



LOST WORK TIME AND OLDER WORKERS

INSIGHTS FROM IBI'S BENCHMARKING DATA

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THE ISSUE

Older workers remain highly productive members of the labor force, as reflected in their wages and contributions to business outcomes. As the workforce ages, employers looking to maximize the value of their workforce and to make proper investments in employee health need to more fully understand how age fits into the health and productivity equation.

EVIDENCE

We use data on lost-time benefits from IBI's Health and Productivity Benchmarking program reflecting the experiences of 52,000 employers. Analyzing short-term disability (STD), long-term disability (LTD), federal Family and Medical Leave Act (FMLA) and workers' compensation (WC) claims, we examine how age impacts the reasons for work absence and for the associated lost-time durations. Although practitioners may think that older workers have higher leave incidence and longer durations for all types of health conditions, the data tell a different story. We find that:

- Excluding pregnancy and child bonding claims, older workers (aged 55 and up) surprisingly do not account for a majority of claims. Older workers account for between 23% - 42% of FMLA, STD and LTD claims, and only 17% of WC claims.
- Cancer claims generate the greatest proportion of STD lost workdays among older workers, but relatively few lost workdays among young workers (aged 18-34). Compared to workers under age 55, osteoarthritis, COPD and coronary heart disease also generate a relatively large number of STD days among older workers. Similar patterns are observed among LTD claims.
- Younger workers lose more STD time from work for depression and anxiety. Not surprisingly, they also lose more time from work for sprains and fractures.
- Lost work time does not follow age for all conditions. Low back pain takes a more similar productivity toll across STD claimants of all ages.

- Sprains account for about half of all WC temporary total disability (TTD) lost workdays, regardless of the claimant's age. The types of sprains differ by age, with older employees more likely to lose work time from job-related shoulder sprains and workers under age 55 more likely to lose work time from back/neck sprains. Fractures account for more WC lost workdays among older workers than among workers under age 55.
- When an older worker has an STD, WC or FMLA claim, they tend to be absent from work longer than young or prime age (35-54 year old) workers. There is also evidence that older workers have more variation in the durations of some types of absences, suggesting greater opportunities for effective RTW strategies.
- Older workers have fewer FMLA days than young workers, but only when child bonding leaves are included. Older workers have more FMLA days for their own health reasons than do workers under age 55.
- Older STD claimants are more likely to transition into LTD, and perhaps out of their employer's workforce entirely. On the other hand, prime age workers - rather than older workers - have the highest LTD claim costs.

SOLUTION:

Employers can make better decision about how to structure their health promotion, absence management, (RTW) return-to-work and disability benefits if they understand the productivity impacts of disability absences in their workforce. Understanding the how age factors into disability lost productivity is a key component. The findings point to the advantage of targeted disease management strategies according to the age profile of the workforce.

Background

According to projections by the U.S. Bureau of Labor Statistics (BLS), through 2020, the share of the U.S. workforce that is aged 55 years or older will increase by 3% annually.¹ By 2020, BLS projects that one in four workers will be in this category of "older workers," up from one in seven in 2000 and one in five in 2010.

The good news for employers and for the economy at large is that even though some physical and cognitive abilities decline with age, older workers remain highly productive, as measured by wages, job performance or contributions to business and economic outcomes.² The paradox is that the normal aging process - to say nothing of the accumulated effects of a lifetime of behaviors that influence health - brings with it a higher prevalence of chronic illnesses that can take their own toll on productivity. Chronic illnesses may put older workers at higher risk of disability absence from which they may also take longer to recover.

To a much greater extent than is true for younger workers, preserving the productivity value of older workers depends of preserving, improving - and when necessary, restoring - their health. One recent study estimates that extending the number of years of good health among the elderly could benefit the U.S. economy by over \$7

¹ U.S. Bureau of Labor Statistics, [Employment Projections: 2010-20](http://www.bls.gov/news.release/ecopro.t01.htm)
<<http://www.bls.gov/news.release/ecopro.t01.htm>>

² See for example, Malmberg B., Lind T., and Halvarsson A., 2008. "Productivity Consequences of Workforce Aging: Stagnation or Horndal Effect?" *Population and Development Review*, 34:238-256; Burtless, G., 2013 "The Impact of Population Aging and Delayed Retirement on Workforce Productivity," *Center for Retirement Research at Boston College*, CRR working paper 2013-11; Robertson A., Tracy C.S., 1998 "Health and Productivity of Older Workers," *Scandinavian Journal of Work, Environment and Health*, 24(2):85-97.

trillion.³ It stands to reason that along the way additional savings could accrue to employers in the form of reduced disability and incidental absence and in improved job performance. At the same time, several surveys find that relatively few employers analyze their workforce demographics to better prepare for the challenges and opportunities of an aging workforce.⁴

Given the business imperatives of keeping older workers healthy and at work, in this study we examine older workers' lost-time experiences using IBI's Health and Productivity Benchmarking data. The focus is primarily descriptive, in order to provide insights into how much productive time is lost for older workers on disability leave, whether there is room for improvement in outcomes, and how employers might prioritize their disease management and return-to-work (RTW) efforts with regard to specific illnesses. We conclude with comments on the relevance of findings for employers and point to resources for more information on the health of the aging workforce.

Data

IBI's Benchmarking database contains millions of short-term disability (STD), long-term disability (LTD), federal Family and Medical Leave Act (FMLA) and Workers' Compensation (WC) claims from thousands of employers, provided to IBI by a group of major US insurers. The database includes employers from almost 900 SIC industries and cover every state in the U.S. While claims data have been collected by IBI annually since 2007, the current analysis utilizes information from employer's experiences on all active claims during the 2012 data year regardless of claim inception date.⁵

For the purpose of this analysis, we defined claimant age categories as young workers (18-34 years old at the time of the claim), prime age workers (35-54 years old) and older workers (55 years old and older). All analyses are descriptive only, without controlling for industry, regional, plan or demographic characteristics.

