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**WORK AT OLDER AGES:  
IS RAISING THE EARLY RETIREMENT AGE AN  
OPTION FOR SOCIAL SECURITY REFORM?**

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## Abstract

This report examines how changes in worker capabilities and job requirements over the past few decades affect the ability of older workers to work past the Social Security Early Retirement Age of 62. This issue arises because a possible reform of Social Security would raise the early retirement age. This change might be made in conjunction with raising the Normal Retirement Age in order to offset the reduction in annual benefits that workers would receive when retiring at the Early Retirement Age.

Fairness is one aspect of the issue of raising Social Security's Early Retirement Age. Would such a change be fair to demographic groups with relatively short life expectancy, to people with physically demanding jobs, or to people at older ages unable to work or to find work? The issue of fairness can be addressed in terms of cross-sectional equity or intergenerational equity. Because workers worked to older ages early in the history of Social Security, the past becomes a natural comparison. This paper focuses on intergenerational equity, comparing different demographic groups over time.

The intergenerational question has two parts. First, have older workers' capabilities changed over the past few decades in ways that would affect continued employment? Second, have job requirements changed in ways that would affect continued employment for older workers?

Over the past two decades, persons in their fifties and sixties have experienced improvements in life expectancy, disability rates, and self-reported health. The improvements in disability rates and health reverse earlier trends of increases in disability and worsening health at older ages that occurred in the years preceding the 1983 amendments to the Social Security Act, and that were anticipated to continue. The declines during the earlier period were thought to be due in part to increases in life expectancy causing more unhealthy people to survive to older ages. Mixed evidence suggests a second reversal for older workers, with increasing disability rates and worsening health, may have begun recently. A possible explanation for this reversal is the large increase in the obesity rate.

Over the past twenty years, employment has shifted toward jobs with little requirement for physical exertion. Even within industries, employment has shifted toward occupations that are less physically demanding. Further, some physically demanding occupations have reduced physical demands over time due to technological changes. Thus, in general the physical capabilities of older persons and the physical requirements of work both indicate that people should be able to work longer than in the past. However, some evidence suggests that work may have gotten more stressful at least over the past decade or so. One possible explanation is an increase in the average work week for males.

Blacks and women are often treated as vulnerable groups when considering changes in Social Security policy. Changes in Social Security policy might have a particularly adverse effect on these groups because of their greater risks of old-age poverty. Blacks are often mentioned as a group that would be particularly adversely affected by a policy to raise the Social Security early retirement age because they have a shorter life expectancy, higher disability rates, and worse self-reported health than whites at older ages. However, blacks at older ages have also experienced improvements in life

expectancy, disability rates, and self-reported health, and are better off in those regards than blacks of the same age several decades ago. Concerning risk factors, obesity rates and smoking rates for blacks and whites have moved toward convergence over the past several decades. With the possible exception of the increase in the obesity rate, these measures of health status suggest that in comparison to earlier generations, older blacks currently would be better able to work longer than older blacks of the same age in the past. A similar conclusion holds when considering older women as a group.

## **Introduction**

The projected future insolvency of Social Security will require changes in Social Security policy to resolve. If the future insolvency is dealt with through benefit cuts over time, eventually the replacement rate provided at the early retirement age will fall to a point where it would be viewed as unacceptably low. With changes in law already legislated, average earners retiring at age 62 will see their replacement rate fall from 30 percent today to 23 percent in 2030. These replacement rates are net of Medicare part B premiums, but they do not include possible future benefit cuts made to restore Social Security's solvency (Munnell et al. 2004).

Somewhat more than half of workers eligible to claim Social Security benefits do so at 62, the current early retirement age<sup>2</sup> in Social Security (Panis et al. 2002). People may postpone age of benefit receipt as the Normal Retirement Age for Social Security is raised gradually from 65 to 67. If benefits were cut to help restore solvency, a cut in annual benefits for people retiring at 62 could be offset by raising the early retirement age. For example, if benefits were cut by 7 percent but the early retirement age was raised by one year, from 62 to 63, and the adjustment for postponed receipt of benefits was retained, people retiring at age 63 instead of 62 would receive roughly the same level of annual benefits as before the cut, thus helping to maintain Social Security's ability to keep people out of poverty and to provide a base level of retirement income. If people worked the extra year, their annual benefits would in fact be higher than before the increase in the early retirement age, due to their extra work.

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<sup>2</sup> This is also referred to by different authors as the early entitlement age, the early eligibility age, and the pensionable age.

While raising the early retirement age from 62 to 63 or higher is not a popular idea, in 1940 when Social Security first paid benefits, the earliest age at which workers could receive benefits was 65. That year roughly half of the male population was still working at age 70. For more than 20 years, the earliest age at which men could receive Social Security benefits remained at 65. In 1961, the early retirement age for men was reduced to 62. The reduction for women had occurred five years earlier, in 1956.

If the eligibility age for Social Security were raised to 63, such a change would presumably occur with a long delay, possibly 20 years, and with a phase in period.<sup>3</sup> Thus, it is likely (but not inevitable) that such a change would not be fully phased in until roughly 2040.

This paper addresses the question of whether workers today would be able to work longer without undue hardship, realizing that such a policy change would not occur in the near future, but decades from now. This paper does not attempt to forecast the future, implicitly assuming that the trends noted in the paper will continue, while also indicating, where relevant, if studies or data suggest that current trends might not continue.

The question of whether it would be feasible for more workers today to work past age 62 has two parts. First, have older workers' capabilities changed over the past several decades in ways that would facilitate or make more difficult their continued employment. Second, have job requirements changed over the past several decades in ways that would affect continued employment for older workers?

