



Claims Characteristics of Workers Aged 65 and Older

Introduction

A December 2006 NCCI study, *Age as a Driver of Frequency and Severity*, examined how frequency and severity vary by age of worker, focusing on workers between ages 20 and 64. Events since that study was published—especially the plunge in the stock market and the decline in home prices—have sparked interest in the implications for workers compensation claims of persons working beyond age 64. Simply put, for many persons in their late 50s and early 60s, whose life savings have been severely depleted and whose homes are now worth far less than anticipated, the idea of a “normal” retirement is now more in the realm of wishful thinking than an achievable reality.

Workers aged 65 and older comprise a small share of employment and injury and illness cases (see Exhibit 1), which is why the previous study limited its analysis to persons aged 64 and younger.

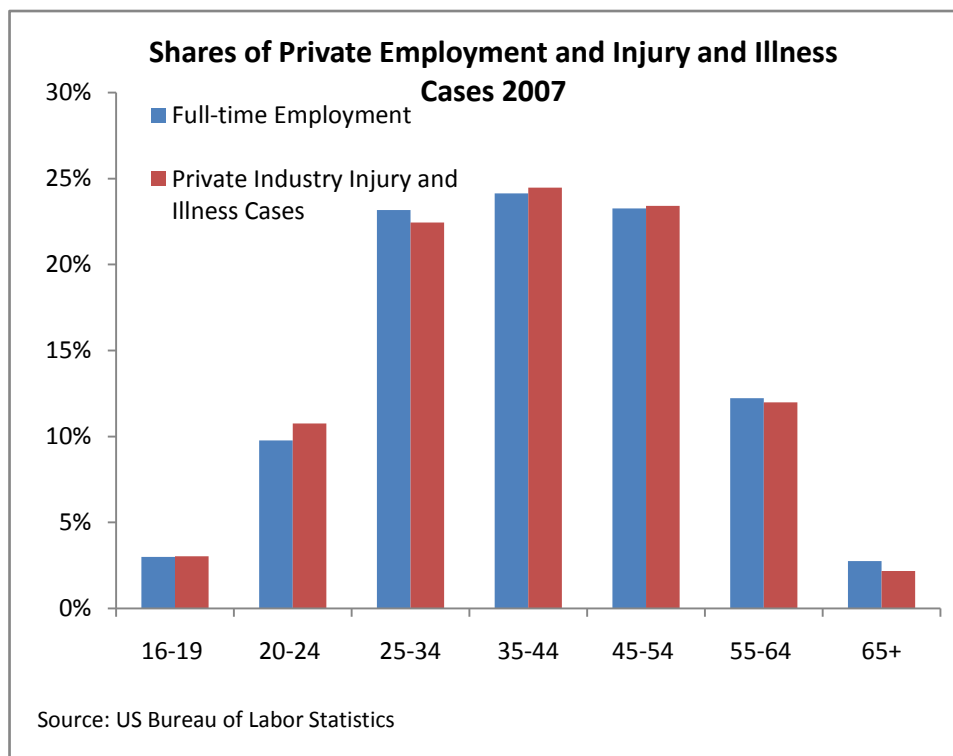


Exhibit 1

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However, the labor force participation rate of older workers (those aged 65 and older) has increased by nearly 50% since the late 1980s (from 11% to 17%—see Exhibit 2), and the rate for workers aged 55 to 64 has also increased (from 55% to 65%). Further increases are likely in coming years in light of recent financial and economic disruptions. (A discussion of the factors underlying the rise in the labor force participation rate of older workers is provided in Appendix A.).

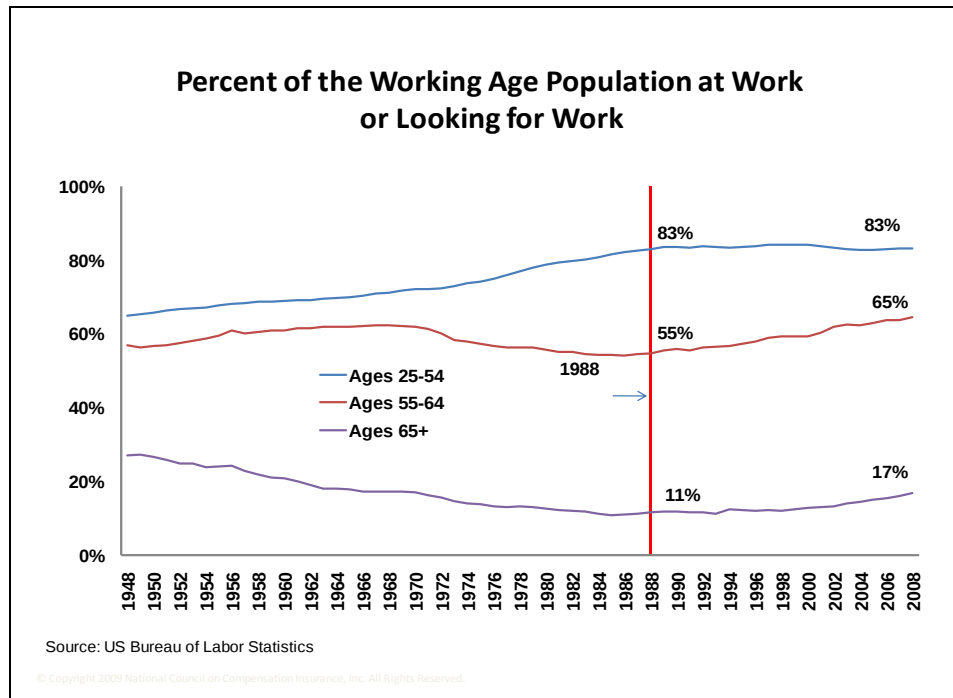


Exhibit 2

This paper examines how workers aged 65 and older differ from all workers in terms of their share of claims; indemnity and medical payments; frequency; and indemnity and medical severity (i.e., cost per claim). It also explores the implications for workers compensation claims management and loss costs.¹ Our key conclusions are:

- Falls/slips/trips are by far the greatest cause of injury among older workers.
- Indemnity severity is less for older workers, largely because of the lower average weekly wage of such workers. There is a distinct (downward) break in indemnity severity between ages 60–64 and 65 and older.
- Medical severity is higher for older workers, although the differential between workers aged 65 and older and nearby age cohorts is small.
- Shares of indemnity and medical payments of older workers have a close relationship to their share of claims.
- Frequency is less for older workers, especially in the more hazardous manufacturing and construction-related industries and occupations. In contrast, claim frequency is higher for older workers in the leisure and hospitality industry and food preparation and service occupations (as well as in sales and related occupations).

Share of Claims and Cases

There are distinct differences between the claim shares of workers aged 65 and older and all workers when claims are grouped by cause of injury, nature of injury, and part of body. NCCI claims data (from its Detailed Claim Information [DCI] database) and BLS (Bureau of Labor Statistics) data on injury and illness cases also indicate significant differences when compared across industries and occupations.

Cause of Injury. Nearly half (47%) of workplace injury claims among workers aged 65 and older result from falls, slips, and trips. That is nearly twice the share as that for all workers (see Exhibit 3). In contrast, claims involving strains (largely back-related) account for 38% of claims for all workers versus 23% for older workers. These differences partly reflect a lower share of employment among older workers in industries and occupations requiring heavy lifting, such as construction, manufacturing, and installation and repair.

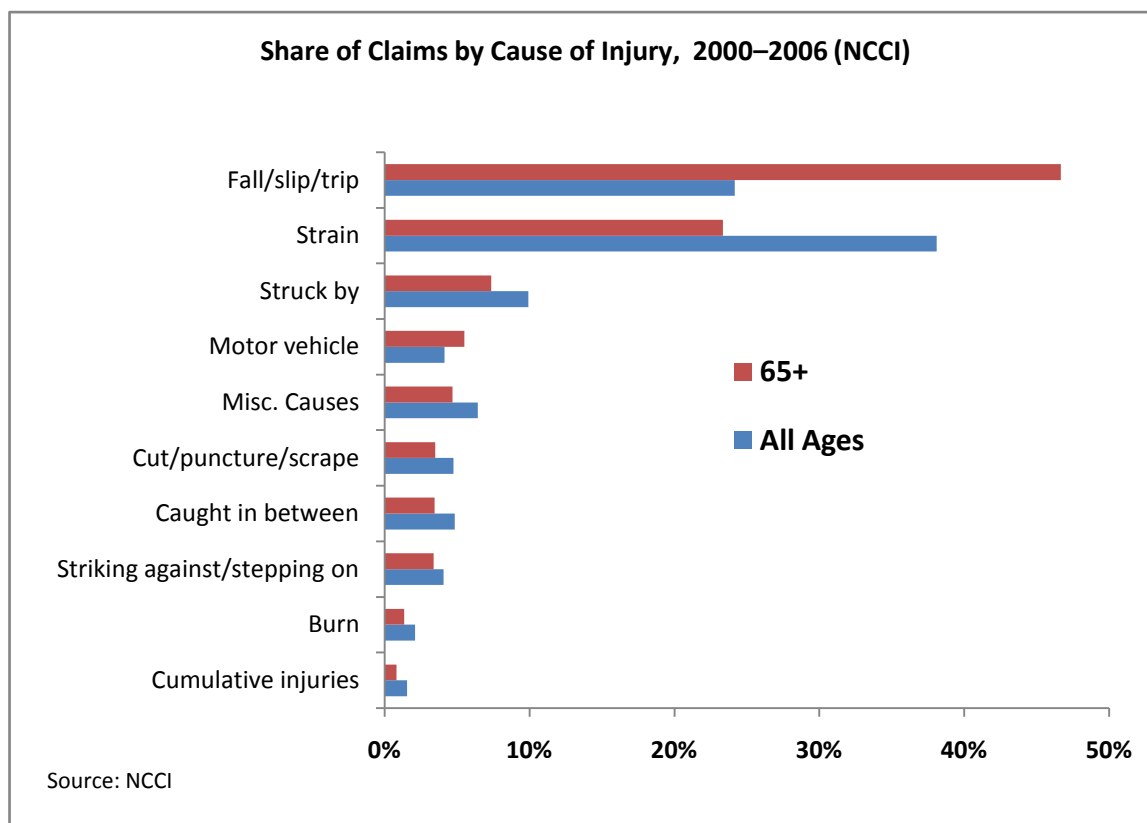


Exhibit 3

BLS data on the distribution of injury and illness cases by “event or exposure” shows a similar pattern, with falls accounting for 45% of injury and illness cases for workers aged 65 and older versus 22% for all workers (data as of 2007).

Nature of Injury. Consistent with the higher percentage of falls, workers aged 65 and older have a higher share of injuries involving fractures, concussions, and related injuries (see Exhibit 4). In contrast, sprains and strains, more associated with back injuries, account for a third of claims—well below the 45% for all workers.

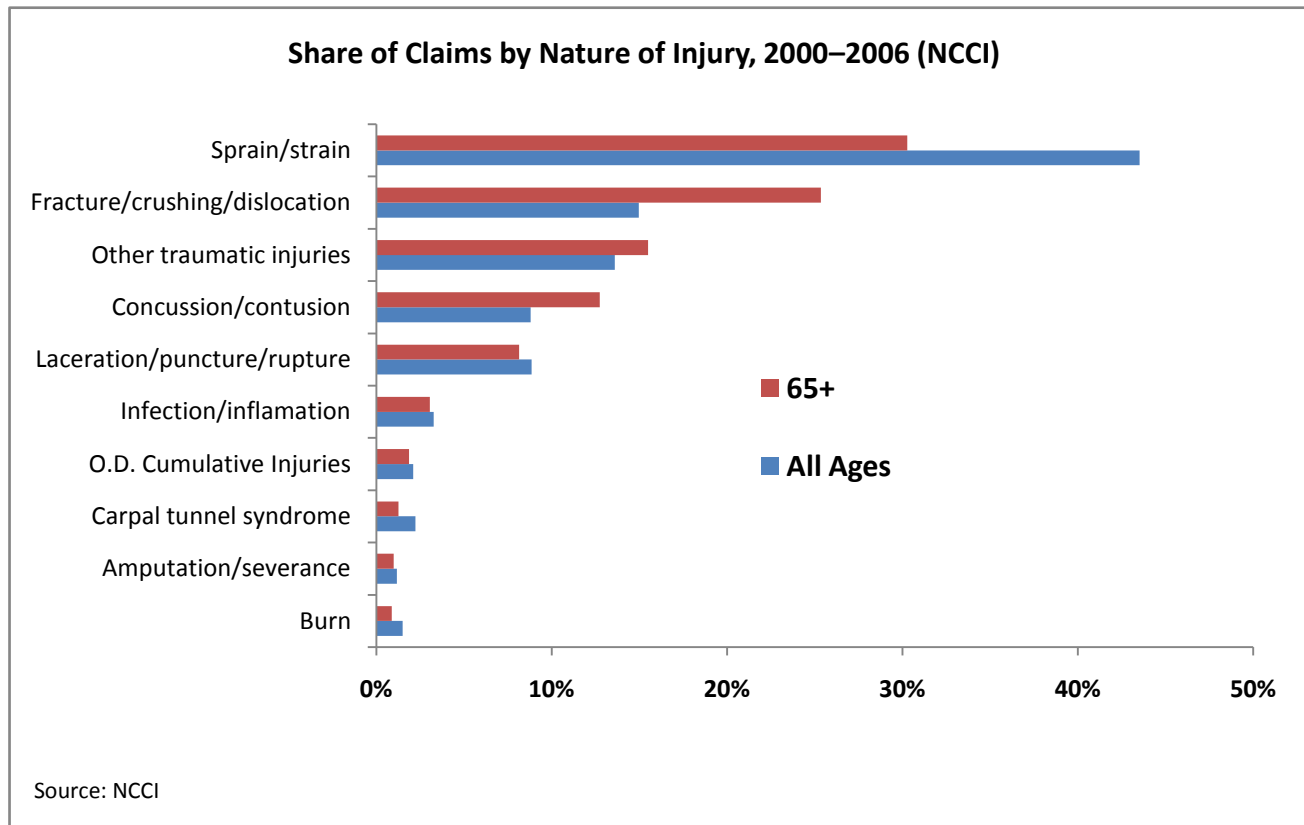


Exhibit 4

Part of Body. Workers aged 65 and older have a higher share of claims involving multiple body parts and hip/thigh/pelvis injuries and a lower share of claims for lower back and hand injuries than do all workers (see Exhibit 5). Again, this appears to be consistent with differences in the cause and nature of injury. For both groupings, arm and shoulder injuries account for the largest share of claims.

