

Productive Lives: Paid and Unpaid Activities of Older Americans

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The authors are grateful to participants in the ILC Research Seminar for useful comments, especially Marjorie Honig, ILC-USA Research Program Co-director, who provided detailed comments and suggestions on previous drafts of this paper.

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ABSTRACT

The impending retirement of baby-boomers in the U.S. and the ever-increasing life expectancy there and throughout the world have generated interest in how much older citizens contribute to production. Through a review of social science literature and an analysis of Census, Bureau of Labor Statistics, and other data, this paper explores how older persons in the U.S. allocate their time to different types of productive activities, and identifies the incentives and disincentives that influence this allocation. The paper is written mainly from an economic perspective, but main themes found in sociology and psychology are used to consider obstacles, predisposing factors, and incentives to productive activities. Both paid and unpaid productive activities are analyzed.

The main findings are: (1) Older Americans are employed in a wide variety of occupations and industries. (2) Nontraditional employment arrangements such as independent contractors, home-based work, part-time work, and bridge jobs are important to older workers, but opportunities for these activities may be limited. (3) Unpaid volunteer work in organizations such as schools and churches, and informal help given to family and friends, are part of older persons' contribution to society. (4) Economic, psychological, and sociological factors influence the level of productive activities of older persons, and are manifest in the decision-making of both employers and employees. (5) While recent changes in public policy such as modifications to the social security system may be conducive to the continuing labor force participation of workers nearing retirement age, there may be room for more proactive measures.

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PREFACE

In 1982, the National Institute on Aging completed its second complex research plan on aging, covering social-behavioral as well as biomedical aspects. At that time there was considerable focus nationally upon issues of dependency among older persons. We decided instead to turn our attention to the more positive possibilities not being discussed at that time. Entitled, “Toward an Independent Old Age,” the plan emphasized what we called “effective functioning.”

The same year I was invited to lead a program on “dependency among older persons” at the Salzburg Seminar. Again, it seemed advantageous to turn the idea upside down and I began to use the term “productive aging.”

This concept in various forms has become one of the two principal priorities of the International Longevity Center (ILC)—since its inception, the ILC has carried out research, educational, and policy initiatives to advance the productive work life. This effort has been motivated by several factors: (1) there have been advances in healthy life expectancy, so that capabilities of continuing productivity are more likely; (2) with the information and other technological advances, traditional dependence upon muscle has given way to intellectual functioning; (3) birth rates have fallen; and (4) it is unrealistic from personal and social perspectives for huge numbers of older persons (the Baby Boomers) with all their talent and experience to live idly in retirement for several decades while collecting Social Security and utilizing Medicare. In short, living longer, people will need to work longer. This is a happy consequence, for it is good for society and healthy for the individual to contribute to society.

The second priority of the International Longevity Center concerns advancing active healthy expectancy through research, education and policy initiatives.

Kenneth Knapp, working with Dr. Charlotte Muller, co-director of the ILC Center Research Program, provides a thoughtful review of the myriad ways in which older people give to society through paid and unpaid work. Added up, this is the equivalent of millions of dollars, although the latter is not counted as part of the Gross National Product.

This review offers ideas for the development of further studies, which may be undertaken here at ILC-USA, at one of the other sister ILCs, or elsewhere. The Japanese, French, English and Dominican Republic Centers have independently moved in the direction of productive aging. ILC-Japan, for example, publishes a magazine entitled *Productive Aging*. ILC-France has been particularly interested in assaying the economic contribution of older people to society. Work in the Dominican Republic has led to the practical mobilization of older persons, especially women, in meeting significant social needs. In one instance, older women teach young mothers rehydration techniques to protect infants from potentially fatal diarrheas.

The ILC itself covers a range of topics relevant to the productive work life. We anticipate far-ranging changes in both the culture and reality of work in the 21st century, with new patterns of

activity, including work at home, virtual employment, self-employment, partial work schedules, and unimagined scenarios to come. We will consider regular sabbaticals for workers (not just academics) to update and upgrade their knowledge and skills.

Further research at the ILC will address the effects of age discrimination in employment, how work tasks and scheduling might be modified in consideration of differing physiological and cognitive functions that occur with aging, and the nature of the transition from full-time work to complete retirement.

I believe this working paper will advance the needed discussion of productive aging.

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EXECUTIVE SUMMARY

Increasing longevity throughout modern societies and the approaching retirement of the baby-boom generation in the United States have heightened interest in the magnitude and nature of the productive contribution of society's older citizens. Whether or not older individuals could or would contribute more as a consequence of changes in public policy also has received increasing attention. Informed policymakers should have an understanding of how persons over 65 allocate their time, how productive their activities are, and whether they are content with their use of time.

Concern with the expected call on personal and public resources to finance a longer retirement is evident in public discussion. Thus, it is important to understand the types of productive activities pursued by older persons, and the directions in which expansion of their productive services might be encouraged. Besides addressing the issue of cost burden, the study of the productive activities of older persons may shed light on other areas: (1) How accurate are society's perceptions of the actual and possible roles and "usefulness" of individuals in later years of life? (2) Do people generally work full-time until they retire, and then withdraw completely from the labor force? (3) How important is maintaining a productive lifestyle to continued physical, mental, and emotional health? (4) To what extent do people become less capable of being productive as they age? (5) How does public policy influence the level of productive work in older age groups?

Through a review of social science literature and an analysis of pertinent data, this paper aims to discover the extent to which older persons in the United States allocate their time to different types of productive activities, and to identify incentives and disincentives which influence this allocation. The paper has been written mainly from an economic perspective, but main themes found in sociology and psychology have been used in considering obstacles, predisposing factors, and incentives.

Productive aging defined

Productive activities are those which create goods and services for consumption. Both paid and unpaid work are examined in this paper. *Productive aging* refers to the productive activities of older persons and how individuals may remain productive as they reach old age. Although some observers include in their concept of productive aging a development of the capacity to be productive through education, retraining, and health maintenance, this important issue is beyond the scope of our paper. Further research on the relationship between this "investment in human capital" and productive aging would be worthwhile.

For both paid and unpaid volunteer services, employer and employee attitudes influence productivity. Employer attitudes toward older employees (or would-be employees) influence both the opportunity for productive activities and the performance of those they do employ. Some employers may believe that older persons are less productive than younger persons, and their promotion and recruitment policies may reflect that belief. Other employers actively recruit older workers because they are believed to possess certain desirable qualities, such as reliability and a strong work ethic. The qualities sought by a specific employer or volunteer organization may reflect the nature of the business.

For their part, older employees may lose confidence in their abilities, with the result that they become less productive. A sense of *self-efficacy*--the belief in one's ability to solve specific

problems or meet specific challenges--is especially important for older individuals. Older persons with high self-efficacy have a positive perception of their physical and cognitive abilities, and are more likely than persons with low self-efficacy to engage and perform well in productive activities. The interplay between personal psychology and societal norms has an important influence upon the productive contribution of older persons. For example, self-efficacy may be more critical to performance when there are strong social expectations that older persons do not belong in the labor force or in well-paid jobs.

An individual's ability to work is determined by physical health, mental function, motivation and attitude, and experience. As people age, some of these characteristics may deteriorate, others may improve, and still others may undergo no change. For older persons, these changes may influence both the desire and the opportunity for productive work. While both employers and employees evaluate these determinants of ability when making labor market decisions, the work environment (physical features and employer policies) can compensate for certain limitations, such as hearing or visual impairment. However, both profit-maximizing firms and non-profit volunteer organizations will modify the work environment only if the value of production is increased as a result by more than the cost of the modifications. In practice, employers have preferred adaptive policies such as schedule changes over investment in modified work equipment or structural changes.

Complete vs. partial retirement

The central issue regarding older persons in paid work is the retirement decision. Many factors may influence an employee's decision to retire; these include the quality of the work environment, the structure of social security and private pension plans, the availability of part-time work and/or flexibility of work hours, age discrimination, and health. Individual socioeconomic characteristics such as income, wealth, education, marital status, spouse's labor force participation, race, and gender may also influence a person's decision to retire.

Complete retirement—that is, permanent and total withdrawal from the labor force—is much less prevalent among older Americans than commonly supposed. It has been estimated that 50% or more of all workers “partially retire” by taking part-time jobs toward the end of their working lives, and the chance that an individual will reenter the labor force after “retirement” is about one in four. According to a recent survey, 80% of baby-boomers plan to continue working after retirement, 35% plan to work part-time mainly out of interest or for the sake of enjoyment.

Since the mid-1980s, a long-term trend toward early retirement from the paid labor force has reversed. Observers disagree about how much “pro-work” modifications to the social security system have contributed to this reversal, and whether the reversal marks a departure from the past which will long endure. Although there is general agreement among economists and public policymakers that the social security system has been a disincentive to work for older Americans, there is disagreement over the magnitude of the disincentive. The resolution of this debate has implications for the effectiveness of more recent changes in the social security system, such as the elimination of the earnings test in 2000 for persons aged 65-69, in encouraging labor force participation of older workers.

Nontraditional work arrangements

Nontraditional work arrangements—that is, alternatives to traditional, full-time work at an

employer's site—are important to older individuals. In general, workers aged 65 and over represent a higher percentage of those engaging in all types of alternative work (independent contractors, on-call workers, temporary workers, etc.) than they do of the traditional workforce. Home-based work, part-time work, and post-career bridge jobs are also important. Opportunities for such alternative work arrangements appear to be limited. If it is desirable to foster the continued labor force participation of older workers, then further research into how these opportunities may be expanded would be necessary. Among other things, this would entail identifying conditions under which employers are willing to offer alternative arrangements.

Intra-family help and formal volunteerism

Unpaid work includes volunteering through formal organizations, intra-family productive activities such as childcare and long-term caregiving, and unpaid help in a family business. While cross-sectional data appear to show that volunteerism among older persons is lower than among younger persons, several factors may explain or mitigate this apparent difference. First, both education and income are positively correlated with volunteerism. It is possible that the negative correlation observed between age and volunteerism is the result of differences in income and education across age groups.

Second—a frequent problem encountered by the researcher interested in any issue related to longevity and aging—age distinctions finer than aged “65 and over” or “75 and over” are usually not made in data on volunteer work. It is very likely that younger members of the 65 and over group are more involved in volunteerism than are the older members, but these differences are lost in the data. More age-based data on unpaid work are certainly needed.

Third, ill-health, age discrimination, and insufficient outreach by volunteer organizations may be obstacles to volunteer activity of older persons. There is evidence that the willingness to do volunteer work among older non-volunteers is high. One study finds that for every two older volunteers, there exists more than one potential volunteer.

Older Americans provide informal caregiving and childcare services in substantial numbers, but these unpaid contributions to society receive little governmental recognition or support. Most of the limited data on these activities derive from small surveys conducted occasionally by different organizations. A more ambitious, more systematic approach to gathering and analyzing data on informal caregiving and childcare services may help provoke public policy initiatives aimed at alleviating the financial, physical, and emotional burdens borne by older caregivers.

Obstacles and incentives to productive aging

Economic, psychological and sociological, and institutional factors all influence the level of productive activities of older persons. The availability of full- and part-time work, the opportunity for training, the structure of social security and private pension plans, and the effect of technological change upon the workplace environment are among the economic factors which influence productive activities. Psychological factors include an individual's feeling of self-efficacy and preference for maintaining a connection to social networks. The values of a society and its expectations regarding the abilities and roles of persons as they age also influence productive activities of older individuals. Furthermore, a society's mores affect educational, religious, mass media, governmental, and legal institutions which, in turn, can either impede or promote productive aging.

Although persons in old age may experience a decline in physical strength and mobility, an increase in health problems such as heart disease and cancer, reduced visual acuity, increased hearing loss, changes in motor speed and reaction time, and a reduction of certain cognitive abilities, studies based on direct observations of workers in different settings have found little evidence that productivity declines with age as a general rule. Moreover, employers themselves often report that older workers compensate for any negative changes in work performance with experience, judgment, low turnover, and above-average punctuality. Older individuals are not significantly impeded from continued work by physical, health, or cognitive obstacles to continued work—despite misconceptions held by many employers.

Employer costs: earnings, health insurance, and pension plans

Employer misconceptions about the productive potential and receptiveness to training of older workers are an obstacle to the extended work life of these individuals. Less disputable are employer concerns regarding the cost of retaining older workers because of the structure of earnings, health insurance, and pension plans.

The ongoing shift in some sectors away from the implicit lifetime contract to employment-at-will arrangements may mean that fewer older workers will receive wages above their marginal products, and may mitigate therefore the cost burden associated of retaining older workers, making them more attractive to employers. However, in such an environment, the relatively high income levels of older workers would be threatened. Medical coverage of older workers became more expensive to employers starting in the 1980s, when several changes in Medicare rules were made. For example, since 1982, a firm with 20 or more employees that provides health insurance to an employee aged 64 or younger is required to extend the coverage until the employee reaches age 70, and Medicare would only provide secondary coverage.

Private pension benefits are probably more important than social security in determining the timing of retirement, several studies have found. Two main types of pension plans offered by employers are defined benefit (DB) and defined contribution (DC) plans. In recent years, DC plans—which are much simpler and less costly to manage—have begun to replace DB plans in the workplace. However, DB plans still accounted for about 60% of all pension assets in 1992, even though eight in ten of all pension plans were DC plans. Today, about half of all workers with pension coverage have DB plans.

There are other costs that are probably higher for older workers. For example, older workers are likely to have accrued more paid leave under seniority-based vacation plans, and each day of paid leave generally costs more for the older worker because salaries rise with age. In sum, employers have realistic concerns regarding the costs of older employees.

The higher costs associated with hiring and retaining older workers create an incentive for employers to try to scale back their older workforce, especially during downturns in the business cycle. Many DB plans are so structured as to encourage workers to retire early. Employees can take reduced retirement benefits as early as age 55, and despite the reduction these benefits often have a greater actuarial value than normal retirement benefits.

Social and psychological obstacles and incentives

Social and psychological factors also provide incentives and disincentives to productive aging.

Labeling of older persons, economic deprivation, and the concept of work as the basis of self-esteem or social acceptance and status influence the roles of older persons, and hence their decisions regarding productive activities.

Labeling contributes to discrimination against older workers, often characterized as weak or incompetent. While positive images of older persons exist, negative images dominate. Discrimination, fed by derogatory labeling, leads to a reduction of job responsibilities and promotes retirement. It is not uncommon for an older worker to lose self-confidence as a result of labeling, and to begin to conform to the adverse stereotype.

In American and other cultures, work is an important part of both self-esteem and the value society places on an individual. Retirement involves a diminution of that value. Besides losing social contacts and the status that a job title carries, persons who do not work may have feelings of uselessness. Rowe and Kahn (1998) argue that the continued involvement in productive activities is a key element in what they call “successful aging.” Notwithstanding the unfairness of any stigma that society may attach to older persons who do not work, older individuals who remain productive are behaving in a way which improves the chances for continued personal happiness.

The increasing life expectancy of the U.S. population at age 65 has magnified a dilemma for older persons: on one hand, they are perceived as a burden to society if they do not work; on the other hand, they are viewed as preventing younger workers from getting jobs if they do work. Either way, the aged are deemed a liability, not an asset.

Encouraging productive aging in the U.S.

Negative impressions of older persons and their ability to remain productive can be altered by changes in public policy. For example, mandatory retirement is now illegal for the vast majority of workers in the U.S. due to amendments to the Age Discrimination in Employment Act (ADEA). The significance of the elimination of mandatory retirement was not that it had a substantial effect upon older workers, since relatively few workers actually were forced to retire under the mandatory system. Rather, the importance of the ending of mandatory retirement was that it sent a message to both employers and employees that older persons should and could remain productive members of society.

Public policy in the U.S. has centered on increasing the opportunities for volunteer work among older persons; paid work has received less attention, notwithstanding the recent elimination of the social security system’s earnings test for beneficiaries at or above the NRA. Although American policy regarding older persons has evolved over the past few decades from an anti-work stance to a neutral one, the adoption of more pro-work initiatives is possible.

The complexity of incentives built into the social security system—the benefits schedule, early and normal retirement ages (ERA and NRA), earnings limit (for beneficiaries under the NRA), payroll tax, etc.—and the interaction between social security and other intervening factors, including access to employer-sponsored pension plans, mean that it is unlikely that a solid consensus on how modifications to the system might influence retirement behavior ever will be achieved.

One alternative to making further modifications to the system in an attempt to decrease the incentive to retire might be to preserve current incentives. This would require that the ERA and NRA be linked to changes in life expectancy, since, as life expectancy increases over time, the ERA and NRA established in previous eras become less and less appropriate. However, this proposal

might adversely affect the productive contribution of older workers if employment opportunities, access to continuing education, and protection against age discrimination were not assured.

Many employer pension plans are so structured as to encourage retirement by as early as age 55, and some observers propose passage of a federal mandate requiring that all employer pension plans be age-neutral. However, as Burkhauser and Quinn (1997) point out, little is understood about how such a mandate would affect lifetime employee compensation, firm costs, and the extent to which employers would cease to offer pension plans altogether. Hence, such a mandate could very well worsen employment opportunities for older Americans.

