	54	+9	+40
Australia	8	23	21	51	+13	+28
Canada	7	24	20	50	+13	+26
United States	9	24	17	46	+9	+21
Portugal	9	18	23	45	+14	+26
United Kingdom	5	18	17	44	+12	+26
Ireland	5	14	18	40	+13	+26
Sweden	7	23	11	38	+4	+15
Norway	6	17	15	37	+9	+21
Japan	3	11	4	26	+1	+15
Switzerland	3	11	4	21	+0	+9

Note: The exit rate is the proportional drop in economic activity rates from age 45-49 to the indicated ages over the course of the decade. Countries are ranked from highest to lowest by their exit rates through ages 60-64 in the 1990s.

Source: Author's estimates based on ILO data base.