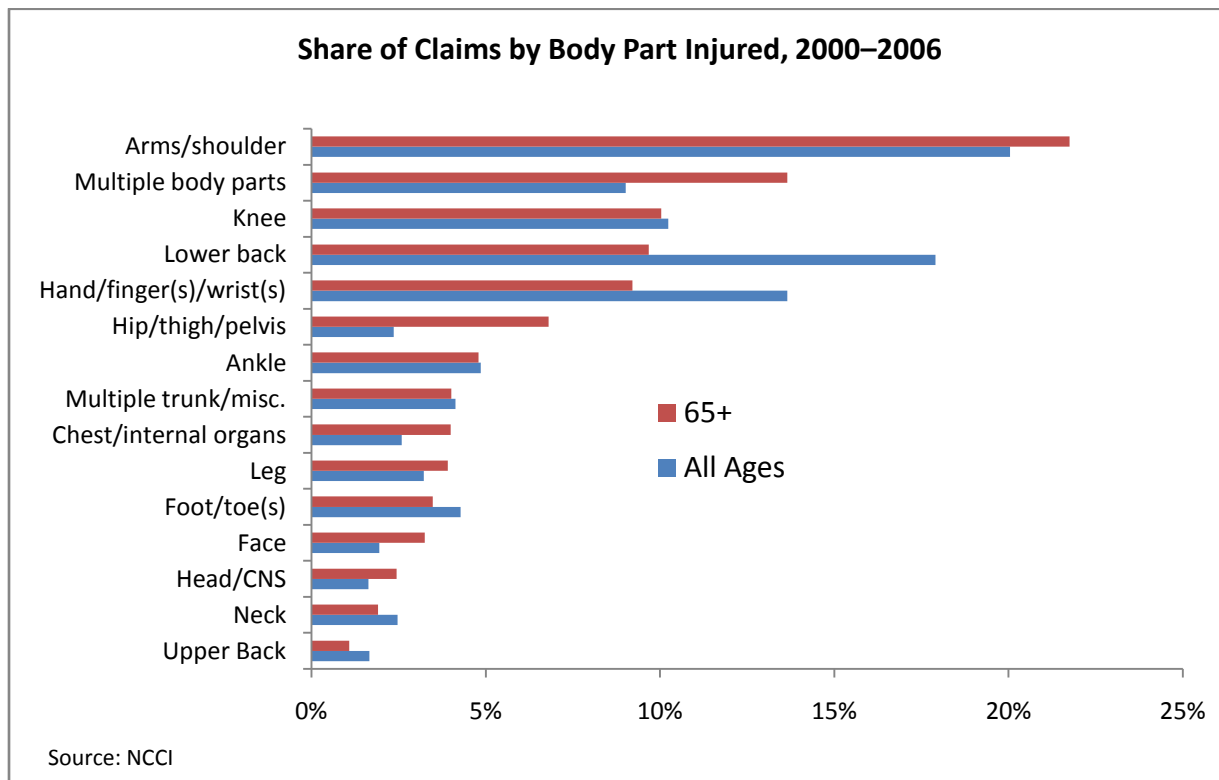


Exhibit 5

Industry. NCCI categorizes covered workers into five broad industry groups. Those groups are manufacturing, contracting, office and clerical, goods and services, and miscellaneous (largely logging, utilities, and transportation services).

The shares of claims for workers aged 65 and older are less than for all workers in the more hazardous manufacturing and contracting sectors (see Exhibit 6). In contrast, workers aged 65 and older have a much larger share of claims in the goods and services industries, where physical demands are much reduced. (The “Goods and Services” sector includes retail and wholesale trade as well as service-sector industries such as education and healthcare, leisure and hospitality services, and “other” services.).

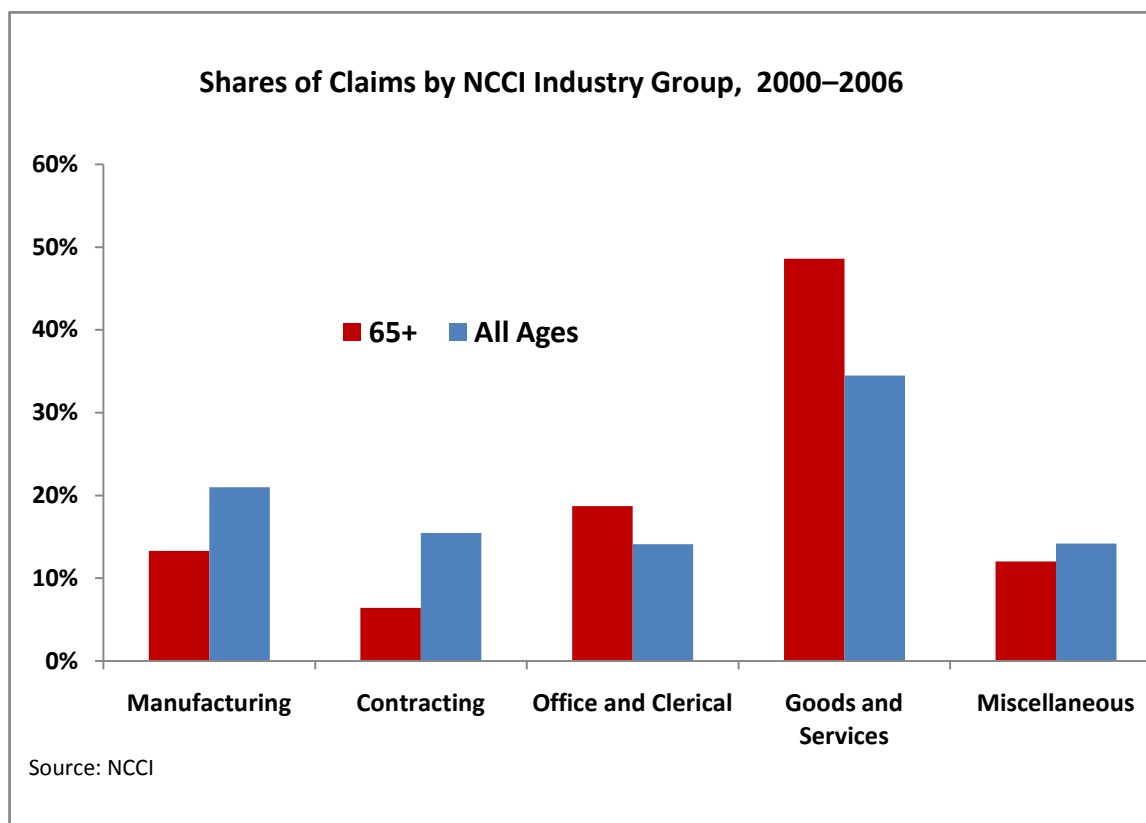


Exhibit 6

As shown in Exhibit 7, there is a close correspondence between the distribution of claims (from NCCI) and cases (from BLS).

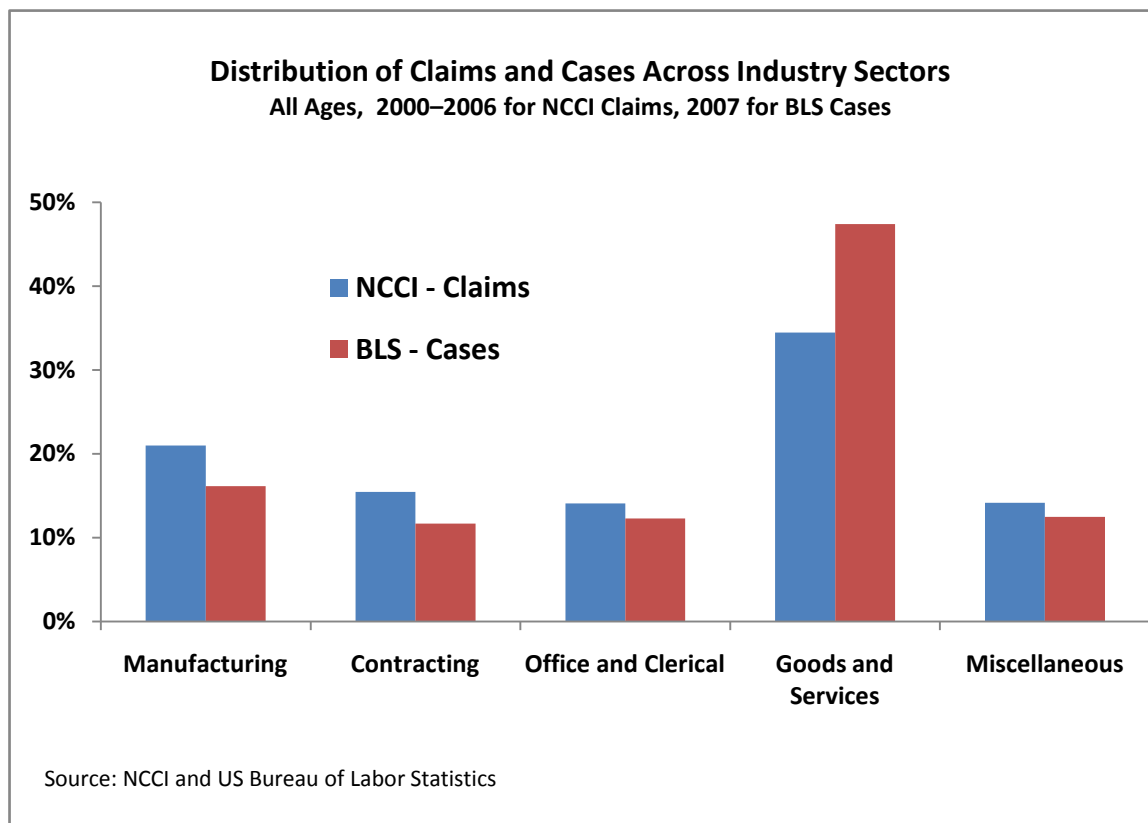


Exhibit 7

Detailed BLS data on the share of cases with days away from work by industry and age shows a pattern similar to NCCI's claims data, with the share of such cases for workers aged 65 and older being substantially lower in the more hazardous industries (e.g., manufacturing and construction) and higher in goods-and-services-related industries, especially retail trade, and leisure and hospitality services (see Exhibit 8).