An increase in part-time employment and other flexible work arrangements would increase productive activity of older persons directly through increased labor force participation, and indirectly through an increase in volunteerism. (As discussed in the paper, part-timers are more likely to volunteer than either full-timers or retirees.) Perhaps the Employee Retirement Income Security Act should be amended so that employers can offer part-timers prorated fringe benefits to employees, which might increase demand for part-time workers. The law presently requires that employer-sponsored benefits given to full-timers also be given to all employees working 1,000 hours or more annually (just under 20 hours per week).

It might also be possible to make U.S. public policy more pro-work if the employer first-payer provision of Medicare were eliminated, as has been advocated by the Committee for Economic Development (1999) and others. Currently, higher health insurance costs associated with maintaining older workers reduce employer demand for them.

In Japan, although no law exists prohibiting mandatory retirement (in contrast to the U.S.), wage subsidies, grants, low-cost loans, and other financial incentives are given to firms that hire a certain number or percent of older workers. Perhaps American policymakers can study these programs to devise initiatives of their own. One concern that may need to be addressed is the possibility that younger workers could lose their jobs to lower-cost, subsidized older workers.

Besides local and national governmental bodies, social institutions such as private firms, labor organizations, charitable foundations, schools, churches, the media, and older individuals and their families all share responsibility for creating an atmosphere that encourages continued productive activity in the later years of life. The productive aging process would be enhanced if more positive—and, we would argue, more accurate—images of older individuals were promoted. Increased awareness of the productive potential and trainability of older Americans would increase their attractiveness to employers. Older workers themselves could be made more aware of the psychological and health benefits of remaining productive. The benefits of proper diet, regular exercise, and health maintenance to the overall well-being *and* productive potential of older (and younger) persons should also be stressed.

Older Americans are no more or less willing than younger persons to engage in volunteerism. The reduced social participation of older persons—sometimes, but not always, the result of health deterioration—may explain much of the fall in volunteerism after age 65. More intensive outreach aimed at older persons by volunteer organizations may increase volunteerism. Equally important would be efforts to include older persons in community activities at libraries, museums, schools, and parks. These would be events that older persons attend to enjoy themselves, rather than volunteer their services. By attending such events, older persons would expand their social network, thereby

increasing both the opportunity and desire for volunteer work.

There are several areas where further research on the productive activities of older Americans could clarify the obstacles and incentives to productive aging. Much more data on age subgroups above age 65 are needed. Currently, most data refer to persons aged 65 and over as a whole, which does not permit an analysis of the activity patterns of individuals aged 75 or 80 and over (for example). These activities very well may have changed over time due to the improved health status of upper age groups.

Further research on both formal volunteer work and informal help to friends and family—especially the provision of long-term care—would be beneficial. Another useful line of research would be an attempt to illuminate the circumstances under which part-time work arrangements are made available by employers and/or desired by older workers. Are there industry-specific obstacles to part-time and other flexible work arrangements? Do trailblazing firms exist that dispel conventional thinking about the suitability of such arrangements for efficient production? When are older persons likeliest to choose part-time work over complete retirement?

Additional surveys which attempted to pinpoint the pros and cons—from an employer's perspective—of hiring older workers would be beneficial. Information on the content and context of employer misconceptions about the productive capacity of older individuals would improve understanding of the factors that influence the demand for older workers.

Joint decisions of spouses offer another area for useful research. For example, does paid work or volunteerism by one influence the other? While many studies have investigated the joint retirement decisions of spouses, less is known about how transitions to complete retirement via bridge jobs are jointly determined, or the extent to which spouses perform volunteer services as a couple.

I. INTRODUCTION

As baby-boomers approach retirement age within the next decade, and as the dramatic increase in life expectancy throughout modern societies continues, there is increasing interest in the extent to which older citizens contribute to production in the societies in which they live. A closely related issue is whether or not they could contribute more given proposed public policy initiatives such as those aimed at altering the behavior of employers and workers and the functioning of the labor market. Informed policymakers should have a grasp of how persons over 65 spend their time, how productive their activities are, and whether they are content with their use of time.

Concern with the expected call on personal and public resources to finance a longer retirement is evident in public discussion. Thus, it is important to understand the types of productive activities pursued by older persons, and the directions in which expansion of their productive services might be encouraged. Besides addressing the issue of cost burden, the study of the productive activities of older persons may shed light on other areas: (1) How accurate are society's perceptions of the actual and possible roles and "usefulness" of individuals in later years of life? (2) Do people generally work full-time until they retire, and then withdraw completely from the labor force? (3) How important is maintaining a productive lifestyle to continued physical, mental, and emotional health? (4) To what extent do people become less capable of being productive as they age? (5) How does public policy influence the level of productive work in older age groups?

Through a review of social science literature and an analysis of pertinent data, this paper aims to discover the extent to which older persons in the United States allocate their time to different types of productive activities, and to identify the incentives and disincentives which influence this allocation. The paper has been written mainly from an economic perspective, but main themes found in sociology and psychology have been used in considering obstacles, predisposing factors, and incentives.

I.1. DEFINITIONS OF PRODUCTIVITY AND PRODUCTIVE AGING

A standard economic definition of productivity is "the quantity of goods and services produced from each hour of a worker's time."¹ Economists use gross domestic product (GDP), "the market value of all final goods and services produced within a country in a given period of time," as a measure of a society's welfare.² However, the welfare of society also is increased by intra-family activities such as child-care, long-term care to aging relatives (including spouses), and unpaid help in family enterprises, as well as more formally structured volunteer activities related to health services, education, religion, environmental conservation and the arts. There are intrinsic limitations to any measure of productive activity which includes—to borrow the example used by Rowe and

¹Mankiw (1998), p.11.

²Mankiw (1998), p.481. An alternative to GDP is gross national product (GNP), which is the value of production by the permanent residents of a country (whether or not the production occurs within national borders). The market value of a good or service is determined by the price at which it is traded. GDP is more appropriate for our purposes, but the difference between GDP and GNP generally is small.

Kahn (1998)—a blackjack dealer in a casino, but excludes volunteer work in a hospital.³ For a full accounting of the productive contribution of older persons, it is essential to consider unpaid, nonmarket work.

The term *productive aging*⁴ emerged over the past 15 years or so as policymakers, academicians, older persons and their advocates struggled to develop a more positive (and arguably more realistic) framework within which to discuss the role of older persons in society.⁵ Productive aging differs from *successful aging*⁶—another term which seeks to counter the negative stereotype of the elderly as feeble and dependent—in that the latter term refers to personal psychological and physiological development, and to how such

intervening factors such as diet and exercise can enhance the aging process. In contrast, productive aging is concerned with how older persons contribute to society. Actually, these concepts are linked insofar as optimal levels of function and well-being throughout one's later years of life both make possible and are promoted by productive activities.

Our definition of productive aging differs somewhat from that of Caro, Bass and Chen (1993): “[A]ny activity by an older individual that produces goods or services, or develops the capacity to produce them, whether they are to be paid for or not.”⁷ While more research on the extent and desirability of older persons’ development of productive capacities—what economists call “investment in human capital”—would be valuable, our present focus is on activities which *are* productive—that is, which lead directly to the creation of goods and services.

Although we explore both the kinds of productive activities pursued by older persons and the intervening factors that either hinder or encourage such activity, no judgment is intended regarding older individuals who do not engage in productive activities, or who do so less than some of their peers. The perspective used in this paper is in agreement with Caro, Bass and Chen (1993), who

Definitions:

•*Productivity*: The quantity of goods and services produced from each hour of a worker’s time.

•*Productive aging*: Activities by older individuals that produce goods or services, whether or not they are paid for.

³*op. cit.*, p.187.

⁴The term was introduced at a 1983 seminar entitled “Health, Productivity, and Aging” [Butler and Gleason (1985)] by Robert N. Butler, who “intended the term to convey the value of mobilizing the continuing productivity of older people through both paid and unpaid roles.” [Bass (1994), in foreword by Butler.]

⁵Caro, Bass and Chen (1993), pp.4-8. As the authors note, the term “productive aging” has been defined in different ways by various social scientists.

⁶The term “successful aging” was coined by John Rowe and Robert Kahn.

⁷Caro, Bass and Chen (1993), p.6.

emphasize expanding opportunities for older persons, without mandating which activities—productive or otherwise—should be pursued.

Some introductory comments on paid and unpaid productive activities, and on leisure, follow. A more detailed discussion of the types of paid and unpaid work performed by older persons, and the incentives and disincentives to such work, are provided later in the paper.

I.2. PAID PRODUCTIVE ACTIVITIES

Paid work includes remunerative self-employment as well as work for others; however, work for others is empirically more important, and so comprises a much larger part of the discussion herein.

The central issue regarding older persons in paid work is the retirement decision. Many factors may influence an employee's decision to retire; these include the quality of the work environment, the structure of social security and private pension plans, the availability of part-time work and/or flexibility of work hours, age discrimination, and health. Individual socioeconomic characteristics such as income, wealth, education, marital status, spouse's labor force participation, race and gender may also influence a person's decision to retire.

Complete retirement refers to permanent and total withdrawal from the labor force. Conventional thinking is that people work full-time until they are ready to retire, and then stop for good. However, partial retirement—occurring when people choose to take part-time jobs toward the end of their working lives—and reverse retirement—occurring when individuals reenter the full-time labor market—are more prevalent than commonly has been supposed. Ruhm (1990a) finds that, at some point in their lifetimes, at least 50% of all workers partially retire, and that the probability of an individual reentering the labor force after “retiring” is 23.4%.

The slow exit from the labor force:

- Complete retirement—that is, permanent and total withdrawal from the labor force—is much less prevalent among older Americans than commonly supposed.
- At least 50% of all workers “partially retire” by taking part-time jobs toward the end of their working lives, and the chance that an individual will reenter the labor force after “retirement” is about one in four.
- According to a recent survey, 80% of baby-boomers plan to continue working after retirement, 35% plan to work part-time mainly out of interest or for the sake of enjoyment.

Both employer and employee attitudes influence productivity. Employer attitudes toward older employees (or would-be employees) influence both the opportunity for paid employment and the performance of those they do employ. Some employers may believe that older persons are less productive than younger persons, and their promotion and hiring policies may reflect that belief,⁸ notwithstanding laws prohibiting age discrimination. Other employers actively recruit older workers

⁸The term “statistical discrimination” is used to describe what happens if employers think that the proportion of workers performing inadequately increases with age. Excluding the entire older age group avoids the expense of identifying the less productive workers and the risk of hiring them along with more productive peers. [Aigner and Cain (1977)].

because they are believed to possess certain desirable qualities, such as reliability and a strong work ethic.⁹ The qualities sought by a specific employer may reflect the nature of the business. For their part, older employees may lose confidence in their abilities, with the result that they become less productive. A sense of *self-efficacy*--the belief in one's ability to solve specific problems or meet specific challenges--is especially important for older individuals. Older persons with high self-efficacy have a positive perception of their physical and cognitive abilities, and are more likely than persons with low self-efficacy to engage and perform well in productive activities.¹⁰ The interplay between personal psychology and societal norms has an important influence upon the productive contribution of older persons. For example, self-efficacy may be more critical to performance when there are strong social expectations that older persons do not belong in the labor force or in well-paid jobs. Similar considerations apply to recruitment into unpaid productive activities.

An individual's ability to work is determined by physical health, mental function, motivation and attitude, and experience. As people age, some of these characteristics may deteriorate, others may improve, and still others may undergo no change. For older persons, these changes may influence both the desire and the opportunity for productive work (paid and unpaid). While both employers and employees evaluate these determinants of ability when making labor market decisions, the work environment (physical features and employer policies) can compensate for certain limitations, such as hearing or visual impairment. However, profit-maximizing firms will modify the work environment only if the marginal cost is less than the marginal value of doing so, and in practice, appear to select adaptive policies such as schedule changes rather than invest in modified work equipment or structural changes.¹¹

The labor force¹² participation rate for persons aged 65 and over fell steadily over the 1950-1990 period (from 26.7% to 11.8%). This decline began to taper off during the mid-1980s.¹³ Indeed, the rate in 1998 (11.9%) was slightly above the 1990 rate, and the Bureau of Labor Statistics (BLS) projects that the rate will increase to 14% or higher in the next 15 or 25 years. While the labor force

⁹Committee for Economic Development (1990), pp.147-152.

¹⁰Rowe and Kahn (1998), pp.134, 175-176.

¹¹Daly and Bound (1993).

¹²The labor force is composed of both employed and unemployed persons. Unemployed persons are not simply persons who are not working. Instead, unemployed persons are defined as individuals who are not currently employed, who sought work within the past four weeks, and who are available for work. Persons expecting to be recalled to jobs from which they have been laid off are also counted among the unemployed. [U.S. Census Bureau (1999), p.408] The figures reported are for the civilian labor force, which excludes Armed Forces personnel.

¹³U.S. Bureau of the Census (1996), p.4-1.

participation of males aged 65+ decreased markedly in the four decades following 1950 (from 45.8% to 16.4% in 1990), the rate for females fell only slightly, from 9.7% to 8.7%.¹⁴

For persons aged 55-64, the labor force participation rate rose from below 57% in 1950 to about 62% in 1970, fell slightly over the next 20 years to around 56% in 1990, and has since risen again, reaching 59% in 1998. The BLS expects the rate for those aged 55-64 to rise to almost 65% by 2015. The long-run pattern in the labor force participation rate of this age group is explained by two disparate trends for men and women: the male rate decreased (from 86.9% in 1950 to 67.7% in 1990), while the female rate increased (from 27.0% in 1950 to 45.3% in 1990). By 2015, the gender difference in rates for this age group is expected to be only eight percentage points (in 1950, the difference was 60 percentage points). Since 1990—or slightly earlier—the male rate has ceased to fall, and even increased to 68.1% in 1998, while the female rate continued to rise, reaching 51.2% in 1998.¹⁵

The recent increase in the overall labor force participation of older persons¹⁶ may partly be explained by ever-increasing life expectancy.¹⁷ The life expectancy of someone aged 79 in 1999 was equivalent to that of a person aged 65 in 1936--when the official retirement age of 65 was established by the Social Security Administration.¹⁸ A recent survey of baby-boomers by the American Association of Retired Persons found that 80% planned to continue working after “retirement.” Of these, the largest subcategory were those who planned to work part-time mainly out of interest or for the sake of enjoyment (35% of respondents), while another 17% of respondents planned to start their

¹⁴Fullerton (1999), Table 1.

¹⁵Fullerton (1999), Table 1.

¹⁶Not all observers agree that the long-term trend toward early retirement has changed. In her influential 1998 book, *The Evolution of Retirement: An American Economic History, 1880-1990*, economic historian Doran Costa doesn't even mention what some see as a reversal of the long-term trend. Costa (1998) argues that increasing wealth and opportunities for mass entertainment and mass tourism are the primary causes of the long-run reduction in the labor force participation of older Americans. (Although Costa's study addresses the male labor force because of data considerations, her main findings apply also to females.)

¹⁷There are other explanations. For example, Burkhauser and Quinn (1997) argue that recent changes in the structure of social security have contributed to this reversal. This possibility is discussed in Section III.

¹⁸Hubler (1999).

own business.¹⁹ Whether technological change,²⁰ economic growth, and public policy facilitate or inhibit labor force participation in older age groups is an issue that warrants continued exploration.

I.3. UNPAID PRODUCTIVE ACTIVITIES

Unpaid work includes volunteer work performed through formal organizations such as hospitals, churches and schools; informal help to relatives and friends; and home maintenance and housework.²¹

Formal volunteering in a community can be a substitute for paid labor in producing some services at preexisting levels, or can expand the product of a community's public and private organizations. Additionally, such activities by elders can offer a new product to society, such as foster grandparent programs.

Community volunteering clearly contributes to a society's well-being, but for completeness, possible cross-effects should also be considered; for example, those who engage in unpaid productive activity and so spend less time on recreation may forgo recreational expenditures, reducing output in the recreational sector of the economy. (Economists have not attempted to measure such cross-effects until recently.)

As already mentioned, conventional national income accounting has aimed to measure product based on money transactions, thus excluding productive activities that are not traded in markets for a price. Over time, the estimation of values produced in nonmarket activities has been developed.

¹⁹AARP (1999), p.82.

²⁰For example, the proliferation of computers and the expansion of the Internet have increased the opportunities for home-based output for workers in all age groups. For an older worker whose mobility may be restricted for health reasons, this technological advance may offer a viable way to remain productive. Of course, technological changes can have a negative impact upon the older worker, too: changing technology may result in job elimination (structural unemployment) [Lazarus and Lauer 1985, p.51].

²¹The division used here follows Herzog and Morgan (1993), who note that formal volunteer work “has a more purely altruistic or philanthropic character” than does informal help given to family and friends [p.120]. The perception that assistance to family members often comes more naturally than assistance to “outside” recipients is explainable in terms of customary expectations. The helper’s “interpersonal utility function,” the economist’s term for the value derived by the helper from increasing the recipient’s welfare, is stronger for aid to those with whom the helper identifies, or with whom he or she shares a network based on reciprocities or mutual assistance. The concept of mutual assistance is broader than direct exchange of favors, or repayment for past favors, because in such mutual arrangements help given by A to B may be understood by A as an entitlement to help from C or D, and so forth. The obligation is the premium, so to speak, of a social insurance pact. This pact shades into a social contract when the help is offered to individuals who are unrelated by family ties or personal history, or is given to institutions serving the general society.

