

HEALTH AND SAFETY ISSUES IN AN AGING WORKFORCE

Introduction

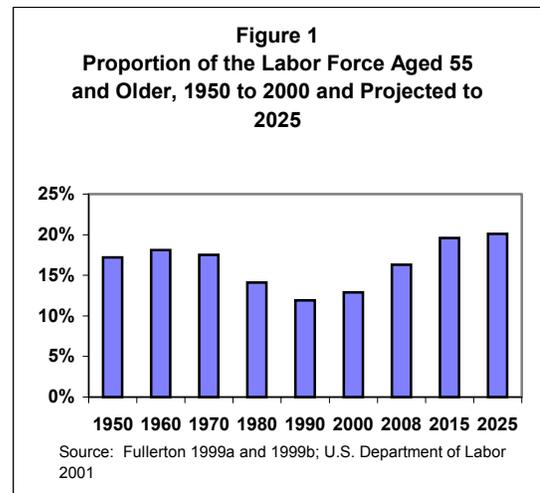
Along with the population as a whole, the labor force is aging. Even without a concerted effort on the part of policymakers or employers to promote longer worklives, the number of middle-aged and older persons in the labor force will grow as the 76 million baby boomers move into and through their 40s, 50s, and 60s.

This issue brief focuses on some of the health and safety issues that might confront businesses employing growing numbers of older workers. Does an aging workforce mean more workers at risk of costly illness or injury? The Bureau of Labor Statistics (BLS) seems to think so, noting that the “cost implications of severe injuries to older workers [discussed below] are especially troublesome for the future,” given a labor force growth rate for older workers that is higher than that for the total civilian labor force. BLS maintains that older workers’ “share of all serious injuries. . . is likely to increase. . . even though their risk of injury is relatively low” (U.S. Department of Labor 1996: 2).

Or are concerns such as BLS’s overblown? After all, as evident in Figure 1, the labor force was almost as old in the two decades following the end of World War II as it is projected to become. It was only when the baby boomers began looking for work that the labor force started getting younger; now those boomers are helping drive its age up. Perhaps in light of changes in the physical requirements of jobs, a return to an older workforce will have little or no impact on illness and injury rates or work ability. But, if such concerns are legitimate, there may be mitigating measures employers can take.

Identifying the Older Worker

“Older” in this issue brief will apply to workers who are at least 55, even though just who merits the label “older worker” is by no means universally agreed upon. With 55 as the cutoff, the proportion of the labor force that is “older” is projected to rise from 12.9 percent in 2000 to 16.3 percent in 2008, 19.6 percent in 2015, and 20.1 percent in 2025 (Figure 1).

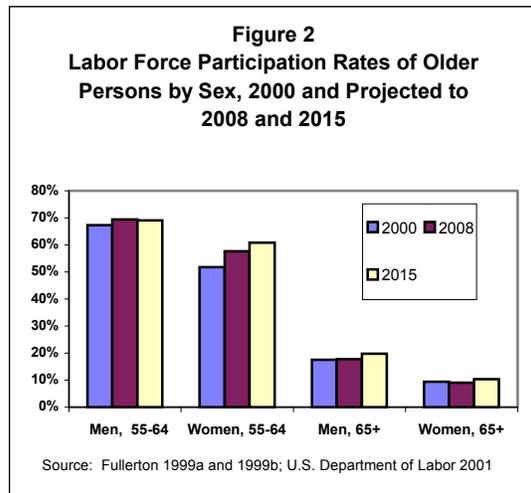


How Many Older Workers?

The number of older persons (55-plus) in the labor force, which stood at about 18.2 million in 2000, is projected to rise to 25.2 million in 2008 and to 31.9 million in 2025 (Fullerton 1999a and 1999b). This would represent a 38 percent increase over the next decade and a 75 percent increase over the full 25 years.

There is reason to suspect that the actual number of older workers will exceed 25 and 32 million. The projections assume an increase of just over 6 percentage points in the labor force participation rate of persons aged 55 and older between 2000 and 2015 and a falling off thereafter (Fullerton 1999a and 1999b). Moreover, virtually all of the

increase between 1999 and 2015 is projected to occur among persons between the ages of 55 and 64 (Figure 2).



However, the participation rate for the 55 and older population could rise above projections if boomers act on their stated expectations to work in retirement (see AARP 1998; Yakoboski and Dickemper 1997), and if continuing labor shortages persuade employers to offer the work options that older workers say they want, e.g., phased retirement, part-time work, and less demanding schedules. Even without any marked reversal of retirement trends in the 65-plus population, employers can count on many more older Americans remaining in the labor force in coming decades. The health, safety, and cost implications of this development remain to be seen.

Age, Health Status, and Activity Limitations

Most older Americans apparently feel just fine, but an appreciable minority do not. As of 1998, nearly 1 in 5 people between the ages of 55 and 64 reported that their health was only fair or poor; that was the case for nearly 1 in 4 between the ages of 65 and 74 (Table 1).