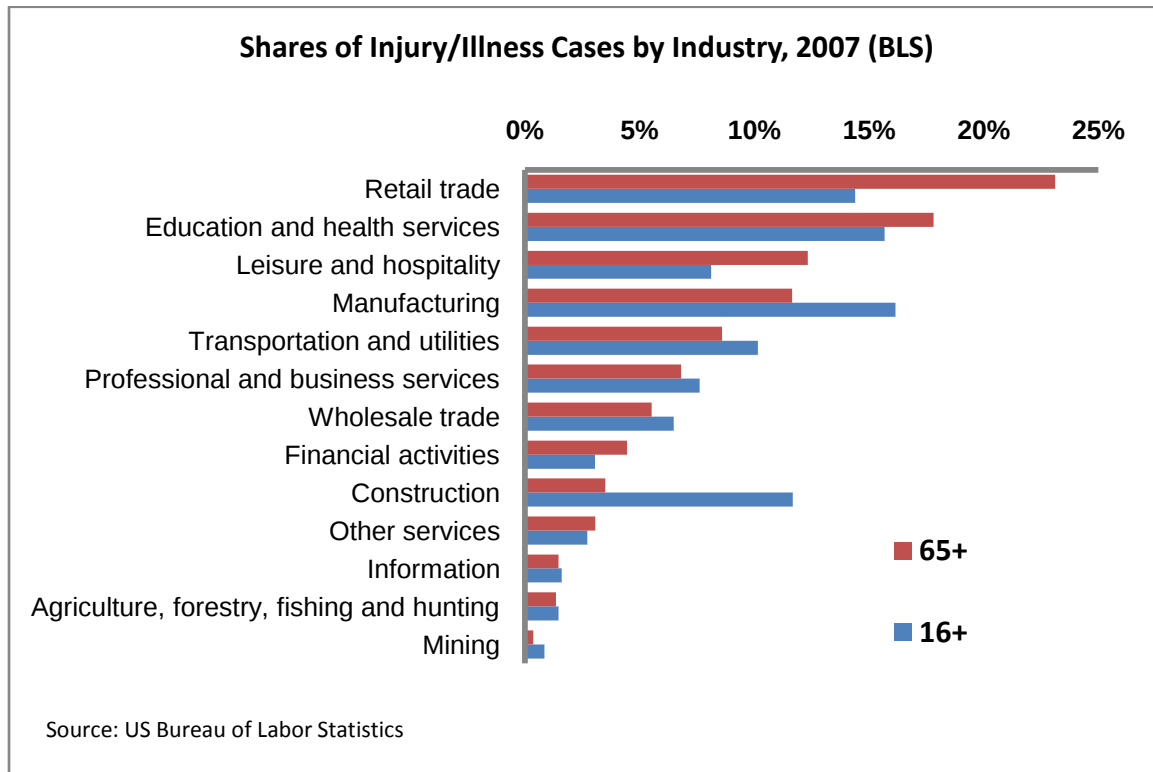


Exhibit 8

Occupation. The BLS also provides breakouts of injury and illness cases by occupation and age. As shown in Exhibit 9, transportation and material-moving occupations have the highest share of injury and illness cases, both for workers aged 16 and older and for workers aged 65 and older.¹¹ However, there are marked differences in the share of cases for older workers in other sectors. For example, in the construction/extraction and production occupations, older workers have a much lower case share than workers aged 16 and older, while in sales and food preparation/service occupations, older workers have a substantially higher share of cases than do workers aged 16 and older.

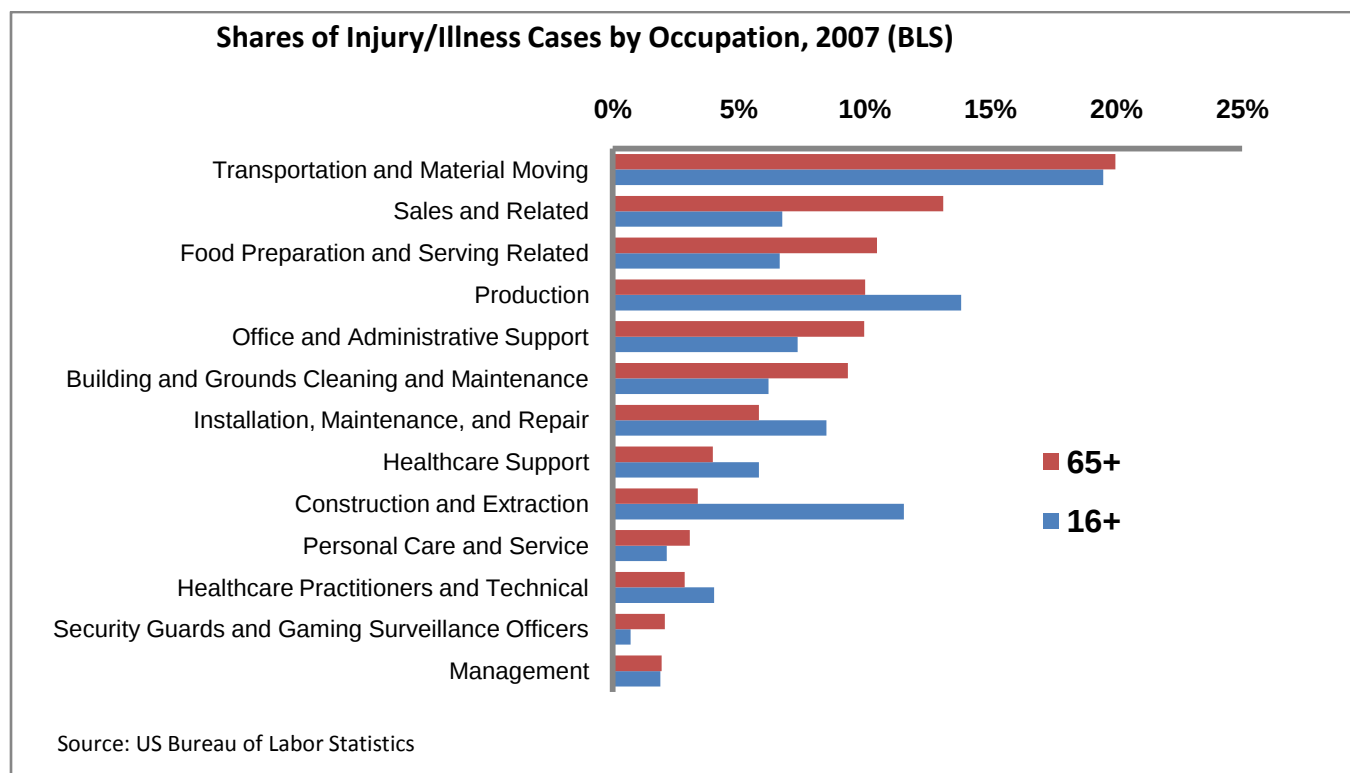


Exhibit 9

Frequency of Injury and Illness Cases

The BLS provides estimates of the frequency of injury and illness cases by age of worker. The BLS defines claim frequency in terms of the “incidence rate” of claims per 10,000 full-time workers. As shown in Exhibit 10, incidence rates average 122.2 cases per 10,000 full-time workers over all age categories. They are well above average for workers aged 20–24 (with an incidence rate of 134.4) and well below average for workers aged 65 and older (with an incidence rate of 96.2). Interestingly, incidence rates for ages 25–64 show only small differences between the various age categories.

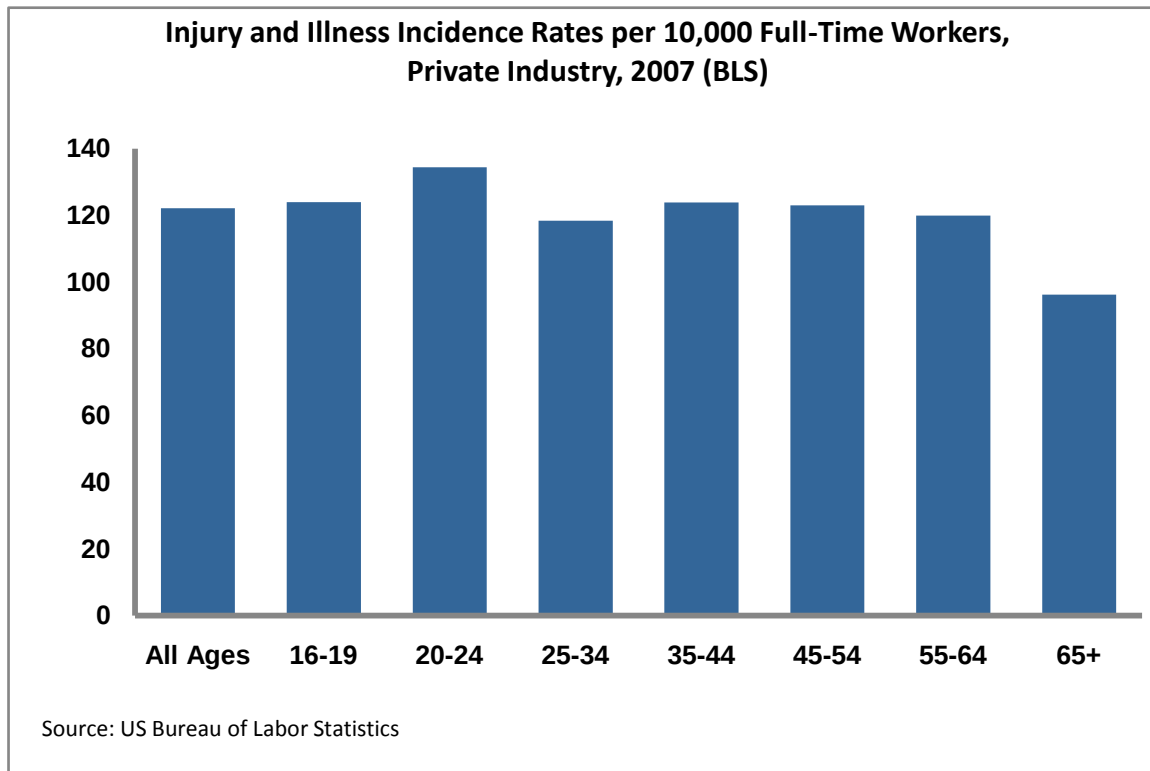


Exhibit 10

Age-related differences in incidence rates are reflective of differences by industry and occupation. For example, Exhibit 11 shows injury and illness incidence rates by major industry sector for workers aged 16 and older and workers aged 65 and older.ⁱⁱⁱ As shown in the chart, incidence rates for workers aged 65 and older are lower for most industries, especially for more hazardous sectors such as manufacturing, construction, and agriculture/fishing/hunting, where older workers would be expected to have less hazardous job responsibilities. The notable exception is leisure and hospitality services—the result of relatively high incidence rates in the accommodation and food service subsector.

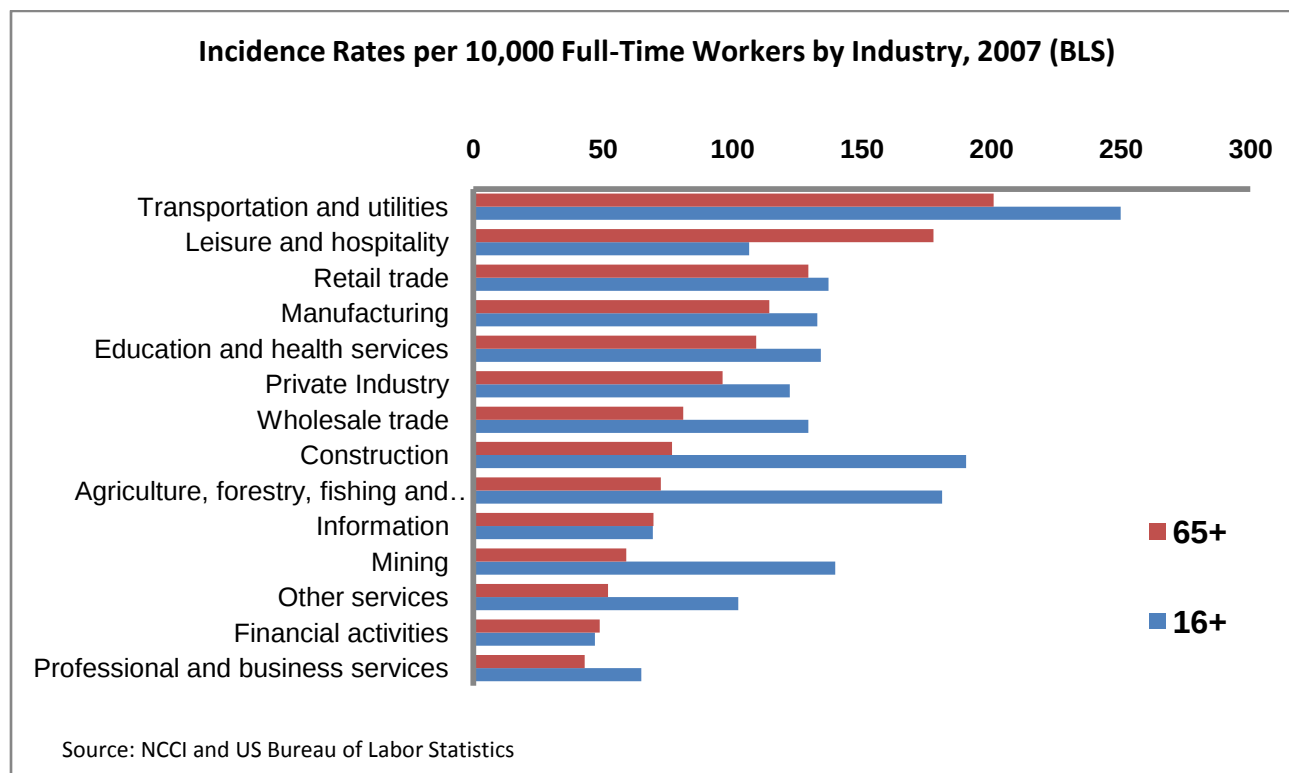


Exhibit 11

Lower incidence rates are also evident on an occupational basis, especially for construction and extraction occupations, possibly reflecting the higher percentage of supervisory employees in the age 65 and older category as well as a difference in occupational mix with the construction sector (e.g., proportionately fewer older workers in roofing and carpentry occupations, which tend to be among the more hazardous occupations in that sector). Consistent with the industry results for the leisure and hospitality sector, incidence rates for older workers are relatively high for food preparation and service-related occupations (see Exhibit 12).