For example, the value of a nonmarket activity may be inferred from similar market activity performed for a wage.²²

Most of the literature on informal volunteer work focuses on informal help given within the family, and excludes help to friends and neighbors. This paper follows the same practice because although it is known that mutual assistance among friends and neighbors exists, little is known about the precise nature and extent of this help. The quantity of help to friends and neighbors may be affected by the increasing number of nontraditional living arrangements such as households consisting of singles, persons living with non-relatives, and widows living alone.²³ Further research on such help and on its correlation with types of living arrangements would be beneficial.²⁴

Unpaid productive activities include:

- Volunteer work performed through formal organizations such as hospitals, churches and schools.
- Informal help to family and friends, including caregiving and home maintenance. Relatively little is known about help to friends.
- Unpaid help in a family business.

Family enterprises sell goods or services on markets, and unpaid labor by older persons in family enterprises reduces labor cost. This reduction in costs may raise some small firms above the margin for survival, or permit the accumulation of surplus for capital investment in the firm. Beyond economic considerations, there are psychological and social benefits to helping out in a family business. For example, family relationships may be enriched through such activity, or the older person's sense of self-worth may be nurtured.

Domestic intra-family activities include home maintenance and production of goods or services for home consumption. The older members add significantly to the nation's welfare in such activities as care of young, sick, or functionally limited family members and value transmission (for example, lessons of morality) to younger generations.²⁵ It is true that care of the older members by their children, grandchildren, and even spouses may occupy the time of individuals who would otherwise be in paid employment outside the household. However, as an offset, the older caregivers

²²When an exact market counterpart to the nonmarket activity does not exist, the accuracy of the resulting approximation of the value of the nonmarket activity depends on *how* different the nonmarket and market activities are from one another—in timeliness, adequacy, quality, reliability, and acceptability to the recipient.

²³The movement away from the nuclear family in America toward less traditional types of households is noted by Hogan, Eggebeen, and Clogg (1993), among others.

²⁴Studies of disability have included questions on informal caregiving that include whether friends were or could be a source of care. However, age of the actual or potential helpers is not usually ascertained. [Muller, Fahs, Noguchi and Ling (1995)]

²⁵Muller and Silver (1995).

enable many younger members to be economically active. Thus, among families with preschoolers and employed mothers, 17% received primary child care from the preschooler's grandparents.²⁶ Such productive contributions appear nowhere in the national accounts, nor are the social and psychological benefits or negative consequences²⁷ (to the giver and receiver) of such activities given adequate recognition.

I.4. THE SOMETIMES SLIPPERY DISTINCTION BETWEEN LEISURE AND PRODUCTIVITY

The distinction between time spent in productive activities and time spent in leisure is not self-evident. Using varying methodologies and statistics, some economists and sociologists in the U.S. have concluded that Americans are working more and enjoying less leisure than in the past, others have found the opposite.²⁸ Part of the difficulty of reaching a consensus is that the same activity can be considered work or leisure under varying circumstances. For example, someone may volunteer to work in a community garden. When farmers perform the same activity, it is considered work. Community gardeners may derive great pleasure from their efforts, so that in addition to producing violets and hyacinths for consumption by fellow community members, the gardeners are also producing—and consuming—enjoyment for themselves. In other cases, such as lying on the couch and watching television, no other good or service is being produced beyond the leisure activity itself.²⁹

²⁶Casper (1996), p.1. Of course, grandparents are not necessarily over 65, but in fact, a substantial number of older persons are the primary source of childcare. Minkler and Fuller-Thomson (1999), reporting on a national study of “custodial” grandparents (those raising grandchildren), note that 30.1% of them are aged 65 or older. While this is a younger group than the non-custodial grandparents—43.9% of whom are 65 or older—the contribution of the older members to this work is not negligible.

²⁷Several studies have remarked on the negative consequences to the giver of care. Minkler and Fuller-Thomson (1999) find that custodial grandparents had poorer health than non-custodial grandparents on several measures. Other analysts have reported that caregiving sometimes promotes frailty and increased dependence [Schulz and Williamson (1993)] and that misapplied social supports may reduce self-efficacy [Krause and Borawski-Clark (1993)]. Analysis by age of caregivers would amplify understanding of such effects when older volunteers are the source of the help.

²⁸Scott (1999).

²⁹Fogel (1999) distinguishes between “activity aimed primarily at earning a living,” which he calls *earnwork*, and activity which is purely voluntary—*volwork*. *Volwork* does not mean volunteer work in the conventional sense, although it includes volunteer work. *Volwork* is time spent “doing what we like,” in contrast to time spent earning a living. Fogel argues that over the past century or so, lifetime hours devoted to *earnwork* have decreased by about one-third, while lifetime *volwork* hours have increased by 300%, and that these trends are expected to continue into the future.

An analysis of the kinds of leisure activities enjoyed by older persons might provide clues to their preferences and capabilities that could help explain their allocation of time to productive uses. For example, a desire for extended vacations might conflict with the desire for full-time work, resulting in a compromise: part-year work. In other instances, activities undertaken in leisure may inspire or prepare one for volunteer work or even gainful employment.

We now turn to a review of the actual patterns of paid and unpaid productive activities of older persons, and then to examining obstacles and incentives that influence productive aging.

II. THE OBSERVED PRODUCTIVE ACTIVITIES OF OLDER PERSONS

In this section, trends and patterns of paid and unpaid work of older persons are discussed.

II.1. OLDER AMERICANS IN PAID WORK

II.1.1. Age distribution of the labor force

Although the proportion of the total American population comprised by older persons has steadily increased over time—from 4.1% in 1900 to about 12.5% today for those aged 65 and over³⁰—their proportion of the labor force has fallen. For example, in 1970, 19% of all adult workers were aged 55 and over; in 1993, the share was 13%.³¹ It appears, however, that the decline in the proportion of the workforce comprised by older workers has ceased. Table 1 gives the share of the civilian labor force composed of workers aged 55-64 and 65 and over, by gender, from 1960 to 1997. Since 1990, for

the male labor force, the percentage aged 55-64 has hovered around 9%, while the female share has increased slightly, from 8.7% to 9.1%. While lower than the corresponding figures for the preceding three decades, these percentages seem to have leveled off. A similar pattern is evident for the 65+ group—indeed, the reversal (or flattening) appears to have occurred earlier, during the 1980s.

II.1.2. Labor force participation rates: historical trends and recent changes

Among older men, labor force participation rates have steadily fallen since 1880 (Table 2).³² More than three-fourths of all men aged 65 and over were in the labor force in 1880. Half a century later, the rate had fallen but was still nearly six in ten. The rate had fallen to 18.4% by 1990, has since stabilized around 17%, and is expected to rise slightly over the next several years. Meanwhile,

Age distribution and labor force participation

- While the percentage of the American population aged 65 and over has risen over the past century, their percentage of the labor force has fallen. This long-run downward trend has leveled recently.
- Over the past 50 years, the labor force participation rate of older males has fallen, the female rate has risen.
- The long-term trend toward early retirement has reversed itself since the mid-1980s.

³⁰U.S. Bureau of the Census (1996), Table 2-1. The Census Bureau's middle series projection is that this proportion will rise to 20.1% by 2030.

³¹U.S. Bureau of the Census (1996), p.4-1.

³²Costa (1998), Ch.2. Ransom and Sutch (1988) argue that the elder male labor force participation rates were roughly constant prior to World War II, and fell afterwards. However, as Costa points out [p.8], their analysis relied on classifying as "retired" those men who reported six months or more of unemployment in 1890, and on the argument that these men have been incorrectly classified as labor force participants. Costa claims that further statistical work has cast doubt on the interpretation offered by Ransom and Sutch.

the participation rates of younger male age groups are expected to decline over the next decade or so, suggesting that older groups will become an increasingly important part of the labor force.³³

Table 3 shows the labor force participation rates of persons aged 50 and over by age and gender between 1950 and 1990. For each age bracket, there is a dramatic fall in the male rate in this period, whereas the female rate has shown an equally remarkable rise over most of this period except for the two top age groups. From 1980 to 1990, female rates diminished in the older age brackets, whereas the rates for the two youngest cohorts (50 to 54 and 55 to 59 years) increased markedly. Over the course of the post-war period, females generally have increased their rates of labor force participation, while at the same time a milder trend toward earlier retirement has been also at work.³⁴

For all older workers combined (both men and women), the long-term trend toward earlier retirement (as seen in the long-term decline in the labor force participation rates of all older workers) seems to have reversed since the mid-1980s. Table 4 shows the male labor force participation rate for selected ages and years since 1980. Since 1985, the male rates have either risen or remained roughly flat (arguably, with the exception of the rate at age 60, which fell slightly). For example, the rate for males aged 55 was 83.7% in 1985 and 82.7% in 1998; over the same period, the rate for those aged 62 rose from 50.5% to 53.7%, and the rate at age 72 remained essentially flat at nearly 15%. This flattening or reversal is in marked contrast to the long-term downward trend observed in Tables 2 and 3. While there are differences between older men and women in post-war labor force participation experiences, there are similarities in the post-1985 story. As with men, the post-1985 participation rates of older women are higher than expected when looking at the pre-1986 trend.³⁵

II.1.3. The importance of nontraditional employment arrangements

Although it is difficult to disentangle opportunity from preference, there is evidence that, for whatever reason, older persons are more likely than their younger counterparts to be engaged in certain kinds of nontraditional (“alternative”) employment arrangements. Table 5 shows, by gender, the age distribution of alternative and traditional workers (1997 data). Alternative arrangements include work as independent contractors, on-call workers, temporary help workers, and workers provided by contract firms.³⁶

³³The participation rates for the groups aged 16-19, 25-34, 35-44, and 45-54 years are all expected to be lower for males in 2006 than they were in 1997, while virtually no change is expected in the 20-24 rate (from 52.3% to 52.5%). (In contrast, the participation rates for all female age brackets—young and old—are expected to increase, with the exception of the 20-24 years bracket, which is expected to fall slightly—from 72.7% in 1997 to 71.8% in 2006). [*Statistical Abstract of the U.S.* (1998), Table 645.]

³⁴Quinn (1999).

³⁵Quinn (1999), p.4.

³⁶See Appendix A for the definitions of all the alternative arrangements given in Table 5.

The extent to which alternative arrangements are important to older workers may be seen by comparing the last column of Table 5, the shares of traditional workers represented by each age group, to the previous columns relating to alternative arrangements. Workers aged 65 and over, for example, represent a larger share of independent contractors (7.0%) than they do of workers in traditional arrangements (2.5%). A useful way to summarize this difference is in a ratio of the share of independent contractors represented by 55-64 year-olds to the share represented by this age group among traditional workers:

$$7.0 \div 2.5 = 2.80.$$

Such a ratio—let it be called the alternative/traditional work ratio, or AT—can be constructed for all age groups and alternative work arrangements. These ratios are given in Table 6. If the AT is greater than 1.00, then the age group in question represents a higher share of the alternative arrangement than of traditional work. Following this ratio across age

groups allows one more easily to observe differences in the relative importance of an alternative arrangement. For example, it was noted that the independent-contractor AT ratio for workers aged 65 and over is 2.80. This ratio is greater than the 1.51 AT for persons aged 55-64. The interpretation is that while both workers aged 55-64 and those 65 and over represent a larger share of independent contractors than they do of traditional work, the relative importance of independent contractor work is greater for the latter group.

II.1.3a. Independent contractors

The steadily rising AT ratios in the “independent contractor” column of Table 6 indicate that the importance of independent contractor work relative to traditional work increases with age.³⁷ For all workers (male and female), the AT ratio rises from 0.16 for those aged 16-19 to 2.80 for those 65 and over. This trend is observable in both sexes.³⁸

Nontraditional work arrangements:

- With rare exception, workers aged 65 and over represent a higher percentage of all types of alternative work arrangements than they do of traditional work.
- The importance of work as independent contractors rises with age for both men and women; however, men are twice as likely as women to engage in such work.
- In general, on-call and temporary work arrangements are more important to women than to men.

³⁷This is *not* to say that more individuals of any given age are working as independent contractors than as traditional workers. Rather, this means that for older groups, the gap between the share they represent of independent contractors and their share of traditional workers is greater than for younger groups. Here and elsewhere in this discussion, references to the relative importance of alternative work point only to differences across age groups.

³⁸The only exception is the ratio for females aged 20-24 (0.19), which is only slightly below the 16-19 ratio (0.21).

The AT ratios for males exceed 1.00 for all ages above 25-34, whereas the ratios for females are less than 1.00 for all ages except 65 and over. For both sexes, the AT ratios are highest among workers aged 65 and over than for all other ages (3.64, for males, 1.73 for females).

Although the relative importance of independent contractor work increases with age for both sexes, this alternative arrangement generally is much more important to males. Males represent two-thirds of independent contractors, compared to 52.7% of workers in traditional arrangements (Table 5).

II.1.3b. On-call workers

As suggested by the AT ratios in Table 6, the importance of on-call work arrangements generally diminishes with age until age 55-64, when it increases. This is true for both men and women, although there are differences in the trends in the AT ratios across age groups. For men, the AT ratios for those aged 16-19 (2.12) and 20-24 (1.25) are greater than 1.00; for all other ages except 65 and over (1.86), the ratios are less than 1.00. For males, then, for all ages except those just identified, their share of traditional workers is greater than their share of on-call workers.

For women, comparing the on-call AT ratios of the different age groups produces no observable trend. The female AT ratios are above 0.90 in six of the seven age groups, and above 1.00 in five of the seven. In contrast, four of the seven ratios are below 1.00 for men. On-call work generally is more important to women than to men—females represent 47.3% of traditional workers, but 51% of on-call workers.

Regarding on-call work, males and females are similar in two ways. First, the importance of on-call work falls with age until age 55-64 (the AT ratios fall until age 55-64).³⁹ Second, persons aged 65 and over represent a higher proportion of on-call workers than of traditional workers for both sexes. Indeed, the on-call AT ratios for those 65 and over (1.86 for men, 3.55 for women) are higher than those of all other age groups (except for the 2.12 ratio for males aged 16-19).

II.1.3c. Temporary workers

Among all temporary workers, the AT ratios are highest in the three youngest age groups (16-19, 20-24, and 25-34), and are below 1.00 for all older groups except 65 and over, where the ratio is 1.12. In other words, near the typical retirement age, temporary work becomes relatively important. Katz and Krueger (1999) find evidence that the low unemployment rates of the late 1990s are partly due to an expansion of the temporary help sector. Thus, the importance of temporary work to older persons may at least partly explain why their unemployment rates are lower than those among younger groups.

For women, the AT ratios for temporary workers are greater than 1.00 for all ages, but the importance of temporary work is not as great for older age groups (45-54, 55-64, and 65 and over) as it is for younger groups. The AT ratios for the older age groups are very close to 1.00, but are 1.29 or higher for younger women. Among men, the importance of temporary work generally falls with age until 65 and over, although there are a couple of bumps in the road which disrupt a clean

³⁹There is one exception: the female, on-call AT ratio is 0.91 for workers aged 25-34, which is less than the ratio for workers aged 35-44 (1.02).

trend.⁴⁰ Despite the bumps, the AT ratios for younger males are considerably higher than the older ratios—with the exception of the 65 and over group, where the ratio of 1.21 is second highest (the ratio for those aged 20-24 is 1.88).

As is true for on-call workers, the percentage of temporary help workers that is female (55.3%) is higher than the percentage of traditional workers of the same sex (47.3%). The opposite is true for men.

II.1.3d. Workers provided by contract firms

As with all the other alternative arrangements, the AT ratio among workers aged 65 and over is above 1.00 for workers provided by contract firms (1.12).⁴¹ The male ratio (1.32) is above 1.00, whereas the female ratio is only 0.64.

However, the male AT ratio is above 1.00 because of the relative importance to younger males of work provided by contract firms—for older males, this work arrangement is much less important (the AT ratio is only 0.64). Nearly half of all workers provided by contract firms are males aged 25-34 or 35-44, a considerably lower share than the 28.3% of traditional workers represented by the same age groups (Table 5). The AT ratios for these two age groups are 1.75 and 1.50, respectively. In contrast, among females, the AT ratios are below 1.00 for all ages except 65 and over, where the ratio is 1.73. Indeed, a higher proportion of workers provided by contract firms are women aged 65 and over (1.9%) than men the same age (0.9%).

Thus, even though almost 70% of all workers provided by contract firms are men (Table 5), among workers age 65 and over this alternative arrangement is relatively more important to females.

In sum, all types of alternative work arrangements are important to older persons, especially those 65 and over. In general (for all ages), on-call and temporary arrangements are more important to females, whereas independent contract work and work through contract firms are more important to males. Whether the differences between the sexes in relative importance of each alternative arrangement is the result of differing preferences or opportunities for such work cannot be ascertained from the data.