Although chronic disability rates in the 65-plus population have been falling (Reuters

Medical News 2000), with advancing age comes an increase in chronic health conditions. For example, the rate of reported arthritis in the 1996 Health Interview Study was 50.1 per 1,000 persons in the population aged 18 to 44 but rose to 240.7 for persons between the ages of 45 and 64 and to 453.1 for the 65-to-74-age group (National Center for Health Statistics 1999: Table 57). Nearly 30 percent of adults between the ages of 55 and 64, but only 5 percent of those aged 18 to 44, report having high blood pressure (Budetti et al. 2000). Visual and especially hearing impairments also rise sharply with age (National Center for Health Statistics 1999: Table 57).

Table 1
Percent Reporting Poor or Fair Health Status by Age, 1998

18-24	3.2%
25-44	5.9
45-54	11.6
55-64	18.0
65-74	23.9
75+	30.4

Source: National Center for Health Statistics 2000, Table 58

Obesity is another common and limiting health problem experienced by millions of Americans of all ages. To the extent that obesity, alone or in conjunction with other health conditions, affects health and well-being, the trend is not encouraging. The percentage of adults with healthy weight has been declining, and obesity has been increasing, most notably among older men (Table 2). Obesity also shows a tendency to increase with age up to about 65. In the 55-to-64-age group, more than 1 in 4 men and 1 in 3 women are considered obese.

While many chronic conditions are not necessarily debilitating and can be alleviated with medication, assistive devices, improved diet, and/or exercise, others can significantly limit an individual's ability to perform certain

tasks of daily living (National Academy on an Aging Society 1999).

Over one-fifth of people between the ages of 55 and 64 report some limitation in activity due to chronic conditions (Table 3), a figure that rises to nearly one-third in the 65-to-74 population. A small but sizable proportion of

reported that they were unable to carry on their major activity (National Center for Health Statistics 1999: Table 67). At ages 65 to 69, the figures were 13.9 percent for whites and 24.5 percent for blacks.

Low income is also strongly associated with limited activity: the lower the income, the greater the probability of an activity limitation. Differences such as these suggest that older persons most in need of continued employment may be the least physically capable of remaining at work.

Table 2
Healthy Weight and Obesity by Sex and Age, 1960-62 and 1988-94

	Healthy Weight		Obesity	
	1960-1962	1988-1994	1960-1962	1988-1994
Men				
20-34	54.2	50.3	9.2	14.1
35-44	44.1	33.3	12.1	21.5
45-54	43.9	33.5	12.5	23.2
55-64	43.5	28.1	9.2	27.2
65-74	44.0	29.8	10.4	24.1
75+	--	40.6	--	13.2
Women				
20-34	62.6	54.3	7.2	18.5
35-44	56.2	45.5	14.7	25.5
45-54	46.1	35.6	20.3	32.4
55-64	37.2	31.2	24.4	33.7
65-74	35.5	36.0	23.2	26.9
75+	--	41.0	--	19.2

National Center for Health Statistics 2000, Table 68

middle-aged and older people say they are "unable to carry on their major activity."¹

Activity limitation rates are substantially higher for blacks than whites. For example, as of 1996, 8.6 percent of whites between the ages of 45 and 64, but 14.7 percent of blacks,

Table 3
Percent with Any Activity Limitation Caused by Chronic Conditions by Age, 1997

Age	Percent
18-24	5.1
25-44	7.6
45-54	14.2
55-64	22.2
65-74	30.0
75+	50.2

Source: National Center for Health Statistics 2000, Table 57

Work Limitations and the Older Worker

Although the statistics in the previous section might raise questions about the work ability of many middle-aged and older individuals, the fact that people report less than excellent health or some limitation in activity does not mean they are incapable of doing any work. Many individuals with chronic health conditions are indeed in the labor force, and many others could likely remain gainfully employed, perhaps in a modified work environment or on a reduced work schedule. The National Academy on an Aging Society (2000) reports that although the majority of people with chronic conditions do work, their labor force participation rate is lower than that of persons without chronic conditions; they are also generally more likely to work part time.

¹ The National Center for Health Statistics (1999: 136) classifies people "in terms of the major activity usually associated with their age group." For those ages 18-69, that activity is working or keeping house.

Still, drawing conclusions about work ability from these data is problematic, in view of the fact that less healthy workers may have left the labor force. The National Institute for Occupational Safety and Health, or NIOSH, (1997) notes that although musculoskeletal impairments have been found to be “among the most prevalent and symptomatic health problems of middle and old age,” the association of these conditions with age has not been observed among workers. This is quite possibly because of “survivor bias,” whereby less healthy workers move to less demanding jobs or leave the labor force. It is the case that rates of compensable back pain and strains are highest in younger age groups.