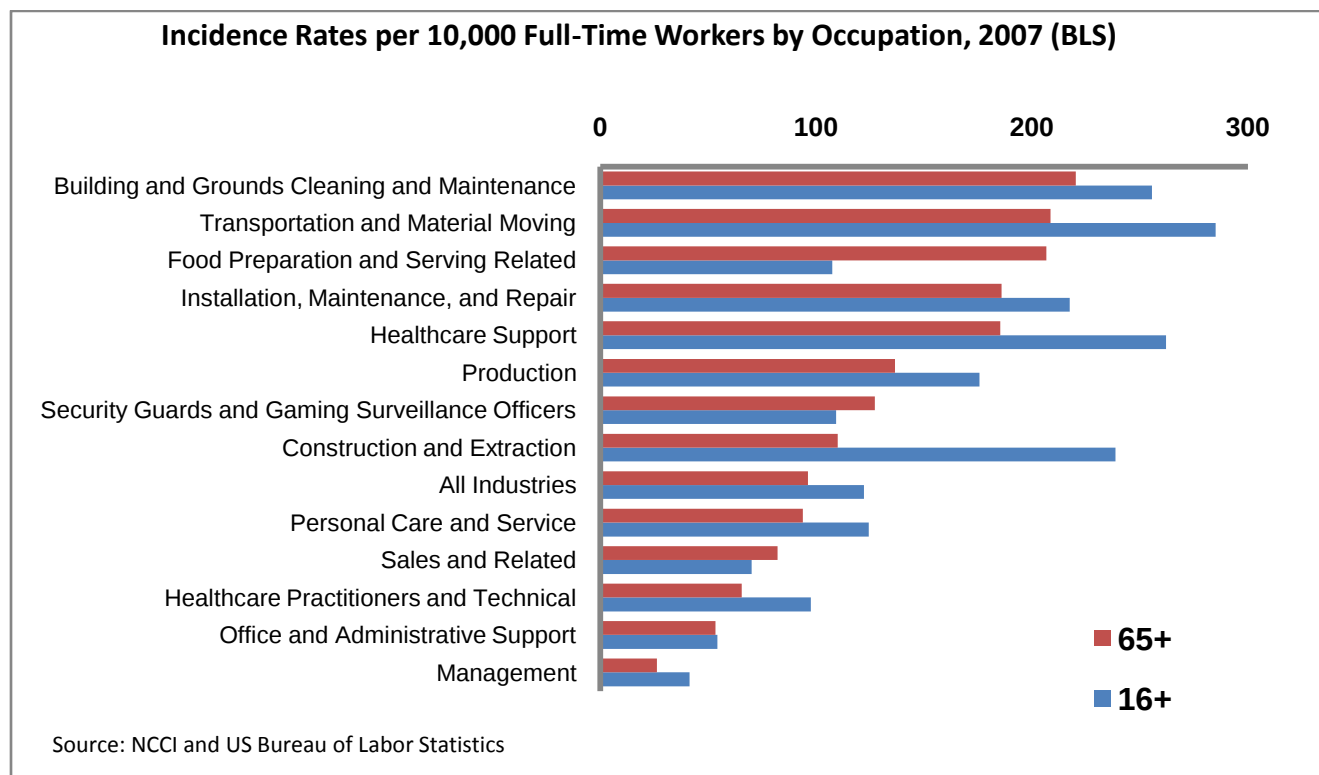


Exhibit 12

Shares of Indemnity and Medical Payments

Shares of indemnity and medical payments for older workers are largely consistent with the claim share data shown in Exhibit 1. That is, payments at the second report for workers aged 65 and older represent a small share of indemnity and medical payments (2.0% and 2.6%, respectively—consistent with the 2.1% of claims attributable to older workers). In addition, payments are greatest for falls, slips, and trips, which, as noted previously, account for 47% of claims for workers aged 65 and older (See Exhibit 13). Note that the data reflects cumulative payments made during 2000–2006 and that the numbers in parentheses are shares of claims for workers aged 65 and older.

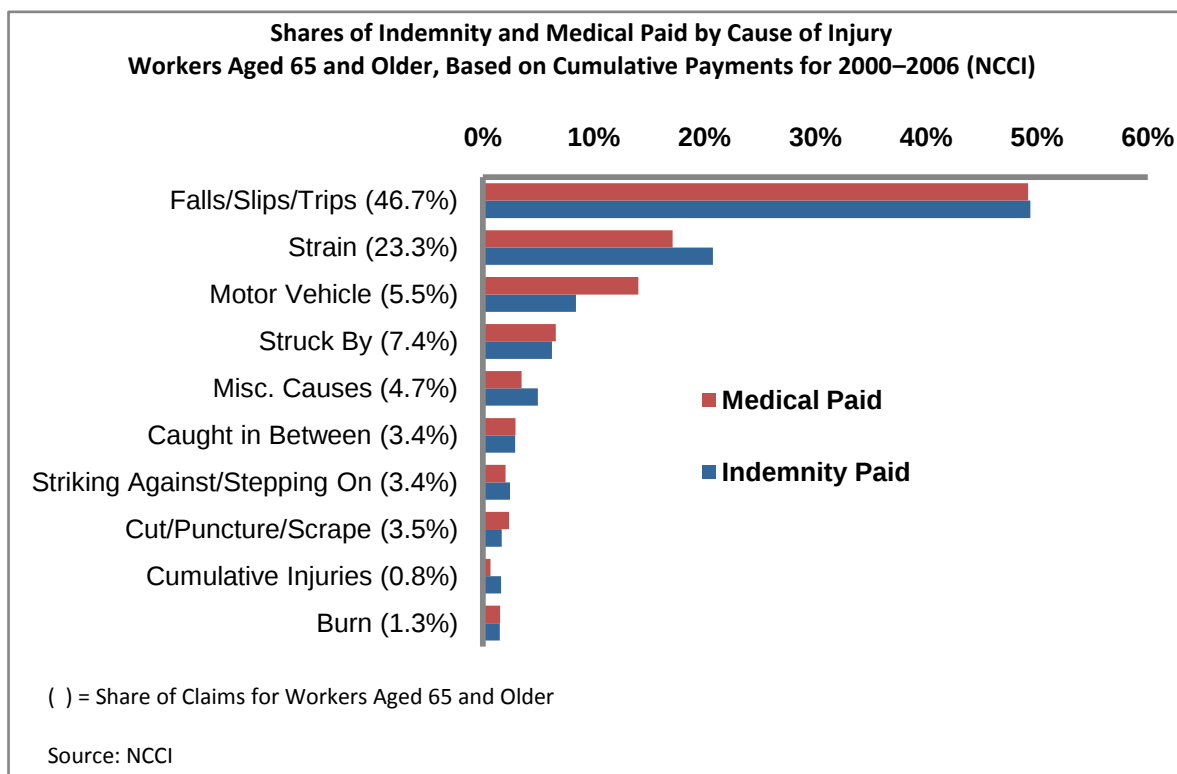


Exhibit 13

Indemnity and medical payments are also highest for injuries associated with slips and falls (mainly fractures and concussions and related injuries—see Exhibit 14). As above, the figures in parentheses are the share of claims for workers aged 65 and older.

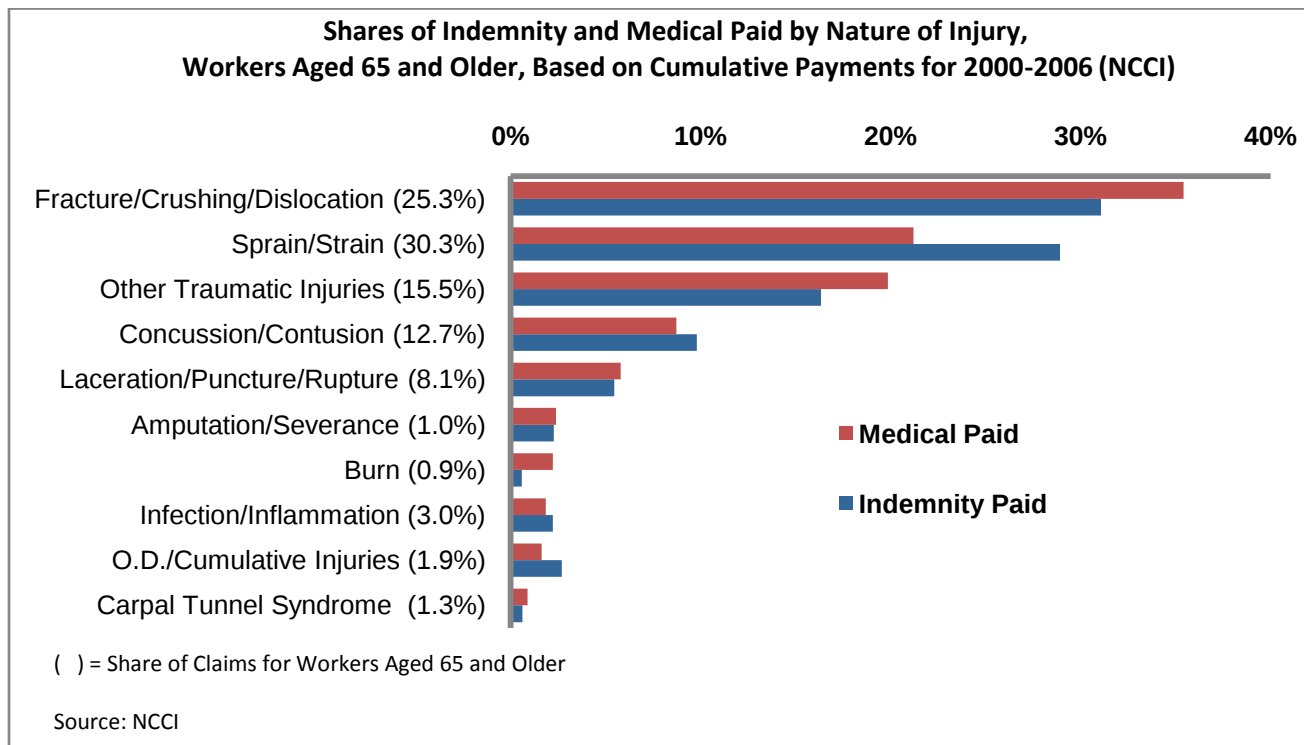


Exhibit 14

Medical and indemnity payment shares by age of workers and NCCI industry group display a similar pattern to that for claim shares. That is, older workers have a relatively smaller share of payments for more hazardous industry groups (i.e., manufacturing and contracting) and a relatively higher share of payments for less physically demanding sectors such as office and clerical and goods and services. Exhibit 15 shows the payment share comparison for indemnity payments. A comparison for medical payments by age and NCCI industry group would show a near-identical graphic.

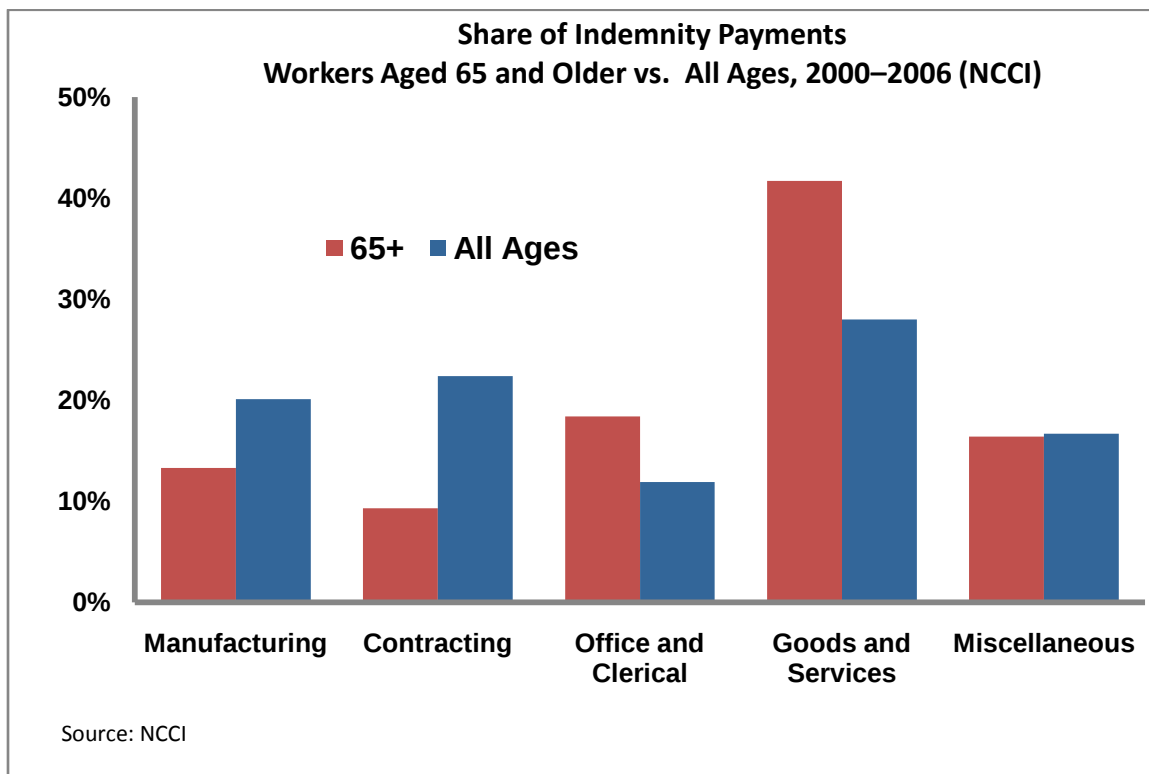


Exhibit 15

Indemnity Severity

Exhibit 16 shows indemnity severity (payments per claim) by age of worker for the period 2000–2006. Indemnity severity is seen to increase steadily with age through age group 45–49. It then stays relatively flat through age group 60–64, after which it declines (by roughly 20%). Viewed relative to all age groups, indemnity severity for workers aged 65 and older is roughly 4% less than that for workers of all ages.