Home-based and other alternative work arrangements:

- The likelihood of engaging in home-based work rather than work outside the home rises with age, probably mainly based on a desire to continue working after “retirement” in a reduced capacity.
- Older workers compose a larger percentage of home-based workers than of the total labor force.
- Older home-based workers are more likely than their younger counterparts to help in a family enterprise without pay.

⁴⁰The bumps in the road are: the AT ratio of 1.88 for those aged 20-24 is higher than the 16-19 ratio (1.16); the ratio of 0.59 for those aged 45-54 is higher than the 35-44 ratio (0.47).

⁴¹Exceeded only by the 1.35 ratio for workers aged 25-34 (and equal to the 35-44 ratio).

II.1.4. Home-based work and other alternatives to full-time, traditional employment

Over the 1968-1987 period, for all workers, there was a decline in the relative importance of unpaid family work and self-employment, but the trends differed by gender.⁴² Table 7 shows the distribution of employed persons aged 55 and over by gender for selected years 1968-1987. The percent of older males who were self-employed fell steadily over the period, from 22.4% in 1968 to 17.5% in 1987, whereas the rate for women stayed in the 8-9% range. The percent of men in unpaid family work was lower than that for women throughout the period, but stayed constant, while the female rate consistently declined.

Home-based work, both paid and unpaid, is an important productive activity of those older persons who remain economically active. Table 8, which analyzes data for 1990, shows a positive relationship between age and the likelihood of engaging in home-based work rather than work outside the home. Over nine percent of workers aged 65-74, and 14% of workers aged 75 and over, work at home, compared to 4.7% of those aged 55-64, and around three percent or less for younger age groups. The positive relationship seen in the table could be due to cohort differences rather than to the effect of age per se; that is, people born over 50 years ago (for example) could have a higher preference than people born more recently for home-based work. It is more likely, though, that the positive correlation between age and home-based work reflects a higher preference for such work by older workers, mainly based on a desire to continue working after “retirement” in a reduced capacity. Reductions in mobility may also increase the attractiveness of home-based work.

The importance of home-based work to older persons may also be seen by comparing Table 8 to Table 1. According to Table 1, 9.2% of the total labor force was aged 55-64 in 1990, whereas a higher proportion (15.2%) of all home-based workers was in that age group (see last column of Table 8). Although the two tables are not directly comparable for those aged 65 and over, it may be inferred that this age group represents a higher proportion of home-based workers than of the total labor force.⁴³

Table 8 shows that older home-based workers are no more likely than their younger counterparts to be self-employed, but less likely to work for pay for others. Also, while the importance of unpaid help in family enterprises has slightly diminished over time (as seen in Table 7), older home-based workers appear to be more likely than younger workers to work in this capacity. Over six percent of home-based workers aged 65-74, and seven percent of those aged 75 and over, work without pay

⁴²Sum and Fogg (1990), p.51.

⁴³In June 1999, 81.1% of employed persons aged 65 and over were aged 65-74. [U.S. Dept. of Labor (July 1999) Table A-14.] Workers in the 65 and over bracket, then, are clustered toward the younger end of that bracket. Therefore, looking at the last column of Table 8, the weight given to the 65-74 group should reflect this clustering. Suppose a conservative weight of 65% is assigned (compared to the 81.1% observed in June 1999) to the 65-74 group, and a 35% weight is assigned to the 75+ group. Using these weights, the percent of home-based workers aged 65 and over may be estimated to be $(.65 * 8.1\%) + (.35 * 2.3\%) = 6.76\%$. This 6.76% is higher than the proportion of the total labor force comprised by persons aged 65 and over (2.7%, from Table 1).

in a family business, compared to 4.7% of those aged 55-64, 4.4% of those aged 45-54, and around three percent for younger groups.

One scenario suggested by these data is that when older workers retire from paid employment (generally at work sites away from home), many pursue home-based productive activities, of which unpaid help in a family enterprise is an important part. The decline with age in the proportion of home-based work done for others for pay, then, could be the result of retirement decisions. However, this decline also could indicate that older workers have either fewer opportunities or less preference for working at home for an employer than younger workers. For example, opportunities might be relatively limited for older workers if familiarity with the Internet and computer technology was a consideration in hiring for home-based work, and if older workers had fewer skills in this area than younger workers. Also, home-based work for pay may be more attractive to younger workers than to older workers. Younger persons at a given level of education just starting their work careers may be willing to perform certain jobs that can be done at home—such as envelope stuffing—that older workers, with long careers behind them, are not; moreover, women with young children can often combine home-based work for pay with childcare.

II.1.5. Part-time work and post-career bridge jobs

Table 9 gives the share of employed persons aged 55 and over in full-time and part-time work, 1968-1987 (selected years), by gender and by age subgroup. In 1968, 75.5% of employed older persons worked full-time. That percentage fell slightly over the 1968-1987 period, reaching 70.6% by 1987, but rose to 75% in 1999. This is still below the proportion of all workers (aged 16 years and over) that work full-time—about 84% in 1999.⁴⁴ The trend for part-timers as a proportion of older workers moved, of course, in the opposite direction to the full-time trend over the period.

⁴⁴U.S. Dept. of Labor (July 1999).

Part-time work is especially important to the older subgroups: in each year shown,⁴⁵ the share employed part-time is positively correlated with age. The figures also show that part-time work is more important for older women than it is for men. For example, in 1987, 22.3% of all older working men were employed part-time, compared to 39.8% for women.

The vast majority of older part-timers work part-time for reasons other than the unavailability of full-time work. In 1993, about 47% of all workers (full- and part-timers) aged 65 and over who were employed in nonagricultural industries were part-timers for various personal reasons, compared to under 10% of younger workers. Another 47% of older workers worked full-time (40 hours or more) in the same year, and only 5-6% were employed part-time due to the lack of full-time work.⁴⁶ Data for 1999 on persons aged 55 and over are consistent with this finding—that is, few older workers employed part-time would rather work full-time.⁴⁷ Moreover, older unemployed workers are more likely than younger persons to seek part-time than full-time work. Among unemployed persons aged 55 and over, 29% were looking for part-time work in 1999, compared to under 20% for all unemployed persons.⁴⁸ Thus, the extent of part-time employment opportunities has a relatively important influence on the labor force participation of older individuals. (In the future, rising life expectancies may increase the supply of full-time older workers who need more sources of income in order to finance longer lifetimes.)

Older workers employed part-time are more likely than full-timers to work in agriculture, retail trade, and services, although the relative importance of agriculture appears to have weakened since 1968, which may be seen by comparing Table 10 to Table 13. Part-timers are more clustered than full-timers around these three industries. In 1987, 68.7% of older part-timers were employed in agriculture, retail trade, or services, compared to 52.8% for full-timers. Full-timers are more evenly distributed across all industries. Durable goods manufacturing is also a relatively important industry for full-timers (11% in 1987), but not for part-timers (4.4% in 1987).

Part-time work & bridge jobs

- Older workers are more likely than younger workers to work part-time, and older female workers are more likely than males to work part-time.
- Among the unemployed, older individuals are more likely than younger persons to be seeking part-time work.
- Between a quarter and a half of all older workers use bridge jobs to make the transition from full-time career work to complete retirement.

⁴⁵Data on age subgroups is not available for 1999.

⁴⁶Leavitt (1996), pp.27-29.

⁴⁷U.S. Dept. of Labor (July 1999).

⁴⁸U.S. Dept. of Labor (July 1999).

Ruhm (1990a) finds that post-career bridge jobs are an important activity for older persons making the transition from full employment to full retirement. As Table 11 demonstrates, a large proportion of older workers leave their career jobs long before they enter full retirement.

Some of Ruhm's quantitative estimates relating to bridge jobs are, however, affected by limitations of his definition of career jobs. Ruhm defines an individual's career job as "the longest spell of employment with a single firm."⁴⁹ "Job," then, in this case is not synonymous with "occupation." If the longest an individual worked for any one firm was, say, 30 years, then that would be the individual's career job, irrespective of the number of occupations the individual may have had at that one firm. This is one drawback of Ruhm's definition. A similar drawback may be seen by considering another example (exaggerated to make a point): an individual who, over the course of 50 years, spent two years at a time at different firms but in a single occupation (for example, as a secretary), then five years in another occupation at a single firm (perhaps as an auto mechanic) before retiring, would be considered a career auto mechanic.

Table 11 compares the percent of workers at different ages who leave their career jobs to those who retire. At each age, the percent who retire is lower than the percent who leave their career jobs. For example, over three-fourths of workers had left their career jobs by age 64, whereas only 35.5% had retired. Twenty-eight percent of all workers retired from jobs lasting five years or less, and 45.8% retired from jobs lasting 10 years or less.⁵⁰

The effect of Ruhm's definition of a career job is to exaggerate the number of persons moving to bridge jobs before retirement. Career is usually understood to mean an occupation followed as one's life work. Persons who change jobs, but not their lifetime occupation, are defined by Ruhm as having made the transition to a bridge job. Nevertheless, it is now generally recognized that "stereotypical retirement—from full-time work to full-time leisure—is only part of the story. Depending on one's definition of a career job, between a quarter and a half of all older Americans remain in the labor force after they leave their career jobs."⁵¹

II.1.6. The distribution of older workers across occupations

Tables 13 and 14 show that while there are differences by gender, the most important economy-wide occupations for older persons are managerial, professional, sales, clerical (largely for females), services, and farming (primarily for males). Table 12 gives the percent distribution of home-based workers (all ages) in different occupations, with the distributions shown separately for total, private wage, self-employed, and unpaid family enterprise workers.

Earlier, it was shown that older workers probably have a greater preference for home-based work than do younger workers. The occupations that are important to older workers in general are important to home-based workers of all ages, too (although the order differs somewhat). This suggests that older workers attempting a transition from the traditional to the home-based workforce generally should not encounter occupational mismatch problems. The types of occupations that

⁴⁹Ruhm (1990a), p.95.

⁵⁰Ruhm (1990a), p.98, Table 5.5.

⁵¹Quinn and Burkhauser (1993), p.47.

dominate home-based work for wages are different from the occupations of unpaid family workers. Home-based workers who work for others for a wage are much more likely than unpaid family enterprise workers to be employed in the managerial and professional lines. Unpaid family workers are disproportionately represented by the clerical and farming lines.

Table 13 shows the distribution of employed persons⁵² aged 55 and over by major occupation, 1968 and 1987, by gender. Over the period, the percentage of older males employed in the professional/technical/managerial line rose from 27.9% to 31.0%; the rate for females rose more modestly, from 22.4% to 23.6%. The most noticeable changes in occupations of older females were the rise in the clerical line (from 22.8% to 29.1%) and the fall in the services line (from 29.8% to 22.1%). The rates for the farming/forestry/fishing and operative/laborer lines decreased for both men and women over the period. Crafts fell for men and rose for women.

Table 14 gives the distribution of employed persons by occupation and gender, for 1990. In contrast to Table 13, though, Table 14 provides data disaggregated by age. For the 55-64 group, the distribution of occupations is similar to younger groups, but there are noticeable differences in the distribution for the 65 and over group. Prior to age 65, the managerial, craft, operative/laborer, and professional lines are the most common occupations for men. At age 65, farming and sales become relatively more important to males, and there is a drop in the managerial, craft, and operative/laborer lines. Nearly half of working females work in the clerical and services categories, and the shifts in the distributions from pre- to post-65 are less noticeable than for males.

Another difference between the two tables is that Tables 13 and 14 is that the latter provides separate statistics on the professional, technical, and managerial occupations, which are lumped together in Table 13 (they were not disaggregated by the source). Of these three occupations, the managerial line is the most important, followed closely by the professional line. The peak for these two lines seems to occur at age 45-54, whereas the proportion of employment in the technical field—which is relatively small—falls steadily with age.

II.1.7. The distribution of older workers across industries

The national shift in employment from goods-producing to service-related industries has affected both older and younger workers, although the shift for older males was substantially smaller than the shift for younger males.⁵³ Table 15 gives the distribution of employed persons aged 55 and over by major industry group, 1968-1987. Over that period, the proportion of employed older persons working in goods-producing sectors (durable and nondurable goods manufacturing, extractive industries,⁵⁴ and construction) fell from 36.5% to 30.0%. Most of this fall was due to the steady declines that occurred in the extractive industries and nondurable goods manufacturing. In fact, construction remained relatively unchanged over most of the period, before rising to 5.7% in 1987.

⁵²Excludes unpaid workers.

⁵³Sum and Fogg (1990), pp.45-46.

⁵⁴Includes agriculture, forestry, fishing and mining.

The proportion of older workers employed in service-related industries rose from about 64% in 1968 to about 70% in 1987.⁵⁵ Most of this rise is explained by movements in the FIRE⁵⁶ and service industries.

Summary of paid work: The long-term downward trend in the overall labor force participation of older persons in the U.S. seems to have reversed or flattened in the last 15 years, although there is some debate as to whether this flattening will continue in the future. Until 1985, the labor force participation rates for men had been falling dramatically, whereas the female rates had undergone a remarkable rise. The decline in the men's rate has leveled off, and the female rates have been even higher after 1985 than suggested by the pre-1986 trend.

Nontraditional employment arrangements such as independent contractors, home-based work, part-time work, and bridge jobs are all important to the older worker. While the importance of self-employment and unpaid work in family enterprises had declined over the two decades leading up to 1987, the rise in home-based productive activities may have mitigated this decline (especially for unpaid family help). Older persons are employed in a variety of occupations and industries. The most important occupations are managerial, professional, sales, clerical (primarily for females), and (for males) farming. The most important industries are services, retail trade, and durable goods manufacturing.

11.2. OLDER AMERICANS IN UNPAID WORK

As mentioned earlier, unpaid work includes volunteering through formal organizations, intra-family productive activities such as childcare, and unpaid help in a family business. Almost half of

⁵⁵Percentages in Table 15 do not sum to 100 due to rounding.

⁵⁶Finance, insurance, and real estate.

all persons aged 18 years and over perform some type of formal or informal volunteer work in a given year (Table 16). One in five—about 38 million people in 1989—volunteer through formal organizations.⁵⁷

II.2.1. Is there a correlation between age and volunteerism?

Table 16 would seem to indicate a negative correlation between age and the level of volunteerism (the probability of giving any volunteer service) after middle age. The highest level of total (formal and informal) volunteerism occurs during ages 45-54 (55.3%), and the rate falls to 44.7% for ages 65-74, and to 33.7% for the 75+ group. Formal volunteerism rises with age until age 35-44, where it peaks at 28.9%, then falls to 16.9% for those aged 65 and over (the rate for the 75+ group was not available).

However, both educational attainment and income are positively correlated with volunteerism. For example, 26.1% of high-school drop-outs perform some type of volunteer activity during a given year, while over 70% of college graduates do. Just over one-third of persons with less than \$20,000 of household income work as volunteers, while about two-thirds of persons earning \$75,000 or more do.⁵⁸ It is possible that the negative correlation observed between age (after age 45-54) and level of volunteerism is the result of differences in income and educational levels across age groups.⁵⁹

Unpaid productive activities

- The rate of volunteerism generally falls after middle age, but this could be due to differences in income and education, rather than age per se. Furthermore, organizations may be reluctant to use older volunteers because of a perceived liability risk, or due to age discrimination. Ill health may prevent otherwise willing older persons from volunteering.

- There is evidence that the level of volunteerism among older persons—which is fairly substantial—could be increased, perhaps through more intensive outreach by volunteer organizations.

- Older Americans provide a substantial amount of childcare to grandchildren and long-term care to their elderly spouses.

- More age-based data on unpaid work are needed.

⁵⁷Hayghe (1991), p.17.

⁵⁸*Statistical Abstract of the U.S.* (1998), Table 638. Income is defined as household income. Figures are based on a survey and are subject to sampling variability. In most cases, the average amount of volunteer activity across socioeconomic groups was between three and five hours per week, with no obvious correlation between the average hours and socioeconomic status.

⁵⁹These differences could be the result of either cohort differences or individual changes over the life course. An example of cohort differences is that older groups (“earlier cohorts”) had less education on average than younger groups. An example of a change over an individual’s lifetime is that after retirement, an individual’s income falls. Both the cohort difference (lower education for earlier cohorts) and the individual changes (falling income after retirement) could explain the lower
(continued...)

The relatively low level of volunteerism among persons aged 75 and over (33.7%) is partly a reflection of the fact that this group includes persons of quite advanced age. Finer age brackets above age 75 would likely indicate that the younger members of this age group perform more volunteer work of all kinds than do older members. Likewise, finer data above age 65 would almost certainly show that the younger members of this group are more involved in formal volunteer activities than suggested by the 16.9% figure for the entire group.

II.2.2. Volunteerism among older Americans is probably below potential

The figures on actual volunteering may underestimate the *willingness* of older persons to volunteer. Elders are more prone than younger persons to have health problems which may constrain their productive activity, including volunteer work. For example, an older person who becomes less mobile for health reasons may be unable to travel by ordinary means to a location to perform volunteer activity. In such a case, whether or not the volunteer organization provides transportation will have a direct effect upon the older individual's participation. Volunteer organizations may be reluctant to use older individuals because of a fear of liability for injuries that might occur during the volunteer activity. Age discrimination may further limit the opportunity for volunteer work among older individuals.