Overview of benchmarking claims experiences

To set the stage, the table below summarizes some metrics for incidence rate, lost work time and costs for claims in the Benchmarking database (across all industries). While the selected metrics represent only a portion of what are available in the industry reports and the metric values vary by industry and plan design (where applicable), they are similar to the outcomes described in the current study.

³ Goldman, D.P., Cutler D., Rowe J.W. et al., 2013 "Substantial Health and Economic Returns from Delayed Aging May Warrant a New Focus for Medical Research," *Health Affairs*, 32(10):1698-1705.

⁴ Tishman, F.M., Van Looy, S. and Bruyère S.M., 2012, *Employer Strategies for Responding to an Aging Workforce*, New Brunswick, NJ: The NTAR Leadership Center. < <http://www.heldrich.rutgers.edu/projects/all-projects/ntar-leadership-center>>

⁵ Reports for specific industries are available to IBI members at ibiweb.org/tools/benchmarking.

Selected metrics for benefits programs in the Benchmarking database.

Program	Selected metric	Average	Median	Claims ^b	ERs	Data suppliers
STD	New claims per 100 covered lives	6.2	4.9	1,765,089	15,628	12
	Lost workdays per closed claim	38.6	27.0			
	Payments per closed claim	\$4,757	\$2,384			
LTD	New claims per 1,000 covered lives	8.1	0	508,443	32,084	11
	Payments per closed claim	\$29,958	\$9,339			
WC	Indemnity claims as a percentage of active claims	40%	--	845,979	3,636	3
	Lost workdays per closed TTD ^a claim	112.1	39.0			
	Total payments per closed indemnity claim	\$33,462	\$12,877			
FMLA ^c	% of leaves for employee's own health condition	67%	--	381,173	958	8
	Stand-alone leaves per 100 eligible employees	7.3	4.8			
	Intermittent leaves per 100 eligible employees	3.1	1.4			
	Lost workdays per stand-alone leave	16.6	10.0			
	Lost workdays per intermittent leave	11.2	5.0			

a: TTD refers to "temporary total disability."

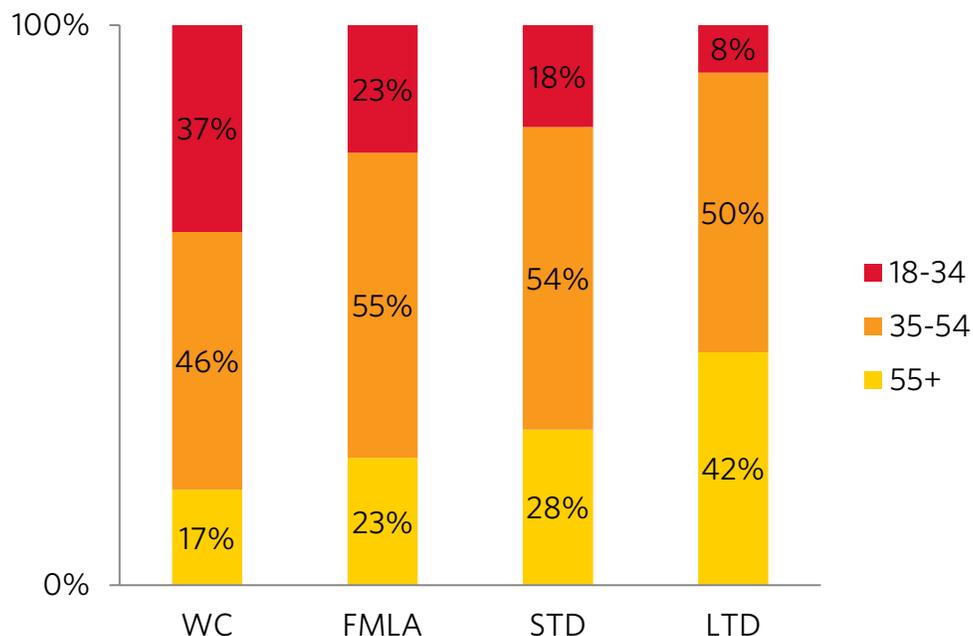
b: Counts of claims, ERs and data suppliers refer to the overall data. Counts for specific metrics may be less.

c: The FMLA claims count refers to unique approved leave certifications with any stand-alone days (intermittent or continuous). The complete FMLA data include 1,313,980 leave events from 1,052 employers.

Claimant age patterns

The chart below shows the proportions of claimants in each age category for the four benefit programs. Excluding pregnancy and child bonding FMLA claims, older workers are not a majority of claimants in any of the programs. Older workers account for between 23% - 42% of FMLA, STD and LTD claims, and only 17% of WC claims.

Older workers are most prevalent among LTD claimants, and least prevalent among WC claimants



Why are older workers away from work on leave?

Workers of different ages have different types of co-morbidities and experience different types of illness events. This is reflected in the amounts of time they spend away from work for different ailments, as seen in the charts below.⁶

STD

Among chronic illnesses and injuries, cancer claims account for the largest single category of STD lost workdays for older workers - 11% of their total lost workdays - but relatively less lost time for young and prime age workers (for whom cancer accounts for 3% and 7% of lost workdays respectively). This underscores the importance of supporting early and routine cancer screening among older workers, and perhaps among prime age workers approaching age 55 as well. Conversely, depression accounts for the largest single category of lost workdays (excluding pregnancy) among young workers, with 9% of all their lost workdays, compared to 3% for older workers and 6% for prime age workers. Anxiety also accounts for a greater share of young workers' STD lost workdays than is observed among prime age and older workers. While mental health screening and treatment may be less consequential for older worker's STD outcomes, they may be more salient for young workers.⁷ The most common single category of lost workdays for prime age workers is low back pain (12%), but the low back pain proportions for other workers are similar (about 10%).