If older men and women who leave the labor force experience substantially more health problems than those of the same age who remain in it, then attempts to increase the labor force participation of middle-aged and older workers could result in a less healthy older workforce, with cost implications for employers.

Estimates vary of the present cost to employers of musculoskeletal disorders—NIOSH “conservatively” puts it at \$13 billion annually and the AFL-CIO at \$20 billion (National Institute for Occupational Safety and Health 1997). Whatever the total cost, it is considerable and could stand to rise in an aging workforce.

Burkhauser, Couch and Phillips (1996) do not address survivor bias, per se, but their examination of the early waves of the Health and Retirement Study (HRS) leads them to conclude that the “great majority of men” who opt for Social Security retirement benefits at age 62 “enjoy good health” and could work longer if the age of eligibility for early Social Security benefits were increased.

Steuerle (1998) likewise points to quite good health, on the whole, among what might be called the “early-retirement age” population in the Current Population Survey (CPS). Respondents between the ages of 60

and 64 who reported a work-limiting disability or contended that they were in poor or only fair health were in the minority.

However, Gendell and Siegel (1996) observe that rather high proportions of both men and women stop working more than a year before collecting Social Security retirement benefits. Moreover, the interval between leaving the labor force and receipt of benefits is considerably longer for blacks than whites, racial differences that Gendell and Siegel attribute to health differences. From their evaluation of the 1999 California Work and Health Survey, Yelin and Trupin (2000) also conclude that in that state at least, early retirees were “in disproportionately poor health” as well as disproportionately represented in the low-income population. According to the Commonwealth Fund’s 1999 National Survey of Workers’ Health Insurance, 1 in 10 adults between the ages of 55 and 64 are out of the workforce due to disability (Budetti et al. 2000: Table 2).

Further analyses of wave 2 of the HRS reveal sharp differences in the self-reported health status of workers and retirees, even among those who are under age 65 (Uccello 1998). Retirees aged 55 to 61 were only about half as likely as workers of the same age to say they were in excellent health and over three times as likely to report only fair or poor health (Table 4). The differences in “poor health” were especially pronounced—only 1.5 percent of workers but nearly 18 percent of retirees contended that their health was poor.

These findings would seem to support the observations of Gendell and Siegel (1996) on the far poorer health of very early retirees. In contrast, retirees of an age that makes them eligible for early Social Security benefits, i.e., 62 and 63 (presuming they qualify), report better health than younger retirees (Table 4).

As might be expected, work-limiting conditions are far more prevalent among retirees than their working counterparts. The HRS retirees examined by Uccello were, in

fact, five times as likely to report having a condition that limits work at a job; once again, work-limiting conditions were more common among younger retirees than older ones (Figure 3).

Table 4
Health Status of Workers and Retirees in
Wave 2 of the Health and Retirement
Survey
 (in percentages)

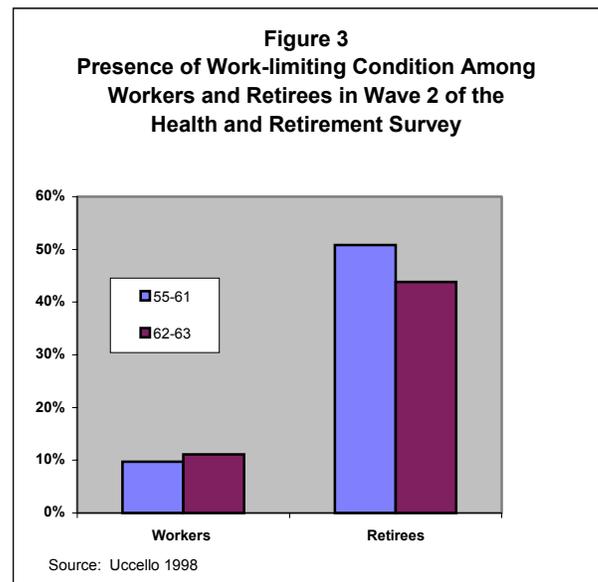
	Workers	Retirees
Ages 55-61		
Excellent	23.1	11.9
Very good	34.5	21.1
Good	30.5	27.4
Fair	10.4	21.7
Poor	1.5	17.8
Total	100.0	100.0
Ages 62-63		
Excellent	20.8	15.0
Very good	33.7	27.9
Good	33.2	25.0
Fair	10.7	19.7
Poor	1.6	12.5
Total	100.0	100.0

Source: Uccello 1998, Table 1b

In addition, a very high proportion of retirees with work limitations—about 70 percent of both age groups—said their condition actually *prevented* work. Not surprisingly, few workers mentioned having a condition that prevented work, although somewhat inexplicably, about 5 percent of both age groups did (Uccello 1998: Table 1b).

Retirees with chronic conditions are far more likely than those without them to report that “health was a very important factor in their decision to retire,” according to the National Academy on an Aging Society (2000: 5). Analyses by the Academy of data in the 1994 Health Interview Survey also show that for some chronic conditions (orthopedic impairments, arthritis, and heart disease), the proportion of older workers losing a day or more of work during a two-

week period was about double that of workers without the condition—8 to 13 percent vs. 4 to 6 percent, depending on condition (National Academy on an Aging Society 2000: Figure 7).



