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The Work and Retirement Patterns of Older Americans

Highlights

- ◆ Although most persons are employed in lengthy jobs during their prime working years, nearly 6 in 10 workers leave career employment before age 60.
- ◆ Almost two-thirds of workers remain in the labor force following the end of their longest held job, and more than one-third work for 10 years or more.
- ◆ About one-quarter of household heads reverse initial retirement decisions, and more than one in four partial retirees also reverse this status.
- ◆ Men aged 55–64 were less than three-quarters as likely to be working in 1988 as in 1948; for those aged 65 and over, the figure was one-third.
- ◆ Among women aged 65 and over, 7.9 percent were in the labor force in 1988, compared with 9.1 percent in 1948.
- ◆ There is clear evidence that Social Security incentives cause moderate reductions in the labor supply among workers reaching age 62.
- ◆ Among workers over age 55, 24.5 percent worked part time in 1968, compared with 29.4 percent in 1987.
- ◆ Partial retirement rarely occurs among persons under age 62, increases rapidly between age 62 and age 67, and then gradually declines.
- ◆ Worsening health accounts for little, if any, of the trend toward earlier retirement.

◆ Introduction

During the last 20 years, the population of Americans aged 55 and over has risen by more than 40 percent, surpassing 50 million in 1988. An additional increase to almost 57 million is expected by 2000, when this age group will account for 22 percent of the U.S. population and 28 percent of persons aged 16 and over (U.S. Department of Labor, 1988). This rapid aging of the population is accompanied by a significant reduction in the labor force participation of older males. **At the end of World War II, 90 percent of men between the ages of 55 and 64 were participating in the labor force; by 1988, the proportion had dropped to 66 percent. The reduction in labor attachment is even more pronounced for men aged 65 and over, declining from 46.8 percent in 1948 to 16.5 percent 40 years later.**

These trends have increased the ratio of nonworking older persons to younger workers and raised concern about the solvency of the Social Security, Medicare, and Medicaid programs. This concern resulted in a large increase in the Social Security payroll tax during the 1980s and a reduction of benefits for future recipients. The changes have also intensified debate on policies designed to increase employment among senior citizens. However, proponents of these policies have often failed to clarify whether higher employment rates should be obtained through potentially punitive measures such as reducing Social Security payments to early retirees or positive incentives such as stronger age discrimination laws or elimination of the Social Security earnings test.

Before attempting to implement public policies aimed at changing the elderly's behavior, it is crucial to understand their work and retirement patterns. One widely held but substantially inaccurate perception is that retirement generally occurs as an abrupt event. In reality, **there are many diverse pathways leading to ultimate withdrawal from the labor force of which sudden retirement is only one. Workers more typically leave the work force gradually, frequently**

passing through one or more postcareer bridge jobs. The transitional nature of labor force withdrawal is referred to in this report as job stopping.

This *Issue Brief* summarizes recent research on job stopping and briefly discusses its implications for public policy. The discussion begins by placing the retirement transition process in the context of the working lifecycle, describing trends in the labor force participation of older Americans, shortcomings of the labor supply model typically used by economists, and institutional factors that affect career and postcareer employment. Subsequent sections examine evidence on the early end to career jobs and the importance of bridge employment, the frequency of partial and temporary retirement, and the nature of bridge jobs. The *Issue Brief* concludes by presenting public policy implications.

◆ From Job Shopping to Job Stopping

The labor force patterns of workers through middle age have been extensively researched and are fairly well understood. After the conclusion of a formal education, most youth pass through what has been called a moratorium, job shopping, or low job attachment period characterized by a lack of commitment to particular jobs, dead-end employment, and frequent periods of partial or complete withdrawal from the labor force. Subsequently, most individuals obtain stable jobs that they hold for a majority of their remaining working lives (Osterman, 1990). Whether this occurs because they find positions that provide a good match between their personal skills and job requirements or because they continue to apply for new jobs until they obtain ones in the primary sector of the labor market, it is clear that turnover rates decline dramatically with both age and job seniority. This combination of aging and tenure leads to an extended period of very stable employment for most workers, with more than 50 percent of men over age 40 employed in jobs that will ultimately last for more than 20 years (Hall, 1982).

The job shopping and career employment phases have been studied far more extensively than the transition

from career work to retirement. The absence of information on the final phase of labor force participation is initially surprising given the proliferation of research on older workers. However, it is explained by the primary focus of most research on the impact of specific factors (i.e., health, mandatory retirement, Social Security, and private pensions) on the retirement decision rather than on the complex interactions between each of these factors and individuals' employment history in youth and middle-age or on their employment history separately.



A key assumption in the analysis of job stopping is that the transition out of the labor force is a gradual process rather than an abrupt event.



Recent studies have begun to remedy this imbalance. In particular, a number of economists have focused on the transition process that occurs at the end of the working life (Doeringer, 1990; Honig and Reimers, 1987; Quinn et al., 1990; and Ruhm, 1990b, 1991). This job stopping process is generally initiated by the termination of career employment and frequently includes periods of postcareer employment, part-time work, partial retirement, and temporary retirement. It is somewhat analogous to the job shopping period that most youth pass through in the sense that labor force attachment may be relatively weak, jobs are frequently located outside the industry and occupation of career employment, and the duration of employment in particular positions is often quite short.

A key assumption in the analysis of job stopping is that the transition out of the labor force is a gradual process rather than an abrupt event. Thus the traditional notion of retirement, which implies that workers are either discretely within or outside the work force,

needs to be replaced by a more fluid and complex set of characterizations. This need does not imply that the commonly held characterization of retirement is completely inaccurate. Some workers do retire directly from career jobs and remain completely outside the work force for the rest of their lives. However, since only a minority of individuals retire abruptly, analyses that rely on the assumption of sudden and complete retirement provide limited information on the transition process that the majority of Americans experience.

Women and minorities have always been less successful than white men in obtaining stable career employment. For these groups, it is therefore possible that what appears to be a gradual retirement process is simply the continuation of unstable work patterns occurring earlier in life. Discrete retirement might then be the norm for white men, while chronic job instability, at all ages, is the norm for disadvantaged groups. However, currently available evidence does not support this possibility. **Even after excluding occupations in which attachment to a single firm is atypical (i.e., construction and agriculture), white men exhibit the same pattern of prematurely ending career jobs and significant postcareer employment as nonwhites and women.** Thus, career jobs frequently end well before retirement even for society's most advantaged members.

Differences in career employment and retirement patterns are observed across occupations. For example, blue collar workers both end career positions and leave the labor force earlier than their white collar counterparts. Nonetheless, because premature retirement tends to accompany early career job termination, the period of postcareer labor force participation is fairly similar for both groups. Workers are more likely to abruptly retire when career jobs provide pension coverage than when they do not. However, gradual transitions are fairly common even for persons terminating pension-covered career employment.

Retirement has been defined in a variety of ways as including older persons who: (1) classify themselves as

retired (2), receive Social Security or private pension benefits, (3) have left their primary job, (4) work less than a specified number of hours per year, (5) experience a substantial reduction in earnings with or without a corresponding decline in work hours, or (6) do not participate in the labor force. The lack of consensus on a single definition demonstrates the difficulty in characterizing retirement as a discrete event. Furthermore, many of the definitions are arbitrary and ignore even the possibility of a gradual transition process. For instance, many researchers have found that pension incentives discourage continued employment in covered jobs for workers in their late 50s and early 60s. However, postcareer employment, rather than withdrawal from the labor force, may follow departure from these jobs—which qualifies the common conclusion that pensions automatically hasten retirement.

◆ Trends in Employment and Labor Force Participation

One of the most dramatic recent changes in the U.S. labor market is the reduction in older men's labor force participation rates (LFPRs). Before investigating the nature of the job stopping transition it is useful to summarize this change, discuss the somewhat more complicated participation patterns of older women, and place these findings in the context of economic models of labor supply and institutional changes characterizing the economic environment.

Older Men's Labor Force Participation Rate

The labor force participation rate of adult men has been steadily dropping for at least the last 40 years (chart 1).