The question of raising the early retirement age in Social Security is often viewed as an issue of fairness. Would such a change be fair to demographic groups with

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<sup>3</sup> See Turner (2007) for international experience with such a policy.

relatively short life expectancy, to people with physically demanding jobs, or to people unable to work or to find work at older ages? Blacks and women are often treated as vulnerable groups when considering changes in Social Security policy because of their higher old-age poverty rates. Blacks are often mentioned as a group that would be particularly adversely affected by a policy to raise the Social Security early retirement age because they have shorter life expectancy than whites.

The issue of fairness can be addressed in terms of cross-sectional equity or intergenerational equity. This paper considers cross-sectional equity, but focuses on intergenerational equity within demographic groups.

While worker capabilities and job requirements can be viewed separately, ultimately the matching of job requirements and worker capabilities is what matters. Thus, the ultimate questions are “what percentage of the older workforce cannot find jobs that match their capabilities as they age, and how has that percentage changed over recent decades?”

This paper examines changes over the past several decades in worker capabilities and job requirements. The paper looks back over the past twenty to 40 years, depending on availability of data, focusing on people in their late fifties and sixties because those are the ages where increased years of work would occur.

## **I. Health Indicators Affecting the Ability to Work at Older Ages**

A major survey done in the 1980s concluded that persons ages 62-67 over the previous twenty years had experienced a decline in mortality risk but that their health status had worsened on average. Disability rates and morbidity rates had increased

(Chapman et al. 1986). While recognizing that improvements in medical technology and in healthy behaviors could reverse the trends, the study projected those trends of worsening health would continue. The next section assesses the accuracy of the predictions of that study.

### *Life Expectancy*

Improvements in life expectancy do not directly measure the ability to work at older ages. They extend the number of available years to work. However, most workers already live a number of years beyond the age at which they retire, so years in the labor force could expand without any improvement in life expectancy. Improvements in life expectancy are important, however, because they allow workers to extend their work life and still also enjoy a longer period of leisure in retirement.

**Unisex life expectancy.** Life expectancy at age 65 rose from 14.4 years in 1960 to 18.4 years in 2000, an increase of four years (National Center for Health Statistics 2006b). Making a slightly different comparison, a person aged 62 in 1960 had a life expectancy of 14.6 years, which is the life expectancy of someone aged 67 today. Thus, by this measure there has been an improvement of five years (Cutler, Liebman, and Smyth 2006). A third way to measure changes in mortality risk is to compare the age in 2000 at which workers would have the same risk of death as a worker age 62 in 1960. The average 68 year old in 2000 had the same risk of death over the following two years as the average 62 year old in 1960. In this respect, persons aged 62 in 1960 are comparable to persons aged 68 in 2000, an increase of six years (Cutler, Liebman, and Smyth 2006).

These measures of improvement in life expectancy or mortality risk overstate the increase in what would be a comparable retirement age from a life-cycle perspective. From a life-cycle perspective, rather than assuming a one-for-one increase in retirement age with an increase in life expectancy, it would be more reasonable as a rule of thumb to expect there to be a constant or slightly increasing proportion of life spent in retirement. The life-cycle perspective would consider the balance between the years working (and saving for retirement) compared to the years retired, rather than assuming that all extra years of life might be used to extend working years, which would reduce the ratio of working years to retirement years.

No country has indexed its early retirement age for changes in life expectancy, but the United Kingdom recently considered such a proposal from a national pension commission (Pensions Commission 2005). The British proposal would have indexed the benefit entitlement age so that the ratio of working years to retirement years would be constant. The Pensions Commission (2005) argued that this type of indexing is intergenerationally fair, with every generation spending the same percentage of adult life in retirement.

If it is assumed that the number of years in retirement is roughly 20, and a full-career person has worked roughly 40 years, then the number of years in retirement is half the number of years spent working. In that case, the early retirement age would be raised by two-thirds of the increase in life expectancy, rather than by the full increase in life expectancy. From this perspective, with an increase in life expectancy of four years, it might be viewed as intergenerationally fair to raise the early retirement age by 2.7 years.

When capability to work at older ages is judged by life expectancy or risk of death, even within a life-cycle perspective, these measures suggest that older workers would be able to work to older ages than in the past. Other measures of life expectancy and capability of working will be examined to see if that conclusion holds more generally, and to see whether it holds for intergenerational comparisons of major demographic subgroups of the population.

**Gender and race differences in life expectancy.** Examining differences over the past four decades in life expectancy by gender, in 1960 a man age 65 had a life expectancy of 12.8 years, compared to a life expectancy of 16.8 years in 2003. The comparable figures for women are 15.8 years and 19.8 years (National Center for Health Statistics 2006b). Thus, for both men and women life expectancy over this period increased by four years, or about one year per decade.

Life expectancy has not improved at the same rate for different racial groups. Life expectancy at age 65 was similar for black and white males in 1950 and 1960 and for many years following. In 1975, black and white males at age 65 both had a life expectancy of 13.7 years (Table 1). However, by 2003, black male life expectancy was 14.9 years, while that of white males was 16.9 years (CDC 2003). Thus, life expectancy had improved for both groups, but had improved more for whites than for blacks.

Again assuming that the number of years in retirement is half the number of years spent working, the early retirement age could be raised from 62 years to 63 years and 6 months without making any major race-gender group worse off compared to 1961 (Table 1).