Absences from Work

Older workers in the Current Population Survey are not so very different from younger workers when it comes to overall work absences, as can be seen in Table 5. They are somewhat more likely than younger workers to miss work, and their overall lost worktime rate is higher. The absence rate for illnesses or injuries (which are not necessarily work-induced) is higher for older than younger workers. On the other hand, older workers are less apt to be absent for other reasons, such as family obligations.

The Bureau of Labor Statistics employer surveys that track work-related injuries and illnesses resulting in work loss or death paint another picture of the impact of age on work loss. In 1998, the median number of days away from work for nonfatal occupational injuries and illnesses involving absence was 5 for the total labor force and 10 for workers 55 and older (Figure 4).

Table 5
Work Absences of Full-time Wage and Salary Workers, by Age, 1999

Absence rate*	Illness/		
	Total	Injury	Other
16-19	4.0	3.0	1.0
20-24	3.9	2.7	1.2
25-54	3.8	2.7	1.1
55+	4.2	3.5	0.7

Lost work-time rate**

16-19	1.8	1.3	0.5
20-24	1.9	1.2	0.7
25-54	2.0	1.4	0.6
55+	2.6	2.3	0.3

*The absence rate is the ratio of workers with absences to total full-time employment.

**The lost worktime rate refers to hours absent as a percent of hours usually worked.

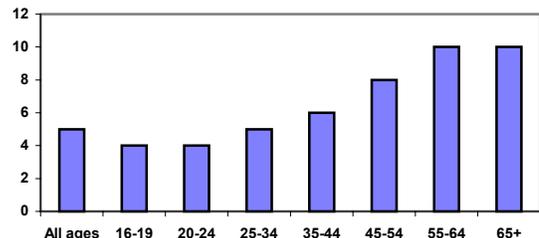
U.S. Department of Labor 2000a, Table 46

Restricted activity days and bed days associated with episodes of injuries at work tend to be substantially higher for older workers (Burton and Spieler 2000: Table 1). In addition, older workers are more likely to sustain injuries, such as fractures, that require longer recuperation (Personick and Windau 1995). Work absences of long duration (i.e., 31 or more days) due to illness or injury are also far more common among older workers (Table 6).

Aggravating these injuries may be some of the chronic conditions and other problems associated with increasing age, such as diabetes, arthritis, or heart disease, known as co-morbidities, that can make treatment of an injury “more complex and difficult” (Douglas 2000: 101).

Though fatal workplace injuries are relatively uncommon today (there were 6,026

Figure 4
Median Number of Workdays Lost Due to Occupational Injury or Illness by Age, 1998



Source: U.S. Department of Labor April 2000b, Table 7

in 1998, the lowest level since BLS began tracking them in 1992), the injuries of older workers prove fatal more often than those of younger workers. Workers aged 55 and older accounted for 12.6 percent of the employed population in 1998; they were 23 percent of the fatalities (U.S. Department of Labor 1999c: Table 3 and 1999e: Table 4). The leading cause of on-the-job deaths involved highway crashes, which is worrisome given that some transportation occupations have a disproportionate share of older workers.

Although the injuries of older workers are often more serious, it is younger workers who experience a disproportionate share of work-related injuries. In 1998, older workers sustained just under 9 percent of all occupational injuries or illnesses requiring time away from work (Table 7).

The experience, maturity, and judgment of older workers may help explain their lower injury rates. In some cases, however, their underrepresentation in certain job categories could play a role. For example, Crimmins and Kim (2000: 8) report that carpal tunnel syndrome is negatively related to age, but they caution that “as younger cohorts age, the pattern is likely to change to one that is positively related to age.” Furthermore, as Burton and Spieler (2000: 2) observe, the work connection of some impairments associated with aging, such as back ailments,

may be difficult to establish, but such conditions may “contribute to an individual’s disability.”

Table 6
Duration of Time Away from Work by Age: Percent of Nonfatal Occupational Injuries and Illness Involving Days Away Work, 1992 and 1998

	5 Days or Less	31 Days or More
1992		
16-19	60.3	9.6
20-24	58.3	12.6
25-34	51.2	18.1
35-44	45.6	22.4
45-54	41.8	25.3
55-64	38.4	27.1
65+	37.6	27.3
1998		
16-19	62.8	8.7
20-24	60.4	11.5
25-34	54.5	15.8
35-44	47.8	20.9
45-54	44.0	24.2
55-64	40.9	26.7
65+	34.6	26.9

Source: U.S. Department of Labor, Bureau of Labor Statistics, undated

Health and Related Benefits for Workers

Health, Sick Leave, and Disability

Employers have a vested interest in the physical well-being of their workers, if for no other reason than because illness and injury costs money in the form of sick leave, disability and other benefits, and lost productivity. Most employers promote the health and safety of their workers and protect them from the consequences of illness or injury by ensuring a safe and healthy work environment, offering fitness and wellness programs and information, and providing health care and disability benefits. Expenditures for some of these undertakings

vary little by age; others are more costly to provide to older workers.