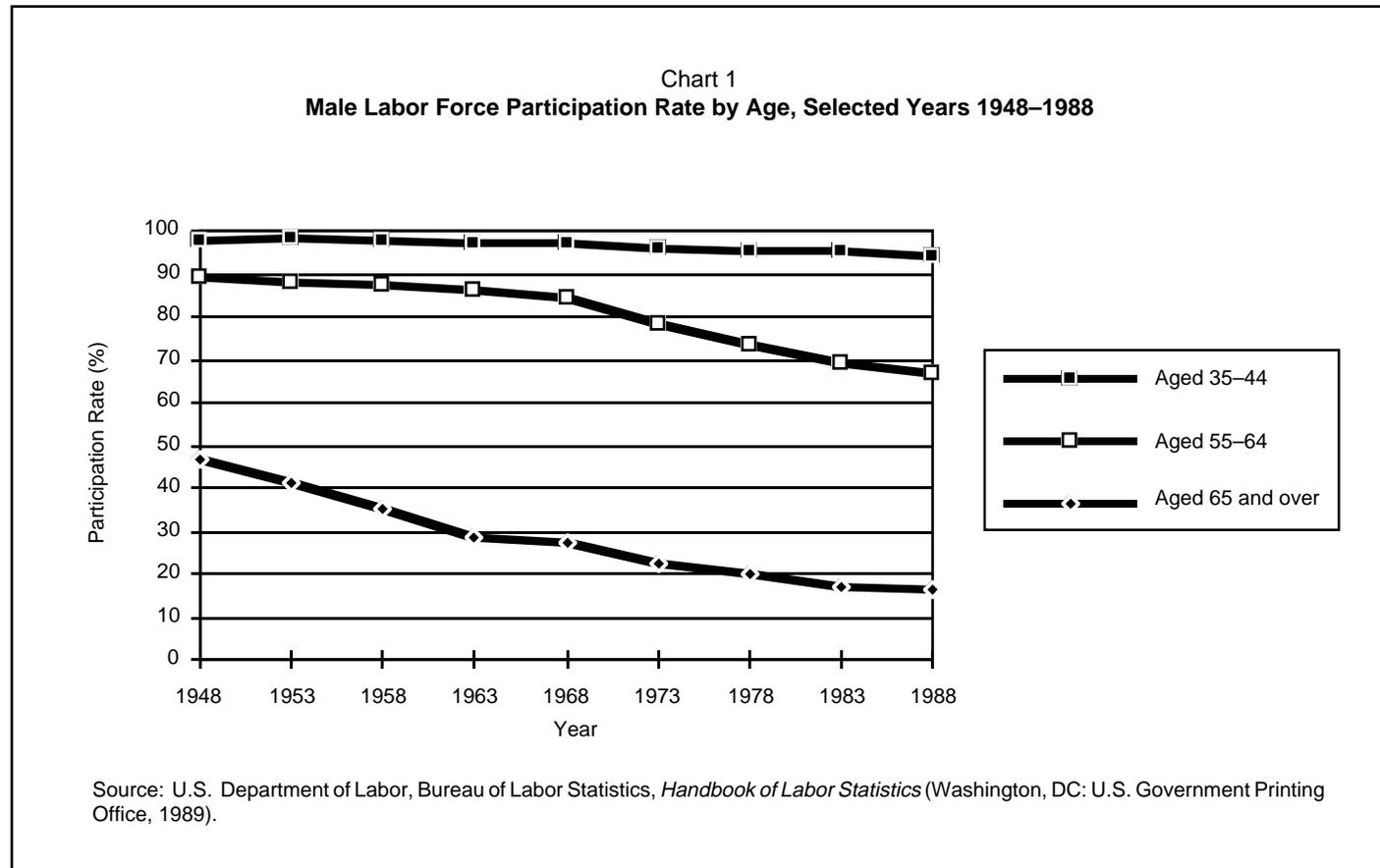
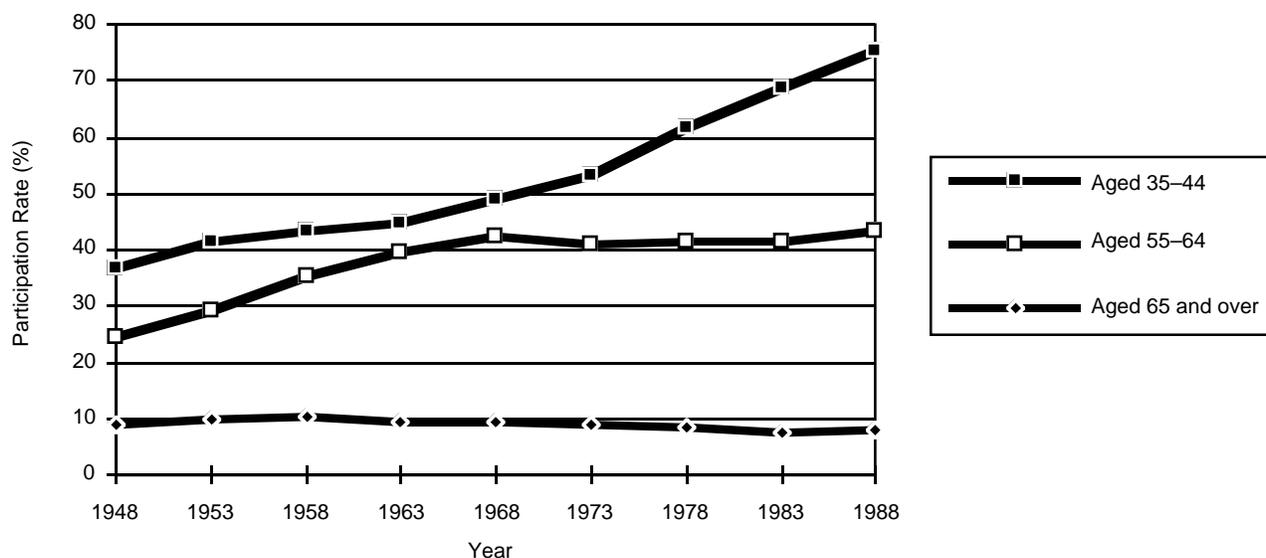


Chart 2
Female Labor Force Participation Rate by Age, Selected Years 1948–1988



Source: U.S. Department of Labor, Bureau of Labor Statistics, *Handbook of Labor Statistics* (Washington, DC: U.S. Government Printing Office, 1989).

The decline is quite modest for prime age males; 97.9 percent of men aged 35–44 participated in the labor force in 1948, 96.9 percent in 1968, and 94.3 percent in 1988—a 3.6 percentage point reduction during the 40-year period.

The decrease is much more pronounced for older men. Among men aged 55–64 in 1948, 89.5 percent were in the labor force. This figure fell somewhat over the next 20 years, to 84.3 percent in 1968, and more dramatically to 67.0 percent in 1988. For men aged 65 and over, the drop in the LFPR was still larger, declining from 46.8 percent in 1948 and 27.3 percent in 1968 to just 16.5 percent in 1988. During this 40-year period, participation rates of men aged 55–64 and those 65 and over fell by 22.5 and 30.3 percentage points, respectively. This implies that the group aged 55–64 was less than three-quarters as likely to work in 1988 as in 1948, while their counterparts aged 65 and over participated in the labor force

only one-third as often at the end of the period as at the beginning.

Older Women's Labor Force Participation Rate

In contrast to men, the labor force participation of older women has changed relatively little since the end of World War II—the LFPR of women over age 65 was 9.1 percent in 1948, 9.6 percent in 1968, and 7.9 percent in 1988 (chart 2). These rates reflect two offsetting tendencies. First, prime age women began to work much more frequently; the LFPR of those aged 35–44 rose 104 percent over the same 40-year period (from 36.9 percent in 1948 to 75.2 percent in 1988). Second, as with men, the participation rates of older women fell substantially relative to prime age workers. For example, women over age 65 were 25 percent as likely as those aged 35–44 to participate in the labor force in 1948, 20 percent as probable to do so in 1968, and 10 percent as likely in 1988.

Between 1948 and 1969, the labor force participation rate of women aged 55–64 actually rose more than that of their 35- to 44-year-old counterparts (increasing from 24.3 percent to 42.4 percent). After 1969, however, the LFPR of 35- to 44-year olds continued to rise at a rapid rate (increasing from 49.9 percent in 1969 to 75.2 percent in 1988), while that of 55- to 64-year olds remained roughly constant. Relative to younger females, the LFPR of 55- to 64-year olds has also fallen substantially over the last 20 years.