It is sometimes argued that raising the early retirement age in Social Security would be adverse to blacks because they have a shorter life expectancy than whites. Instead of making a cross-sectional comparison, an intergenerational comparison can be made between blacks currently and blacks in the early 1960s. In that case, the early retirement age could be raised by at least a year. Doing so would still result in a higher number of years in retirement and the same percentage of adult life spent in retirement in comparison to that experienced by the black cohort retiring in the early 1960s.

Life expectancy by race can be further divided into racial differences by geographic location, which produces much greater heterogeneity in life expectancy than the differences just discussed (Murray et al. 2006). The gap in life expectancy at birth between the 3.4 million high-risk urban black males and the 5.6 million Asian females was 20.7 years in 2001. The gap in life expectancy at birth between the highest and lowest race-county category (ie., race average at the county level) was over 35 years. The life expectancy for Native American males in certain counties in South Dakota was 58 years, compared to the life expectancy for Asian females in Bergen County, New Jersey of 91 years. These disparities, which are enormous by international standards, complicate retirement age policy that contemplates moving to an older age the early retirement age in Social Security.

For some groups, the life expectancy between 1982 and 2001 worsened. For example, life expectancy worsened for low-income females in Appalachia and the Mississippi Valley over that period. Thus, it is not possible to raise the early retirement age for Social Security and keep every race-geographical location group as well off as its

comparison group for an earlier period. However, for major demographic groups, it is possible to meet that criterion.

**Socio-economic differences in life expectancy.** Studies have documented differences in mortality by income, education, and marital status.<sup>4</sup> Improvements in life expectancy have not occurred at the same pace for all socio-economic groups. In particular, the historical advantage in life expectancy of higher education groups compared to lower education groups has expanded over the past four decades for men but decreased for women. In 1960, the mortality rates for white men ages 65 to 70 at the top of the education distribution were 10 percent lower than for those at the bottom. Those rates, decreasing for both the upper and lower education groups, were 70 percent lower for the upper income and education groups in the 1990s (Elo and Smith 2003, Diamond and Orszag 2004).

### *Health*

All major demographic groups are living longer, but the people alive at the ages at which increased work might occur may be less healthy on average than in the past because medical improvements are allowing more unhealthy people to survive to older ages. The effect of increased life expectancy on health at older ages was debated during the early 1980s when the 1983 Social Security Amendments were passed raising the Normal Retirement Age, and at that time it appeared that health at older ages was declining (Social Security Administration 1986).

The low end of health is more relevant than the upper end for determining ability to work for most jobs currently because many jobs have low physical requirements, so

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<sup>4</sup> See studies cited in Brown (2001).

that robust health is not required to perform them. Since the early 1980s, the percentage of older persons reporting that they are in fair or poor health has decreased (Table 2). Between 1982-2005, for the population ages 50-64, all demographic groups examined showed a decline in the percentage reporting itself in fair or poor health. For example, for blacks that percentage declined from 41 percent to 26 percent (National Center for Health Statistics 2006b).

The percentage of both men and women reporting their health as fair or poor has also declined, suggesting that a growing proportion of the older population would be capable of working. In the mid 1970s, 29 percent of men aged 62 reported their health as fair or poor. That percentage was reported by men in their early 70s in the mid 1990s, an improvement of 10 years over a 20 year period (Cutler, Liebman, and Smyth 2006). The improvement in self-reported health was more rapid than the increase in life expectancy.

While self-reported fair or poor health declined for both men and women, a more complex pattern emerges for other demographic groups (Table 2). The largest decline over the period 1982-2005 for people ages 50-64 self-reporting fair or poor health occurred for Non-Hispanic blacks, causing a move toward convergence for blacks and whites. However, Hispanics have seen basically no improvement by this measure over the past twenty years.

Despite these trends of improvement over a period of two decades, recent evidence is mixed concerning trends in health, with some evidence suggesting a reversal in the trend of improving health at older ages (Korczyk 2002). A recent study of baby boomers ages 51-56 concluded that their self-reported health was worse than people the same age 12 years earlier (Soldo et al. 2006). Possible explanations for that finding

include increases in obesity, that baby boomers are more likely than earlier generations to complain about health issues, that improvements in diagnosis and in pharmaceutical treatments have made people more aware of their health problems, or that this trend is the result of increased stress. The percentage of the population age 50-64 reporting their health as excellent or very good has increased over the past several decades (National Center for Health Statistics 2006b). However, the incidence of diabetes among the population ages 55-60 increased between 1992 and 2002 (Johnson 2004). Other evidence indicates that the prevalence of diabetes has declined among Non-Hispanic whites ages 50-64, while it has increased among Non-Hispanic blacks that age (Table 3). Thus, the recent evidence is mixed, and cannot be summarized as a trend of overall improvements.

### *Disability*

Disability rates for people in their fifties and sixties have declined over the past two decades. National Long-term Care Survey (NLTC) data indicate that the incidence of chronic disability (lasting at least three months) declined for the population ages 65-74 for the years from 1984-1999 (Table 4). Chronic disability rates declined from 12.2 percent in 1984 to 9.2 percent in 1999. The decline accelerated over the period (Manton and Gu (2001). Evidence has also indicated a long-term decline in functional limitations among men ages 60 to 74 (Costa 2002).

Over the period 1982-1999, the disability rate for blacks first increased slightly then decreased rapidly. Over that period, the disability rate for whites steadily decreased. However, over the entire period, the rate of decline in disability for blacks was more rapid than for whites, leading to a convergence of rates for blacks and whites (Table 5).