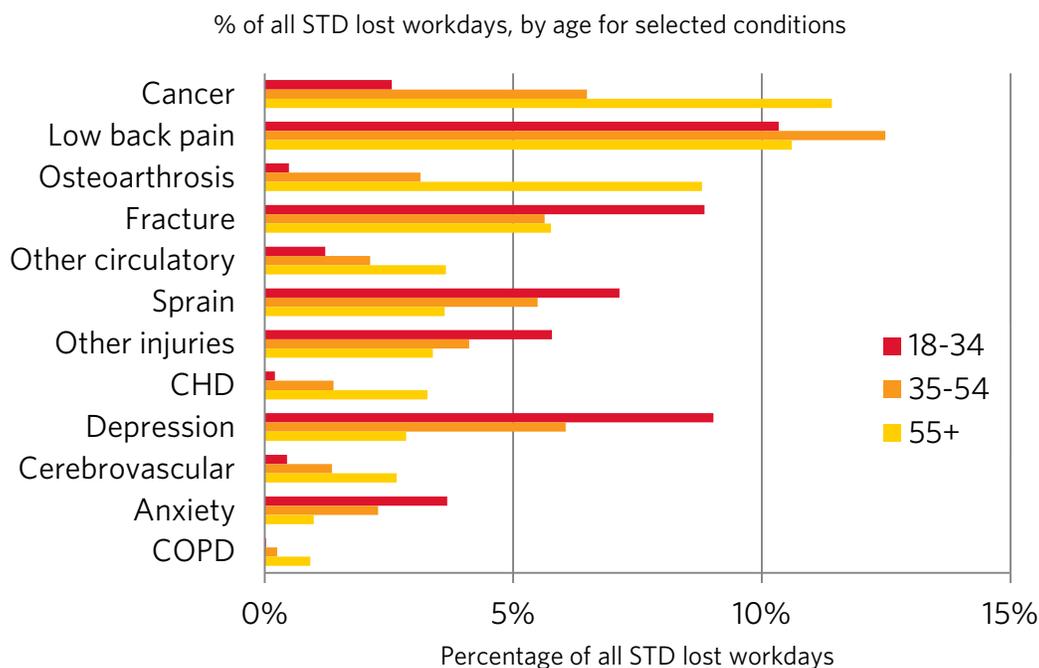
In general, older workers' lost workdays are typified by diseases that are more common among older people (such as osteoarthritis, COPD, congestive heart disease and other circulatory diseases), whereas workers under

⁶ For simplicity, the charts combine the prevalence of different conditions and their average durations to represent lost work time. The charts show selected conditions for which substantial lost work time was observed, and do not sum to total lost work time.

⁷ This does not imply that mental health has no deleterious effect on older workers' productivity as measured by incidental absence or job performance.

age 55 - but especially young workers - tend to have more lost workdays for injuries and mental health issues. Similar patterns were found among LTD claims (which are not shown given that employers are likely to replace workers on LTD rather than lose their productivity for the duration of their leave).

STD Lost workdays for older workers are typified by diseases of older people more generally, while workers under age 55 tend to have more lost workdays for injuries and mental health claims.

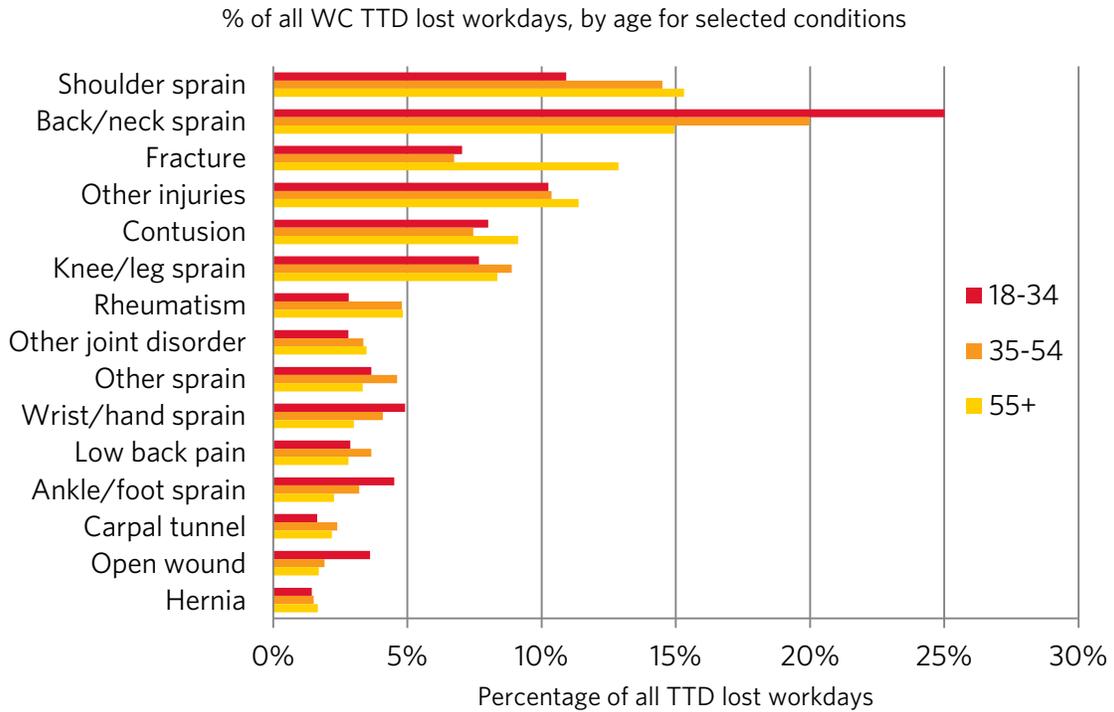


WC

Sprains account for about half of all WC temporary total disability (TTD) lost workdays, regardless of the claimant's age. Nonetheless, the types of job-related sprains differ by age. Shoulder sprains account for about 15% of older and prime age workers' TTD lost workdays, compared to about 10% of young workers' TTD lost workdays. Back and neck sprains account for about 25% of young workers' TTD lost workdays, but only 15% and 20% of TTD lost workdays for older and prime age workers, respectively.