Part-Time and Part-Year Work

Reductions in labor force participation might be accompanied by decreases in the intensity of work among those who continue to work. To examine this possibility, chart 3 and chart 4 show trends in the propensity for part-time (fewer than 35 hours per week) and part-year work among persons aged 55 and over.

The frequency of part-time employment increases with age. **Almost 30 percent of workers aged 55 and older were employed part time in 1987. This is about 10 percentage points higher than the average for all adult workers.** Among the oldest workers, part-time employment is the norm. In 1987, 55.5 percent of employed persons between ages 66–70 and 65.1 percent of those over age 70 worked part time, compared with 19.5 percent of those aged 55–59 and 25.5 percent of those aged 60–62.

The decreasing LFPR of older persons has been accompanied by an increase in part-time employment. Among workers over age 55, 24.5 percent worked part time in 1968, 25.8 percent in 1974, 28.3 percent in 1980, and 29.4 percent in 1987 (chart 3). The rise in part-time work is also observed for each of the age subgroups. In absolute terms, the increase is largest for

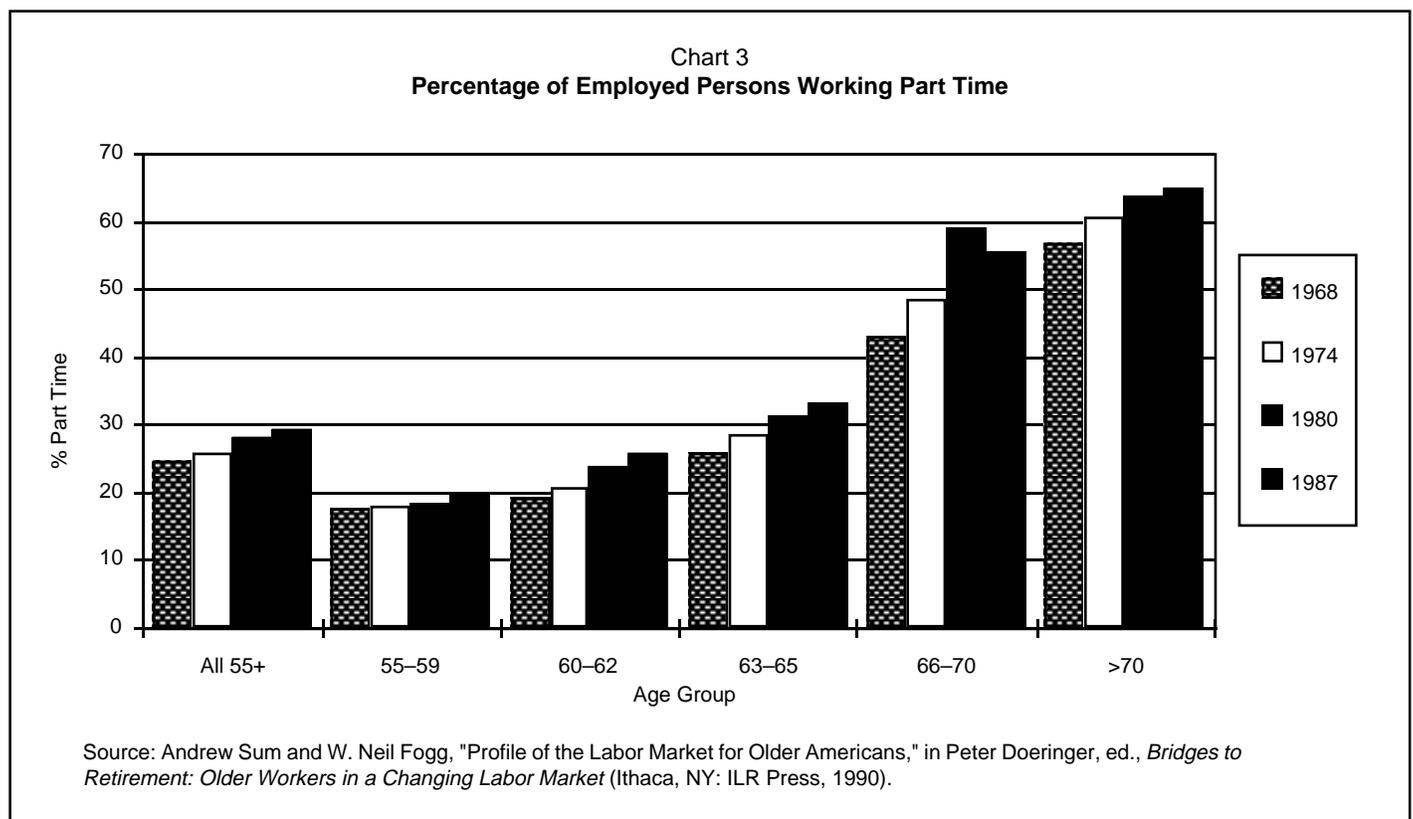
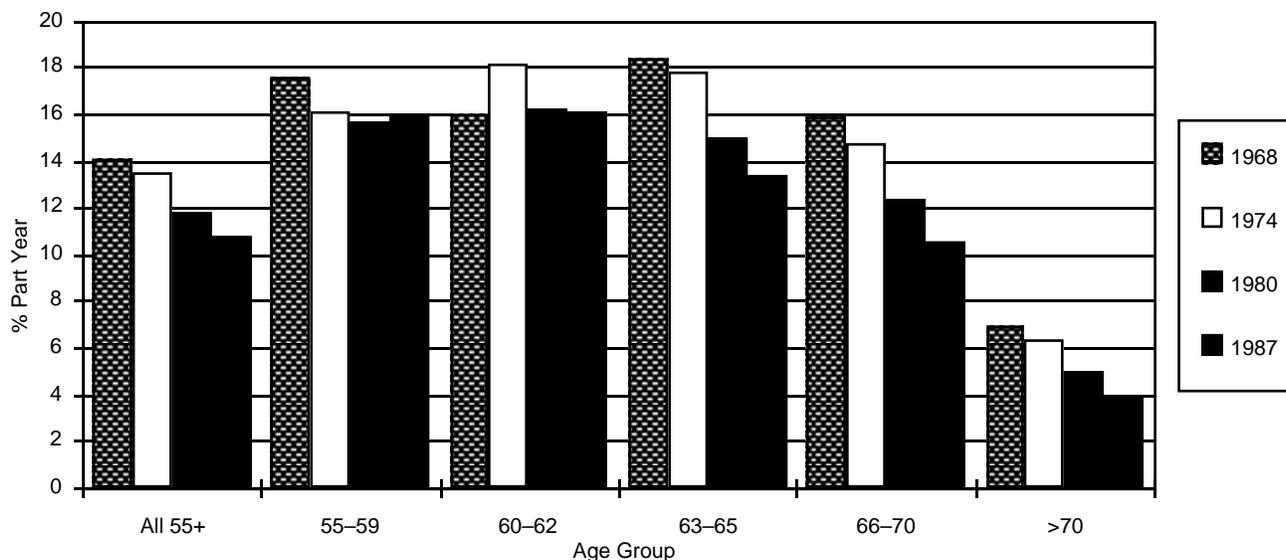


Chart 4
Percentage of Persons Working Part Year



Source: Andrew Sum and W. Neil Fogg, "Profile of the Labor Market for Older Americans," in Peter Doeringer, ed., *Bridges to Retirement: Older Workers in a Changing Labor Market* (Ithaca, NY: ILR Press, 1990).

66- to 70-year olds (from 43.0 percent in 1968 to 55.5 percent in 1987) and persons older than age 70 (from 56.8 percent to 65.1 percent). In percentage terms, the increment is greatest for 60- to 62-year olds, increasing from 19.1 percent in 1968 to 25.6 percent in 1987.