Kieffer (1986) provides estimates for 1981 of the number of older persons who do not volunteer but would be interested in doing so. Table 17 shows these estimates, along with the estimates for the number of older volunteers. While more recent numbers are likely to be higher in absolute terms, the proportion of potential to actual older volunteers is probably very similar to that implied by Table 17—more than one potential to every two actual volunteers.

Herzog and Morgan's (1993) analysis of the 1986 and 1989 Americans' Changing Lives surveys finds that, among persons 55 and over, nearly 40% of non-volunteers would like to engage in *some* volunteer activity, while 20% of volunteers would be interested in providing *more* volunteer work.⁶⁰

In their study, Herzog and Morgan attempt to explain why volunteerism among older Americans is below their self-reported wishes. As a first-pass analysis, the authors consider several social, economic, and personality correlates of older Americans' volunteer work, as shown in Table 18.⁶¹ The simple statistics in Table 18 ignore the possibility that there may be correlations among the variables (for example, income may be correlated with education); however, the authors correct for

⁵⁹(...continued)
volunteerism observed in older age groups.

⁶⁰*Op. cit.*, p.123.

⁶¹The reader may observe that the summary statistics by age are considerably higher in Table 18 than those shown for formal volunteerism in Table 16. For example, Table 18 shows that 41% of persons aged 55-64 engaged in formal volunteering, whereas Table 16 reports 23.0% for the same age group. It is unlikely that the difference between Tables 16 and 17 in this regard is due to differences in sample years, since the surveys underlying the tables were conducted only four years apart. Nor does it appear that the difference is attributable to differences in the definition of formal volunteer work. The sample designs and relative sizes might have influenced the outcomes.

this possibility in a more rigorous statistical test and reach similar conclusions.⁶² Formal volunteerism is more likely among younger than older persons; and education, type of occupation, religious preference, and personality characteristics all influence participation in voluntary activities.

A closer inspection by the authors demonstrates, however, that these variables operate indirectly through three mediating factors: roles, resources, and life-styles. These three factors together comprise what the Herzog and Morgan call “social participation.” For role indicators, the authors use type of paid work (full- or part-time, or none) and marital status; for measures of life-style activity, they use informal social contacts and formal organizational participation; and for personal resources, health status. They find that the influence of most of the social, economic, and personality correlates of volunteerism given in Table 18 are explained partly by these three mediating factors.⁶³

Thus, it is not that older individuals intrinsically are less interested than younger persons in volunteer work; rather, they are less likely to be connected to the formal and informal social networks that increase the likelihood of volunteerism. Among individuals healthy enough to travel to and perform voluntary activities, those with strong social and organizational contacts are likeliest to volunteer. One exception is that retirees are not less likely to volunteer than full-time workers. Interestingly, part-time workers are more likely to volunteer than both retirees and full-time workers. Full-timers may not have the time to volunteer, while retirees may be out of the social loop. Part-timers, in contrast, have both the time and the social connections that mediate in favor of volunteerism. It was noted earlier in this paper that part-time work is important to older Americans. If opportunities for such work were expanded, then it’s possible that, in addition to an increase in the paid labor force participation of older persons, volunteerism would rise.

More research is needed on volunteer activity among older Americans. Although a few surveys have been conducted in an effort to determine both the proportion of older persons who volunteer and the intervening factors that influence participation, “for the most part, we lack today a comprehensive documentation of the extent of volunteer work performed by older Americans and an understanding of the conditions under which such volunteer work can flourish.”⁶⁴

II.2.3. Housework and intra-family help

Morgan (1986) analyzes and presents data on unpaid productive activity across the life course from two national studies conducted by the Commission on Private Philanthropy and Public Needs. Hours of housework,⁶⁵ paid work, and the proportion of individuals who saved money by performing

⁶²Exceptions are that, in the more rigorous test, income, access to community, and degree of self-efficacy are not found to influence the likelihood of volunteerism.

⁶³Exceptions are type of occupation, region of residence, and degree of neuroticism.

⁶⁴Herzog and Morgan (1993), p.120.

⁶⁵To gather data on housework, respondents to the survey analyzed by Morgan were asked about time spent “cooking, cleaning and *doing other work around the house.*” [Morgan (1986), p.90, emphasis added.] This leaves open the possibility that caregiving provided to children or older
(continued...)

home maintenance and other work for themselves are provided in Table 19. In general, the proportion of individuals who saved money by performing their own house or car maintenance fell with age. Forty-five percent or more of individuals under age 55 saved money in this way,⁶⁶ compared to more than 30% of those aged 55-64, around 20% of those aged 65-74, and less than 10% of those 75 years and over. The proportion who saved money by growing their own food is positively correlated with age. It rises from 16% at 18-24, to 25% at 25-34, 38% at 45-54, and around 40% of the groups aged 55-64 and 65-74. The proportion then falls to 32% at 75 and over.

Table 19 also shows that, at all ages, the average woman performs more hours of housework but fewer hours of paid work than the average man. The sum of hours spent doing either paid work or housework is about the same for the average man and woman at all ages before 65, after which the female sum is greater. For example, at age 65-74, women's total hours are about 34% higher than men's. One possible reason for the difference after age 65 is that, typically, women marry older men.⁶⁷ The result is that wives are likelier than husbands to become caregivers to their spouses.⁶⁸ The fact that females aged 55-64 spend considerably more hours in paid work than those aged 65-74 lends some credence to this interpretation. (An alternative interpretation is that housework tasks are spread over more hours after women retire.)

II.2.4. Caregiving and childcare

As mentioned in the introductory section of this paper, among families with preschoolers and employed mothers, 17% received primary childcare from the preschooler's grandparents.⁶⁹ Although grandparents are not necessarily elderly, there is evidence that many older persons are, in fact, the primary source of childcare. For example, Minkler and Fuller-Thomson (1999) report that 30.1% of grandparents raising their grandchildren are aged 65 or older.

The number of grandchildren living in households maintained by their grandparents has been rising in recent years (the parents may or may not be present). Nearly 4 million children under age 18 (5.5% of the total) lived in homes maintained by their grandparents in 1997, up from 2.2 million (3.2%) in 1970. About 15% of such grandmothers, and about 21% of the grandfathers, were aged 65 and over. The increase over the years in the number and percentage of kids living in homes

⁶⁵(...continued)

spouses, for example, is included in housework, since respondents may not unreasonably consider this as "other work around the house." While Morgan himself is not explicit on this point, he implies that childcare, at least, is included in housework.

⁶⁶With the exception, in the case of house maintenance, of those aged 18-24 (25%).

⁶⁷Stevens-Long and Commons (1992), p.443.

⁶⁸It has been estimated that, of those providing informal care to disabled older persons, one-third are over age 65, and 70% are female. About 60% of both men and women who care for their elderly disabled spouse do so alone. [Muller (1990), p.126].

⁶⁹Casper (1996), p.1.

maintained by their grandparents “has been attributed to the growth in drug use among parents, teen pregnancy, divorce, the rapid rise of single-parent households, mental and physical illness, AIDS, crime, child abuse and neglect, and incarceration of parents.”⁷⁰ Hence, there is an unpleasant flip-side to the positive contribution of older persons in this regard.

About 65% of elderly persons who need long-term care assistance and live in the community “rely exclusively on unpaid sources, often family and friends.”⁷¹ Typically, the caregivers are themselves elderly. Over 15 million persons over age 55 (more than 28% of the total) were providing care to family members and friends in 1992.⁷² Moreover, for persons who provide care, the burden is often greater for older persons. For example, one study, based on a 1996 survey of caregivers conducted by AARP and the National Alliance for Caregiving, ranked the intensity of caregiving provided from Level 1 (least intense) to Level 5 (most intense), and found that 30% of Level 5 caregivers were aged 65 and over, compared to 10% of Level 1 caregivers. Older caregivers are much more likely than younger caregivers to be caring for a spouse.⁷³

II.2.5. Unpaid help in a family enterprise

In general, as discussed in the section on paid work, unpaid work in family enterprises by older Americans is not a major activity, and this is true also of the general population. However, among home-based workers, older individuals are more likely than younger persons to work in this capacity. For home-based workers aged 65 and over, the proportion working in unpaid family enterprises (about 7%—see footnote 39) is not too much lower than the proportion of traditional workers in services (10.9%) or craft (9.3%) occupations (see Table 14).

Data on unpaid productive activities, especially by age, are not abundant; moreover, much of the existing information is dated. Further data in this area would assist researchers interested in learning not only the extent of formal and informal volunteer work among older persons, but also the reasons for starting and continuing such activities.

⁷⁰Bryson and Casper (1999), p.1. The percentages given in the preceding sentences are also from this source.

⁷¹Economic Report of the President (1999), p.136, Box 4-1.

⁷²Economic Report of the President (1999), pp.151-152.

⁷³National Alliance for Caregiving and AARP (1997), pp.8 and 13. Level 5 caregivers provided 41 or more hours of caregiving per week to individuals who need help with two or more Activities of Daily Living (ADLs). [p.40] ADLs include eating, dressing and grooming, bathing, getting in/out of bed or chairs, toileting, and changing adult diapers or managing continence. [p.19]

III. OBSTACLES AND INCENTIVES TO PRODUCTIVE AGING

Economic, psychological and sociological, and institutional factors all influence the level of productive activities of older persons. The availability of full- and part-time work, the opportunity for training, the structure of social security and private pension plans, and the effect of technological change upon the workplace environment are among the economic factors which influence productive activities. Psychological factors include an individual's feeling of self-efficacy and preference for maintaining a connection to social networks. The values of a society and its expectations regarding the abilities and roles of persons as they age also influence productive activities of older individuals. Furthermore, a society's mores affect educational, religious, mass media, governmental, and legal institutions which, in turn, can either impede or promote productive aging.

III.1. IS WORK PERFORMANCE CORRELATED WITH AGE?

In general, persons in old age experience a decline in physical strength and mobility, an increase in health problems such as heart disease and cancer, reduced visual acuity, increased hearing loss, changes in motor speed and reaction time, and other changes. Certain cognitive abilities may also diminish in some individuals.⁷⁴ The effect of these changes upon work performance, however, is unclear. Indeed, studies based on direct observations of workers in different settings have found that, on average, productivity does not decline with age.⁷⁵ Moreover, older workers often compensate for any negative changes in work performance with experience, judgment, commitment to quality, low turnover, and above-average punctuality.⁷⁶ Despite misconceptions held by many employers, "there are few physical, health, or cognitive barriers to continued work" for individuals approaching typical retirement age.⁷⁷

III.2. TRAINING THE OLDER WORKER: EMPLOYER MISCONCEPTIONS, EMPLOYEE RESISTANCE

Rix (1996) claims that "[m]ore and better research on older worker training in the United States is badly needed" in order to better understand who is receiving training in the workplace, what types of training programs are being offered, how relevant the training is to an employee's job, and the associated costs and benefits.⁷⁸ The need for more research in this area has not prevented many employers from reaching the conclusion that training older workers is not worth the trouble. The widespread perception is that older workers are less trainable than younger workers and less

⁷⁴Sterns, Sterns, and Hollis (1996).

⁷⁵Habib (1990), p.332. In this article, Habib reviews literature on the correlation between age and productivity.

⁷⁶Committee for Economic Development (1999), p.29.

⁷⁷Committee for Economic Development (1999), p.21.

⁷⁸Rix (1996), pp.320-321.

motivated to seek training.⁷⁹ Available research, however, refutes these ideas.⁸⁰ Employers may be concerned also that the returns to training are lower for older workers because they may choose to retire soon after receiving training, and workers may be unwilling to incur training costs for the same reason. For their part, older employees may resist training for other reasons, including responding to subtle suggestions that training would be too difficult, time consuming, or a waste of time. The Committee for Economic Development argues that the primary responsibility to address skill needs rests with the older workers themselves, but that there is a need for employers to “recognize the value of training their older workers and ensure equal access to training for them.”⁸¹

III.3. EMPLOYER COSTS AS AN OBSTACLE TO PRODUCTIVE AGING: EARNINGS, HEALTH INSURANCE, AND PENSIONS

Employer misconceptions about the productive potential and receptiveness to training of older workers are an obstacle to the extended work life of these individuals. A more real concern for employers is the cost related to the earnings, health insurance, and pensions of older workers.

III.3.1. Earnings

Earnings of workers rise steadily with age. A cross-sectional analysis would seem to suggest that earnings decline around the age range when employees traditionally retire (Table 20), but this is misleading. Although part of the apparent decline in the usual earnings of full-time workers that begins at age 55-64 (Table 20) may be due to the fact that some workers leave career jobs for lower paying, less stressful employment during a transition to complete retirement, it is more likely that this decline reflects the cross-sectional nature of the data. For example, at any given time, the usual earnings of older workers may be less than that of younger workers because of differences in education or training. Such differences are referred to as “cohort” differences (the young and old workers each representing a different cohort). When cohort effects are accounted for, it is found that the earnings of individual workers rise steadily with age.⁸²

Age and work performance:

•Despite the beliefs of many employers and society as a whole, there is no compelling evidence that, as a rule, productivity declines with age.

Older workers and training:

•Older workers are no less trainable than younger workers, but they may be more resistant to training for a variety of reasons. Employers may not be willing to invest in training older workers expected to retire in the near future.

⁷⁹Committee for Economic Development (1999), p.39.

⁸⁰Rix (1996), p.319.

⁸¹Committee for Economic Development (1999), p.39.

⁸²Hanoch and Honig (1985).

Historically, an implicit contract has existed between employer and employee, whereby the worker receives job security and steady wage increases in exchange for loyalty to the company, good attendance and punctuality, diligence and consistency.⁸³ Under an implicit contract, workers are underpaid early in their careers, and overpaid later.⁸⁴ However, as Barth, McNaught, and Rizzi (1996) note, “[t]he idea of an implicit lifetime employment contract appears to be fast disappearing from large segments of the economy as companies move increasingly to ‘employment-at-will’ arrangements and tighter linkages between current pay and current performance.”⁸⁵ The shift away from the implicit lifetime contract to employment-at-will arrangements may alleviate the cost burden of retaining older workers, making them more attractive to employers; however, this may threaten the relatively high income levels of older workers.

III.3.2. Health insurance costs

Health insurance costs are also higher for older than for younger workers (Table 21). The increase with age is less pronounced among women than men because of the maternity costs associated with younger women, the lower rates of hospital-based treatments for cardiovascular disease among older women, and the fact that older women are less likely than men to have dependent coverage.⁸⁶

Health insurance is provided by employers to 72% of the workforce, and coverage increases with age. Among full-time workers aged 55-64, 82% have health insurance.⁸⁷ Companies may either self-insure and pay claims themselves, obtain experience-rated insurance from a third party and pay annual premiums, or obtain community-rated coverage. The higher health care costs of older workers are borne directly by companies that either self-insure or obtain experience-rated insurance (in the latter case, annual premiums rise with age). Under community-based insurance, these costs are spread over many companies, so individual firms incur no additional costs by having older employees.⁸⁸

Coverage of older workers became more expensive to employers starting in the 1980s, when several changes in Medicare rules were made. For example, since 1982, a firm that provides health insurance to an employee aged 64 or younger is required to extend the coverage until the employee

⁸³Barth, McNaught, and Rizzi (1996), pp.329-330.

⁸⁴Committee for Economic Development (1999), p.30. Workers are underpaid if their productive contribution exceeds their pay, and overpaid if their pay exceeds their productive contribution.

⁸⁵*op. cit.*, p.330.

⁸⁶Barth, McNaught, and Rizzi (1996), pp.330-331.

⁸⁷Committee for Economic Development (1999), p.30.

⁸⁸Barth, McNaught, and Rizzi (1996), p.332. Experience-rated insurance means that a firm’s insurance costs depend on the history of claims made by the firm’s employees. [*op. cit.*, p. 346, fn. 15].

reaches age 70. If the older employee was insured through the firm, then Medicare would provide secondary coverage.⁸⁹ An elimination of the employer first-payer provision of Medicare would reduce employer health care costs and increase demand for older workers.⁹⁰

III.3.3. Employer-provided pension plans

Private pension benefits are probably more important than social security in determining the timing of retirement, several studies have found.⁹¹ In an analysis of one firm's pension plan, Lumsdaine, Stock, and Wise (1997) find that the cumulative departure from employment by age 59 would be reduced 25 percentage points if the firm's early retirement age was increased from 55 to

60, whereas scheduled changes in the social security system—increasing the normal retirement age and raising the rate at which deferred benefits increase—would influence retirement at the firm only modestly.⁹² The authors also determine that the retirement decisions of employees would be very substantially influenced if the early and normal retirement ages of the firm's pension plan coincided with those of the social security system.