Reasons for the decline in disability incidence include improved medical technology and health care, better personal health practices, better technical aids helping people with disabilities, reduced exposure to infectious diseases, and increased education and living standards (Korczyk 2002). One study found that improvements in medical care relating to cardiovascular disease led to a significant part of the decline in disability among adults (Cutler et al. 2006).

Surveying a number of measures of health status, including disability rates, one study has concluded that people age 62 in the 1960s and 1970s are equivalent to people in their early 70s today, an improvement of about a decade (Cutler, Liebman, and Smyth 2006).

Similar to the finding of mixed recent evidence concerning health, however, some evidence suggests that the decline in disability rates may have stopped or reversed. Comparing people aged 55-61 in 2004 with people the same age in 1992, reported incidence of work limitations was 19 percent for the 2004 group, versus 18 percent for the earlier group, a difference that is not statistically significant (Mermin, Johnson, and Murphy 2006).

A survey of a number of studies of disability at older ages (Friedman, Martin, and Schoeni 2002) has concluded that disability rates declined at older ages over the decade from the late 1980s to the late 1990s. However, disability rates at younger ages have been increasing. Between 1990 and 1996, disabilities among those in their forties increased slightly, which may have occurred due to the increased prevalence of obesity (Lakdawalla, Battarcharya, and Goldman 2004).

In sum, life expectancy at older ages has increased for all major demographic groups. Comparing back to the 1980s, disability rates have declined and self-reported health has improved for persons at older ages. These patterns also hold for demographic groups viewed as vulnerable due to their higher old age poverty rates – blacks and women. However, over the roughly the past decade or 15 years, mixed evidence suggests that improvements in health and disability rates may have slowed or, for some groups, possibly reversed.

## **II. Factors Affecting Health Indicators**

While the advance of medicine influences the health of people at older working ages, behavioral factors also affect the health indicators that limit older persons' ability to continue working. To better understand the trends in health and ability to work at older ages, this section examines some of their underlying determinants.

### *Increased Education*

Higher education levels are associated with better health, presumably in part because better-educated people are better informed about healthy life styles and tend to have higher income. The percentage of the older population that has graduated from college has increased, while the percentage not graduating from high school has decreased. Comparing pre-Boomers born between 1936 and 1941 to early Boomers born between 1948 and 1953, the college graduation rate soared from 22 percent to 37 percent. The percentage that failed to graduate from high school declined from 22 percent to 10 percent. One study found that this increase in college graduation rates combined with a

decline in high school drop out rates accounted for about a third of the increase in workers' expectations that they would be working past age 62 (Mermin, Johnson, and Murphy 2006).

Between 1970 and 2003, the percentage of the population aged 65 and older who had completed high school increased from 28 percent to 72 percent (Federal Interagency Forum on Aging Related Statistics 2004). However, the high school graduation rate peaked at 77 percent in 1969, fell to 70 percent in 1995, and has remained roughly at that level since then. That trend combined with the influx of Hispanic immigrants lacking a high school education is projected to cause a decline in the literacy rate among the adult population by 2030 (Kirsch et al. 2007).

Education level plays an important role in the downward trend in disability rates over the past twenty years. The downward trend in disability rates appears to have occurred only among persons who completed high school (Schoeni et al. 2001). Thus, it has not occurred among the population that did not complete high school, and is therefore most likely to have physically demanding jobs.

Educational attainment at older ages has increased for blacks and Hispanics, as well as for whites (Table 6). Over the period 1960-2004, the increase in the percentage of the population with at least having completed 4 years of high school was largest for older blacks, leading to a convergence of rates for blacks and whites.

### *Decline in Smoking*

The percentage of adults who smoke has declined since 1960. In 1960, more than 50 percent of men smoked, as did more than 30 percent of women. In 2004, 23 percent of

men and 19 percent of women smoked. The convergence in smoking rates, with the much steeper decline for men than women, may explain in part the more rapid improvements in life expectancy for men than women.

Smoking is closely linked to having a low level of education and thus to occupations that are physically demanding. In 2004, adults with less than a high school degree were three times as likely to smoke as persons with a bachelor's degree or higher (National Center for Health Statistics 2006a)

The percentage of the population ages 55-64 currently smoking declined over the period 1965-2004 for both blacks and whites. The decline was less for blacks than whites, but the rates for the two groups converged, with blacks starting from a lower level (Table 7).

#### *Increase in Obesity*

Changes over the past few decades in the rate of obesity may have important implications for the health of the older working age population. Since 1960, the proportion of adults who are overweight but not obese has remained steady at about one-third (age-adjusted). However, the percentage obese has roughly doubled since the late 1970s (National Center for Health Statistics 2006a). Two-thirds of adult Americans are overweight, including one-third who are obese. Obesity rates for blacks and whites have increased, but the increase for whites has been more rapid, causing the rates for the two groups to move toward convergence (Table 8).

Obesity and overweight are increasingly problems among children, which is a predictor of higher rates of obesity and overweight among adults. In the period 1971-74,

4 percent of both boys and girls ages 6-11 were obese, compared to 16 percent of boys and 15 percent of girls those ages in the period 1999-2000 (American Obesity Association 2002).

Obesity is associated with adult-onset diabetes, which can be disabling (U.S. Centers for Disease Control 2002). It is also linked to hypertension, high cholesterol, heart disease, and some forms of cancer. The effects of obesity may be more serious the earlier its onset. However, people who exercise regularly and are both fat and fit may suffer less the consequences of being overweight. Researchers hold differing views about the severity of the effects of the obesity epidemic on disability, particularly when obesity begins in childhood (Preston 2005, Olshansky et al. 2005).