Table 7
Distribution of Workers and Nonfatal Occupational Injuries and Illnesses* Involving Work Loss by Age, 1998

Age	Percent of All Workers	Percent of Injuries
16-19	5.4	3.5
20-24	9.5	11.6
25-34	23.9	28.2
35-44	27.6	28.2
45-54	21.0	18.0
55-64	9.8	7.6
65+	2.8	1.2
Total	100.0	98.3**

*Includes only workers in private industry

**Numbers do not add up to 100 due to non-classifiable responses.

Source U.S. Department of Labor 1999c, Table 3, and 2000b Table 2

Because health insurance is the most common health-related benefit offered by employers (Figure 5), as well as an expensive one, factors that increase the cost of health insurance are closely watched by employers. Health premiums are generally higher for older workers than for younger workers and may thus serve as a disincentive to hiring older workers. It is one reason that some labor analysts continue to argue for once again making Medicare, rather than the employer plan, the primary insurance payer for workers aged 65 and older (Burkhauser and Quinn 1997).

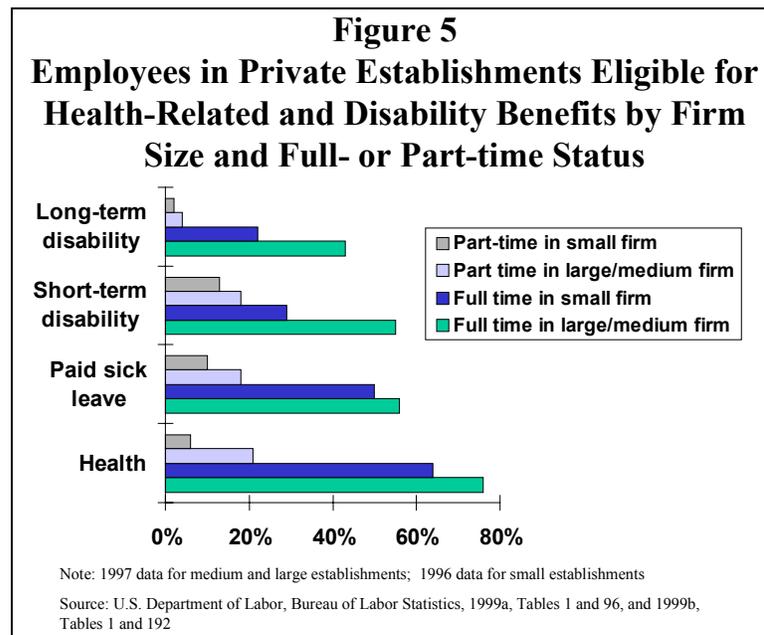
Clark (1994) provides data on age and sex differences in the covered charges and payments for a “typical health plan.” Those payments rise steadily with age, becoming an estimated 1.7 to 2.6 times as high for workers between the ages of 55 and 64 as they are for workers in their 40s. Largely because of younger women’s maternity expenses, age differences in payments for women are less pronounced. Even so, expenditures are still

considerably higher for women aged 55 and older than for younger women (Clark 1994: 16-17).

Barth, McNaught, and Rizzi (1996) also examine the greater expense to employers of providing health insurance for older workers. They report that the cost of insurance for men between the ages of 55 and 65 is two-thirds greater than for men aged 35 to 44. They note further that health costs as a percentage of men's earnings rise sharply after age 55, partly due to a plateauing of men's wages at about 55. Again, smaller age differences are

Short- and long-term disability benefits are also common, at least in larger firms among full-time workers (Figure 5). Utilization data by workers of various ages are apparently not available. However, because these benefits typically replace a portion of wages (U.S. Department of Labor 1999a and 1999b),² benefits for higher-wage workers and those with longer work absences—i.e., older workers—would be higher.³

Employers are generally not required to offer health and disability benefits or sick leave,⁴ although they will if they want to



evident among women.

Most full-time workers have access to sick leave. Because sick leave generally provides full wages during an absence of limited duration, and because the salaries of older workers tend to be higher than those of younger workers, sick leave benefits for older workers could prove more costly. Yet, as seen in Table 5, the sickness/absence rate for older workers does not appear to be that much higher, on average, than rates for younger workers.

² In some programs, a flat benefit is paid.

³ Long-term disability benefits are paid after a waiting period and may continue until retirement or a specified age (Mont, Burton, and Reno 2000). Older workers might be more likely than younger workers to exceed the waiting period, but their duration of receipt could be shorter since they are presumably closer to retirement.