The trend toward decreased labor force participation and increased part-time work is not accompanied by higher probabilities of part-year employment. Part-year employment has been falling over time for each of the age subgroups (chart 4). The percentage of workers aged 55 and over working part year declined from 14.1 percent in 1968 to 10.8 percent in 1987. Among 55- to 59-year olds, the decrease was from 17.6 percent to 16.0 percent. For the group aged 60-62, the rate increased to 18 percent in 1974 and then declined to 16 percent; for those aged 63-65, the rate declined from 18.4 percent to 13.4 percent; for those aged 66-70, the decline was from 15.9 percent to 10.6 percent; and for

those aged 70 and over, the decline was from 6.9 percent to 4.0 percent. Thus, the decrease in part-year work is smallest for 55- to 62-year olds and largest for persons aged 66 and over (Ruhm and Sum, 1989).

◆ Economic Models and Institutional Factors

Economic theories of labor supply provide a useful starting point for evaluating historical changes in older workers' labor force participation patterns. **Individuals are believed to weigh the costs and benefits of employment when deciding how many hours they wish to work.** The benefit of working is the earnings received, which can be used to buy goods and services. The cost of working is foregone leisure.

Given a choice, individuals will work to the point at which they equate the benefit of the income obtained

from an additional hour of employment with the value of the foregone leisure.¹ When working only a few hours individuals will have much leisure time but little income. Thus, they may place little value on the lost leisure compared with the benefit of the extra earnings gained by working more hours. Conversely, individuals who work many hours will value the lost leisure very highly (because so little leisure time remains) and probably find that it exceeds the benefits of additional earnings. In this case, individuals benefit by reducing work hours.



For individuals who have accumulated wealth by saving throughout their working lives, the benefit of additional income gained from working may become quite small.



Even this overly simple presentation provides information on why individuals desire to work fewer hours as they age. The most obvious reason is that deteriorating health makes work more difficult and nonwork activities more highly valued, raising the cost of working. The benefits of employment may also decline over time. For example, **for individuals who have accumulated wealth by saving throughout their working lives, the benefit of additional income gained from working may become quite small. In addition, they will almost certainly reduce their working hours when they begin to receive public and private pension benefits and can maintain a given level of consumption with fewer hours of work.**

Withdrawal from the labor force takes place when the cost of even the first hour of work (per period) exceeds

¹More precisely, economists refer to a utility (satisfaction) function whose arguments are income and leisure. Labor supply is optimal when the marginal utility of income equals the marginal disutility of lost leisure.

the associated gain. In the absence of institutional constraints, retirement would generally represent the culmination in a gradual reduction of work hours occurring when individuals finally and completely withdraw from the labor force. In this case, job stopping is typically a process rather than an event. Furthermore, since most workers acquire skills that are specific to their employer, most reductions in labor supply would occur on the career job.

However, there are several factors that make the reduction in work hours less smooth. First, employers sometimes bear fixed labor costs that are independent of hours worked. For example, companies typically contribute a set amount to group health insurance plans, which does not vary once employment hours reach some minimum level. Second, individuals often lose government transfer payments or pension benefits if they work more than some minimum number of hours and therefore have incentives to work intermittently. Third, the team nature of many work situations requires employees with significant interaction to work similar hours. Fourth, the fixed costs of working (e.g., commuting costs and clothing expenses) limit the scope for hours variation.

This basic framework can be used to consider the role of four institutional factors—health, mandatory retirement, Social Security, and private pensions—in explaining the trend in older persons' labor force participation that has occurred over the last 40 years.²

Health

Before the mid-1970s, most researchers believed that health limitations were the primary cause of retirement. **Although there is no question that deteriorating health increases the probability that an individual will leave the labor force by a given age (because ill health raises the costs of continuing to work), it is now apparent that worsening health accounts for little, if**

²For a more in-depth review of retirement literature, see Lazear, 1986; Mirkin, 1987; and Ruhm, 1989.

any, of the trend toward earlier retirement (Bazzoli, 1985; Bound, 1989; Butler et al., 1987; Parsons, 1980; and Sammartino, 1987). One indication of this is that the LFPR has dramatically declined at the same time that life expectancies have significantly improved. In addition, a relatively small percentage of workers cite health problems as their primary reason for retiring.

This does not imply that health is of no importance. It is quite probable that health interacts with economic factors in key ways. For example, unhealthy persons may be most likely to take advantage of early retirement provisions in Social Security and private pensions. The increased generosity of public and private pensions may therefore be a primary cause of reduced labor supply, but its effect may be concentrated among persons with poor health.

Mandatory Retirement

Until passage of the 1978 amendments to the Age Discrimination in Employment Act (ADEA), a significant proportion of older workers was employed in jobs with mandatory retirement provisions. The 1978 amendments raised the legal minimum retirement age from 65 to 70, and mandatory retirement has recently been altogether eliminated for almost all workers.

Even before the legislative changes, most older workers chose to leave their jobs at or before the age of required retirement and so were not affected by mandatory retirement. Furthermore, the LFPR of older men continued to decline at a rapid rate after the changes in ADEA (chart 1), indicating that retirement provisions are responsible for little, if any, of this decline.

Social Security

Social Security is a key source of income for senior citizens and contains complicated economic incentives that influence the time at which individuals first begin receiving benefits. Although a detailed discussion of Social Security is beyond the scope of this report, it is

important to understand some of the system's key components.³

Workers become eligible to receive full Social Security benefits beginning at age 65 and can accept permanently reduced benefits as early as age 62.⁴ Individuals postponing Social Security acceptance past age 65 obtain a delayed retirement credit; however, its size is currently so small that workers are significantly penalized for deferring initial receipt of Social Security beyond age 65, and few do so.⁵ Social Security recipients under age 70 are subject to an earnings test. They are entitled to keep their entire benefit if they earn less than a ceiling amount (\$7,080 for 62- to 64-year olds and \$9,360 for 65- to 69-year olds in 1991). For earned income above this ceiling, benefits are reduced by 33 cents (50 cents for those aged 62–64) for every extra dollar of earnings.

There is clear evidence that Social Security incentives cause moderate reductions in the labor supply among workers reaching age 62, the youngest age at which benefits can be received, and a larger decrease among those who reach age 65, after which the actuarial value of benefits declines. However, the impact of Social Security on average hours worked or retirement ages is less obvious. For instance, persons who would choose to retire at age 61, if actuarially reduced benefits were available at this age, may delay departure from the labor force until they reach age 62, the first age of benefit eligibility in the current system (Burkhauser, 1980; Burtless and Moffitt, 1984; and Iams, 1987).

Social Security is likely to increase the frequency of postcareer employment and partial retirement because some persons taking advantage of early benefits will

³For more detailed discussions of Social Security, see Anzick, 1990 and Ruhm, 1989.

⁴The age for full benefits is being increased to age 67 in a series of gradual steps beginning in 2000.

⁵The delayed retirement credit is being gradually raised so that by 2009 the adverse incentives to postpone retirement will be eliminated.

choose to work a reduced number of hours in order to remain below the earnings test ceiling. This decreased labor force participation may require a change of jobs. Similarly, the strong incentives to begin benefits by age 65 may encourage individuals who would otherwise continue to work full time to switch to part-time employment. Congress is once again considering increasing or eliminating the earnings ceiling in order to encourage individuals to continue working.

Private Pensions

Approximately one-half of private wage and salary workers are covered by pension plans. These plans can strongly affect labor supply. In defined benefit plans, in which the employer guarantees a specified flow of pension payments on retirement, the actuarial value of the pension is frequently maximized at a time when the worker is fairly young. When this occurs, the worker has a substantial incentive to leave the covered job at a younger age than he or she would plan if the pension were actuarially neutral. Defined contribution plans, in which the firm contributes a specified amount on the workers' behalf but provides no guarantee of future benefits, are more likely to be age neutral (Mitchell and Fields, 1984).

The incentives implicit in defined benefit pensions can be extremely large, especially when the plans contain vesting periods, early retirement options, minimum service requirements, and benefit ceilings.⁶ Given these strong incentives, it is no surprise that pension coverage is associated with earlier retirement. Furthermore, because pension coverage rates increased from roughly one-quarter to almost one-half of all workers during the 30-year period ending in the mid-1980s, private pensions may be responsible for a portion

⁶For instance, Kotlikoff and Wise, 1989, describe a case study of a large firm with a defined benefit pension plan where the addition to pension wealth for one extra year of service was \$72,527 for 54-year-old managers with 25 years seniority but -\$14,936 for their 65-year-old counterparts with 30 years on the job.

of the reduction in labor force participation of older persons occurring during that period.