Two main types of pension plans offered by employers are defined benefit (DB) and defined contribution (DC) plans. With a DB plan, the employee receives a specified monthly payment for life, which is usually based on the employee's years of service and final salary. With a DC plan, the employer

makes regular contributions into an account on the employee's behalf, usually a fixed percentage of the employee's salary.⁹³ DC plans are much simpler and less costly to manage than DB plans.⁹⁴

Compared to younger workers, older workers are often costlier to a firm for several reasons, including:

- Earnings are higher, and fringe benefits are more generous.
- Health costs are higher, partly because of the employer first-payer provision in Medicare.
- Pension plans are more expensive to provide. The ongoing movement away from DB plans to DC plans may mitigate this obstacle to productive aging.

⁸⁹Treanor, Detlefs, and Myers (1999), and Burkhauser and Quinn (1997). The 1982 change applies to firms with 20 or more employees.

⁹⁰Committee for Economic Development (1999) and Burkhauser and Quinn (1997).

⁹¹Quinn, Burkhauser, and Myers (1990), pp.108-111.

⁹²The authors argue that their findings, although based on the analysis of one firm, are representative of most firms offering defined benefit plans to their employees.

⁹³Committee for Economic Development (1999), p.31.

⁹⁴Barth, McNaught, and Rizzi (1996), p.332-333.

Based on projected wage increases, turnover rates, age of retirement, and life expectancy, actuaries determine the percentage of employee earnings that must be set aside in order to meet the future payments obligations of a DB plan. The percentage that must be set aside—the accrual rate—rapidly increases with the age of the employee.⁹⁵

The costs of providing a DC plan are indirectly correlated with age because older workers tend to earn more and contributions are usually based on salary, but the costs of operating DB plans are much more strongly linked to an employee's age.⁹⁶ As a result, employers that offer DB plans often structure them in such a way as to make early retirement attractive to the employee.

In recent years, DC plans have begun to replace DB plans in the workplace. Strong employee demand for DC plans and a reduced willingness on the part of employers to offer DB plans following changes in tax and regulatory treatment during the 1980s explain why DB plans have become less prevalent.⁹⁷ Nevertheless, DB plans still accounted for about 60% of all pension assets in 1992, even though 80% of all pension plans were DC plans.⁹⁸ Today, about 50% of all workers with pension coverage have DB plans.⁹⁹

There are other costs that are probably higher for older workers. For example, older workers are likely to have accrued more paid leave under seniority-based vacation plans, and each day of paid leave generally costs more for the older than the younger worker because salaries rise with age, as noted above. Absentee rates are also slightly higher among older workers.¹⁰⁰ In sum, employers have realistic concerns regarding the costs of older employees.

The higher costs associated with hiring and retaining older workers creates an incentive for employers to try to scale back their older workforce, especially during downturns in the business cycle. As mentioned above, many DB plans are so structured as to encourage workers to retire early. Employees can take reduced retirement benefits as early as age 55, and despite the reduction these benefits often have a greater actuarial value than normal retirement benefits.

III.4. ERIPS: ANOTHER EMPLOYER-PROVIDED INCENTIVE TO RETIRE

Under Early Retirement Incentive Plans (ERIPs), another benefit offered by employers, workers who agree to retire early receive increased pension benefits or additional severance pay. Eighty percent of Fortune 500 companies have used ERIPs to trim their workforce. One survey found that

⁹⁵Barth, McNaught, and Rizzi (1996), p.333.

⁹⁶Committee for Economic Development (1999), p.31.

⁹⁷Papke, Petersen, and Poterba (1996).

⁹⁸Barth, McNaught, and Rizzi (1996), p.334.

⁹⁹Committee for Economic Development (1999), p.24.

¹⁰⁰Barth, McNaught, and Rizzi (1996), p.335-336.

two-thirds of employers who offered ERIPs did so to avoid lay-offs that would have been necessary otherwise.¹⁰¹

Faced with mandatory lay-offs during business downturns, employers may sometimes conclude that it is in their best interest to induce workers nearing retirement age to leave early through ERIPs. This is because the recruiting, hiring, and training costs associated with replacing these workers when business picks up again would have been borne anyway if they were allowed to retire without additional incentives. If, instead, younger workers had been laid off, some older workers also may have retired, reducing the firm's ability to maintain its workforce at the desired level. Even so, the ERIP has been criticized for its "broad brush approach to downsizing. . . often based on the premise that older workers are less productive relative to their compensation than younger ones."¹⁰²

ERIPs and DB plans represent financial disincentives to work for older employees. Another major financial disincentive to work is the social security system, although recent changes have been made which have made the program much less anti-work.

III.5. THE SOCIAL SECURITY SYSTEM IS NOW MORE PRO-WORK

The consensus among economists and public policymakers is that the social security system has been a disincentive to work for older Americans, and that recent changes to the system have reduced this disincentive.

The Social Security Act became law in 1935, during the Great Depression. In pushing for the creation of a social security system, Franklin Roosevelt was motivated largely by a humanitarian desire to ensure that Americans would not "starve in their old age,"¹⁰³ and to offer "protection against the major vicissitudes of life which result in destitution and dependency for many individuals."¹⁰⁴

However, also part of Roosevelt's thinking was the idea that the departure of older workers from the labor force would make room for younger workers. As historian David M. Kennedy writes: "Depression America had productive work only for so many, the president reasoned. Forcibly idling some [*i.e.*, older persons] was the price of securing a living wage for others."¹⁰⁵ The Committee on Economic Security (CES), created by an executive order issued by Roosevelt "to study the problems relating to the economic security of individuals" and to "report its recommendations concerning proposals which in its judgment will promote greater economic security," wrote that "at least three strong arguments" justified a national old-age insurance system:

¹⁰¹Committee for Economic Development (1999), p.25.

¹⁰²Committee for Economic Development (1999), p.25.

¹⁰³Kennedy (1999), p.249.

¹⁰⁴Social Security Board (1937), p.iii. This is not a direct Rooseveltian quote; rather, it is how the Committee on Economic Security (CES) describes Roosevelt's motives. The CES was replaced by the Social Security Board, which completed and then published the CES summary of staff reports as Social Security Board (1937).

¹⁰⁵Kennedy (1999), p. 257.

(1) The worker, after years of productive effort, has earned the right to rest; (2) his advanced age or invalidity renders him incapable of an effective part in productive enterprise; (3) *his continuance at work prevents a younger man from filling his place* and gaining occupational skills, experience, and promotion.¹⁰⁶

Notwithstanding the general consensus today that social security has operated as a retirement incentive, there is disagreement over both the magnitude of its influence and whether that influence has changed over time. Costa (1998) argues that the long-run decline in the labor force participation of older Americans is the result primarily of increasing wealth among retirees and the growing variety of inexpensive recreational activities—brought about by the development of mass tourism and mass entertainment—that have made retirement an increasingly attractive option. Rising retirement incomes (including social security and pension payments), she finds, have had less and less of an impact in the years following implementation of the social security system. Others, such as Lumsdaine and Wise (1994), who claim that social security benefits and firm pension plans have “enabled people to leave the labor force at younger and younger ages and still maintain consumption after retirement,”¹⁰⁷ give greater emphasis than Costa to the rise in social security and pension incomes. However, Lumsdaine and Wise rely on the labor force participation rate data of Ransom and Sutch (1988), which, according to Costa, may underestimate the labor force participation of older males in 1890 (as mentioned in the previous section). Ransom and Sutch find that the labor force participation of older males changed very little from 1870 to about 1930 (the social security system was instituted in 1935), then declined from 1940 to the mid-1980s. In contrast, Costa sees the post-1930s trend as a continuation of the pre-1930s trend—that is, she disagrees that the pre-1930s trend was flat.

If Costa is correct that the long-term decline in the labor force participation of older persons is largely unrelated to the implementation of the social security system, then the effect of the recent changes to the system may not be as great as the proponents for those changes suppose. Several previous studies have concluded that access to social security benefits has reduced the labor force participation of older workers, but “[t]here are several reasons for hesitating to embrace these conclusions fully,” including the inability of even the most sophisticated economic and statistical models of retirement to consider “all factors such as uncertainty, liquidity constraints, replanning, the physical demands imposed by jobs, employer-imposed constraints on work choices, and unmeasured individual differences among workers” that may influence the retirement decision.¹⁰⁸

¹⁰⁶Social Security Board (1937), p.515 for quotations relating to the executive order that created the CES; and p.137 for the longer quotation (emphasis added).

¹⁰⁷Lumsdaine and Wise (1994), p.13.

¹⁰⁸Leonesio (1990) p.202.

Thus, while there is little disagreement that social security does influence the retirement decision, there is some uncertainty about the extent of that influence.¹⁰⁹

Social security may affect the retirement decision of workers through provisions related to early retirement age, normal retirement age, the actuarial value of benefits, and limits on earnings. The early retirement age (ERA), currently 62, is the age at which one becomes eligible for reduced retirement benefits. The normal retirement age (NRA), currently 65 but scheduled to increase gradually to 67, is the age at which one becomes eligible for full benefits.¹¹⁰

For an individual with an average life expectancy, the present value of reduced social security benefits received upon retirement at age 62 is equal to the present value of full benefits received at age 65. Up to age 65, delayed benefits increase by 8.3% per year, which is actuarially fair for the average person. Persons with lower than average life expectancies, however, have an incentive to retire at age 62 because the value of their social security benefits declines each year they postpone retirement.¹¹¹

Starting at age 65, deferred social security benefits currently rise by 5.5% per year, which

The influence of social security:

- There is disagreement over the extent to which access to social security benefits has influenced the retirement decision of older Americans, and how that influence has changed over time.

- Economic historian Dora Costa argues that increasing wealth and the ascendancy of widely available, inexpensive recreational activities have made retirement an increasingly attractive and affordable option, and that social security has had a less prominent role.

- Changes made in recent years to the social security system that are reflective of a more “pro-work” public policy include: (1) the scheduled phased-in increase in the NRA, (2) adjustments to deferred benefits which are actuarially more fair, and (3) the elimination of the earnings test for beneficiaries at or above the NRA.

¹⁰⁹According to Leonesio (1990), “The evidence argues against the view that there are politically acceptable changes in social security policy that are likely to result in a substantial increase in the labor force participation of older workers.” However, he also notes that “in their focus on monetary incentives, economic models might be missing a key element of social security’s influence. That is, because it is the single largest source of retirement income, it may establish an important social norm.” Leonesio argues that an increase in the normal retirement age or the elimination of the earnings test (which has now been done for persons of normal retirement age, as discussed below), besides changing financial incentives, could “also send strong messages about society’s expectations concerning work and retirement.” [pp.203-204]

¹¹⁰Economic Report of the President (1999), p.143.

¹¹¹Economic Report of the President (1999), p.142.

is less than actuarially fair, providing an incentive for retirement at age 65.¹¹² However, policy was previously much more anti-work: prior to 1977, benefits delayed past age 65 grew by only 1% per year; from 1977 to 1990, the annual increase was changed to 3%.¹¹³ While the current adjustment for delayed retirement (5.5%) is less than actuarially fair, it is scheduled to increase to an actuarially fair 8% for persons reaching the NRA in 2009. The delayed-benefits adjustment applies to persons up to age 70.¹¹⁴

The level of social security benefits an individual receives depends on his or her career earnings. The average of the highest 35 years of earnings is included in a formula that is used to determine benefits payments. Greater earnings over these 35 years translate into greater social security benefits. Earnings are adjusted by a national wage index. As long as the individual works, social security taxes (7.65% of earnings up to \$62,700 in 1996) are deducted from income, and the employer contributes an equal share.¹¹⁵

Before April 2000, receipt of social security benefits for persons under age 70 was subject to a retirement earnings test. Under the test, each dollar of earnings above a specified threshold reduced social security benefits by a certain proportion. In 1999, the earnings limit was \$9,600 for beneficiaries under the NRA, and \$15,500 for those between the NRA and age 70.¹¹⁶ Since April 2000, the earnings test for workers at or above the NRA has been eliminated, but still applies to those between age 62 and the NRA.¹¹⁷ (The income restriction has never applied to beneficiaries age 70 and over.) Under the pre-2000 rules, the limits were scheduled to increase to \$10,440 for beneficiaries under the NRA, and to \$30,000 for those at or above the NRA and below age 70 by 2002, which would have made this provision of social security more age-neutral.¹¹⁸

For beneficiaries under the NRA, social security benefits are reduced by \$1 for every \$2 earned above the exempt amount. Under the pre-2000 rules, for beneficiaries between the NRA and age

¹¹²Economic Report of the President (1999), p.145.

¹¹³Burkhauser and Quinn (1997).

¹¹⁴Economic Report of the President (1999), p.144.

¹¹⁵Diamond and Gruber (1997).

¹¹⁶Economic Report of the President (1999), p.143.

¹¹⁷*Outreach* (April 2000). Actually, this source makes the mistake of referring not to the NRA, but to age 65, which is *currently* the NRA. In fact, the law refers to the NRA, which, as discussed in this section, is scheduled to increase over the coming years. The elimination of the earnings test for those at or above the NRA and below age 70 is retroactive to January 1, 2000. [Senior Citizens' Freedom to Work Act of 2000, P.L. 106-182, April 7, 2000.]

¹¹⁸Committee for Economic Development (1999), p.23.

70, \$1 of benefits was lost for every \$3 earned above the limit.¹¹⁹ This was a more liberal rule than that used before 1990 for this age group, when \$1 of benefits was lost for every \$2 in earnings above the threshold.¹²⁰

The increase in the NRA, adjustments to the annual growth in delayed benefits which make them more actuarially fair, a less restrictive earnings test for beneficiaries under age 65 and the elimination of the test altogether for those at or over the NRA have diminished the financial incentive to retire. Nevertheless, the social security system still contains a financial disincentive to work. One proposal intended to counteract this is to raise the ERA.¹²¹ Yet for workers with chronic health problems, this may effectively compel them to work longer unless an easy transition to the disability insurance program is established.¹²²

The Committee for Economic Development (CED), which previously did not support raising the ERA because of “the potential burden it could impose on those unable to work past 62,” has had a change of heart, and now advocates that the ERA be raised over a 30-year period to age 65, and thereafter indexed to life expectancy. The CED, which also supports raising the NRA gradually to age 70, arguing that the scheduled increase to age 67 is too modest, claims that access to social security’s Disability Insurance and Supplemental Security Income programs are sufficient to protect “the relatively small number of early retirees who can no longer work.”¹²³

One study found that the earnings test reduces by 4% the average annual hours of work of males aged 65-69.¹²⁴ While the labor force participation rate of this age group is low relative to that of ages 50-64 (Table 3), it is believed that the elimination of the earnings test will result in the retention of more older workers in the labor force.

Unless part-time and flexible full-time schedules are available, those workers nearing retirement who desire a lighter schedule might simply opt out of work altogether. Younger workers might also prefer part-time or flexible work, but, lacking life savings or social security to fall back on, are less likely to exit the labor market completely in the absence of such arrangements. In any case, for those older individuals who desire to remain in the paid labor force, part-time and flexible work schedules increase their opportunity to do so. Surveys indicate that there are a substantial number of both non-

¹¹⁹Economic Report of the President (1999), p.143.

¹²⁰Burkhauser and Quinn (1997).

¹²¹Burkhauser and Quinn (1997).

¹²²Butler (1983), pp.426 and 428. Butler addresses the proposal to raise the NRA above age 65, but his arguments apply also to raising the minimum age of early retirement.

¹²³Committee for Economic Development (1999), p.37.

¹²⁴Economic Report of the President (1999), p.145.

working retirees and post-retirement, full-time employees who would prefer to be working part-time, but who are discouraged from doing so by a lack of opportunity for part-time work.¹²⁵

The retirement earnings test of the social security program has in the past created an additional incentive to older persons to pursue part-time work. The test allowed an individual to work and receive full benefits as long as earnings were below the exemption threshold. While part-time work allowed an older person to remain in the workforce and still qualify for full social security benefits, few part-time jobs have the same fringe benefits, working conditions, and hourly pay as full-time work. As a result, many older persons who reach retirement age have not sought part-time jobs, and instead have ceased to work for pay.¹²⁶ Furthermore, employers who offer pension plans and other fringe benefits may be reluctant to hire part-time workers. This is because, under the Employee Retirement Income Security Act (ERISA), employers who offer such benefits must extend them to part-timers who work 1,000 or more hours annually.¹²⁷ Burkhauser and Quinn (1997) propose that ERISA be changed so that firms and workers can have more flexibility in negotiating terms of employment.

III.6. SOCIAL AND PSYCHOLOGICAL DISINCENTIVES TO PRODUCTIVE AGING

Social and psychological factors also provide incentives and disincentives to productive aging. Kornblum and Julian (1998), suggest that labeling of older persons, economic deprivation, and the concept of work as the basis of self-esteem or

Social and psychological factors:

- While positive images of older persons exist in the U.S., negative images dominate. The old are often portrayed as weak, frail, incompetent, and a burden to society.
- For older persons approaching traditional retirement age, new roles are poorly defined. One result is a tendency of elders to rely on labels for self-definition.
- A continued involvement in productive activities is a key element in “successful aging.”

¹²⁵Quinn and Burkhauser (1993). Financial disincentives to part-time work and negative employer attitudes toward older workers are also cited as reasons for discouragement from part-time work.