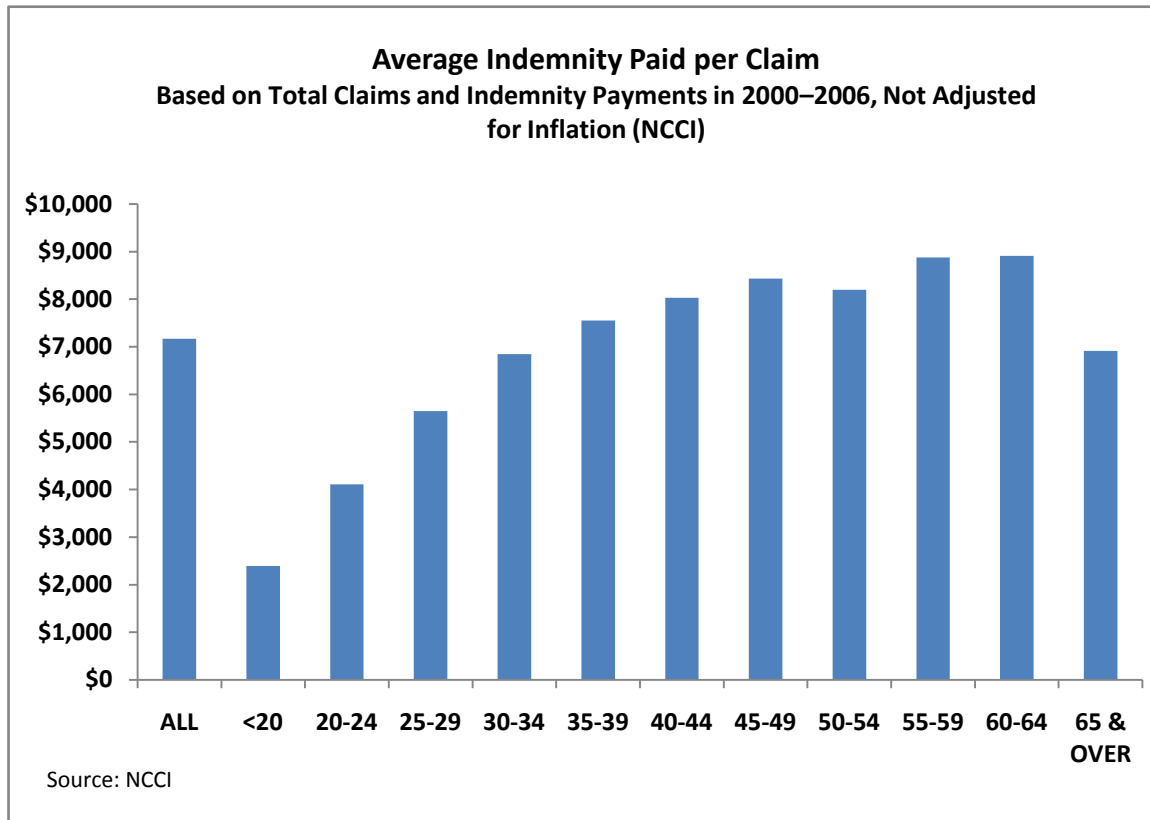


Exhibit 16

This pattern, of older workers having lower indemnity severity, is also evident for most categories of workplace injuries. That is seen in Exhibit 17, which shows indemnity severity relativities by nature of injury. (The relativity measure is computed by dividing the indemnity severity for workers aged 65 and older by that for all workers.) The numbers in parentheses in the chart indicate the share of claims for workers 65 and older. For 96% of claims, older workers have relatively lower indemnity severity. The differential averages –7% for the four injury categories, comprising roughly 85% of claims for older workers (fractures, sprains, concussions, and other traumatic injuries).

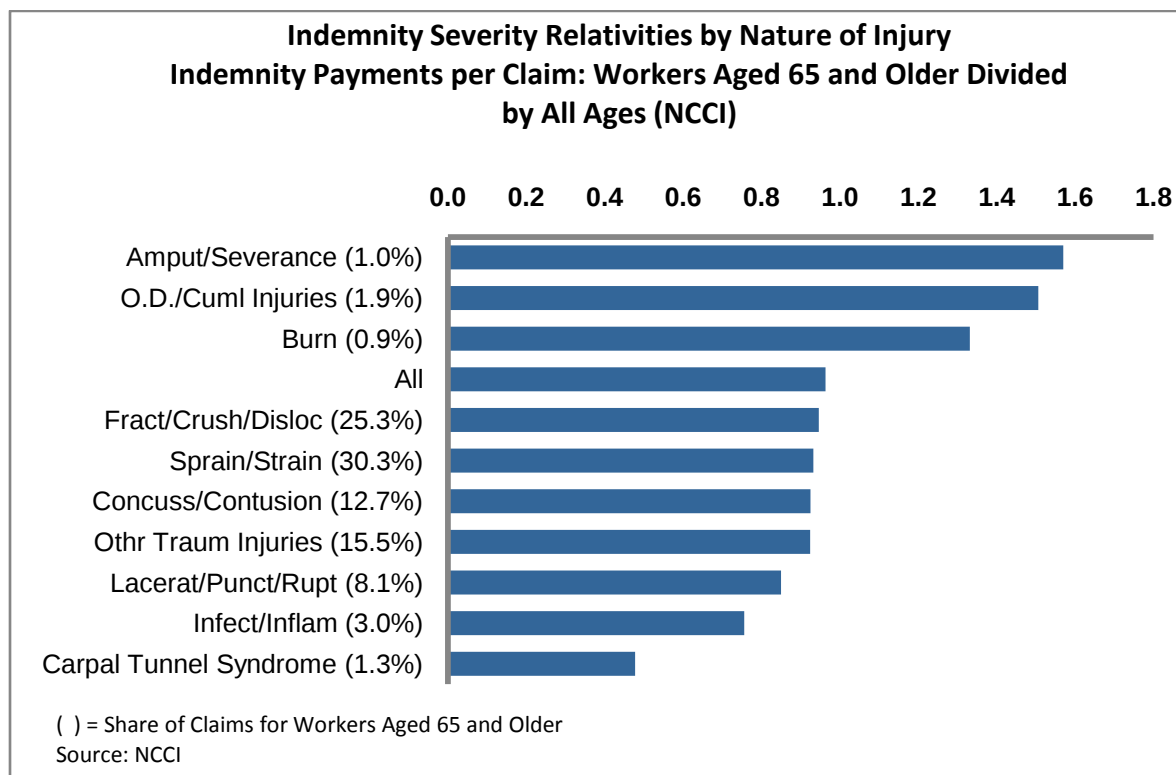


Exhibit 17

Indemnity payments largely reflect two factors—the amount of time away from work and the injured worker's wage (typically limited to a percentage of the state's average weekly wage [AWW]). Both of these factors vary by age of worker.

Median time away from work for a lost-time injury tends to increase by age of worker, according to BLS data (Exhibit 18). The steady rise reflects both the increased healing time needed as persons age as well as the likelihood that older workers may have more tenure on the job and, hence, a greater number of sick days available.

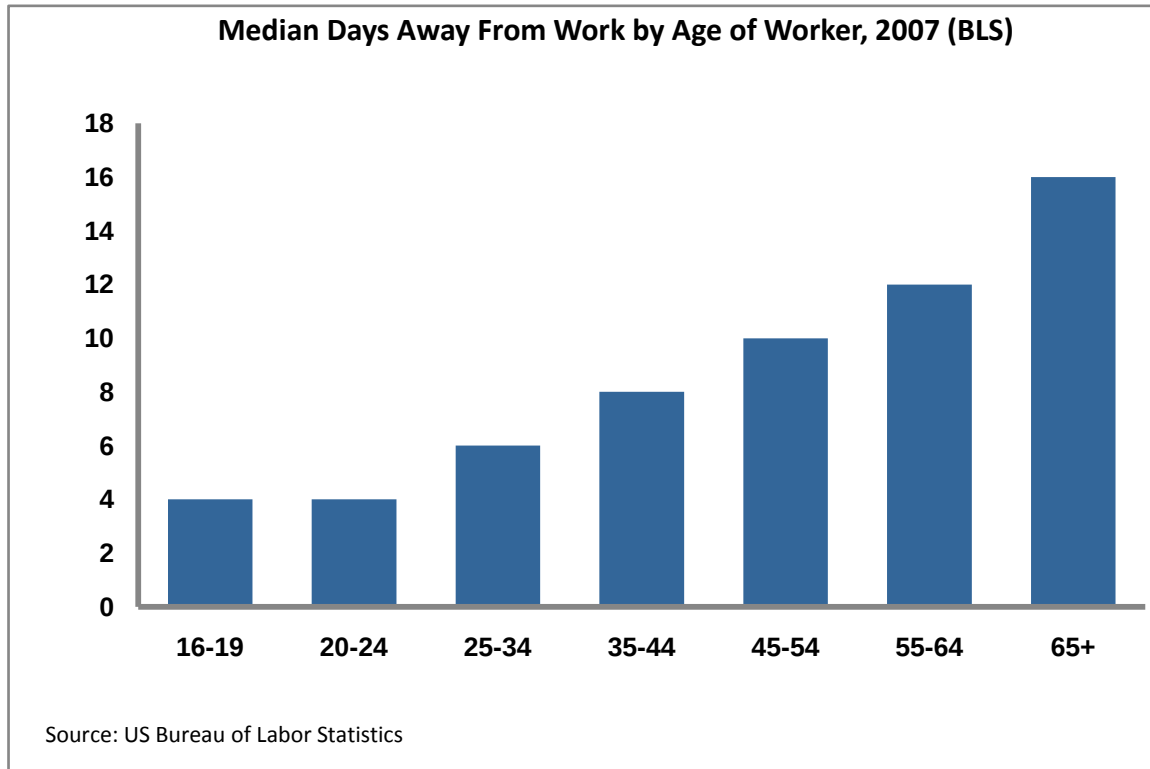


Exhibit 18

The AWW also tends to increase with the age of the worker. However, as shown in Exhibit 19, the AWW reaches a maximum when a worker reaches his/her early 50s and then declines gradually through age group 60–64. It then plummets, by some 30%, for workers aged 65 and older, possibly reflecting older workers taking part-time jobs or working a shortened work schedule after their retirement from full-time employment (although, as discussed in the endnote, this differential may narrow in the future if the percentage of older workers working full-time continues to increase).^{iv}

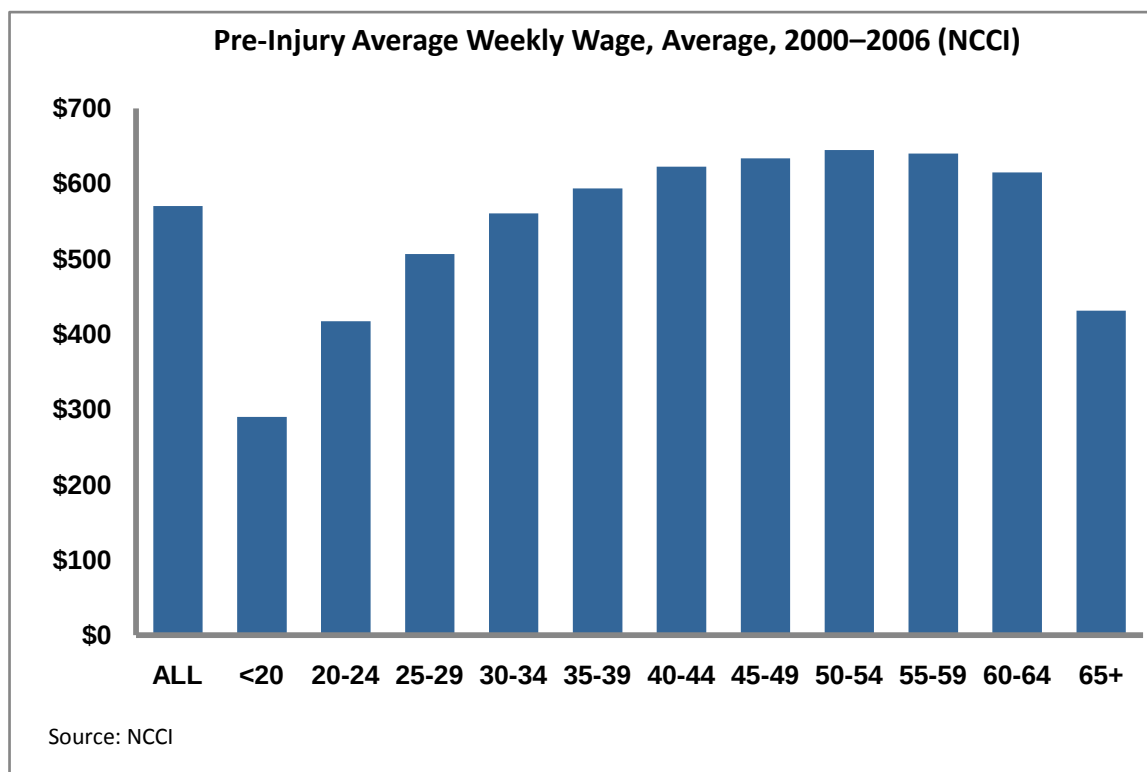


Exhibit 19

The longer duration of injuries for older workers (shown in Exhibit 18) offsets, in part, the impact of the lower AWW for older workers. As a result, the decline in indemnity severity is substantially less than would be the case based solely on wage differences. Exhibit 20 illustrates this relationship in terms of age-specific relativities (the relativities are calculated by dividing the age-specific values of indemnity severity and the AWW for each age group by the respective value for all ages). What the chart suggests is that indemnity severity for older workers would have been 24% less than that for all workers based solely on the lower AWW of older workers. However, with longer durations taken into account, the differential is far less—4%.