The proportion of older workers' TTD lost workdays for fractures (13%) is nearly twice that observed for workers under age 55. Compared to older workers, however, young workers are more likely to be on TTD for open wounds (about 4%, compared to about 2%) and for ankle/foot sprains.

Compared to workers under age 55, older workers have more TTD lost workdays for shoulder sprains and fractures. Prime age and young workers have more lost workdays for back/neck sprains.

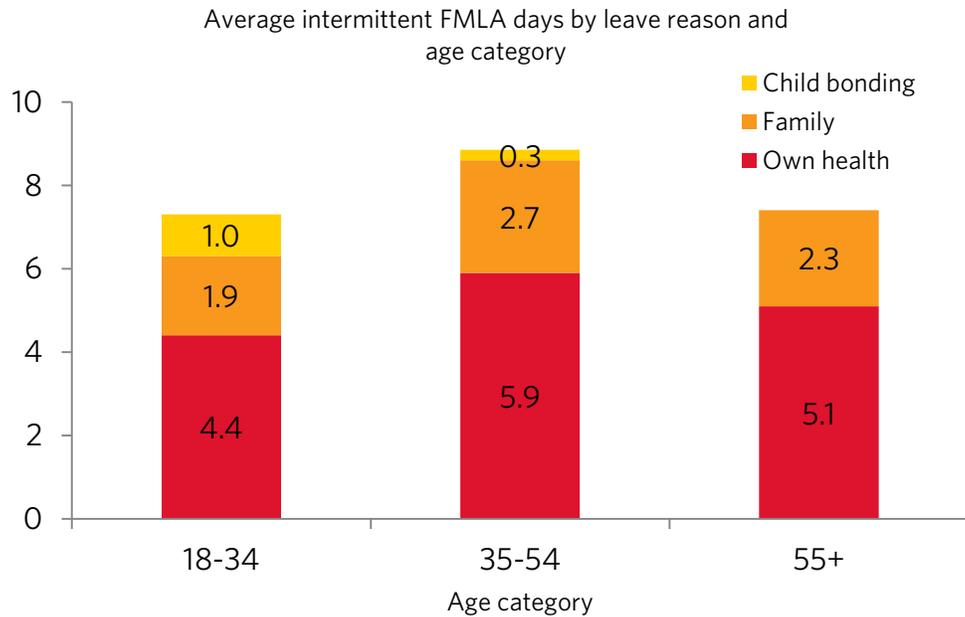


FMLA

While we do not have diagnostic information for FMLA claims, we do know the number of stand-alone and intermittent days taken for an employee's own serious health conditions, for the serious health condition of a family member or to bond with a newborn, adopted or foster child. As described in the FMLA chart above, stand-alone lost workdays differ across the age categories when leave is taken for one's own health. Additionally, older workers essentially had no lost workdays for child bonding leaves, whereas young workers averaged about 10 stand-alone days and prime age workers averaged about three stand-alone days. These additional child bonding days result in young workers having the most stand-alone FMLA days overall.

However, prime age workers had slightly more intermittent leaves for their own health and the family members' health conditions than did young or older workers, as seen in the chart below. This may be an artifact of the older and young workers using more of their annual entitlement for leave continuously, leaving less time for intermittent leave.

Prime age workers have more intermittent leave days than other workers, for both their own health and to care for family members.



How is age related to lost workdays?

STD

Generally, older workers with a disability leave have more lost work time than workers under age 55. As indicated by the diamonds in the chart below, the “typical” (median) older worker with an STD claim for low back pain is absent for 42 workdays, not including time taken during the elimination period⁸ (the average for older workers is 56 lost workdays).⁹ This compares to a median of 31 lost workdays for young workers and 35 lost workdays for prime-age workers (with average lost workdays of 44 and 50, respectively). While the chart describes back pain experiences (a relatively common STD diagnosis across all age groups), a similar pattern was observed when controlling for different diagnoses.

⁸ 25% of STD claims had a one-day elimination period (EP), 60% had a 1-week EP, and the remaining 15% had a 2 week or longer EP. 15% of claims had maximum benefits durations (MBD) of 13 weeks, 75% had a 6-month MBD, and the remaining 10% had a one year MBD.

⁹ We refer to the median in this analysis because, unlike an average, the median is not influenced by the small number of extremely long duration claims.

NOTE ON READING BOX-PLOT CHARTS

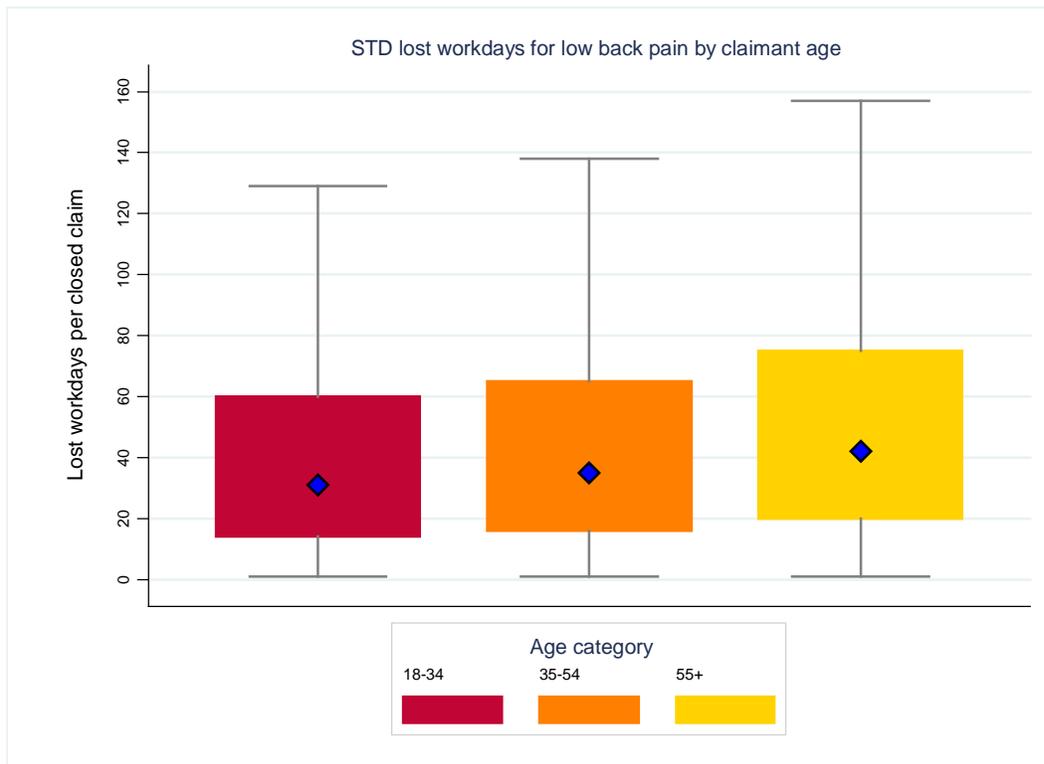
Much of the discussion below uses box-plot charts to show differences in the variation of outcomes for the different age groups.