The effect of obesity on increased mortality rates may, however, have decreased over the past several decades, perhaps due to improvements in pharmaceuticals (Fielbekorn 2006). Some of the effects of obesity—high blood pressure, high cholesterol, and diabetes—can be controlled pharmacologically. However, because of the large population without health insurance, the ability to offset the health effects of obesity is not available to many. Thus, obesity may have a more limited effect on health for people with adequate medical care than for lower-income persons lacking good medical care. On the other hand, the increase in obesity among people in their sixties and older in the United States may explain why the improvements in longevity at older ages have been less rapid in the United States than in other advanced countries.

### **III. Ability to Work at Older Ages**

This section examines direct measures of the ability of people to work in their late fifties and early-to-mid sixties.

#### *Health Impairments and Work*

About 25 percent of early retirees in the age range 62-64 are unable to work because of health impairments (Leonesio, Vaughn, and Wixon 2003). In the early 1980s, 16 percent of new Social Security beneficiaries reported they were unable to work at all, and 17 percent reported that they were limited in their ability to work (Social Security Administration 1986).

In recent years, about as many in the group that report they are unable to work received early retirement benefits from Social Security as received Social Security Disability benefits or Supplemental Security Income disability benefits (Leonesio, Vaughn, and Wixon 2003). Some disabled people do not qualify for disability benefits because they do not meet the requirement for having worked sufficient number of years. The Social Security early retirement benefits appear to serve as an important, unofficial disability benefits program for some early retirees, which is a point to be considered if the early retirement age were to be raised.

#### *Obesity and Work*

An Australian study documented an association between obesity at older ages and a lower probability of being in the labor force (Australian Institute of Health and Welfare 2005). Among people ages 55-64, the obese were 8 percent less likely to be in the labor

force and were 20 percent less likely to be employed full time than the non-obese. The obese also had higher absenteeism rates than the non-obese. A U.S. study has found that the obese tend to be absent from work due to illness substantially more than the non-obese (Tucker and Friedman 1998). Burton et al. (1998) reported that greater Body Mass Index (BMI—a measure of overweight or obese)—was associated with a higher probability of short-term disability.<sup>5</sup>

### *Diabetes and Work*

People with diabetes at older ages are less likely to work than people without diabetes. Among adults ages 45-64, 51 percent of those with diabetes were working, compared to 72 percent of those without diabetes (National Academy on an Aging Society 2000).

Because both obesity and diabetes have increased over the past several decades, these two factors would lead to a decreased ability to work at older ages, but their effects may have been offset by other changes affecting the ability to work, including changes in the physical demands of jobs.

## **IV. The Decline in Physically Demanding Jobs**

The ability to work longer depends not only on older workers' physical capabilities but also on the physical demands of jobs. Working longer would be facilitated by a decline in the physical demands of jobs.

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<sup>5</sup> The BMI is calculated by dividing a person's weight (measured in kilograms) by their height squared (measured in meters). A BMI of 18.5 to less than 25 is classified as healthy weight. A BMI of 25 or higher but less than 30 is classified as overweight but not obese. A BMI of 30 or higher is classified as obese

Jobs with a high level of physical demands are decreasing in relative number, both due to a decline in the relative number of some types of jobs and due to technological changes that ease the physical requirements of jobs.

### ***Occupations and Industries***

Since the beginning of last century, jobs have shifted from agriculture to manufacturing, and then from manufacturing to the service sector, with the latter shift generally being from physically demanding to less physically demanding jobs. More recently, jobs have shifted to the knowledge economy, where the physical demands are even less. Between 1950 and 2000, the share of jobs in the goods producing sector, which includes manufacturing, mining, and construction, fell from 41 percent to 20 percent (Johnson 2004).

Even within manufacturing, jobs have shifted away from ones with high physical demands. In 1984, 21 percent of those employed in manufacturing industries held a job in a professional, managerial, or technical occupation. By 2000, nearly 28 percent of workers in manufacturing worked in those occupations (Kirsch et al. 2007). Over the period 1984-2000, growth in employment in management, professional, technical, and high-level sales occupational categories accounted for about two-thirds of job growth. Those job categories accounted for only about one-third of jobs at the beginning of the period (Kirsch et al. 2007).

Farm workers were among the occupations with the largest job declines over the period 1988-2000. Technology gains and new laborsaving machinery were the main reasons for the decline, along with increased farm consolidation leading to greater

efficiencies. Other physically demanding occupations that experienced a decline in the number of workers included highway maintenance workers (declined 7 percent), butchers and meat cutters (declined 15 percent), fishers (declined 22 percent), and cannery workers (declined 32 percent) (Alpert and Auyer 2003). Just between 2001 and 2002, employment in mining declined from 531 thousand to 458 thousand (USDOL BLS 2003).

### *Direct Measures of Physical Effort*

Rather than examining jobs by characteristics of occupation or industry, jobs can be examined by direct measures of physical effort. While various measures can be used, one measure of physically demanding work is the requirement to lift or carry heavy objects. Between 1950 and 1996, the percentage of the workforce in jobs that required frequent lifting or carrying of objects weighing 25 pounds or more declined from 20 percent to 8 percent (Steuerle, Spiro, and Johnson 1999).

Using a different measure, in 1982, 11 percent of older workers reported that their jobs required heavy strength requirements and 39 percent had at least medium strength requirements. These measures differed by gender, with 17 percent of men in jobs with heavy strength requirements and 47 percent in jobs with at least medium strength requirements, compared to 4 percent and 29 percent for women (Social Security Administration 1986).