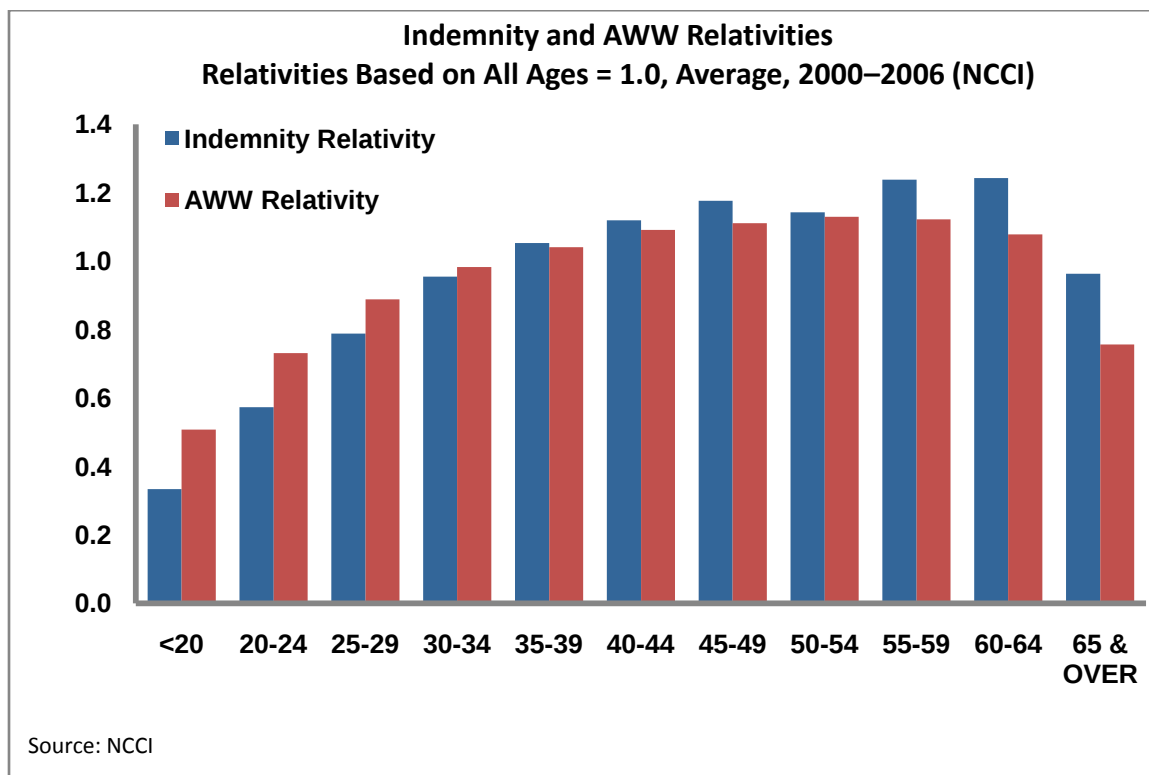


Exhibit 20

Medical Severity

Medical severity (medical payments per claim) show a steady increase by age of worker, with workers aged 65 and older having only slightly higher claim costs than their neighboring age cohorts (Exhibit 21). For the 65 and older age category, medical claim costs are roughly 26% higher than claim costs for all workers.

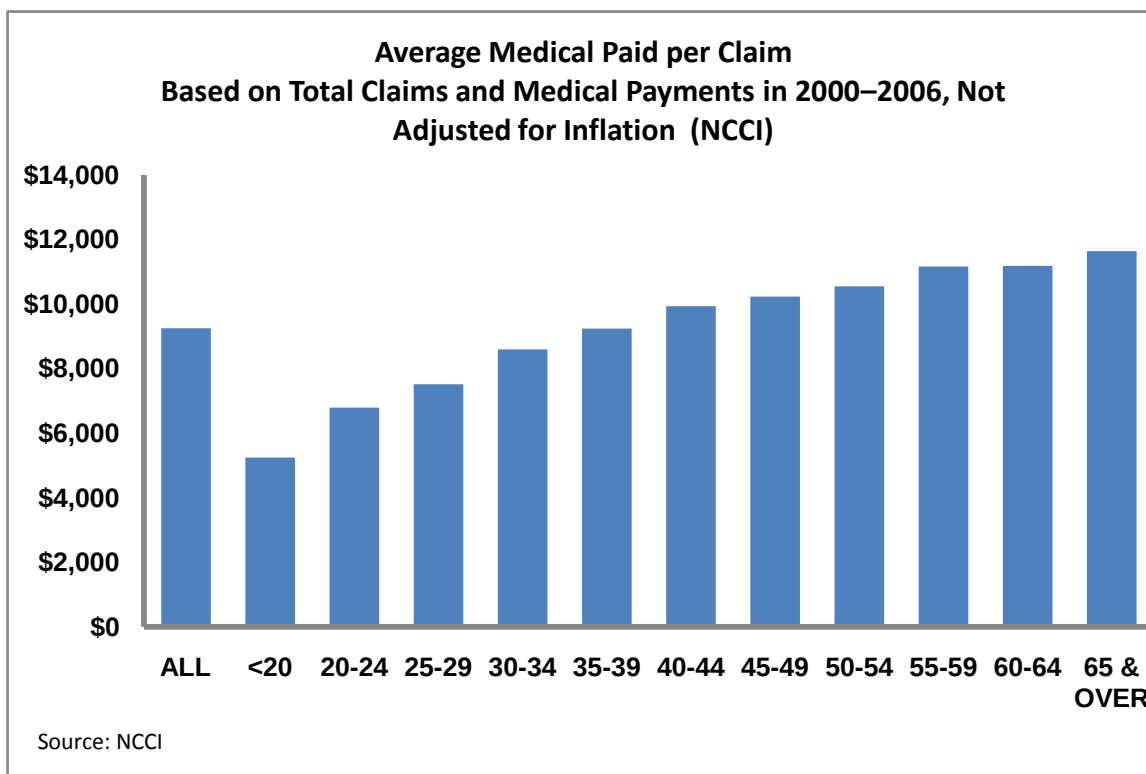


Exhibit 21

Medical severity for older workers is higher than that for workers of all ages for most categories of workplace injuries. That is seen in Exhibit 22, which shows medical severity relativities (medical severity for workers aged 65 and older divided by that for all ages) by nature of injury. As with the similar exhibit for indemnity severity relativities (Exhibit 20) the numbers in parentheses indicate the share of claims for workers aged 65 and older. For 88% of claims, older workers have relatively higher medical severity.

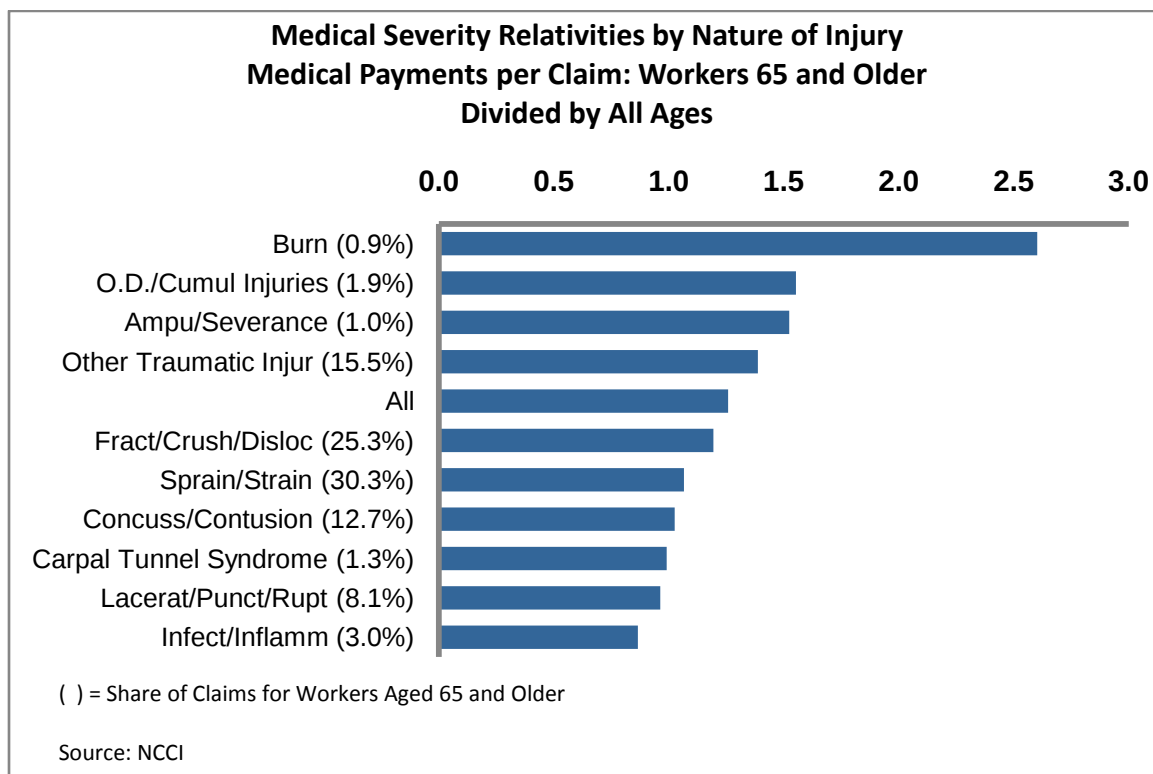


Exhibit 22

Implications for Loss Costs and Safety/Loss Prevention

The small share of indemnity and medical payments for persons aged 65 and older (noted previously to be 2.0% and 2.6%, respectively) suggests that older workers are not a key cost driver for workers compensation. Although the costs for such workers may well increase as a share of total in coming years, any such increases are likely to be incremental and not of a nature to have a material impact on total loss costs.

For safety and loss prevention managers, the increase in the number of older persons in the workforce presents both challenges and opportunities. The challenges reflect the fact that as people age there appears to be a deterioration in factors such as eyesight (in terms of acuity, peripheral vision, and depth/ color perception), hearing, muscle tone (strength, flexibility), reaction time, and mental processes (slower recall rates and less effective short-term memory).^v

The opportunities involve steps that can be taken to reduce the risks in the workplace for older workers that take into account these changing circumstances. For example, to reduce the risks of falls, employers can enhance lighting where necessary, install slip-resistant flooring, and provide handrails (steps that would likely benefit the safety for all workers as well). The installation of noise dampening materials may also help where hearing may be an issue (e.g., on the factory floor). Employers can also provide wellness and exercise programs and provide information and support for common health problems that may affect older workers (such as arthritis and adult-onset diabetes).

Conclusion

Since the late 1980s, there has been a gradual rise in labor force participation rates among persons aged 65 and over. That increase may well accelerate in the near-term, as the recession and related financial and real estate market declines may cause many workers to reconsider their retirement plans.

Although the share of workers compensation claims and payments for workers aged 65 and older is relatively small, the thrust of recent developments as concerns older workers suggests taking a closer look at their workers compensation characteristics. This study has done that, describing how workers aged 65 and older differ from all workers in terms of their distribution of claims, claim frequency, and indemnity and medical payments and severity.

“Falls/slips/trips” were seen to be the greatest cause of injury among older workers (versus sprains and strains for all workers). Older workers were also shown to have a smaller share of their claims in the more hazardous industries and occupations than workers in general. BLS data indicated that claim frequency is generally less for older workers, although older workers had substantially higher frequency in the leisure and hospitality industry and related food service occupations. Indemnity severity was also less for older workers, largely because of the lower average weekly wage of such workers. In contrast, medical severity was shown to be higher for older workers, although the differential between workers aged 65 and older and nearby age cohorts is small. Finally, shares of medical and indemnity payments of older workers were seen to have a close relationship to their share of claims.

Appendix A

Factors Underlying the Increasing Labor Force Participation of Older Workers

Major factors that help to explain the rise in labor force participation rates among older workers include:

- Changes in Social Security and other legislation
- The shift toward defined contribution plans (and away from defined benefit plans)
- Improved health of older workers and the decline in physically demanding jobs
- Increases in life expectancy/rising cost pressures

In addition, the severity of the economic downturn in 2008–2009, along with the plunge in the stock market and home prices, are likely to accelerate the rise in participation rates among older workers in coming years.

A brief discussion of each of these factors follows.