⁴ Short-term disability is mandated through the Temporary Disability Insurance program in California, Hawaii, New Jersey, New York, and Pennsylvania (Mont, Burton, and Reno 2000).

attract the best employees. Small firms are far less likely than larger ones to provide some of these benefits. In addition, many benefits, even when available within a firm, are not extended to contingent and part-time workers, many of whom are older workers, and more of whom may be older in the future. This might not be a problem in the case of health insurance, if it is available through another family member or under Medicare. For other benefits, such as sick leave or short-term disability, a relative's coverage does a sick or disabled worker little good.

Workers' Compensation

Employers are legally required to pay for certain benefits, such as Social Security coverage, Medicare, Unemployment Insurance, and workers' compensation. Of particular interest to this issue brief is workers' compensation, the oldest social insurance program in the United States (Rejda 1999).

Workers' compensation provides medical benefits and cash payments to workers who are injured on the job or who contract a work-related illness, and death and funeral benefits to the survivors of workers fatally injured on the job. Benefits may be paid for a very short period of time up to a lifetime (Burton and Spieler 2000). Workers' compensation is a large and important program, "second only to Social Security Disability Insurance and Medicare" in providing medical and cash benefits to disabled workers and their families (Mont, Burton, and Reno 2000).

All states and the District of Columbia have workers' compensation programs, which are mandated for most employers in every state except Texas. Texas allows employers to opt out (Mont, Burton, and Reno 2000).⁵ Most workers are covered by workers' compensation, although domestic,

agricultural, and casual workers are commonly excluded from coverage. Federal workers fall under a separate program, as do coal miners and maritime workers (Social Security Administration 1997). As of 1995, nearly 93 percent of wages and salaries in civilian employment were covered by workers' compensation (Social Security Administration 1999: Table 3.B2). The National Academy of Social Insurance (NASI) estimates that about 97 percent of workers covered by non-federal Unemployment Insurance and all federal workers are covered by workers' compensation (Mont, Burton, and Reno 2000).

Workers' compensation programs are financed almost entirely by employers "on the principle that the cost of work accidents is part of production expenses" (Social Security Administration 1997: 36). Costs to employers were estimated at just over \$52 billion in 1998 (Mont, Burton, and Reno 2000). Workers' compensation holds employers responsible for any work-related injuries and generally ensures that benefits will be paid to workers without their having to sue for them. Payment of benefits under the law ends an employer's liability.

Employers may finance workers' compensation through private insurance, state funds, or self insurance; according to Rejda (1999), premiums for larger firms are experience-rated, that is, based on incidence of prior injuries, in most states. Employers with more incidents of compensable injuries pay more, which presumably serves as an incentive to promote workplace safety. Indeed, it appears that "a growing awareness of workplace hazards by unions, employers, and the insurance industry" explains some of the decline in injury and illness rates that occurred in the early- to mid-1990s (Conway and Svenson 1998: 36). Rising costs in the 1980s also resulted in efforts to curtail benefits (see, e.g., Mont, Burton, and Reno 2000; Burton and Spieler 2000).

⁵Employers who opt out lose the protection against suits from their employees (Social Security Administration 1997).

Workers' compensation is a state-designed and managed program. Consequently, provisions such as coverage, benefit amount, and length of time for which benefits are paid vary from state to state. Because there are no uniform reporting requirements, an easily accessible database on workers' compensation claims is not available and generalizations about the program are problematic.

One of the most comprehensive overviews of workers' compensation costs and benefits across the states has been published by NASI, which shows that program costs have fallen in recent years (Mont, Burton, and Reno 2000). Benefits as a percent of payroll declined from a high of 1.66 percent in 1992 to 1.08 percent in 1998, a 35 percent drop. Employer costs, including premiums and administrative costs for the self-insured, fell from a high of 2.17 percent in 1993 to 1.35 percent in 1998, a 38 percent decline.⁶

While the decline in workers' compensation costs would appear to be welcome news, Burton and Spieler (2000: 44) suggest that the reasons for it, including changes in eligibility rules and in how permanent disability is dealt with, may have a particularly deleterious impact on older workers. This is in large part because the conditions of older workers are more likely than those of younger workers to be "medically ambiguous," i.e., difficult to diagnose and identify as caused during and by work.

The NASI report notes that benefits may vary within a state from year to year for a variety of reasons, one of which is demographic change, "because different age cohorts have different illness or injury rates" (Mont, Burton, and Reno 2000). Whether these differences, some of which have been

highlighted elsewhere in this issue paper, result in rising claims or are offset by lower injury rates will depend, in part, on which workers file claims.

Workers' compensation data are not available for individual employees (Mont, Burton, and Reno 2000); nonetheless, some factors do point to a possible rise in costs associated with an aging workforce. The 3- to 5-day waiting period that most states require before filing for cash payments (as opposed to medical expenditures) means that many injuries will not result in cash benefits, since over half of all injuries involve a work absence of fewer than five days. Presumably, more younger workers would fail to exceed the waiting period, as evident from the data in Figure 4 and Table 6. Older workers, with their longer work absences for injuries, would be more likely to become eligible for cash benefits, even though they have a lower injury rate.