¹²⁶Economic Report of the President (1999), pp.144-145.

¹²⁷Committee for Economic Development (1999), p.31, and Burkhauser and Quinn (1997).

social acceptance and status influence the roles of older persons,¹²⁸ and hence their decisions regarding productive activities.

Labeling contributes to discrimination against older workers, often characterized as weak or incompetent. Labeling theory is “[t]he view that social problems arise because certain groups or individuals, for their own profit, name or label other groups or individuals as demonstrating problems or deviant behavior.”¹²⁹ While positive images of older persons exist, negative images dominate.¹³⁰ Discrimination, fed by derogatory labeling, leads to a reduction of job responsibilities and promotes retirement. It is not uncommon for an older worker to lose self-confidence as a result of labeling, and to begin to conform to the adverse stereotype.

Labeling is not just a reflection of society’s perceptions of older persons, but helps perpetuate those perceptions. Moreover, since the new roles for older persons approaching “retirement age” are poorly defined, there is a tendency on the part of elders to rely on labels for self-definition.

In American and other cultures, work is an important part of personal value, both through society’s opinion of an individual and an individual’s opinion of himself (or herself). Retirement involves a diminution of that value. Besides losing social contacts and the status that a job title carries, persons who do not work may have feelings of uselessness. Rowe and Kahn (1998) argue that an “active engagement with life,” which includes maintaining “close personal relationships with family and friends, *and continued involvement in productive activities*,” is a key element in what they call “successful aging.”¹³¹ Notwithstanding the unfairness of any stigma that society may attach to older persons who do not work, older individuals who remain productive are behaving in a way which improves the chances for continued personal happiness.¹³²

The reduction in income and exposure to potentially high medical costs following retirement are sources of stress and financial insecurity. While social security and other public policy programs may alleviate such problems for many, others—such as those living alone, the very old, and members of minority groups—remain vulnerable.¹³³

The increasing life expectancy of the U.S. population at age 65 has magnified a dilemma for older persons: on one hand, they are perceived as a burden to society if they do not work; on the other hand, they are viewed as preventing younger workers from getting jobs if they do work. Either way, the aged are deemed a liability, not an asset.

¹²⁸Kornblum and Julian (1998), Ch.11.

¹²⁹According to Kornblum and Julian (1998), p.546.

¹³⁰Stevens-Long and Commons (1992), p.424.

¹³¹Rowe and Kahn (1998), p.167. Emphasis added.

¹³²Although many individuals are perfectly happy not working, engagement in productive activities is one of the factors “which permit individuals to continue to function effectively, both physically and mentally, in old age.” [Rowe and Kahn (1998), p.xii.]

¹³³Kornblum and Julian (1998), pp.320-321.

Negative impressions of older persons and their ability to remain productive can be altered by changes in public policy. For example, mandatory retirement is now illegal for the vast majority of workers in the U.S. due to amendments to the Age Discrimination in Employment Act (ADEA).¹³⁴ The significance of the elimination of mandatory retirement is not that it had a substantial effect upon older workers, since relatively few workers actually were forced to retire under the mandatory system.¹³⁵ Instead, pension rules and other factors previously discussed tipped the balance against staying in the labor force. The importance of the ending of mandatory retirement was that it “sent a signal to employers and workers alike” that older persons could remain productive members of society.¹³⁶

III.7. IS THERE ROOM FOR U.S. PUBLIC POLICY TO BE MORE PROACTIVE TOWARD PRODUCTIVE AGING?

In a paper prepared for a recent conference on aging and productivity, James Schulz (1999) noted that “the United States generally lacks proactive initiatives encouraging later life employment,” a situation, he argued, that is in contrast to Japanese public policy.¹³⁷ Japanese public policy initiatives are, however, only directed toward workers under 65, and, unlike in the U.S., mandatory retirement is legal in Japan.¹³⁸ Moreover, as Schulz himself pointed out, wage reductions after age 60 are common in Japan. Workers who reach this age are either forced into mandatory retirement, or offered reduced wages and allowed to continue to work until age 65. A company that dismisses a worker under its mandatory retirement rules may rehire the worker at a wage and in a position that is “almost always lower.” Another way firms might retain workers reaching age 60 is to offer deferral of mandatory retirement until age 65. As with the “dismiss and rehire” method of managing a firm’s labor force, deferred retirement is often accompanied by wage reductions. Only 20% of Japanese firms, however, offer all their employees the opportunity to work beyond the established retirement age.¹³⁹

According to Schulz, “most older workers who are employed after leaving their lifetime employment job find a job that has a lower status, fewer responsibilities, fewer job benefits (or

¹³⁴Sandell and Rosenblum (1996). The ADEA protects persons age 40 and over against age discrimination by employers in all terms of employment, including the hiring, terminating, promoting, and compensating of workers. The prohibition against mandatory retirement are encompassed within amendments to the ADEA.

¹³⁵Ruhm (1990b) notes that among older workers faced with mandatory retirement in the late 1960s and early 1970s, no more than 10% were actually forced to retire. The majority left their jobs by choice at or before the mandatory retirement age. [p.25].

¹³⁶Committee for Economic Development (1999), p.20.

¹³⁷Schulz (1999), p.5.

¹³⁸As of April 1998, the legal minimum age of mandatory retirement in Japan is age 60. [Nakamura (1999)].

¹³⁹Nakamura (1999).

none), and lower wages than the prior job.”¹⁴⁰ This is similar to the experience of older workers who take bridge jobs while making the transition from career jobs to retirement in the U.S.,¹⁴¹ except that in the U.S. the transition is not mandatory. In Japan, moreover, older workers often continue “to do the same or similar work but for less money, simply because they have reached a certain age.”¹⁴²

This description of the Japanese workplace depicts an environment that is considerably less accommodating to older workers than the U.S. workplace, casting doubt on the use of Japan as a model of proactive policy. Nevertheless, the labor force participation rates of persons aged 60 and over are in Japan the highest among OECD countries, partly because of the active role that career job employers take in matching older workers to bridge job employment (often by rehiring older workers in a reduced capacity).¹⁴³ Some public policy initiatives in Japan aimed at increasing the labor force participation of older persons may provide insights on how policy in the United States could be made more pro-work.

For example, Japan offers a subsidy to workers aged 60-64 whose wages are below 85% of the wages they received at age 60. Several governmental programs promote the employment of older individuals by providing such services as: vocational guidance to older persons; teaching employers how to effectively hire, retain, and train older workers; and assisting middle-age and older workers in developing “life plans” to match their interests to potential employment opportunities and to cope with mandatory retirement.¹⁴⁴ Grants, subsidies, and low-cost loans are also available which assist and encourage firms to hire and retain older workers. These funds are offered to employers who hire a certain number or percentage of older workers, or who modify the workplace to be more suitable for them.¹⁴⁵ Other initiatives expected to be instituted in April 2000 provide financial assistance or management training to older individuals interested in starting their own businesses.¹⁴⁶

These public policy initiatives are aimed at persons younger than age 65. No similar programs exist in the United States. This may very well be due to the fact that the prohibition against mandatory retirement in the U.S. reduces the necessity for such plans. In any case, policy in the U.S. has centered on increasing the opportunities for volunteer work among older persons.¹⁴⁷ Burkhauser and Quinn (1997) describe how American policy regarding older persons has evolved from an anti-

¹⁴⁰Schulz (1999), pp.7-8.

¹⁴¹Quinn and Burkhauser (1993), p.46.

¹⁴²Schulz (1999), pp.7-8.

¹⁴³Rebick (1990). The reference to Japanese labor force participation is from pp.103-104.

¹⁴⁴Schulz (1999), p.7.

¹⁴⁵Schulz (1999), pp.5-8.

¹⁴⁶Nakamura (1999).

¹⁴⁷Schulz (1999), p.10.

work stance to a neutral one, and urge for the adoption of a more pro-work agenda. Certainly, the initiatives adopted in Japan suggest that interesting changes are possible in the United States.

IV. CONCLUSION

Older persons in the United States are employed in a wide variety of occupations and industries. The long-term downward trend in the overall labor force participation of older persons has reversed or flattened in the last 15 years or so. Whether this reversal will continue is uncertain.

Nontraditional employment arrangements such as independent contractors, home-based work, part-time work, and bridge jobs are important to older workers, but opportunities for part-time work, especially, appear to be insufficient to meet their demand for such jobs. The desire of older workers to remain at their career jobs in a reduced capacity is often unmet. Organizational barriers to part-time employment and other flexible work arrangements often exist in firms when standardization of work schedules is necessary for efficient production.¹⁴⁸ Employers also may be reluctant to offer part-time work because of the costs associated with maintaining pension plans and fringe benefits. From the employee's perspective, the lack of part-time jobs with the same benefits, working conditions, and hourly pay as full-time work provides an incentive to exit the labor force altogether.

The paid labor force is not the only venue for productive activities of older Americans. Unpaid work in organizations such as schools, churches, and hospitals; and informal help given to family, friends, and neighbors are an important part of older persons' contribution to society. Unpaid help in family enterprises and caregiving activities are especially important. Caregiving by older persons may be an important part of the human connections among family members, but could involve an undue burden, which it might be in society's best interest to alleviate by making formal caregiving and respite support more accessible. While the level of volunteerism among older persons is high, it is below that of younger age groups. This is partly because older persons, taken as a group, include persons of quite advanced age who may be unable to pursue such activities owing to impaired health, even if they so desired. Furthermore, when education and income are taken into account, both of which are positively correlated with volunteerism and negatively correlated with age, the contribution by older persons to volunteer work is better appreciated. Still, this contribution is below potential, and there may be room for more intensive outreach efforts on the part of volunteer organizations.

Economic, psychological, and sociological factors influence the level of productive activities of older persons. Incentives and disincentives exist for both the demand and supply of older workers. Financial disincentives to work include the social security program, defined-benefit pensions, and Early Retirement Incentive Plans offered by employers. Recent changes to the social security system, including the elimination of the retirement earnings test for beneficiaries aged 65-69, have made it more neutral toward older workers, though. Older workers often would prefer part-time or other alternatives to traditional full-time work, but opportunities are relatively rare.

Demand may be adversely affected by misconceptions of the productive potential of older workers on the part of employers. There is no evidence that older workers are, as a rule, less productive than their younger counterparts. A more realistic concern of employers is the additional costs of maintaining an older workforce. In general, older workers cost the employer more in wages, health insurance, and pension benefits.

¹⁴⁸Committee for Economic Development (1999), p.28.

It is certainly possible for individuals to be content without working. For the most part, however, people who remain productive in their later years of life are more likely to remain healthy and happy. Public policy initiatives which reduce the financial disincentives to work for older persons, address the legitimate cost concerns of employers, and erase stereotypes would go a long way toward increasing the productive contribution of older Americans.

Table 1. Share of Older Workers in Total, Male and Female Labor Force,* Selected Years, 1960-1997.

Year and gender	Percent of labor force	
	55-64 years	65 years and over
<u>Total:</u>		
1960	13.5	4.6
1970	13.6	3.9
1980	11.2	2.9
1990	9.2	2.7
1995	9.0	2.9
1997	9.3	2.9
<u>Male:</u>		
1960	13.8	4.9
1970	13.9	4.2
1980	11.8	3.1
1990	9.6	2.9
1995	9.1	3.1
1997	9.5	3.1
<u>Female:</u>		
1960	12.8	3.9
1970	13.2	3.3
1980	10.4	2.6
1990	8.7	2.6
1995	8.8	2.7
1997	9.1	2.5

*Civilian, noninstitutionalized labor force.

Source: *Statistical Abstract of the U.S.: 1998*, Table 647.

**Table 2. Labor Force Participation Rates of Men Aged 65 and Over,
Selected Years, 1880-2006.**

Year	Rate	Year	Rate
1880	78.0	1970	35.2
1900	65.4	1980	24.7
1920	60.1	1990	18.4
1930	58.0	1995	16.8
1940	43.5	1996	16.9
1950	47.0	1997	17.1
1960	40.8	2006*	17.8

*Projected.

Source: Costa (1998), p.29, and *Statistical Abstract of the U.S.: 1998*,
Table 645.

Table 3. Labor Force Participation Rates of Persons 50 Years and Over by Age and Gender, Selected Years, 1950-1990.

Age (in years) and gender	1950	1960	1970	1980 ^a	1990
<u>Male</u>					
50 to 54	90.6	92.2	91.4	88.5	88.3
55 to 59	86.7	87.7	86.8	80.6	78.7
60 to 64	79.4	77.6	73.0	60.4	55.1
65 to 69	59.8	43.8	39.0	29.2	27.9
70 to 74	38.7	28.7	22.4	18.3	16.7
75 to 79	24.2	19.5	14.2	16.7	10.6
80 to 84	13.2	11.5	9.1	10.4	6.2
85 and over	6.9	7.0	^b	6.6	3.4
<u>Female</u>					
50 to 54	30.8	45.8	52.0	56.3	67.5
55 to 59	25.9	39.7	47.4	48.4	55.4
60 to 64	20.5	29.5	36.1	34.0	36.1
65 to 69	12.8	16.6	17.2	15.0	16.9
70 to 74	6.6	9.6	9.1	7.8	8.3
75 to 79	3.5	5.6	5.5	6.1	4.5
80 to 84	1.7	3.0	3.5	3.7	2.2
85 and over	1.2	2.0	^b	2.5	1.0

^a The figures for age groups 75 and over are employment rates and do not include unemployed persons in the labor force.

^b Data for the population aged 85 and over in 1970 are not shown because the count of persons aged 100 and over was distorted by a problem with the design of the questionnaire.

Source: U.S. Bureau of the Census (1996), Table 4-2.

**Table 4. Male Labor Force Participation Rates by Age,
Selected Years, 1980-1998.**

Age (in years)	1980	1985	1990	1995	1998
55	84.9	83.7	85.3	81.1	82.7
60	74.0	71.0	70.5	68.9	67.8
62	56.8	50.9	52.5	51.3	53.7
65	35.2	30.5	31.9	33.5	33.7
68	24.1	20.5	23.4	22.4	25.8
70	21.3	15.9	17.1	20.6	20.9
72	17.0	14.9	16.4	16.0	14.7

Source: Quinn (1999), Table 1.

Table 5. Employed Persons in Alternative and Traditional Work Arrangements, by Age and Gender, 1997.

Age (in years) and gender	Workers in alternative arrangements* (%)				Workers in traditional arrangements
	Independent contractors	On-call workers	Temporary help agency workers	Workers provided by contract firms	
<u>Total</u>	100.0	100.0	100.0	100.0	100.0
16-19	0.8	9.6	6.1	1.9	5.0
20-24	2.4	11.9	16.5	8.1	9.8
25-34	18.3	22.5	30.3	34.2	25.4
35-44	31.1	25.4	21.5	31.1	27.7
45-54	26.5	14.4	16.2	14.2	20.4
55-64	13.9	9.7	6.7	7.7	9.2
65 and over	7.0	6.5	2.8	2.8	2.5
<u>Male</u>	66.6	49.0	44.7	69.8	52.7
16-19	0.3	5.3	2.9	1.1	2.5
20-24	1.5	6.4	9.6	7.7	5.1
25-34	11.4	11.8	15.1	24.0	13.7
35-44	20.7	12.1	6.9	21.9	14.6
45-54	17.7	6.9	6.2	9.1	10.5
55-64	9.9	3.9	2.2	5.1	4.9
65 and over	5.1	2.6	1.7	0.9	1.4
<u>Female</u>	33.4	51.0	55.3	30.2	47.3
16-19	0.5	4.3	3.2	0.8	2.4
20-24	0.9	5.4	6.9	0.4	4.7
25-34	7.0	10.6	15.1	10.3	11.7
35-44	10.4	13.4	14.6	9.2	13.1
45-54	8.8	7.5	10.0	5.1	9.9
55-64	4.0	5.8	4.4	2.6	4.3
65 and over	1.9	3.9	1.1	1.9	1.1

*Definitions for these alternative arrangements are given in Appendix A.

Source: *Statistical Abstract of the U.S.: 1998*, Table 665.

Table 6. AT Ratios for Types of Alternative Work Arrangements, 1997.

Age (in years) and gender	AT ratio* by type of alternative arrangement**			
	Independent contractors	On-call workers	Temporary help agency workers	Workers provided by contract firms
<u>Total</u>	—	—	—	—
16-19	0.16	1.92	1.22	0.38
20-24	0.24	1.21	1.68	0.83
25-34	0.72	0.89	1.19	1.35
35-44	1.12	0.92	0.78	1.12
45-54	1.30	0.71	0.79	0.70
55-64	1.51	1.05	0.73	0.84
65 and over	2.80	2.60	1.12	1.12
<u>Male</u>	1.26	0.93	0.85	1.32
16-19	0.12	2.12	1.16	0.44
20-24	0.29	1.25	1.88	1.51
25-34	0.83	0.86	1.10	1.75
35-44	1.42	0.83	0.47	1.50
45-54	1.69	0.66	0.59	0.87
55-64	2.02	0.80	0.45	1.04
65 and over	3.64	1.86	1.21	0.64
<u>Female</u>	0.71	1.08	1.17	0.64
16-19	0.21	1.79	1.33	0.33
20-24	0.19	1.15	1.47	0.09
25-34	0.60	0.91	1.29	0.88
35-44	0.79	1.02	1.11	0.70
45-54	0.89	0.76	1.01	0.52
55-64	0.93	1.35	1.02	0.60
65 and over	1.73	3.55	1.00	1.73

*The percentage of an alternative arrangement represented by an age group divided by the percentage of traditional workers represented by the group.