Changes in Social Security and Other Legislation

A number of changes in Social Security since 1983 have encouraged “senior citizens” to keep working:

- In 1983, Congress increased both the normal retirement age (from 65 to 67 for those born after 1960) and the delayed retirement credit (a credit on benefits for those who retire after their normal retirement age).
- In 2000, the earnings test was abolished for those between their “normal” (i.e., full) retirement age and age 70. Previously, earnings within defined ranges were subject to withholding for all persons younger than 70.

A recent study found that changes in Social Security rules between 1992 and 2004 increased the labor force participation rate among married men aged 65 to 67 by “between 1.4 and 2.2 percentage points (2-to-4%) depending on age.” The study also found that Social Security changes accounted “for about one sixth of the increase in labor force participation between 1998 and 2004, for married men aged 65 to 67.”^{vi}

The abolition of mandatory retirement laws may have also increased labor force participation rates among older workers. Such laws were outlawed by Congress in 1978 for all persons younger than age 70 (in firms of 20 or more employees) and in 1986, mandatory retirement was abolished for all ages.

Shift From Defined Benefit to Defined Contribution Pension Plans

Another factor contributing to the increase in labor force participation rates among older workers is the accelerating shift away from defined benefit pension plans, which provide a guaranteed future benefit based on a predetermined formula, to defined contribution plans. In those latter plans, the employer, and possibly the employee as well, make specified payments into the employee’s account, but with no guarantee as to future benefits. That shift is shown in Exhibit A1, where the share of defined benefit plans (relative to the sum of defined contribution and defined benefit plans) declined from 33% to 27% between 1975 and 1985 and then plunged to 10% in 1995 and 7% in 2005.^{vii}

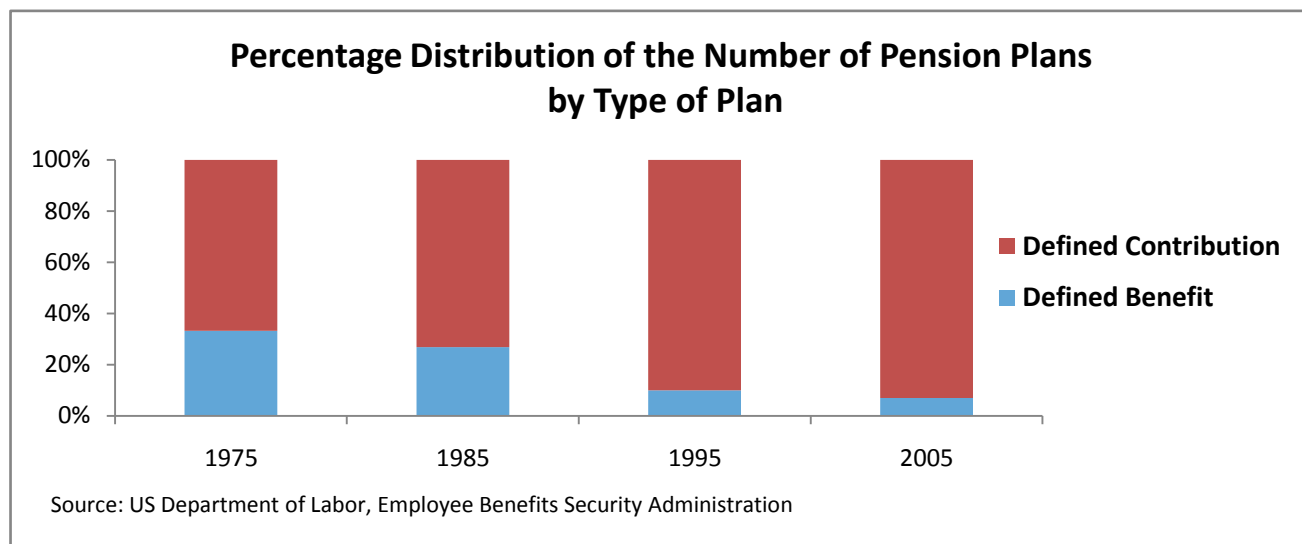


Exhibit A1

By their very nature, defined contribution plans are subject to swings in financial markets, which make it more difficult to plan for retirement (see discussion on the implications of the recent plunge in stock prices in a subsequent section, below). Moreover, as discussed in the endnote, defined contribution plans may not provide nearly the same retirement benefits as defined benefit plans because participants are unlikely to have the knowledge and expertise to manage those plans effectively.^{viii}

Improved Health of Older Persons

Part of the reason that workers are increasingly staying on the job is that they are healthier. Indeed, according to data from the National Health Information Survey, the percentage of persons aged 65 to 74 reporting that they are in “fair or poor” health has declined from 32.5% to 22.9% between 1982–1984 and 2005–2007, the latest years for which data is available (see Exhibit A2).^{ix}

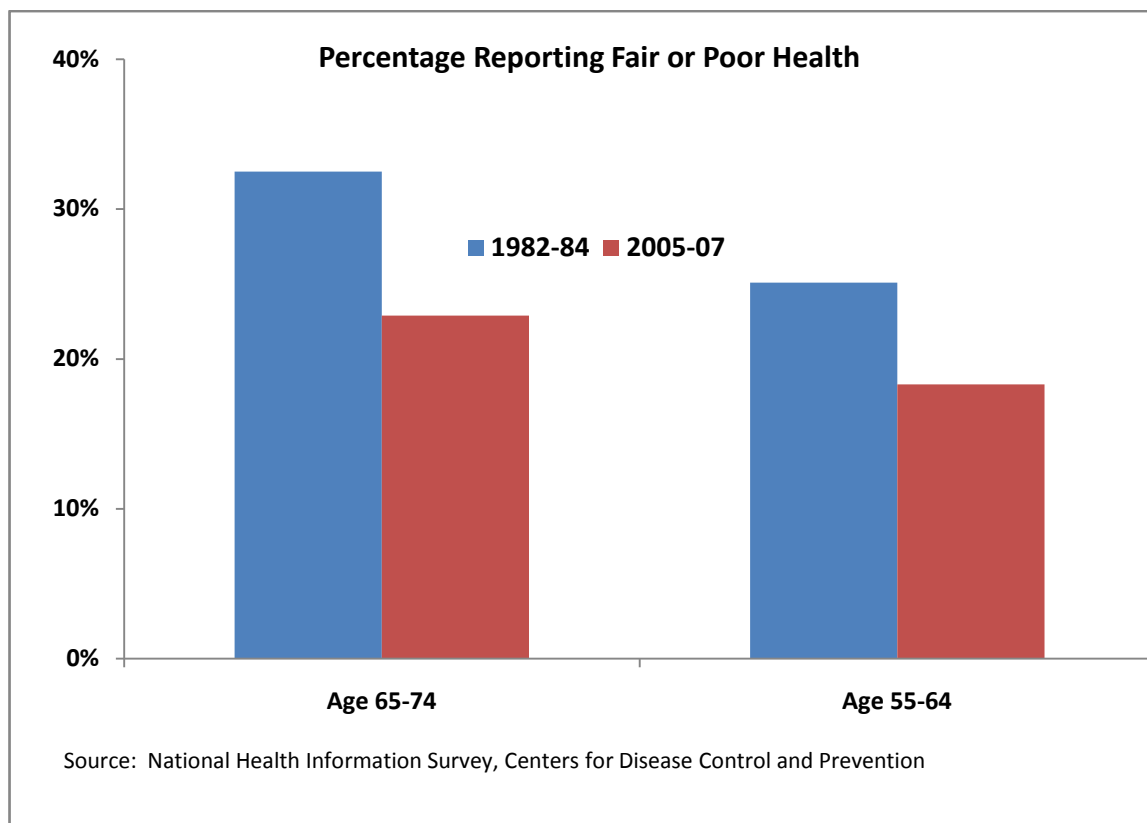


Exhibit A2

Poor health has been shown to promote retirement by making work more difficult and by reducing a worker’s earning potential.^x

Less Physically Demanding Jobs

Another factor that may motivate older workers to remain on the job is that jobs have become less physically demanding. For example, between 1950 and 1996, the share of US workers in physically demanding jobs declined from about 20% to 8%. (Physically demanding jobs were defined as “lifting more than 50 pounds occasionally and 25 pounds frequently.”) Subsequent research found that from 1992 to 2002, the share of men between ages 55 to 60 reporting that their jobs never or almost never required a lot of physical effort increased 8 percentage points (from 30.7% to 38.7%), an increase of 26%.^{xi}

These results may partly reflect the declining share of manufacturing-to-total employment. In 1950, that share was 31% versus 14% in 1996 and 12% in 2002 (and 10% in 2008).^{xii} In addition, the integration of computers into the manufacturing process and advances in ergonomics and workplace design have also likely played a role in reducing the physical demands on workers of all ages.^{xiii}

Increased Life Expectancy/Rising Cost Pressures

As shown in Exhibit A3, the average number of years remaining to be lived for persons who have reached ages 60, 65, and 70 has been increasing over time. For example, for persons who have reached age 65, the number of years remaining to be lived has increased from nearly 12 years in 1900–02 to nearly 19 years in 2004.^{xiv}

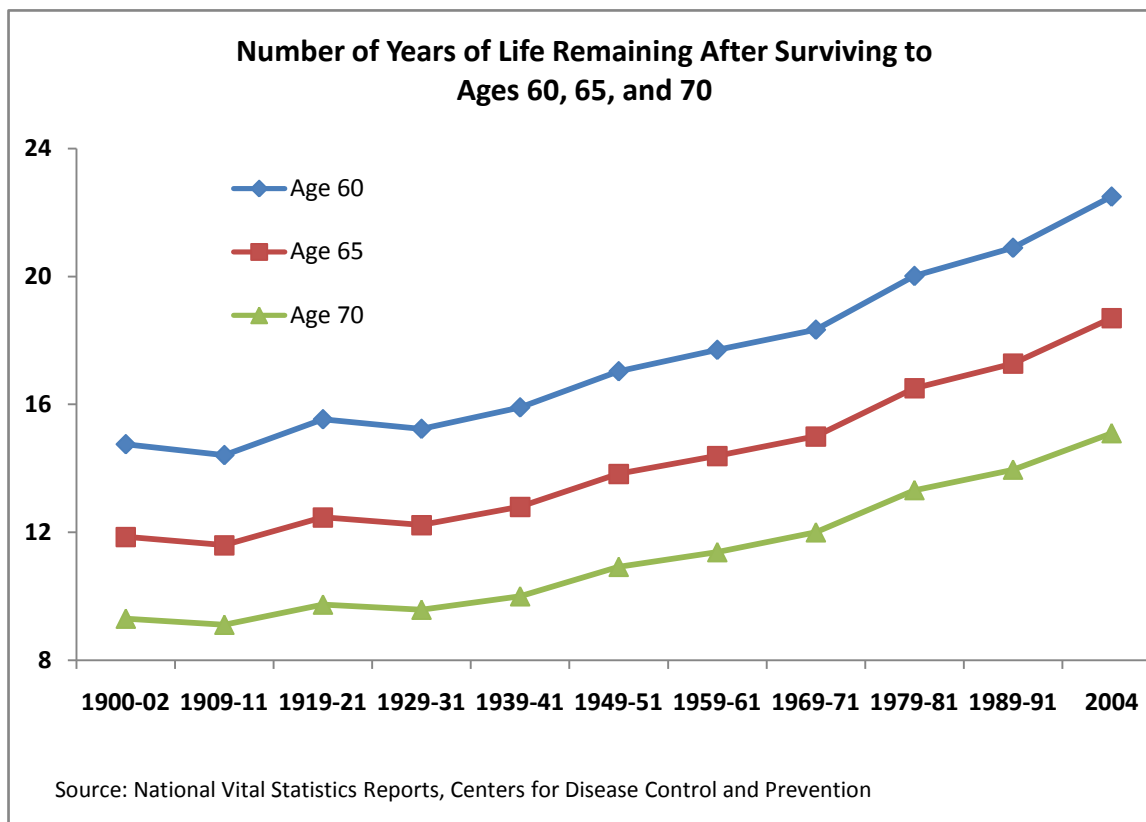


Exhibit A3

Longer life expectancy means more years of funding basic living costs, such as food, shelter, and healthcare. Indeed, the costs of healthcare are pushing ever higher (see Exhibit A4), increasing strains on retirement budgets. Those costs have been increasing 5.2% a year between 1990 and 2007, far outstripping the 2.8% annual increase in the Consumer Price Index, to which Social Security benefits are indexed.