There is no waiting period for medical benefits under workers' compensation, so age differences in receipt of medical care should not favor one age group over another. However, the greater severity of injuries by older workers means greater per capita medical costs for them.

According to the Social Security Administration (1997), total disability payments under workers' compensation, typically based on wages at the time of injury, are usually in the neighborhood of two-thirds of weekly wages up to a maximum; partial disability is commonly compensated at the same rate, although the dollar maximums are often lower. Higher-wage workers could thus expect larger benefit payments. In Oregon, which has summarized permanent partial disability (PPD) claims for 1986 to 1997, average PPD benefits awarded showed "the expected distribution of generally higher awards for older workers" (Oregon Department of Consumer and Business Services 1999: 3), with a sizable jump in amount after age 55.

⁶ NASI notes that because there is no national reporting system for workers' compensation, these estimates must be developed from estimates for each state and for federally-administered programs.

Preliminary analyses of the National Council of Compensation Insurance's NCCI Econometric Model indicate that aging has a greater impact on severity of injury (and claims costs, controlling for wages) than frequency, which is consistent with data from BLS surveys. NCCI analysts conclude that aging "was partly responsible for the sharp increases in claims costs in the late 1980s" (Helvacian and Corro 1999: 53). Between 1990 and 1997, claims rose a further 7.8 percent. Without aging, according to the analysts, those costs would still have risen—and by 6.7 percent. Clearly, the bulk of rising costs cannot be attributed to population aging, if NCCI's model is any guide.

A recent study by the Workers Compensation Research Institute (WCRI) lends support to this observation (Tattie, Gotz, and Liu 2000). This eight-state study concludes that the aging of the baby boomers should not have a dramatic impact on workers' compensation costs, in part because older workers are often in or shift to safer, less strenuous jobs that make them less prone to injury. Moreover, the investigators argue that while the costs per claim for middle-aged workers are substantially higher than they are for younger workers, the per-claim costs for older workers are only slightly higher than those of the middle-aged. Lower claim frequencies tend to offset the higher costs.

The WCRI report suggests caution in generalizing to other states, some of which may have higher age effects on claims than those studied. In addition, this study assumes a relatively modest increase in the proportion of workers aged 55 and over, "an increase too small to yield large age effects" (Tattie, Gotz, and Liu 2000: 41). Whether a more substantial increase would yield more significant age effects is not known.

Burton and Spieler (2000: 7) discuss underreporting of work-related health problems, which may be "a particular problem for older workers, who are most likely to suffer the long-term effects of work

exposures" whose cause can be difficult to establish. They also point to an erosion of the confidentiality of medical records in workers' compensation claims in some states that might discourage workers from applying for benefits. In order to keep information on health status from employers, some workers, especially those with chronic conditions—disproportionately older—might decide not to file for benefits.

Social Security Disability Insurance

Social Security Disability Insurance (SSDI) is the second most important disability benefit covering workers (with sufficient quarters of coverage, which most older workers will typically have). The average age of SSDI award has been falling and hovered about 49 years in 1999, down from 57 years for men and 59 years for women in 1957 (Social Security Administration 1999: Table 6.C2). Nonetheless, over one-third of the awards in the past decade have gone to workers aged 55 and above (Table 8)—a share disproportionate to their representation in the workforce. The declining age of SSDI awards in the 1980s and 1990s may be due, in part, to the fact that a smaller share of the labor force was in the older age group, as can be seen in Figure 1.

In contrast to workers' compensation, SSDI requires that both employers and employees contribute a portion of employees' wages to the program. Employers' dollar contributions rise with higher wages, but the benefits paid to disabled workers do not affect an employer's contributions. Because they are not experience-rated, SSDI costs should not influence employers' labor force decisions as greatly as other benefits might. Furthermore, it is doubtful that either employers or employees single out the .90 percent of earnings paid for SSDI from the total payroll tax. Finally, demand for SSDI would actually increase with cutbacks in workers' compensation benefits (Burton and Spieler 2000).

Table 8
Age Distribution of Social Security
Disability Awards to Disabled Workers by
Gender, 1958-1998 (in percentage)

Men	Age			Total
	Under 40	40-55	55+	
1958	--	19.7*	80.3	100.0
1970	14.3	31.3	54.5	100.0
1978	17.0	30.8	52.2	100.0
1988	24.4	33.3	42.2	100.0
1998	20.6	41.8	37.7	100.0
Women				
1958	--	28.6*	71.4	100.0
1970	10.5	34.6	54.8	100.0
1978	15.3	33.1	51.6	100.0
1988	22.5	35.8	41.7	100.0
1998	20.3	45.8	33.9	100.0

*Includes only workers aged 50 to 54
 Source: Social Security Administration 1999, Table 6C2

Enhancing Worker Well-being

The goal of employers and workers alike should be to minimize the work-related consequences of any chronic health conditions as well as the risk of occupational injury or illness on the job. Adhering to Occupational Safety and Health Administration (OSHA) regulations is a minimum first step. Employer-sponsored health and wellness programs for workers of all ages can enhance health status and performance. Ergonomics programs can do the same and result in cost savings for employers.