However, pensions are likely to do much more than simply promote early retirement. **On leaving pension-covered career jobs, many workers move into bridge employment rather than out of the labor force. Thus, pensions may encourage gradual labor market transitions.** The dampening effect of pensions on labor supply is also likely to wane over time because pension plan coverage rates have been static since the early 1980s, and employers are increasingly offering defined contribution rather than defined benefit plans (Turner and Beller, 1989).⁷

Postcareer Employment⁸

Most individuals are employed with a single firm for a substantial portion of their working lives. It is therefore appropriate to define the career job as the longest period of employment with a single company. This definition does not necessarily require a progression of increasingly responsible positions but rather focuses on the continuity of employment. The length of the employment relationship is crucial because firm specific skills are acquired in most jobs, and the incentives implicit in private pension plans and wage profiles frequently depend on continued attachment to the

⁷Forty-six percent of civilian workers participated in private pension plans in 1979, versus 41 percent in 1988 (Piacentini, 1989). Between 1975 and 1987, the proportion of workers with pensions who were primarily covered by a defined contribution plan rose from 13 percent to 32 percent (Piacentini, 1991).

⁸Much of the following analysis of career and postcareer employment is based on data from the Social Security Administration's Retirement History Longitudinal Survey (RHLS), which surveyed men and unmarried women aged 58-63 in 1969, with followup surveys conducted at two-year intervals through 1979. Despite its age, the RHLS is unquestionably the most detailed and best source of information on older workers. To provide more timely (but less comprehensive) data, findings are included from a Louis Harris and Associates survey, conducted for the Commonwealth Fund, which provides information from a representative sample of 55-64-year-old men and 50-59-year-old women in 1989 (Louis Harris and Associates, Inc., 1989).

firm. In addition, when workers remain with one company for many years, they may expect this employment relationship to last until retirement. However, this expectation is rarely fulfilled.

Almost two-thirds of individuals work for a single employer for more than 15 years at some point in their lives. **The duration of career employment exceeds 20 years for nearly one-half of workers and 30 years for approximately one-fifth of household heads.**⁹

Lengthy attachment is even more common for white males—two-thirds work for one firm for 15 or more years—but remains important for females and minorities.

Although most persons are employed in lengthy jobs during their prime working years, these positions generally terminate well before retirement. **Nearly 6 in 10 workers leave career employment before age 60, 71 percent do so by age 62 (the first age of eligibility**

for Social Security benefits), and fewer than 10 percent remain in career positions until the normal retirement age of 65 (table 1). White males, college educated persons, and pension-covered workers remain in career employment until somewhat later ages but, even in these cases, departures occur quite early. For instance, 24.5 percent of white men leave their longest held jobs by age 50, 37 percent leave by age 55, and 90 percent leave by age 65.

These early departures imply that career jobs are not synonymous with lifetime employment. Instead, **almost two-thirds of workers remain in the labor force following the end of their longest held job, and more than one-third continue to work for 10 years or more (table 2).** Reflecting the relatively short duration of their longest jobs, postcareer labor force participation among women, minorities, and less educated workers is even more common. Most significantly, persons with pension coverage in career jobs are much less likely than their noncovered peers to remain in the labor force after their longest held position ends and, conditional on doing so, they participate for shorter periods of time. This occurs because most pension plans con-

⁹The duration of career employment is discussed in greater detail in Ruhm, 1991a.

Table 1
Percentage of Workers Ending Career Jobs by Given Ages

	Career Job Ends by Age					
	50	55	60	62	65	70
All Workers	26.3%	38.9%	58.2%	70.6%	90.7%	96.6%
White Males	24.5	36.6	54.9	68.3	90.4	96.2
Females	31.2	45.0	65.7	76.2	91.2	97.8
Nonwhites	30.2	44.8	68.5	77.1	91.3	96.5
No High School	28.6	41.7	61.5	73.4	92.4	97.4
Some College	22.1	35.9	52.9	62.9	84.4	93.2
Career Job Pension Status						
Covered	12.5	22.8	42.4	61.3	92.8	98.4
Not covered	36.1	50.4	69.5	77.3	89.1	95.3

Source: Based on data in Christopher J. Ruhm, "Career Employment and Job Stopping," *Industrial Relations* (Spring 1990): 193–208, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey.

Table 2
Number of Years after End of Career Job Until Retirement^a

	Number of Years				
	0	1–4	5–9	10–19	≥ 20
	(percentage)				
All Workers	36.3%	17.9%	12.2%	19.8%	13.7%
White Males	38.1	17.5	11.3	20.1	13.0
Females	31.7	21.0	13.5	18.4	15.5
Nonwhites	30.3	16.9	17.9	20.5	14.4
No High School	33.8	19.4	12.8	20.6	13.4
Some College	42.2	14.4	9.5	20.1	13.8
Career Job Pension Status					
Covered	52.7	19.1	9.4	13.5	5.3
Not covered	24.3	17.1	14.3	24.4	19.9
Career Job Duration					
Less than 10 years	10.6	18.6	17.6	27.2	25.9
11–20 years	26.3	16.1	12.5	25.4	19.6
More than 20 years	53.7	18.7	9.7	13.1	4.8
Age Career Job Ends					
Less than 50 years	2.5	4.3	4.7	32.6	55.8
50–55 years	9.5	14.6	17.5	54.9	3.5
56–60 years	19.4	35.9	29.3	15.4	b
More than 60 years	72.6	18.4	6.7	2.3	b

Source: Based on data in Christopher J. Ruhm, "Career Employment and Job Stopping," *Industrial Relations* (Spring 1990): 193–208, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey.

^aDurations of postcareer labor force participation are censored for persons remaining in the labor force through 1979.

^bDurations of this length of time were not observed in this age group due to the concluding date of the survey.

tain incentives that strongly discourage employment turnover for middle-aged workers.

However, even for workers with pension coverage, the end of career employment does not automatically lead to immediate retirement. Almost one-half of such individuals remain in the labor force for some period of time after leaving their longest held job, and more than one-quarter do so for more than five years (table 2). Postcareer labor force participation is also fairly common for persons leaving long-held jobs (i.e., those lasting more than 20 years) or leaving positions in their middle to late 50s.

◆ Partial Retirement and Reverse Retirement

Although some workers retire when their career jobs end, the majority remain in the labor force. Some individuals, particularly those whose career positions terminate when they are relatively young, move into second careers. However, a substantial portion begin the transition into retirement with some form of reduced labor force commitment such as taking a full-time position with less stress or responsibility, decreasing the number of hours worked, or temporarily leaving the labor force.

Frequency of Partial Retirement

Most research on older workers has maintained the dichotomous labor force classifications of retired and not retired. However, this classification is problematic because partial retirement is both more common and longer lasting than is generally believed. **Partial retirement is rare among persons under age 62, increases rapidly between age 62 and age 67, and then gradually declines** (table 3) (Gustman and Steinmeier, 1984, 1986; Honig and Hanoch, 1985; and Parnes and Less, 1985). **At the peak age (66–67), one-fifth of all workers are partially retired** (table 3), and at least **45 percent of all workers partially retire at some point in their working lives** (table 4). Analysis of longitudinal data suggests that, although the typical partial retirement period is short, a substantial portion lasts for a significant time. As a result, the average duration of partial retirement is around five years, with longer durations observed for males and college educated workers.

Partial retirement rarely occurs on the career job. Only 6 percent of partial retirees remain in their career position (table 4). These proportions vary only slightly

across demographic groups, with the significant exception being that pension-covered workers partially retire on the career job only one-third as frequently as their counterparts without coverage.

Reversing the Retirement Decision

Mature workers typically reduce their labor force commitment as they age, either by moving from career jobs to retirement or through a more gradual transition process involving some form of bridge employment. Nonetheless, **a substantial number of older workers temporarily increase their work commitment after first retiring or partially retiring. One-quarter of all workers reverse full retirement decisions and 26 percent of partial retirees reverse this status as well** (table 5).¹⁰

More than 90 percent of reversals of both full and partial retirements occur within four years of the start of

¹⁰A reverse retirement occurs if a worker switches from being retired to not retired or partially retired. A partial retirement is reversed if labor market status changes from partially retired to not retired.