The workers whose jobs require physical effort all or most of the time tend to have relatively little education. In 2002, 28 percent of workers ages 55-60 who did not

attend college reported that their jobs required physical effort all or most of the time (Johnson 2004).

At least in recent years, there appears to be little difference between blacks and whites in the prevalence of work in physically demanding occupations. In 1992, non-Hispanic blacks accounted for 13.5 percent of workers in jobs that always required physical effort, compared to 12.3 percent in 2002 (Johnson 2004). These figures are only slightly higher than the percentage of the population that was black those years.

Between 1992 and 2002, both men and women workers ages 55-60 saw slight declines in the percent who reported jobs that required substantial physical effort most of the time. The decline was from 20 to 19 percent for men and from 21 to 17 percent for women (Table 9). While these figures are not directly comparable to the figures from the early 1980s, they suggest that a substantial decline has occurred since then. However, when disaggregating by education, the decline between 1992 and 2002 in percent of jobs requiring substantial physical effort only occurred for older workers with four or more years of college (Johnson 2004). Thus, the decline did not occur among workers with relatively low education.

### *Stressful Jobs*

Although a considerable amount of evidence indicates that the physical demands of work have declined for most workers, including for major demographic groups, some evidence indicates that the stress level of work may have increased. Workers ages 55-60 who reported that their jobs involved a lot of stress increased from 18 to 21 percent between 1992 and 2002 (Johnson 2004). In a survey, three-quarters of workers indicated

that they thought that jobs had gotten more stressful in comparison to a generation earlier (National Institute for Occupational Safety and Health 1999).

A possible contributing factor to an increase in job stress over the past fifteen or so years is the increase in working hours for men. While the average work week varies from year to year, it was 43.0 hours for men in 1969, 1980, and 1990. Since 1990, it has trended upward, and in 2005 was 45.9. The average work week for women also has varied over time, but without a clear trend (ILO 2007). Greater job insecurity may also contribute to job stress. .

## **V. Accommodations**

Changes in workers' ability to continue working and changes in the prevalence of physically demanding jobs do not tell the whole story. The U.S. labor market is flexible, as are individual workers. Sometimes, workers can adjust by changing jobs as they age, changing the way they do jobs, or changing the hours they work. Employers may also adjust to accommodate workers as they age individually and as the workforce ages.

### *Bridge Jobs*

Currently, about half of all workers ages 55-65 are in "bridge jobs," meaning jobs that are a transition from a career job to retirement (Purcell 2002). Bridge jobs can be an adjustment to aging. Bridge jobs sometimes involve different occupations from career jobs. Other types of bridge jobs include self-employed, part-time, and temporary jobs, which provide flexibility to workers who may be unable to continue working full time in their career job because of its physical demands.

### *Technology*

Technological improvements may lessen the disabling effects on ability to work of some conditions. For example, character recognition software with voice synthesizers allow blind persons to listen to electronic documents being read by a computer, including documents that have been scanned into computers.

### *Pensions to Accommodate Early Retirement*

Besides changing to less physically demanding jobs at older ages, another option for occupational groups unable to continue working into old age because of the physical demands of their work may be occupational pension plans that permit early retirement (Turner and Guenther 2005). For example, police, fire fighters, the military, and miners—occupations with physically demanding jobs—all have pension plans that permit early retirement.

### *Disability Benefits*

Addressing the issue of cross-sectional equity, a simulation study has examined the distributional effects on people of raising the Social Security early retirement age from 62 to 65 (Mermin and Steuerle 2006). That study finds that workers in all income quintiles would receive lower lifetime Social Security benefits. However, workers in the lowest income quintile are least affected as a group, in part because a higher percentage of them receive Social Security disability benefits. In that simulation, it was assumed that the level of benefits and age at first receipt for Social Security disability benefits would not be affected by raising the Social Security early retirement age.

## **VI. Vulnerable Workers**

Generally, people are living longer, are healthier at older ages, and have lower disability rates at older ages than two or more decades ago. The primary criticism, however, to policies that encourage working longer is that doing so places an unfair burden on certain vulnerable groups who have relatively short life expectancies, who are unable to work at older ages because of physical limitations or the physical demands of their jobs and lack early retirement pensions, or who become unemployed at older ages and are unable to find other jobs. The research just surveyed suggests that workers with low levels of education may be a vulnerable group. Raising the eligibility ages for Social Security may pose problems for workers forced to take early retirement or who are fired or laid off in the few years before the early retirement age because of the greater difficulty older workers have in finding a job. Several studies have attempted to determine the number of people in vulnerable groups.

In the early 1980s, 18.5 percent of early retirees were either totally unable to work or had partial limitations and jobs that required heavy physical exertion. If the group is expanded to include workers with partial limitations and medium physical requirements of their jobs, plus workers with no physical limitations and heavy physical requirements, the figure rises to 29.9 percent of new retirees (Social Security Administration 1986).

One recent study found that about 20 percent of people taking Social Security benefits at age 62 have a health condition that limits the type or amount of work they can do (Panis et al. 2002). That study found that approximately one-half of these workers did not have a private pension. In addition, approximately one-half of these workers worked in physically-demanding jobs. Approximately 5 percent of early claimants, or

approximately 2.5 percent of workers, are particularly vulnerable because they have work limitations, do not have a private pension, and work on a physically-demanding job. The study did not determine what percentage of these workers would be eligible for Social Security disability benefits.