**Definitions for these alternative arrangements are given in Appendix A.

Source: Figures calculated from Table 5.

Table 7. Employed Persons Aged 55 and Over, by Class of Worker and Gender, Selected Years, 1968-1987* (percent distribution).

Class of worker	1968	1974	1980	1987
<u>All workers</u>				
Private	66.0	66.6	67.2	68.7
Government	14.9	16.3	17.0	16.8
Self-employed	17.5	15.8	14.8	13.8
Employed without pay**	1.6	1.3	1.0	0.7
<u>Males</u>				
Private	64.5	65.1	67.0	68.3
Government	12.8	14.4	14.5	14.1
Self-employed	22.4	20.3	18.2	17.5
Employed without pay**	0.3	0.2	0.3	0.2
<u>Females</u>				
Private	68.6	69.2	67.4	69.4
Government	18.7	19.6	20.8	20.7
Self-employed	8.7	8.2	9.6	8.4
Employed without pay**	4.0	3.0	2.2	1.5

*As of March of the year reported.

**Unpaid work in a family enterprise.

Source: Sum and Fogg (1990), Table 3.8.

Table 8. Selected Characteristics of Workers Who Worked at Home, 1990.

Age (in years)	Percent of all workers in age group that worked at home	Percent of home-based workers in age group that worked unpaid in a family enterprise	Percent of home-based workers in age group self-employed	Percent of home-based workers in age group that worked for pay for others*	Home-based workers as a percent of all home-based workers
25 to 34	2.2	3.0	55.7	41.2	21.5
35 to 44	2.9	3.4	58.1	38.4	24.9
45 to 54	3.3	4.4	56.6	39.1	18.8
55 to 64	4.7	4.7	56.1	39.2	15.2
65 to 74	9.4	6.2	57.8	36.0	8.1
75 and over	14.0	7.0	57.3	35.7	2.3

*Includes private and public (government) employment.

Source: Figures calculated by the authors using U.S. Bureau of the Census, *Working at Home: 1990*, Tables 2 and 3, downloaded from Internet address <http://www.census.gov/population/www.index.html>, which gives the 1990 Census of Population as its source.

Table 9. Share of Employed Persons Aged 55 and Over Working Full-Time or Part-Time by Age, Gender, and Educational Attainment, Selected Years, 1968-1999.*

Age, gender and educational attainment	Employed full-time					Employed part-time				
	1968	1974	1980	1987	1999	1968	1974	1980	1987	1999
<u>All**</u>	75.5	74.2	71.7	70.6	75.0	24.5	25.8	28.3	29.4	25.0
<u>Age</u>										
55-59 years	82.4	82.1	81.5	80.5	n.a.***	17.6	17.9	18.5	19.5	n.a.***
60-62 years	80.9	79.2	76.3	74.4	"	19.1	20.8	23.7	25.6	"
63-65 years	74.3	71.6	68.9	66.9	"	25.7	28.4	31.1	33.1	"
66-70 years	57.0	51.5	40.8	44.5	"	43.0	48.5	59.2	55.5	"
71 years and over	43.2	39.5	36.0	34.9	"	56.8	60.5	64.0	65.1	"
<u>Gender**</u>										
Male	80.7	80.5	78.3	77.7	"	19.3	19.5	21.7	22.3	"
Female	65.9	63.2	61.5	60.2	"	34.1	36.8	38.5	39.8	"
<u>Educational attainment**</u>										
High school dropouts	72.0	69.1	64.9	66.9	"	28.0	30.9	35.1	33.1	"
High school graduates	79.1	78.1	73.7	69.0	"	20.9	21.9	26.3	31.0	"
Some college	77.8	77.8	75.8	71.4	"	22.2	22.2	24.2	28.6	"
College graduates	84.0	80.7	78.4	78.0	"	16.0	19.3	21.6	22.0	"

*As of March of the year reported, except 1999. Data are as of June in 1999.

**For persons aged 55 and over.

***Not available.

Source: Sum and Fogg (1990), Table 3.9, and U.S. Dept. of Labor (1999).

Table 10. Part-Time Workers Aged 55 and Over by Major Industry Group, Selected Years, 1968-1987* (percent distribution).

Industry Group	1968	1974	1980	1987
Agriculture, forestry, fishing, mining	14.8	11.2	8.7	7.2
Construction	6.0	4.4	5.0	5.3
Nondurable manufacturing	5.2	5.6	4.7	4.0
Durable manufacturing	5.1	4.1	4.7	4.4
Transportation, communications, utilities	2.9	4.0	3.4	3.6
Wholesale trade	2.1	3.4	3.0	3.0
Retail trade	16.2	18.2	18.9	18.0
Finance, insurance, real estate	4.2	5.4	6.2	7.4
Services	39.7	39.7	41.2	43.5
Public administration	3.7	3.9	4.2	3.6

*As of March of the year reported.

Source: Sum and Fogg (1990), Table 3.10.

Table 11. Age Career Job Ends and Age at Retirement (in percent).

	Age						
	45 years	50 years	55 years	60 years	64 years	67 years	70 years*
	Percent						
Career job ends before the age specified	14.7	23.8	35.5	53.7	78.3	93.7	96.9
Retired before the age specified	0.3	1.3	4.1	11.1	35.5	61.8	70.1

*For the "Career job ends. . . ." category, includes persons aged 68 and 69 with career jobs in progress in 1979. For the "Retired. . . ." category, includes persons aged 68 and 69 in 1979 and not retired in that year. See notes accompanying reference of source for further details.

Source: Ruhm (1990b), Tables 5.3 and 5.4. Ruhm's source is the Social Security Administration's Retirement History Longitudinal Survey (RHS). He analyzes the data collected in all six waves of the RHS conducted every two years over the period 1969-1979.

Table 12. Home-Based Workers by Occupation: Total, Private Wage and Salary, Self-Employed, and Unpaid Family Enterprise Workers, 1990 (percent distribution).

Occupation	Total	Private wage and salary workers	Self-employed workers	Unpaid family enterprise workers
Managerial	12.1	17.6	9.2	9.4
Professional	14.5	13.5	16.1	3.9
Technical	1.5	1.7	1.3	0.9
Sales occupations	10.3	14.0	9.2	5.6
Clerical	10.6	17.0	5.5	23.3
Services	19.2	14.2	24.5	5.7
Craft	6.6	5.4	7.9	6.5
Operative, laborer	2.8	3.2	2.8	2.8
Farming, forestry, fishing	16.9	9.6	21.9	38.4

Source: U.S. Bureau of the Census, *Working at Home: 1990*, Tables 3, downloaded from Internet address <http://www.census.gov/population/www.index.html>, which gives the 1990 Census of Population as its source.

Table 13. Persons Aged 55 and Over by Occupation and Gender, 1968 and 1987* (percent distribution).

Occupation and gender	1968	1987
<u>Male</u>		
Managerial, professional, technical	27.9	31.0
Sales	5.4	12.5
Clerical	5.7	6.2
Services	9.4	9.4
Craft	19.6	17.5
Operative, laborer	20.7	15.9
Farming, forestry, fishing	11.4	7.4
<u>Female</u>		
Managerial, professional, technical	22.4	23.6
Sales	8.3	11.7
Clerical	22.8	29.1
Services	29.8	22.1
Craft	0.8	2.8
Operative, laborer	13.6	8.9
Farming, forestry, fishing	2.2	1.8

*As of March of the year reported.

Source: Sum and Fogg (1990), Figures 3.5 and 3.6.

Table 14. Persons by Occupation, Age, and Gender, 1990 Annual Averages (percent distribution).

Occupation and gender	Age			
	25-44 years	45-54 years	55-64 years	65 years and over
<u>Male</u>				
Managerial	14.2	18.6	17.8	16.1
Professional	13.1	14.0	13.8	13.9
Technical	3.6	2.6	2.0	1.0
Sales occupations	10.7	11.3	11.8	16.4
Clerical	5.5	5.1	5.4	6.3
Services	8.2	7.0	8.5	10.9
Craft	21.1	20.3	17.7	9.3
Operative, laborer	20.0	17.7	17.5	12.3
Farming, forestry, fishing	3.6	3.5	5.5	13.8
<u>Female</u>				
Managerial	12.6	12.7	10.4	7.8
Professional	17.6	16.7	13.6	11.3
Technical	4.4	2.9	2.2	1.2
Sales occupations	10.7	11.0	12.4	15.2
Clerical	27.9	27.8	27.5	26.9
Services	15.2	16.2	20.3	27.6
Craft	2.3	2.4	2.1	2.1
Operative, laborer	8.4	9.4	9.9	5.6
Farming, forestry, fishing	0.9	1.0	1.5	2.2

Source: Leavitt (1996), Tables 2.4 and 2.5.

Table 15. Employed Persons Aged 55 and Over by Major Industry Group, Selected Years, 1968-1987* (percent distribution).

Industry Group	1968	1974	1980	1987
Agriculture, forestry, fishing, mining	9.1	8.0	6.0	5.5
Construction	5.1	5.0	4.9	5.7
Nondurable manufacturing	9.9	9.1	8.7	7.8
Durable manufacturing	12.4	12.8	13.2	11.0
Transportation, communications, utilities	5.5	5.9	5.6	6.6
Wholesale trade	3.3	4.0	4.2	4.1
Retail trade	14.9	15.0	14.3	13.2
Finance, insurance, real estate	4.7	4.9	5.9	6.8
Services	29.8	29.6	31.3	34.1
Public administration	5.4	5.7	6.0	5.1

*As of March of the year reported.

Source: Sum and Fogg (1990), Table 3.6.

Table 16. Percent of Adult Population Doing Formal and Informal Volunteer Work, by Age.

Age (in years)	Percent volunteering*	Average hours volunteered* per week	Percent doing formal** volunteering
Total	48.8	4.2	20.4
25 to 34	50.8	4.3	20.2
35 to 44	55.0	4.3	28.9
45 to 54	55.3	4.5	23.0
55 to 64	47.9	4.8	20.8
65 to 74	44.7	4.1	16.9***
75 and over	33.7	4.4	----

*Total formal and informal volunteering in 1995. Volunteers are persons who worked in some way to help others for no monetary pay during the previous year. Based on a sample survey of 2,719 persons aged 18 and over.

**Formal volunteering performed some time during the year ended May 1989. Formal volunteering is defined as unpaid work for organizations such as schools, civic organizations, and schools, and excludes unpaid work in a family enterprise, intra-family assistance such as childcare, and help to friends or neighbors. Based on a sample survey of 60,000 households composed of 150,000 persons.

***Aged 65 and over.

Sources: Total volunteer activity: *Statistical Abstract of the U.S.: 1998*, Table 638; formal volunteer activity: Hayghe (1991), Table 1.

Table 17. Estimates of Actual Volunteers and Persons Interested in Volunteering, Older Persons, 1981.

Age (in years)	Persons now volunteering (millions)	Persons interested in volunteering (millions)	Total (millions)
55 to 64	6.7	3.9	10.6
65 and over	5.9	2.55	8.45
Total	12.6	6.45	19.05

Source: Kieffer (1986), p.55.

Table 18. Social, Economic, and Personality Correlates of Older* Americans' Formal Volunteer Work.**

	Percent volunteering	Annual hours spent by volunteers
<u>Age^a</u>		
55-64 years	41	65.1
65-74 years	40	78.2
75 years and over	26	74.6
<u>Gender</u>		
Male	34	69
Female	37	74.1
<u>Race</u>		
Non-black	36	72.2
Black	31	69.9
<u>Education^a</u>		
16 years and over	60	78.4
9-15 years	39	71.3
0-8 years	19	68.3
<u>Income^a</u>		
\$25,000 and over	45	67
\$10,000-\$24,999	38	77.7
<\$10,000	23	70.2
<u>Current or former occupation^a</u>		
Professional	50	74.4
Sales/clerical	43	75.6
Craft	26	65.6
Labor/Service	25	70.7
Never Worked	21	48

(continued on next page)

Table 18, continued.

	Percent volunteering	Annual hours spent by volunteers
<u>Religious preference^b</u>		
Protestant	38	69.5
Catholic	32	82.3
Jewish	28	63.2
None	21	65.5
<u>Region^b</u>		
Northeast	30	94.4
Central	40	73.1
South	32	58.5
West	43	72.7
<u>Type of area</u>		
Metropolitan	33	75.7
Suburban	37	76.5
Rural	36	62.9
<u>Access to community^b</u>		
Yes	37	72.2
No	26	69.4
<u>Extraversion^a</u>		
Highest	52	82
Lowest	25	53.8
<u>Neuroticism^b</u>		
Highest	27	65.5
Lowest	43	65.7
<u>Self-efficacy^b</u>		
Highest	39	67.7
Lowest	27	56.2

*Unless otherwise noted, the summary statistics reported in this table are for persons aged 55 and over in 1986. Based on a sample survey of 1,896 persons aged 55 and over, who were asked whether they had volunteered within the past 12 months.

**Respondents were asked whether they had done volunteer work for a religious, educational, political, senior citizens', or any other national or local organization.

^a $p < .05$

Table 19. Hours of Housework and Paid Work, by Age and Gender; and Proportion of Individuals Who Saved Money by Performing Various Domestic Activities Themselves, by Age.

Age (in years)*	Type of domestic activity in 1978			Hours of work in 1981			
	Car maintenance	House maintenance	Food growing	Males		Females	
	Percent who saved any money by performing activity			Paid work	Housework	Paid work	Housework
18 to 24	51	25	16	1,919	396	1,122	988
25 to 34	58	44	25	2,094	386	1,150	1,240
35 to 44	54	46	35	2,250	308	1,142	1,399
45 to 54	45	45	38	2,048	374	1,068	1,320
55 to 64	33	34	41	2,924	950	1,144	2,627
65 to 74	18	23	40	906	1,209	397	2,436
75 and over	6	9	32	142	565	20	944

*For type of domestic activity, age is as of 1979. For hours of housework and paid work, age is as of 1981.

Source: Morgan (1986), Tables 2 and 9. Some figures have been derived from the source by the authors.

Table 20. Usual Weekly Earnings: Cross Section* of Full-Time Wage and Salary Workers, 1990.

Age (in years)	Men	Women	Both sexes
16 to 24	\$285	\$267	\$277
25 to 34	470	383	424
35 to 44	584	419	504
45 to 54	636	417	523
55 to 64	578	376	483
65 and over	421	328	378

*As noted in the text, the cross-sectional nature of the data underlying this table are misleading because cohort effects are not taken into consideration.

Source: Barth, McNaught, and Rizzi (1996), Table 17.4.

Table 21. Average Annual Employer Health Care Costs for Insured Workers by Age and Gender.

Age (in years)	Men		Women	
	Cost	Percent of earnings	Cost	Percent of earnings
18 to 24	\$710	4.1%	\$900	6.7%
25 to 34	1,500	6.1	1,780	8.5
35 to 44	2,380	6.6	2,410	9.0
45 to 54	3,200	8.4	2,580	8.5
55 to 64	3,960	14.5	2,300	7.7

Note: Estimates are based on the National Medical Expenditures Survey (1987). In 1994 dollars.

Source: Barth, McNaught, and Rizzi (1996), Table 17.5.

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Appendix A: Definitions of the alternative work arrangements in Table 5.

Independent contractors are individuals who were identified in the Current Population Survey (CPS), a survey of 50,000 households conducted monthly by the U.S. Census Bureau for the Bureau of Labor Statistics, as independent contractors, consultants, and freelance workers. Independent contractors are not necessarily identified as self-employed (for example, in the February 1999 CPS supplement on contingent and alternative work, 12% of independent contractors were identified as wage and salary workers, and 88% were identified as self-employed). Moreover, only half of self-employed persons were identified as independent contractors—the rest were shop or restaurant owners, etc. Even though some individuals are identified both as wage and salary workers and as independent contractors, independent contractors are conceptualized as persons who obtain customers themselves to provide a service or product.

On-call workers are individuals who are contacted for work only when their services are needed. Substitute teachers and construction workers supplied by a union hiring hall are examples of on-call workers. Persons such as medical residents with regular, permanent jobs who are occasionally “on-call” should they be needed during unusual hours are not considered on-call workers.

Temporary help agency workers are persons who were paid by a temporary agency. This includes both temporary workers whose jobs were mediated by the temporary help agency and permanent staff of the agency; hence, the figures in Table 5 overstate the number of workers whose temporary jobs were mediated by such agencies.

Workers provided by contract firms are individuals who worked for a contract company, and whose work was usually limited to one customer and performed at the customer’s worksite. Examples of such workers might include security personnel, computer programmers, and landscapers.

Source: U.S. Bureau of Labor Statistics (1999)

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