Table 3
Percentage of Workers Partially Retired at Given Ages^a

	Age Range					
	60–61	62–63	64–65	66–67	68–69	70–71
All Workers	7.8%	13.0%	18.2%	20.3%	18.6%	16.4%
Males	7.0	12.6	18.2	21.1	19.4	17.7
Females	10.9	14.7	18.0	17.2	16.0	12.2
Whites	7.4	12.7	18.1	20.4	18.8	16.4
Nonwhites	11.7	15.9	18.6	18.9	17.3	16.8
No High School	8.3	14.7	19.4	20.7	18.8	16.6
Some College	8.8	8.2	13.8	19.4	19.2	17.8
Career Job Pension Status						
Covered	5.8	7.5	12.5	13.7	13.9	12.4
Not covered	8.9	16.1	21.3	24.0	21.4	18.8

Source: Based on data in Christopher J. Ruhm, "Bridge Jobs and Partial Retirement," *Journal of Labor Economics*, (October 1990): 482–501, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey (RHLS).

^aThe table shows percentages of the specified group partially retired during a single RHLS interview.

Table 4
Percentage of Workers Ever Partially Retired and Partially Retired on Career Job

	Ever Partially Retired ^a	Partially Retired on Career Job	Percentage of Partial Retirements Occurring on Career Job
All Workers	45.2%	6.2%	13.7%
Males	45.7	6.4	14.0
Females	43.3	5.2	12.0
Whites	44.8	6.0	13.3
Nonwhites	48.4	7.1	14.7
No High School	46.6	6.0	12.9
Some College	41.2	6.0	14.6
Career Job Pension Status			
Covered	34.4	2.7	7.8
Not covered	51.2	8.1	15.8

Source: Based on Christopher J. Ruhm, "Bridge Jobs and Partial Retirement," *Journal of Labor Economics* (October 1990): 482–501, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey (RHLS).

^aRespondents are defined as "ever partially retired" if they classify themselves as partially retired in at least one of the six RHLS interviews.

their full or partial retirement. Temporary retirement is most common for nonwhites, less educated workers, males, and workers without pension coverage in their career jobs, suggesting that these groups often make retirement decisions without sufficient information on what retirement is like or that their incomes unexpectedly become insufficient later in life. The rapid rate at which most reversals occur further indicates the role of inadequate information.

◆ The Nature of Bridge Employment

Given the prevalence of postcareer employment, it is important to understand how bridge jobs differ from career positions and to determine the extent to which bridge employment occurs out of choice or necessity. As a first step, bridge jobs and career positions are contrasted.

Most workers acquire skills specific to their industry and occupation of employment. As a result, earnings losses are generally larger when workers change sectors—in moving from career to bridge employment—than when they continue to work in the same industry and occupation. Nonetheless, **mobility into bridge jobs generally involves a change in industry, occupation, or both.** For example, fewer than one-quarter of RHLS respondents moved into a first bridge job that was in the same broad industry *and* occupation as their career employment, and only about one-half remained in either the same industry *or* occupation (table 6).¹¹

¹¹These percentages apply to persons reemployed at the first survey after the end of career employment. If longer duration of joblessness lead to greater sectoral mobility, they will understate the frequency of industry and occupation changes.

Table 5
Percentage of Workers Reversing Full or Partial Retirement^a

	Reversals of Partial Retirement		Reversals of Full Retirement	
	At any time	After less than 4 years	At any time	After less than 4 years
All Workers	26.1%	5.7%	24.9%	5.9%
Males	23.0	4.9	26.0	6.6
Females	35.8	7.9	21.5	3.6
Whites	24.3	6.0	24.7	5.8
Nonwhites	38.3	3.7	26.9	6.7
No High School	25.7	6.4	26.9	5.1
Some College	30.3	7.6	20.7	6.9
Career Job Pension Status				
Covered	19.2	4.6	20.8	5.1
Not covered	28.3	6.0	27.8	6.4

Source: Based on Christopher J. Ruhm, "Bridge Jobs and Partial Retirement," *Journal of Labor Economics* (October 1990): 482–501, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey (RHLS).

^aThe sample for this table is restricted to persons first partially or fully retiring in 1971 (the date of the second RHLS interview).

Table 6
Percentage of Workers Remaining in Career Sector in First Postcareer Employment^a

	Industry	Occupation	Industry or Occupation	Industry and Occupation
All Workers	36.8%	38.8%	51.6%	23.9%
Males	35.9	36.4	49.7	27.2
Females	40.5	49.3	59.8	29.8
Whites	36.9	38.6	51.7	27.9
Nonwhites	35.6	40.1	50.6	25.5
No High School	34.9	36.3	48.5	25.9
Some College	42.4	48.1	61.0	31.5
Career Job Pension Status				
Covered	33.5	38.1	50.4	21.2
Not covered	38.1	39.0	52.1	25.0
Age Career Job Ends				
Under 55	38.8	39.9	54.4	24.2
55–59	46.0	49.9	61.7	34.2
60 and over	21.3	24.0	33.8	11.6
Retirement Status				
Not retired	41.2	43.1	56.7	27.6
Partially retired	22.8	23.7	35.1	11.4

Source: Based on Christopher J. Ruhm, "Bridge Jobs and Partial Retirement," *Journal of Labor Economics* (October 1990): 482–501, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey.
^aThe sample for this table is restricted to persons who were reemployed at the time of the survey interview immediately following their departure from the career job. Sectoral change is defined to occur if there is a change in the one-digit Standard Industrial Classification industry or occupation.

Workers with disadvantaged labor market positions (nonwhites, less educated workers, and workers who leave their jobs at older ages) maintain attachment to their career industry or occupation even less often. However, women stay in the same occupation relatively frequently, which probably reflects the high concentration of female employment (at all ages) within a relatively small number of occupations. Workers leaving career positions in their early 50s also change sectors frequently, which may indicate that they are pursuing second careers. Finally, just as partial retirement rarely occurs on the career job, it almost always involves a change in the employment sector. Thus, partial retirees lose the productivity benefits of sector and firm-specific skills.

Workers leaving career jobs typically incur substantial reductions in pay. The financial consequences of career job terminations are summarized in table 7,

which shows changes in earnings following the career job termination.¹² Ratios greater than one imply that earned income in bridge employment exceeded that obtained in the career job. Ratios below one indicate reductions in pay.

More than one-fifth of persons responding to the RHLS survey who left career jobs before age 62 received no earnings during the following three years. The nominal earnings of an additional 42 percent fell by one-quarter or more, and fewer than 30 percent obtained increased pay when they changed employment. White males and college educated workers were

¹²Average earnings are calculated for a three-year period prior and subsequent to the end of the career job. No adjustment has been made for price changes. Thus, small wage increases may be the result of cost-of-living adjustments, while reductions in nominal earnings understate the true loss in purchasing power.

Table 7
Earnings Changes Following Career Job
Terminations Before 1979^a

	Earnings Ratio			
	No Earnings <0.75	0.75–1.0	>1.0	
All Changers	20.5	41.8	8.0	29.8
White Males	18.9	41.7	7.9	31.6
Females	26.3	43.8	7.4	22.5
Nonwhites	23.0	37.4	10.9	28.8
No High School	20.4	43.6	8.3	27.7
Some College	21.7	36.0	6.8	35.6
Age Career Job Ends				
Under 50	10.8	30.5	13.3	45.4
50–55	15.6	27.4	12.1	44.9
56–60	22.1	36.3	6.6	34.9
61–62	25.7	53.6	6.5	14.2
62 and over	22.7	68.2	3.6	5.5

Source: Based on data in Christopher J. Ruhm, "Career Employment and Job Stopping," *Industrial Relations* (Spring 1990): 193–208, which uses data from the U.S. Department of Health and Human Services, Social Security Administration, Retirement History Longitudinal Survey.