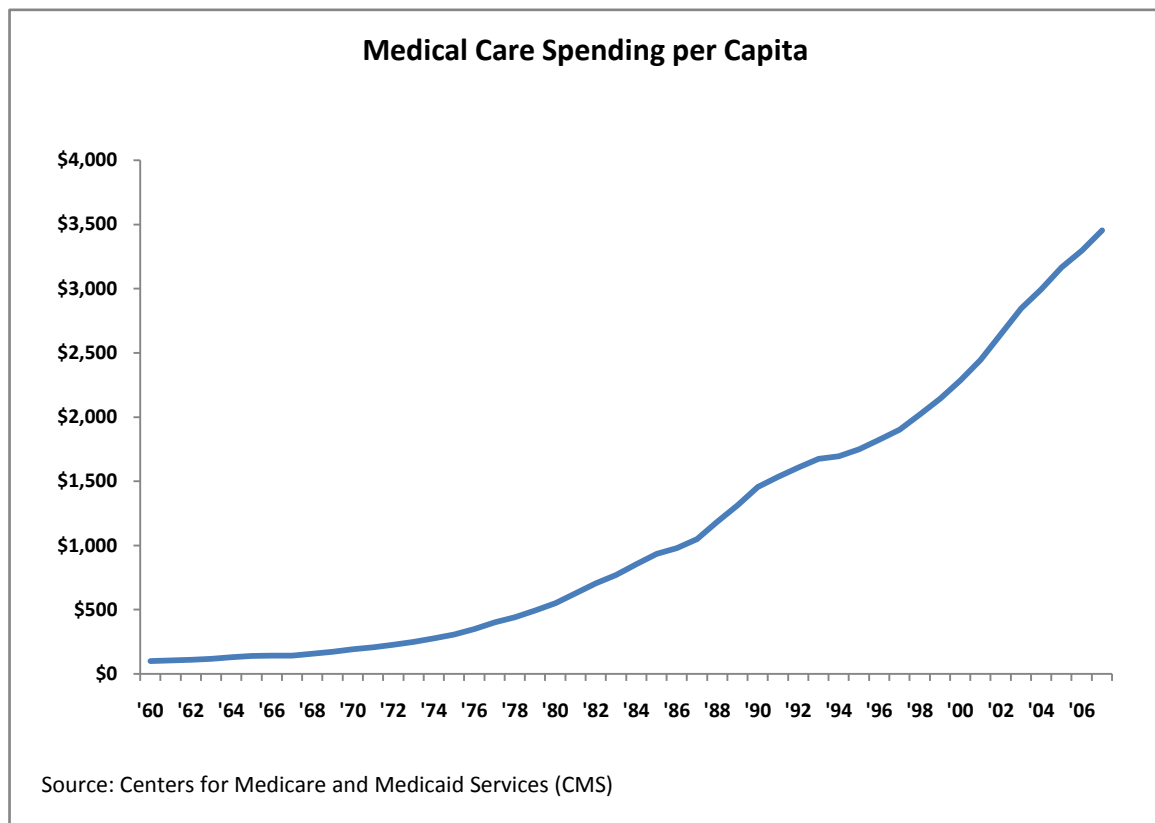


Exhibit A4

Recent Economic Developments

The rate of increase in labor force participation rates is likely to accelerate in coming years as the bursting of the housing bubble and the plunge in the stock market have led to a dramatic decline in household net worth^{xv} (see Exhibit A5). Moreover, according to an Urban Institute analysis, the median value of retirement accounts of persons aged 50 and older declined from \$105,800 in 2007 to \$89,300 in 2008, a drop of 16%. That study also showed that persons aged 65 to 69 have 50% of their retirement savings in common stock (the percentage falls to 25% for persons aged 70 and older).^{xvi}

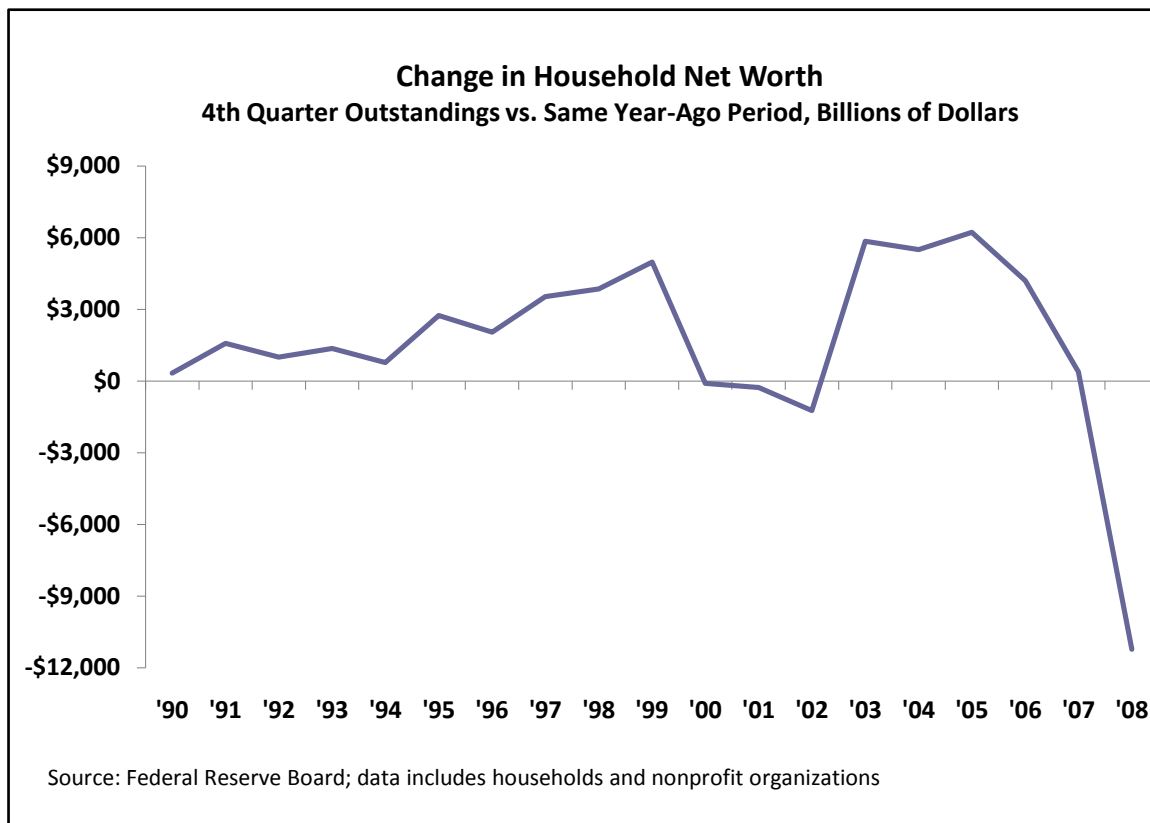


Exhibit A5

The loss in net worth combined with the recession and the increases in the cost of living have led workers to reassess their retirement plans, according to a January 2009 survey by the Employee Benefit Research Group. The survey found that 28% of workers said that the age at which they plan to retire has changed in the past year. Moreover, of those workers, 89% say they have postponed their retirement with the intention of increasing their financial security, and 72% of workers surveyed said they plan to work for pay during their retirement years, up from 66% in 2007.^{xvii}

End Notes

- ⁱ This report uses data on lost-worktime claims from NCCI's Detailed Claims Information (DCI) database and information on injury and illness cases with days away from work from the US Bureau of Labor Statistics.

The DCI is a stratified random sample of approximately 50,000 claims per year collected from all NCCI states and participating independent bureaus. The actual data used is for the period 2000–2006, as of the second report—that is, 18 months after the injury is reported to the insurance carrier. The claims data was grouped because of the relatively small number of claims for persons 65 and older when the data is viewed on an annual basis.

The US Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses produces annual estimates of the number of lost-time injury and illness cases and related incidence rates (that is, the number of cases per 10,000 full-time workers). The latest data at the time this research was performed was for the year 2007. The survey data is provided by responding employers (roughly 176,000 establishments are surveyed), based on Occupational Safety and Health Administration logs. Note that for the BLS, a lost-time case involves at least one day away from work, unlike NCCI data, where a waiting period threshold first has to be met (with the length of the threshold varying from state to state).
- ⁱⁱ Within the "Transportation and Material Moving" occupational category, the two largest subcategories for both workers aged 16 and older and workers aged 65 and older are "driver/sales workers and truck drivers" and "moving freight stock and other material by hand." Nearly 44% of injury and illness cases among workers 16 and older involve drivers/sales workers and truck drivers versus 48% for workers aged 65 and older. For "hand-related" material moving occupations, the respective percentages are 35% and 21%.
- ⁱⁱⁱ The BLS provides incidence rates by age grouping only at the total (i.e., private industry) level. Incidence rates by *detailed* industry and occupational categories are provided by the BLS only for workers aged 16 and older. Those rates are based on the number of cases in each industry and occupational category divided by full-time employment in that category. For workers aged 65 and older, NCCI developed incidence rates using the following methodology:
 1. We first calculated the share of cases by detailed industry and occupation using BLS case data (which is available for all age groupings).
 2. We calculated the shares of workers in each industry or occupation for ages 16 and older and then for ages 65 and older from the Current Population Survey.
 3. We then estimated full-time employment for workers aged 65 and older by multiplying the full-time employment data for workers aged 16 and older (calculated from BLS data) by the ratio of the share of workers aged 65 and older to the share of workers aged 16 and older using data from the Current Population Survey.
 4. We then calculated the share in each industry or occupation for full-time workers aged 65 and older.
 5. Incidence rates for workers aged 65 and older were then calculated by dividing the share of cases of such workers by their share of (estimated) full-time employment and then multiplying the quotient by the private sector incidence rate for workers aged 65 and older (96.2).
- ^{iv} BLS data (for the year 2007) indicates that 92% of men and 79% of women aged 55–61 are employed full-time. In contrast, the full-time percentages for men and women decline to 70% and 53%, respectively, for ages 65–69 and to 55% and 41%, respectively, for ages 70 and older. Interestingly, however, the percentage of older persons working full-time has increased substantially since the Social Security earnings cap was eliminated for persons reaching their "normal" retirement age. For example, the percentage of men aged 65–69 working full-time increased from 57% in 1999 to 70% in 2007. For women, the increase was from 44% to 53%. All of this suggests some narrowing in the difference between the AWW for workers aged 65 and older and that of workers in nearby (younger) age cohorts going forward. For additional information on hours worked for older workers, see Gendell, Murray, "Older workers: increasing their labor force participation and hours of work," *Monthly Labor Review*, January 2008.
- ^v These physical effects of aging are discussed in a joint publication of the American Society on Aging and the National Highway Traffic and Safety Administration, *DriveWell, Promoting Older Driver Safety in your Community*, January 2007 (see in particular page 10).
- ^{vi} Gustman, Alan L., and Thomas Steinmeier, "How Changes in Social Security Affect Recent Retirement Trends," *National Bureau of Economic Research Working Paper 14105*, June 2008.
- ^{vii} Estreicher and Gold suggest that the decline in defined benefit plans is the result of three developments: (1) the "headlong flight" of two-thirds of the sponsors of smaller plans that began in the mid-1980s due to legislatively mandated increases in costs (largely administrative in nature); (2) a weakening in the manufacturing and transportation services industries that caused many firms in those industries to close their plans for financial considerations; and (3) the closing of plans by financially sound firms for the "stated purposes of bringing their compensation costs in line with those competitors without an active defined benefit plan and of controlling the volatile year-to-year increases in the cost of

funding a maturing plan.” See Estreicher, Samuel and Laurence Gold, “The Shift from Defined Benefit to Defined Contribution Plans,” *Lewis and Clark Law Review*, Vol. 11, No. 2, 2007 (pp. 332–333).

- viii Estreicher and Gold cite a 2006 study by Munnell and Sunden that indicated that 401(k) plans are unlikely to match the benefits provided by defined benefit plans: “Although workers in theory could accumulate substantial pension wealth under 401(k) plans, in practice they do not. Balances—even for long-service employees—are substantially less than those produced by even the most sophisticated simulations. The reason for these low balances appears to be that the entire burden is on employees, and they make mistakes at every step along the way. A quarter of those eligible to participate in a plan fail to do so. Less than 10% of those that do participate contribute the maximum. Over half fail to diversify their investments, many overinvest in company stock, and almost none rebalance their portfolios in response to age or market returns.” See Munnell, Alicia H., and Annika Sunden, “401(k) Plans Are Still Coming Up Short,” Center for Retirement Research at Boston College, March 2006.
- ix Data from the National Health Information Survey is available from the CDC Web site, www.cdc.gov.
- x See, for example, Bound, John, Michael Schoenbaum, Todd R. Stinebricker, and Timothy Waidmann, “The Dynamic Effects of Health of Labor Force Transitions of Older Workers,” National Bureau of Economic Research Working Paper No. 6777, Cambridge, MA, 1998.
- xi Johnson, Richard W., “Trends in Job Demands Among Older Workers, 1992-2002,” *Monthly Labor Review*, 127 (7), 2004.
- xii Based on annual data from the US Bureau of Labor Statistics.
- xiii Johnson, Richard W., Gordon B.T. Mermin, and Matthew Resseger, “Employment at Older Ages and the Changing Nature of Work,” The Urban Institute November 2007.
- xiv National Vital Statistics Reports, Centers for Disease Control and Prevention
- xv The S&P 500 stock price index declined by 51% between October 2007 and March 2009, while home prices, according to the Case-Shiller index, have declined by 27% in that same period.
- xvi Source: Johnson, Richard W., Mauricio Soto, and Sheila R. Zedlewski, “How Is the Economic Turmoil Affecting Older Americans?,” The Urban Institute, October 2008.
- xvii The EBRI survey has been conducted annually for the past 19 years. According to the April 14, 2009 ERBI press release, the survey was “conducted though 20-minute random-digit interviews with 1,257 individuals aged 25 and older in the United States.”

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