The diamond at the center of the box indicates the median lost workdays; half of claims had durations below this value and half were above.

The height of the box surrounding the diamond shows roughly the range of “normal” durations within an age group. A shorter box means that durations do not differ greatly from one claimant to the next, while a taller box indicates more variation.

The bracket at the top of each box indicates the outside limit of what would be considered long – but still realistic – durations; claims with durations beyond this point would be considered extreme outliers.

The median STD low back pain claim for older workers is about 11 days longer than for young workers. Older workers are also more likely to have extremely long claims

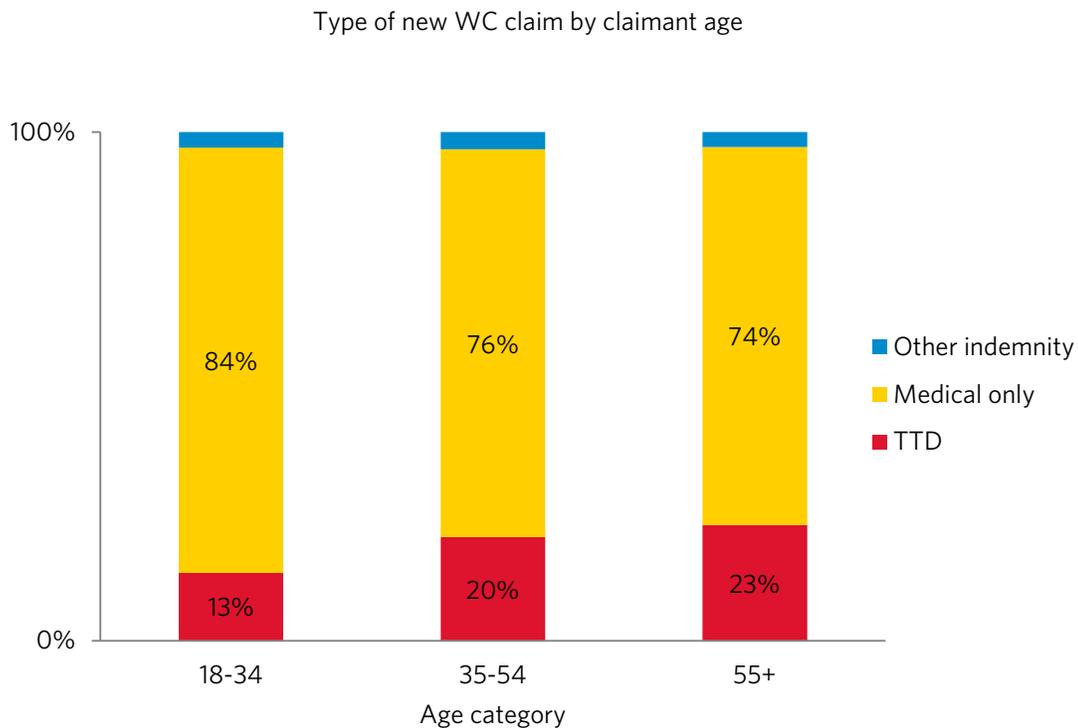


Note also that the claim durations among older workers are less similar to one another than the claim durations for their younger co-workers. The range of “normal” claim durations is longer for older workers (as indicated by the box surrounding the diamond), but so is the boundary that separates the extreme “outliers” from the rest of the claims (as indicated by the height of the bracket extending from the box). This relatively high level of variability in older worker’s STD outcomes suggests a *greater potential for improvement* among this age group.

The costs of an STD claim followed a similar age pattern as lost workdays. Median STD costs per closed claim for older workers were about \$2,700, compared to \$2,500 for prime age workers, and \$2,200 for young workers.