^aThe earnings ratio compares three-year averages of nominal earnings for periods before and after the career job termination. Persons not reporting job changes prior to the job change are excluded from the sample. Some job changes may have occurred sometime prior to the survey.

somewhat less likely to experience earnings declines, but decreases of at least 25 percent occurred for at least 6 in 10 members of even these groups. Pay reductions were somewhat less common for persons leaving career jobs in their 40s and early 50s; however, earnings decreases were the rule, rather than the exception, at all ages. Substantial wage declines for even extremely young job changers suggests that involuntary job changes are quite common.

A more complete picture is obtained by examining patterns of occupational mobility. The first column of table 8 displays the occupational distribution of career jobs for respondents who left career employment and were working in bridge jobs at the date of the 1989 Harris survey. The second and third columns indicate the percentage of workers who had, respectively, moved into and out of the specified occupation when taking a

bridge job. The fourth column calculates the difference between these two percentages (the net flow into or out of the occupation), and the fifth column shows the net change as a percentage of career employment in the occupation.¹³

Table 8 reveals modest growth in professional/managerial jobs, larger movements into technical/sales and transportation/laborer occupations, and declining employment in the clerical/service and production sectors. Increases in employment occur at both the high (i.e., professional/managerial, technical/sales) and low (i.e., transport/labor) ends of the occupational distribution. The largest decrease is observed for production occupations, which tend to offer relatively high pay but also difficult working conditions. The substantial gross mobility both into and out of clerical/service occupations is also noteworthy. However, because the movements are of approximately equal size, the net change is relatively small.

Combining the results for earnings and occupational changes suggests the following situation. **A minority of workers leave career jobs to accept positions offering higher wages and more prestige. A second group relinquishes relatively well paid production jobs to take positions offering low wages but less arduous working conditions. Finally, for a substantial percentage of individuals, departures from career jobs imply movement out of the labor force or into poorly paid clerical/service or transport/laborer positions. This latter group is largely composed of individuals working in career employment offering low pay and status.**¹⁴

¹³For example, 27.6 percent of persons working in bridge jobs in 1989 held professional or managerial career positions, and 7.3 percent worked in nonprofessional or managerial career jobs but moved into this sector when obtaining bridge employment. Conversely, 6.4 percent left the professional and managerial sector when taking bridge jobs. This implies a net movement of 0.9 percent of the sample into professional or managerial positions, an increase of 3.3 percent (0.9/27.6 x 100 percent).

¹⁴For further information on occupational mobility, see Ruhm, 1991.

Workers leaving career jobs may change employment sectors, take pay cuts, or leave the labor force either by choice or out of necessity. For example, a 63-year old who is receiving Social Security and private pension benefits may be delighted to switch from a high-paying full-time job into a less well-paid position requiring fewer hours and less responsibility. Conversely, a 67-year old whose employment history includes a series of domestic jobs in private households that offer no retirement benefits of any kind may be devastated by any decrease in wages or work hours. In addition to analyzing the consequences of career terminations, it is informative to consider the role of economic advantage in determining patterns of job stopping.

Advantaged groups include workers who are generally free of labor market discrimination or who, because of education or occupational attainment, have favorable opportunities in their prime employment years. Conversely, disadvantaged groups have limited job options and may face discrimination. To provide a first indication of the role of economic advantage, table 9 contrasts the experience of males, whites, college educated persons, and professional/managerial or technical/sales workers with their disadvantaged counterparts: females,

nonwhites, Hispanics, high school dropouts, and persons in clerical/service or transport/laborer occupations.

The table shows that members of advantaged groups are more likely to retain attachment to their career jobs in late middle age and are less often retired. Education and occupation appear particularly important. For example, in 1989, 38.0 percent of the college educated persons surveyed by Harris remained in career jobs, and 32.1 percent were out of work. By contrast, only 21.8 percent of high school dropouts still worked in career positions, and 53.8 percent were not employed in any job. Similarly, 43.8 percent and 27.6 percent of professionals and managers were in career employment and not working, respectively, compared with 30.5 percent and 42.1 percent of clerical and service workers. Males and whites were also relatively more likely than their counterparts to work in career jobs and were less often not working.

These findings indicate that persons who are disadvantaged during their prime working years are generally unable to recover later in life. If anything, the disparity grows rather than declines with age. Even if the

Table 8
Differences Between Career and Current Occupations Among Respondents Working for Bridge Employers, 1989

Occupation	Distribution of Career Occupations (1)	Movements Into or Out of Specified Occupation			
		Moves in (2)	Moves out (3)	Net change (4)	Net change as percentage of 1 (5)
Professional/Managerial	27.6%	7.3%	6.4%	0.9%	3.3%
Technical/Sales	12.5	8.0	5.4	2.6	20.8
Clerical/Service	26.6	11.2	10.1	-1.1	-4.1
Agricultural	3.3	2.3	2.3	0.0	0.0
Production	18.8	3.5	8.9	-5.4	-28.7
Transport/Laborer	10.1	6.0	4.8	1.2	11.9

Source: Based on Christopher J. Ruhm, "Bridge Employment and Job Stopping in the 1980s," University of North Carolina at Greensboro, May 1991 (mimeograph), which uses data from Louis Harris and Associates, Inc., Older Americans: Ready and Able to Work (survey) (New York, NY: Louis Harris and Associates, Inc., 1989).

Table 9
**1989 Employment Status of Older Persons in
 Advantaged and Disadvantaged Groups**

	Employment Status in 1989		
	Working in career job	Working in bridge job	Not working
	(percentage)		
Advantaged			
Males	33.9%	31.2%	34.9%
Whites	33.1	28.4	38.5
College educated	38.0	29.9	32.1
Professional/managerial	43.8	28.6	27.6
Technical/sales	36.8	27.7	35.5
Disadvantaged			
Females	31.3	25.3	43.4
Nonwhites	30.6	23.0	46.4
Hispanics	27.9	35.6	36.5
High school drop-outs	21.8	24.4	53.8
Clerical/service	30.5	27.4	42.1
Transport/laborers	35.6	24.6	39.8

Source: Based on Christopher J. Ruhm, "Bridge Employment and Job Stopping in the 1980s," University of North Carolina at Greensboro, May 1991 (mimeograph), which uses data from Louis Harris and Associates, Inc., *Older Americans: Ready and Able to Work* (survey) (New York, NY: Louis Harris and Associates, Inc., 1989).

relatively low levels of work participation observed for disadvantaged workers are voluntary, they probably reflect a choice made with limited employment options. Age discrimination may also be especially severe for these groups, with the result that they become doubly disadvantaged as they grow older.

Employment opportunities are likely to narrow significantly for older workers with health problems. To investigate this possibility, a measure of health status was constructed using information on health problems and activity limitations available in the Harris survey. One point was added to the health scale for positive responses to each of six inquiries on health problems; one point was also added for each activity the respondents claimed they could not complete at all, and one-half point was added for every activity that they

claimed to have difficulty completing.¹⁵ The range of possible scores was between 0 and 12, with low scores implying better health. Individuals were defined as being in good health if their score was 0, average health if their score was 0.5–2.0, and poor health if their score was greater than 2 points.

Health is an important determinant of both the timing and pattern of job stopping. **At given ages, healthy workers are much more likely to work for career employers; if they have left them, they more often work in bridge jobs.** In contrast, unhealthy workers are much more likely to be out of work. For example, whereas Harris respondents in poor health were one and one-half times as likely not to be working as working (61.2 percent versus 38.8 percent), the ratio was reversed for persons in good health (29.4 percent versus 70.6 percent). Put differently, the 40.4 percent of persons in good health remaining with career employers in 1989 exceeds the 38.8 percent of the least healthy group employed in *either* career or bridge jobs (chart 5).