For example, OSHA reports on the results of over 100 studies of the implementation of ergonomics programs and interventions dealing with musculoskeletal injuries (U.S. Department of Labor, Occupational Safety and Health Administration, undated-b). The programs and interventions studied resulted in an average reduction of 67 percent in musculoskeletal injury rates and a 74 percent reduction in lost workdays. The number of workers' compensation claims fell by an

average of 74 percent, and the cost of claims by 71 percent.

Case studies by the U.S. General Accounting Office (GAO) (1997) lend support to the importance of the efforts documented by OSHA. Facilities with ergonomics programs reduced overall injuries and illness and lost work days. There were, however, cases of increased restricted activity days resulting from efforts to return injured employees to work. Officials at the facilities studied also reported reductions in workers' compensation costs due to musculoskeletal disorders. On another positive note, GAO found that programs did not need to be complex or costly to be effective.

It also appears that the declining occupational injury rates evident since 1987 are largely explained by declining injury rates within industries, rather than by any increase in jobs in industries with lower injury rates (Mont, Burton, and Reno 2000). This could well be the result of efforts by employers to make their workplaces safer, an outcome that would benefit older and younger workers alike, to say nothing of their employers.

OSHA's final ergonomics program standard, issued in November 2000, was designed to reduce the number and severity of workplace-related musculoskeletal disorders. OSHA estimated that 4.6 million MSDs would be prevented in the first 10 years that the standard was in effect, at a cost to employers of \$4.6 billion annually. The benefits generated were estimated at \$91 billion (U.S. Department of Labor, Occupational Health and Safety Administration, undated-a). Employers, however, objected to the administrative burden of the new regulations and the costs, which they feared could prove far higher than estimated. In March 2001, Congress voted to kill the rule.

Conclusions

America's employers face an aging workforce, and if what employers say about

older workers is correct, this means an increase in workers whom those employers ostensibly value highly (e.g., AARP 1995 and 1999). However, it also may mean an increase in workers with health problems and rising expenditures for various health-related benefits. Though there seems to be little indication that employers are worried about the impact that a rise in the number of workers with chronic conditions might have on performance, concerns about the health costs of an aging workforce have emerged in some employer surveys (AARP 1995; Barth, McNaught, and Rizzi 1993).

Chronic health conditions rise with age. As the workforce continues to age, employers can expect an increase in the number of workers with chronic conditions. Work-related accidents fail to show a comparable age-related increase, but when work injuries occur to older workers, they tend to be more severe than those experienced by younger workers. Although work injury rates for older workers are lower, they are more costly to treat or compensate when they do occur. The number of workers with serious health problems could rise if many of the less healthy workers who in the past have tended to retire early decide to postpone retirement, perhaps as a result of increases in the normal retirement age or reductions in early retirement incentive programs.

Workers, of course, have concerns of their own: Poor health and/or work-limiting conditions put them at risk of job loss, including premature retirement, and the loss of health benefits to which they may be entitled (Budetti et al., 2000). Workers with disabling conditions may find it more difficult to secure employment, with an obvious adverse impact on current and future retirement income (Burton and Spieler 2000). Some small percentage may qualify for permanent workers' compensation benefits or SSDI, but other cash payments for sick or injured workers are generally of limited duration.

Employers can gain insight into where workforce interventions and risk management strategies might prove fruitful from age audits of their workforce as well as from assessments of workers' compensation records (Douglas 2000). Appropriate intervention strategies can be developed for the entire workplace or categories of workers (e.g., transportation workers) at particular risk, rather than directed toward specific age groups or individuals.

Workplace modifications and/or schedule adjustments might facilitate the continued employment of partially disabled workers or workers who for whatever reason are no longer capable of performing effectively in their current jobs. More employers may be making these modifications or adjustments: Ruser (1999) notes a drop in lost worktime on the part of workers with occupational injuries and illnesses but an increase in restricted-activity days. In these cases, injured employees return to work but are unable to fulfill all their duties. Employers' efforts to get workers back to work sooner may account for some of this shift.

As 76 million boomers enter middle and old age, the issue is not so much whether most older workers could work at least somewhat, and maybe considerably, longer without adverse consequences to themselves or to their employers—they probably could. Rather, the challenge will continue to be how to ensure that older workers who cannot work—whether temporarily or permanently due to poor health, injury, or disability—have access to an adequate compensation safety net and suitable workplace accommodations if and when they can return to work. Their numbers could rise dramatically in coming years.

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