WC

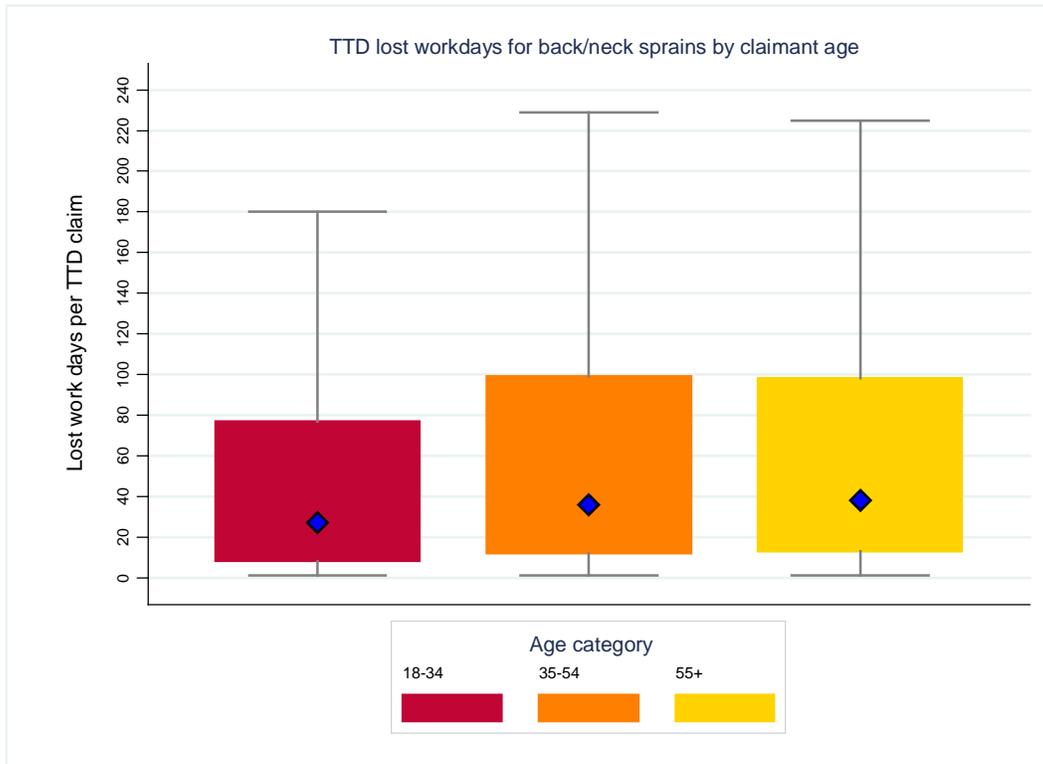
Older workers' WC claims are more likely to involve lost work time than are young workers' claims. As shown in the chart below, 23% of older workers' new WC claims involve temporary total disability (TTD), compared to just 13% of young workers.



The age pattern of disability lost work time among WC TTD claims has some similarity to that observed among STD claims, as seen in the chart below for back/neck sprain claims (sprains account for about half of all WC claims across all age categories; back/neck sprains account for about 40% of all sprain claims). The typical (median) older worker with a TTD claim for a back/neck sprain is absent for 38 workdays (the average is 78 lost workdays), not including time taken during the elimination period. This duration is similar to that of prime age workers (36 days), but 11 days longer than median claim for young workers (27 days, with an average of 61 days).¹⁰ As with STD claims, the range of “normal” claim durations is longer for older workers, and so is the boundary that separates the extreme “outliers” from the rest of the claims. This variation is similar to that observed for prime age workers.

¹⁰ The durations shown are for back/neck sprain injury claims that occurred in 2010 through 2012. Our analysis indicates that three quarters of all TTD claims accrue no additional costs after 18 months. We limit the results to this three year window to reflect the likely trajectory of a typical claim, rather than to characterize the impact of claims with very long-tailed costs.

The median WC TTD claim for a back/neck sprain is 11 days longer for older workers than for young workers. On the other hand, prime age and older workers are more likely to have extremely long claims.



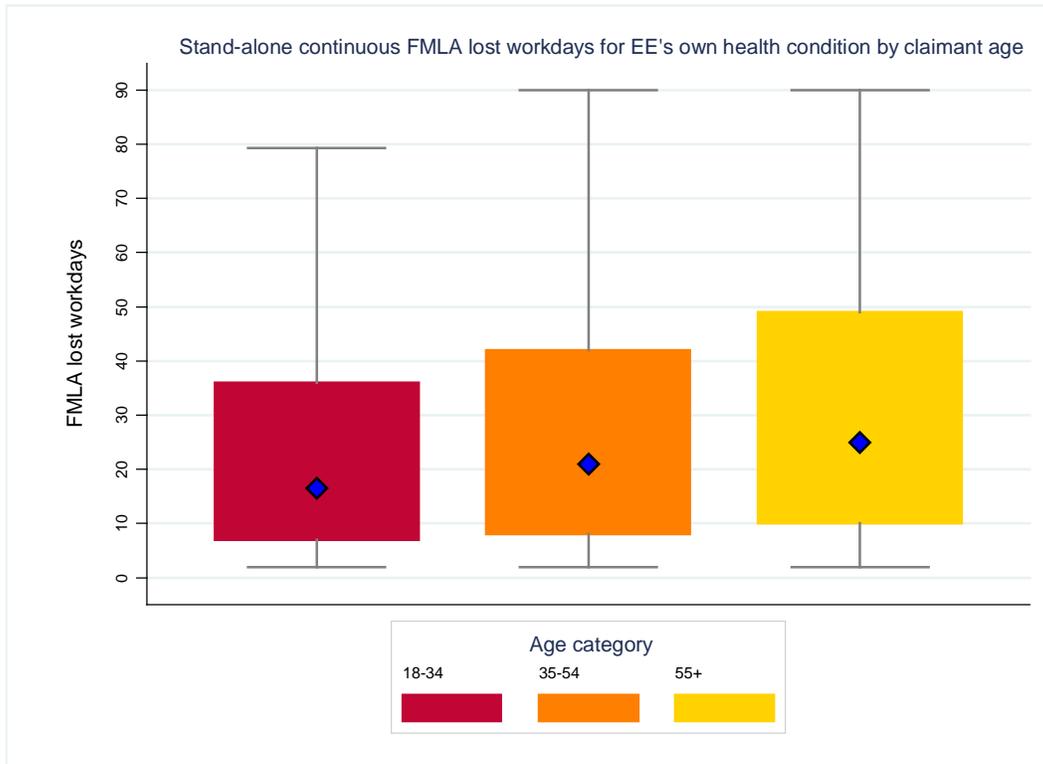
Because TTD claims tend to have costlier medical payments as well as wage replacements, older WC claimants tend to have higher total costs. The median costs for older workers' back/neck sprain claims (including medical costs for medical-only and indemnity claims) were about \$1,100 for prime age and older workers respectively, compared to about \$800 for young workers.