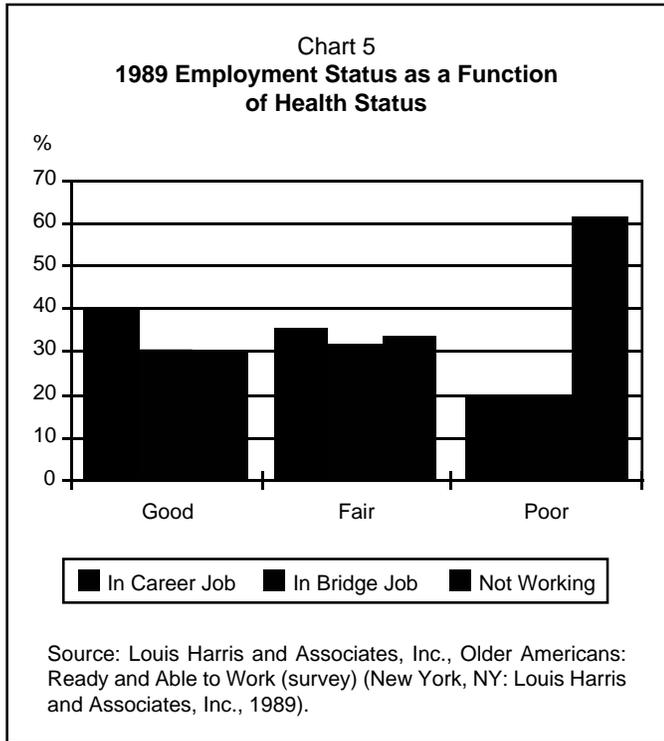


Although bridge jobs represent an important transition between career employment and retirement, they need not be marginal in nature.



Beyond the absence of earnings, early departures from the work force may be costly in a variety of ways. The potential loss of health insurance is likely to be of special concern. As chart 6 shows, Harris respondents not working were almost three times as likely as their

¹⁵The health problems include arthritis or rheumatism, lung disease, hypertension or high blood pressure, a heart attack or other heart trouble, diabetes, and cancer or malignant tumor of any kind. Activity limitations refers to difficulty in walking one mile, shopping, reading the phone book, using a calculator, driving to and from work, and polishing a car.



counterparts working in career jobs to be completely uninsured (14.5 percent versus 5.5 percent) and were without health insurance one-third more often than their peers employed in bridge jobs. They were also slightly more likely than employed workers to self-purchase health insurance; however, this latter comparison understates the relative inadequacy of their health coverage, because employed workers may obtain job related health benefits in addition to any self-purchased insurance.¹⁶

Although bridge jobs represent an important transition between career employment and retirement, they need not be marginal in nature. For example, more than three-quarters of bridge job holders work full-time, mostly by choice. Moreover, preferences regarding hours of employment differ only slightly for workers in

¹⁶More than three-quarters of career job holders and one-half of persons in bridge jobs surveyed by Harris were covered by employer-provided health plans.

career and bridge jobs. More than 60 percent of both groups desire full-time work and, among those working full time, approximately three-quarters do so by choice (table 10). Similarly, almost 80 percent of part-time workers prefer to work fewer than 35 hours per week.

The preferences of persons not working but who would like to work are strikingly different, with 54 percent desiring part-time employment. The paucity of part-time bridge jobs may therefore represent a substantial barrier to this group's continued employment. As discussed, **few older persons work at part-year jobs, suggesting that intermittent or temporary employment may also be unavailable to persons preferring not to work full time on a year-round basis.** Finally, Harris respondents who have left bridge jobs report low levels of job satisfaction in these positions, which may further indicate a mismatch between worker expectations and job requirements.¹⁷

¹⁷This is discussed in Ruhm, 1991.

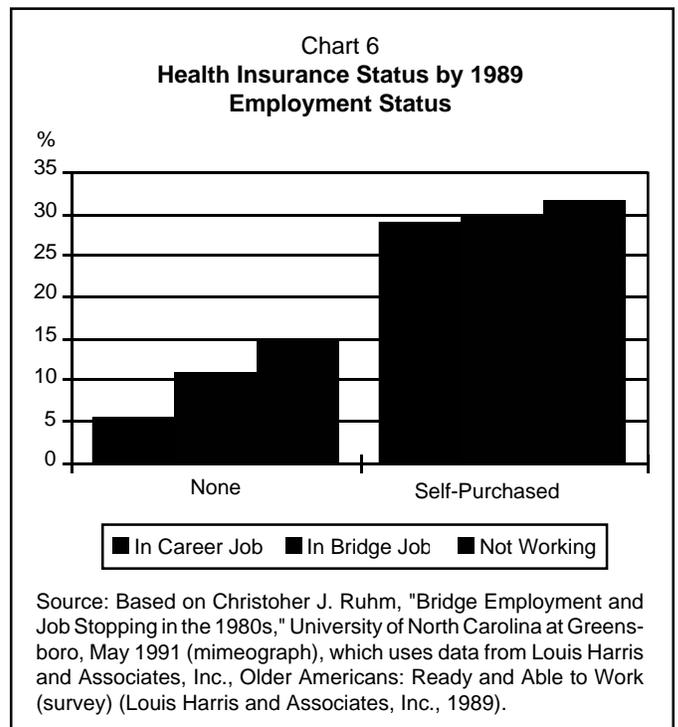


Table 10
**Preferred Hours of Work among Older Persons by
 1989 Employment Status**

	Preferred Hours of Work		
	Working in career job	Working in bridge job	Not working
	(percentage ^a)		
Currently Works Full Time	86.5%	76.1%	
Prefers Full-Time Job	66.8	61.2	44.1
Prefers Part-Time Job	31.5	37.5	53.6
Currently Works Full Time			
Prefers full time	75.3	75.3	
Prefers part time	24.7	24.7	
Currently Works Part Time			
Prefers full time	22.7	21.0	
Prefers part time	77.3	79.0	

Source: Based on Christopher J. Ruhm, "Bridge Employment and Job Stopping in the 1980s," University of North Carolina at Greensboro, May 1991 (mimeograph), which uses data from Louis Harris and Associates, Inc., *Older Americans: Ready and Able to Work* (survey) (New York, NY: Louis Harris and Associates, Inc., 1989).

^aPercentages may not sum to 100 percent because of nonresponses.

◆ Conclusion

Retirement typically represents the final stage in a transitional process that may include periods of partial retirement and temporary withdrawal from the labor force. This job stopping process is generally initiated by the end of career employment and frequently begins at relatively young ages. Bridge jobs are usually located in different industries or occupations and pay considerably less than career employment.

Two disparate groups have relatively high probabilities of retiring abruptly following the end of career employment: persons with generous pension coverage who may have neither the need nor the desire to continue working and economically disadvantaged workers for whom bridge employment is desirable but unavailable. The inability of this latter group to obtain postcareer employment, which may be the result of labor market

discrimination, health limitations, or a mismatch between worker expectations and job requirements, is likely to be particularly problematic because they also leave career positions particularly early.

Particularly striking is the frequency with which individuals sever attachment to both the firm and sector of their career employment when moving into bridge jobs. This change reduces labor productivity because investments have been made in skills specific to particular firms, industries, and occupations. It also suggests the need for institutional changes that increase workers' ability to partially retire while remaining in career employment.

The dynamics of the job stopping process are only beginning to be understood. Nonetheless, several findings suggest directions for future research and policy efforts. **The early end to career employment indicates that workers need to be well prepared for labor mobility occurring relatively late in life. This highlights the importance of lifelong education and skill training.**

There is a need for more current information on older Americans' employment behavior. The cohort in the most widely analyzed data source, the Retirement History Longitudinal Survey, is unrepresentative of persons currently approaching retirement for at least two reasons. First, members of this cohort began working during or just before the Great Depression, and their movement into career employment was further delayed by the onset of World War II. Second, they approached retirement during the relatively stable economic period of the 1960s and early 1970s. In contrast, workers currently in their 50s and early 60s completed school after World War II and have neared retirement during the more turbulent 1980s. The RHLS also contains extremely limited information on married women—the group whose labor force participation rates (at younger ages) has grown most rapidly.

Better data should become available to researchers by the mid-1990s. The National Institute on Aging is in

the process of developing a successor to the RHLS, called the Health and Retirement Survey, which will improve on many of the RHLS' shortcomings. In addition, several major national data bases (i.e., the National Longitudinal Surveys and the Panel Study of Income Dynamics) have recently undergone major enhancements or new interview waves to provide additional information on retirement patterns. When this information is released and analyzed, it will yield a much clearer understanding of the job stopping process, which then may help policymakers implement changes to the nation's retirement system that are beneficial to all workers.

This *Issue Brief* was written by Christopher J. Ruhm, associate professor of economics at the University of North Carolina at Greensboro and an EBRI fellow, with assistance from the Institute's research and education staffs.

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