Another study found that about 17 percent of early retirees receiving Social Security benefits have significant impediments to work but would not qualify for Social Security Disability benefits or Supplemental Security Disability benefits (Leonesio, Vaughan, and Wixon 2003). They would not qualify for disability benefits because they would not have worked the minimum required number of years to be eligible for those benefits. They also would not qualify for Supplemental Security Income (SSI) disability benefits because they had assets above the level required of the asset test to qualify.

The self-reported health status of workers whose jobs always required physical effort improved between 1992 and 2002. In 2002, 28 percent of persons age 55-60 who did not attend college reported that their jobs required physical activity some or most of the time. Of those older workers whose job required physical effort all the time, 11 percent in 2002 reported themselves to be in poor health, down from 17 percent in 1992 (Johnson 2004).

People who take Social Security benefits at age 62 frequently have pensions or other resources that would allow them to retire at that age without Social Security, or have jobs where they could continue working. Munnell et al. (2004) find that 4 percent of the population aged 62 are vulnerable, meaning that they have the combination of lack of alternative resources and poor health that makes it difficult to continue working.

Measuring the extent to which raising the retirement age would hurt vulnerable groups, an earlier study found that fewer than ten percent of men who take Social Security benefits at age 62 are both in poor health and have no source of pension income other than Social Security. For women, the figure is 20 percent (Burkhauser, Couch, and Philips 1996). These findings were later confirmed by a study done by the Congressional Budget Office (1999), which found that if dependency on Social Security retirement benefits at age 62 was defined as resulting from being poor and having a health condition that limited the ability to work, then about 10 percent of the population that age were dependent on those benefits.

In sum, while studies differ to some extent as to precise results, the general conclusion is that a small percentage of the population age 62 would be vulnerable to hardship resulting from an increase in the early retirement age. The population that age that works in a physically demanding job, has health problems that limit the ability to work, that lacks a private pension, and would not qualify for disability benefits is less than 5 percent of the population. The studies have not counted as vulnerable older workers who are laid off before age 62 eligibility for Social Security and are unable to find a job.

## **VII. Equity**

The debate surrounding raising the Social Security early retirement age as a policy option often concerns the issue of equity. Would it be fair to certain groups to raise the age of early eligibility? For example, Munnell et al. (2004) note that raising the early retirement age without any associated cut in benefits would result in greater lifetime

Social Security wealth (the expected present value of Social Security benefits) for long-lived demographic groups and less Social Security wealth for short-lived groups. By this measure, such a policy is relatively advantageous to women and disadvantageous to blacks because of their relatively long and short life expectancies. This measure considers equity across a generation. Using a cross-sectional framework, Mermin and Steuerle (2006) argue that if disability benefits are also taken into account, blacks as a group are not adversely affected relative to other groups.

This paper has used intergenerational equity as a measure of fairness. Using this measure, different demographic groups are compared to their counterparts in earlier generations. By the intergenerational method, all groups, including blacks and women, are relatively better able to work at older ages, and would still be able to spend a higher percentage of their adult life in retirement, if the early retirement age were raised. Thus, it can be argued that raising the early retirement age would violate neither standards of cross-sectional equity nor intergenerational equity.

## **VIII. Discussion**

It may be more difficult to make public policies reflecting improved life expectancy in the United States, with its racially and ethnically heterogeneous population, than in countries such as Japan, where the populations are more homogeneous. Policies that encourage later work in the United States have a differential effect by race because of the racial disparity in life expectancy at age 65.

However, if instead of a cross-sectional approach, the perspective is taken of comparing the ability to work and the physical demands of work currently with the

situation in the past, the pattern is clear. Both blacks and whites are living longer, people of both races are self-reporting to be healthier at older ages, at least compared to several decades ago, and disability rates at older ages are decreasing.

In considering Social Security policy, women are often considered to be a vulnerable group because of their higher old-age poverty rates. With respect to raising the early retirement age, life expectancy has improved for women and the percentage of women workers in physically demanding jobs has declined.

While this report has not attempted to predict the future, one area of uncertainty for the future concerns the obesity epidemic. Increasing obesity among children predicts increasing obesity among adults. The earlier onset of obesity may lead to more serious health consequences of the condition, which implies that the health effects of obesity that impinge on the ability to work at older ages may be worse in the future than they are currently.

## **IX. Conclusions**

In 1940, at age 70 roughly half of the male population was still working. If workers were economically motivated to do so, would it be feasible for them to work at older ages at rates like they did in the past, given changes in the capabilities of workers and the demands of jobs?

The question of whether workers can work longer than they currently do has two parts. First, how have older workers' capabilities changed over the past several decades in ways that would facilitate or make more difficult their continued employment? Second, how have job requirements changed over the past several decades in ways that

would facilitate or make more difficult continued employment for older workers? For persons in their fifties and sixties, in terms of life expectancy, disability rates, and self-reported health, they as a group are effectively younger than people the same age 20, 30, or 40 years ago. One factor that may have contributed to those changes is a large increase in educational attainment for the older population.

As well as improvements in health that would facilitate work at older ages, employment has shifted toward occupations and industries with little requirement for physical strength. Even within industries, workers have shifted toward less physically demanding occupations. Further, some physically demanding occupations have reduced physical demands due to technological changes. However, evidence suggests that work in general may have gotten more stressful over the past decade.