FMLA

We observe the previous age and duration pattern again among FMLA leaves for an employee's own health conditions.¹¹ Older workers tend to have longer leave durations, as well as greater variation in durations. Note that while the lost workdays are top-coded at 90 days (to reflect the federal allowance of 12 weeks of job-protected time off), young workers meet this threshold for their own health conditions relatively rarely.

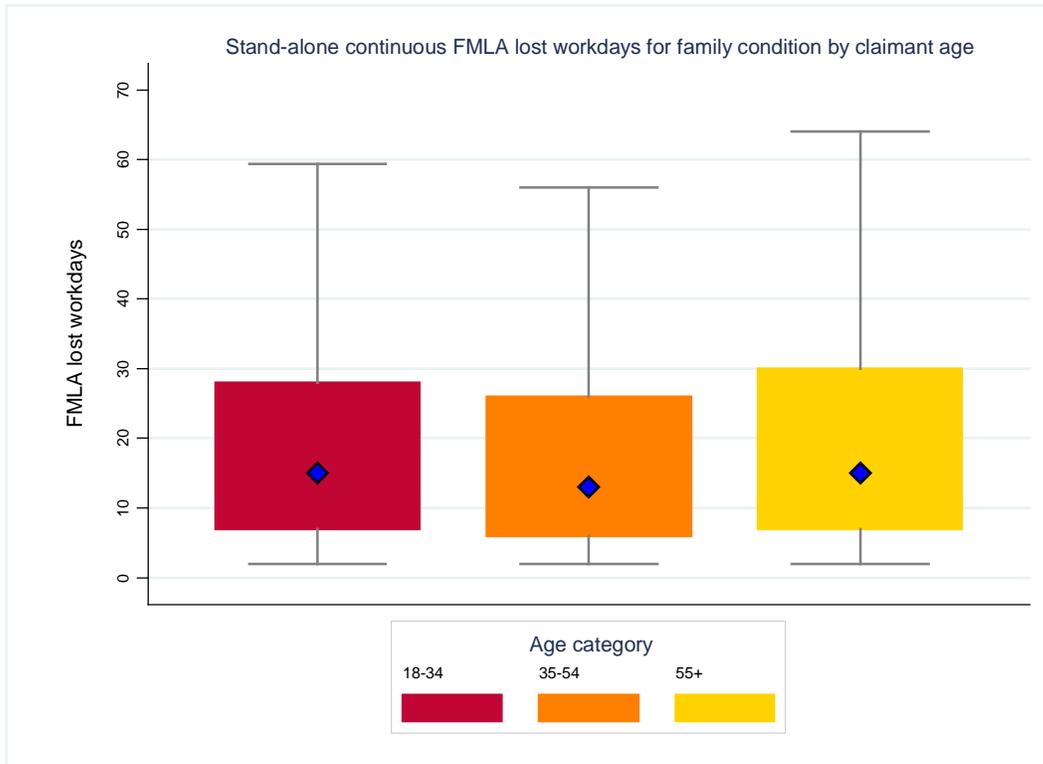
¹¹ The FMLA duration analysis is limited to leave takers with at least one stand-alone day of the type of leave at issue (i.e., own health or a family member's health condition).

The median stand-alone FMLA claim for an older worker's own health conditions is about 9 days longer than for young workers. Older workers also have the widest range of "normal" claim durations



By contrast, there is little difference across age categories in the durations or variability of FMLA leaves for a family member's serious health condition. This underscores that *older workers' longer absences likely reflect health difficulties*, and not some underlying tendency towards longer absences regardless of the reason for leave.

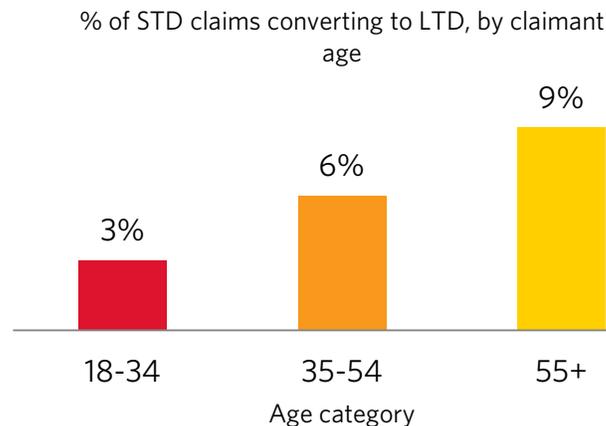
Stand-alone FMLA claim durations for family members' serious health conditions do not vary meaningfully across workers of different ages.



LTD

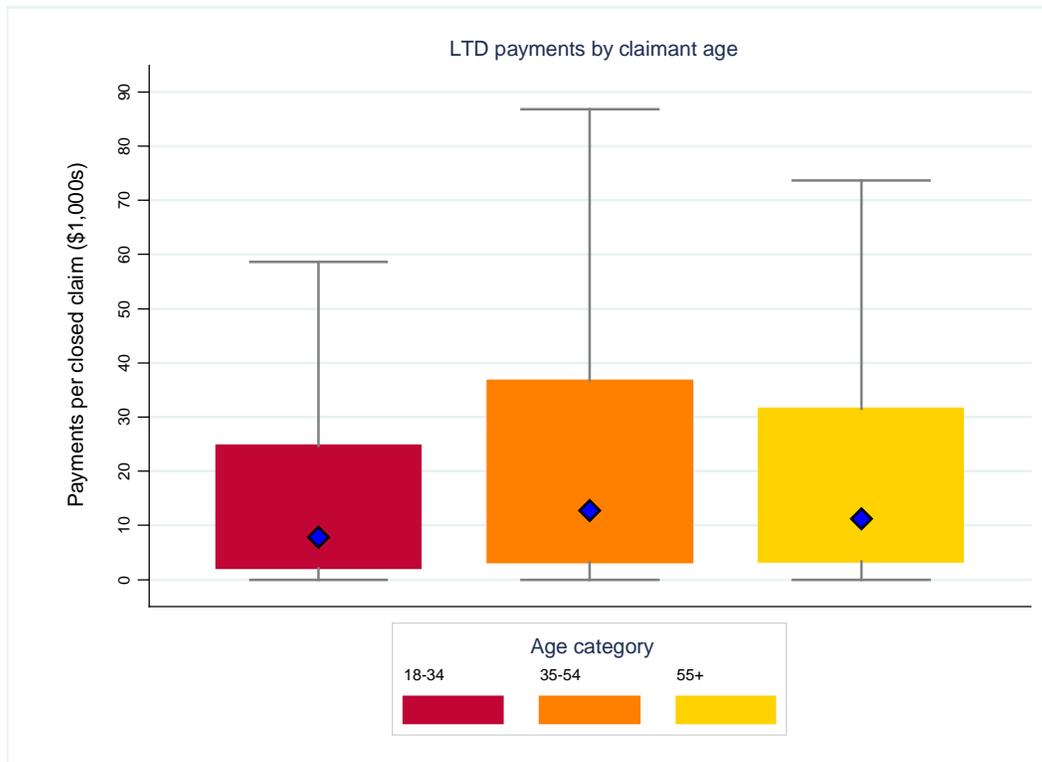
Because employers are more likely to replace employees when they take LTD rather than lose their productivity for the duration of a leave, we do not analyze lost workdays for LTD. However, it is worth noting that older STD claimants are more likely than claimants under age 55 to transition into LTD (and perhaps out of their employer's workforce). As seen in the chart below, while a minority of STD claims convert to LTD, *the rate for older workers is 3 times that for young workers, and 50% greater than that for prime age workers.*

Older STD claimants are more likely to transition into the LTD system.



This finding points to the importance of managing older employees' stay-at-work and return-to-work – a message that is underscored by the costs of their LTD claims. As the chart below shows, the median LTD claim closes at about \$11,000 for older and prime age workers (with an average cost of \$30,200), compared to about \$7,800 for young workers (average = \$21,000). Nonetheless, prime age workers have the highest LTD costs (median = \$12,700, average = \$37,600) as well as the most cost variation.

Older LTD claimants have claim costs higher than young workers, but prime age workers have the highest costs as well as the greatest variation in costs.



Commentary

Given the projected aging of the workforce, employers' decisions about how to structure their health promotion, absence management and disability benefits should be guided by a solid understanding of how age and types of conditions impact leave incidence and duration. For example, understanding the age distributions across the different leave programs calls attention to the older profile of STD and LTD claimants. This underscores the importance of health supportive efforts that can lower the likelihood of disability claims for chronic illnesses. As IBI pointed out in previous research on the links between FMLA, STD and LTD,¹² connecting employees to available health resources at the earliest indications of problems – for example, when an employee first invokes the need for FMLA leave, even for a family member's health – may help avoid costly disability claims down the line. Coordinating activities across different benefits silos within an organization increases the chances that such efforts will be successful.

¹² Gifford B., Parry T., and Jinnett K., 2013, *Early Warnings: Using FMLA to Understand and Manage Disability Absence*, San Francisco: Integrated Benefits Institute.

The higher likelihood that an older STD claimant will end up on LTD points to the importance of RTW programs that are responsive to the specific needs of older workers – for example, that take into account an employee’s comorbidities, the design of their physical workspace or their capacity for shift work.¹³ One study found that compared to usual care, intensive physician consultations to preserve the working ability of older workers at high risk of early retirement reported fewer lost workdays and longer work participation.¹⁴ While specific RTW studies of older workers are uncommon, the general characteristics of successful RTW programs are described in several review studies. Summaries can be found in IBI’s [Knowledge Bank](#).¹⁵

Finally, the diagnostic profile of STD and LTD claims can help establish a priority for disease management and health promotion interventions. Back pain is an important category generally, but attention to older workers’ needs for arthritis and cardiovascular care may also improve leave outcomes. Support for early and routine cancer screening should also be of high importance. By contrast, the productivity of younger workers may be improved by support for mental health screening and treatment.

Additional guidelines and recommendations for managing the health and productivity of older workers are available from several resources, including the National Academy of Science’s volume, *Health and Safety Needs of Older Workers*,¹⁶ and the American Association of Retired Persons’ (AARP) and Society for Human Resource Management’s (SHRM) jointly administered *Workforce Assessment tool*.¹⁷

While IBI’s industry benchmarking reports do not contain specific information on disability outcomes by age groups, they nonetheless provide employers with baselines to which they may compare their own experiences. More information is available from the [Integrated Benefits Institute](#).

¹³ See for example Griffiths A., 2000 “Designing and Managing Healthy Work for Older Workers,” *Occupational Medicine*, 50(7):473-477; Hansson R.O., DeKoekkoek P.D., Neece W.M., Patterson D.W., 1997, “Successful Aging at Work: Annual Review, 1992-1996: The Older Worker and Transitions to Retirement,” *Journal of Vocational Behavior*, 51(2):202-233.

¹⁴ De Boer A.G.E.M., Van Beek J. C., Durinck J., Verbeek J.H.A.M., & Van Dijk F.J.H., 2004, “An Occupational Health Intervention Programme for Workers at Risk for Early Retirement; a Randomised Controlled Trial,” *Occupational and Environmental Medicine*, 61(11):924-929.

¹⁵ <<http://ibiweb.org/research-resources>>

¹⁶ *Health and Safety Needs of Older Workers*, 2004, Wegman D.H. and McGee J.P. (editors), Washington, D.C.: National Academies Press <http://www.nap.edu/catalog.php?record_id=10884>.

¹⁷ <<http://www.aarpworkforceassessment.org/>>