In general, older persons' physical capabilities and the physical requirements of work indicate that people should be able to work longer than in the past. But this conclusion may not hold for all groups. For example, blacks are often mentioned as a group that would be particularly adversely affected by a policy to raise the Social Security early retirement age. However, for blacks at older ages, life expectancy has increased, self-reported health being fair or poor has decreased, and disability rates have decreased. A factor possibly underlying all these changes is a large increase in educational attainment for older blacks. Risk factors such as obesity rates and smoking rates for blacks and whites have moved toward convergence. With the possible exception of the increase in the obesity rate, these measures of health status suggest that in comparison to earlier generations, blacks currently would be better able to work longer if the Social Security early retirement age were raised, as would whites.

Thus, it appears clear that if older workers were economically motivated to do so and the demand for older workers were sufficient, it would be feasible to raise the Early Retirement Age for Social Security to age 63 in order to offset benefit cuts, especially if this were done with a long lead time so as to allow people time to plan for the change. As a matter of social policy, it would probably be desirable to consider changes in other programs, such as early benefits for workers with many years of covered Social Security work or lowering the requirements for receipt of disability benefits at older ages.

Several studies have attempted to identify the size of the group that would be most adversely affected by raising the early retirement age. That group would be people who were physically unable to continue working but who did not qualify for disability benefits or for an early retirement pension. Studies have found that group to be relatively small.

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Table 1. <i>Life Expectancy at Age 65</i>				
Year	White Men (years)	White Women (years)	Black Men (years)	Black Women (years)
1950	12.8	15.1	12.9	14.9
1960	12.9	15.9	12.7	15.1
1975	13.7	18.1	13.7	17.5
2003	16.9	19.8	14.9	18.5
Change in life expectancy from 1950 (from 1960)	4.1 (4.0)	4.7 (3.9)	2.0 (2.2)	3.6 (3.4)
Comparable early retirement age to 1950 (age 65) in 2003 in terms of number of years in retirement	69.1	69.7	67.0	66.6
Comparable early retirement age to 1961 (age 62) in 2003 in terms of number of years in retirement	66.0	65.9	64.2	65.6
Comparable early retirement age to 1961 (age 62) in 2003 assuming retirement years are one-half work years	64.6	64.6	63.5	64.2
Source: National Center for Health Statistics (2006b) and author's calculations				

<i>Table 2. Self-reported Health Status Rated as Fair or Poor, by Gender and Race and Ethnicity, Persons Ages 50-64, 1982-2005, Selected Years</i>					
Year	Women (%)	Men (%)	Non-Hispanic Blacks (%)	Hispanics (%)	Non-Hispanic Whites (%)
1982	24.4	23.2	40.9	29.6	21.7
1985	21.0	20.4	37.1	25.3	18.6
1990	18.1	18.0	31.8	24.2	15.9
1995	20.2	18.5	33.2	28.6	16.7
2000	16.4	15.4	26.9	23.9	13.6
2005	16.3	15.8	26.4	25.2	13.9
Difference: 1982-2005	8.1	7.4	14.5	4.4	7.8
Source: National Center for Health Statistics (2006b)					

<i>Table 3. Prevalence of Diabetes, Ages 50-64, By Race, 1988-2002, Selected Years</i>		
Year	Non-Hispanic Black (%)	Non-Hispanic White (%)
1988-1994	22.0	13.5
1999-2002	25.7	11.8
Source: National Center for Health Statistics (2006b)		

<i>Table 4. Chronic Disability Rates for the Population Ages 65-74, 1984-1999, Selected Years</i>	
Year	Disability Rate (%)
1984	12.2
1989	10.8
1994	10.4
1999	9.2
Source: Spellman (2003)	

Table 5. *Disability Rates for the Black and Non-Black Population Above Age 65, 1982-1999, Selected Years*

Year	Black (%)	Non-Black (%)
1982	33.4	25.6
1989	34.9	23.7
1994	30.2	21.8
1999	24.3	19.3
Difference: 1982 - 1999	9.1	6.3
Manton and Gu (2001)		

Table 6. *Percentage of the Population with Educational Attainment of 4 Years of High School or Higher, Persons Ages 55-64, by Race and Ethnicity, 1960-2004, Selected Years*

Year	Blacks (%)	Hispanics (%)	Whites (%)
1960	10.1	NA	28.4
1970	16.2	22.4	42.7
1980	30.2	29.0	63.8
1990	46.4	40.0	73.2
2000	67.8	47.2	83.6
2004	76.4	56.5	87.7
Difference: 2004-1960	66.3	NA	59.3
Source: National Center for Health Statistics (2006b)			

*Table 7. Percentage of the Population Currently Smoking Cigarettes, Ages 55-64, By Race, 1965-2004, Selected Years*

Year	Black (%)	White (%)
1965	31.0	36.4
1974	38.7	33.4
1983-85	35.8	29.0
1990-91	24.9	23.2
2000-01	25.9	21.6
2002-04	24.8	20.0
Difference: 1965 - 2004	6.2	16.4

Source: National Center for Health Statistics (2006b)

Table 8. *Percentage of the Population that is Obese, Ages 55-64, By Race, 1982-1999, Selected Years*

Year	Black (%)	White (%)
1982	25.7	13.3
1990	28.3	16.3
1995	30.2	20.1
1999	33.4	26.6
Difference: 1999-1982	7.7	13.3

Source: National Center for Health Statistics (2006b)

Table 9. *Physical Requirements of Jobs, By Gender, 1982-2002, Selected Years*

Year	Definition of job requirement	Women (%)	Men (%)
1982	Medium or greater strength requirement	29	47
1992	Always requires physical effort	21	20
2002	Always requires physical effort	17	19

Note: the data for 1982 are not directly comparable to the later data.

Sources: Social Security Administration (1986), Johnson (2004)

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