

# SEISMIC SHIFTS:

By Peter Rousmaniere

## AN ESSENTIAL GUIDE FOR PRACTITIONERS AND CEOs IN WORKERS' COMP



How Technology  
and Demographics  
Will Impact Workers'  
Comp from Today  
through 2022.

FEBRUARY  
2015



A Webinar Series

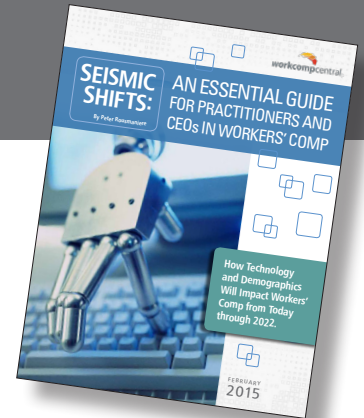


# Seismic Shifts in Workers' Compensation

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by David DePaolo

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Based in Camarillo, Calif., WorkCompCentral is the nation's only specialty media company producing daily news on the workers' compensation industry. With its own team of award-winning journalists located around the country, the niche outlet frequently breaks important news stories covering legal, medical, legislative/regulatory and business issues. The company also develops and maintains an extensive library of continuing educational content and can be reached at 805-484-0333 and via [www.workcompcentral.com](http://www.workcompcentral.com).



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## Riding the Wave

On a blue-sky day in April, 1993, a former registered nurse walked into the reception room of a workers' compensation insurer's claims office in Southfield, Michigan. She was hoping to get some referrals for medical case management, maybe even a half dozen if she was lucky.

A harried claims adjuster ushered her into a windowless meeting room with a table laden with folders. Fast forward to the conclusion of that pivotal meeting: the former nurse left with 56 cases on her first visit to this new account, a number beyond her wildest expectation.

For this intrepid professional, that meeting marked the start of a thriving career in workers' comp managed care that is still going strong today. This story also highlights the opportunities for success for any forward-thinking practitioners and executives willing to catch the big waves—those trends in the workers' comp industry with seismic implications.

In 1993, the big wave in workers' comp was managed care, a force so big it continues to shape the beach. But what's next? What industry trends will impact—or are already impacting—the way you do business, grow your business. . . or even stay in business in an evolving industry?

## The Next Big Wave... Is Already Here

You may work in claims, insurer operations, brokerage, managed care, worksite risk management, safety, healthcare, law or state oversight. You may be a practitioner or chief executive. You may thrive on change or prefer the status quo. Regardless, you need to be aware of where the workers' comp industry is headed. In fact, the industry is already awash in changes of the scale of managed care, as supported by the timeline below:

- ☐ **1993:** Benefits to injured workers and medical providers totaled \$44 billion.
- ☐ **1993 – Today:** Spending on the mechanics of delivering these benefits grew at an average annual rate of 15%. (This is where you, the workers' comp professional, came in, making those mechanics work.)
- ☐ **1993 – Today:** Paradoxically, while spending increased in the mechanics of benefit delivery, the number of serious work injuries actually dropped by over 35%. This can be attributed to employers giving much more attention to prevention and response to injuries.
- ☐ **2015:** Benefits rose to about \$65 billion, outpacing the growth in employment.
- ☐ **Today – 2022:** It's anticipated that work injuries will likely drop by 35% again. Indeed, a study of the impact of automation on employment suggests that over the next decade or longer, injuries might be cut by half.

## INTRODUCTION

These shifts are real, even if the momentum of work safety and managing injuries is hard to feel, day by day. Regardless of whether you're already being buffeted by the winds of change, your response now to this undeniable, unstoppable shrinking of work injury in America is what just might make or break your own career future.

Recall the case of the former nurse whose story opened up this introduction. Those 56 files from her first client ultimately launched her into a career as a highly paid executive in a succession of very large managed care firms. Today, she works in a major claims payer to rationalize an incredibly complex array of vendors and services, many with widely varied state laws and practice nuances, which over the course of two decades she has learned to master like an exotic dialect.

It's unwise to ignore the reality that the workers' comp industry is very slow to move. Workers' comp can behave like a regulated cost-plus industry: stick to your knitting and the world will be kind. Insurers view the future through their actuarial databases; change the insurance product, and the databases are no longer reliable. Innovation opens up uncharted topics for litigation, and state regulation discourages innovation. Within employers, the silo culture of risk management and human resources impedes cross-over solutions to workforce challenges.

And yet change happens. Like this woman's success story, you, too, can ride the wave of change that will continue to shape and define the workers' comp environment for the 21<sup>st</sup> Century. The purpose of this guide is to provide a succinct overview of the shifting landscape of the workers' comp industry, and to illuminate three opportunities for growth: Automation; Lit-Up Professions; and the Absence Business.

In mature or shrinking markets, individuals and companies need to think more creatively about their core business. That's what the sections Automation and Lit-Up Claims are about. Workers' comp professionals need to think about changing their expectations about exactly what risks they are addressing. The Absence Business section delves into diversification. Change will not come in some Big Bang moment: those who expect it will discern it before others.

This resource draws on the expertise of a diversity of professionals within the industry. The material is independent in origin and content, and has not been funded by any party in the industry, nor dependent on proprietary strategic plans of any organization.

**This undeniable, unstoppable shrinking of work injury in America is what just might make or break your own career future.**

## SECTION 1

## Section 1: Welcome to the Future: A Shrinking Industry (with Growth Opportunities)

It seems ironic that Texas, a state associated with a bigger-than-life attitude, may be leading the nation in shrinking the workers' comp industry. Given this irony, it behooves all of us, regardless of where we're located, to take a closer look at what's happening in the Lone Star state.

On the surface, Texas's situation in relation to workers' comp looks good. The state's workforce is growing at a very healthy pace. From the mid-2000s through 2014, the typical insured employer has seen premiums drop by half. And come July 1, 2015, there will be an additional 10% reduction. Meanwhile, insurers' profit margins are among the highest in the nation. Why wouldn't they kick up their boots?

But there is a subplot to this story, captured in a report that shows how the work-site has become much safer. In 2013, the Texas private sector workforce incurred 30% fewer lost time injuries than it had in 2004, a year before a major workers' compensation reform package was enacted, even though employment had grown by 16%.

This is good news, of course, except for the fact that those who work in the industry depend, to a large degree, on the reality of work injuries. The report shows in black and white that, even as the typical worker's comp claim is increasing in complexity, the total number of claims is decreasing, and in fact has shown a significant drop over the past decade.

For those in the workers' comp industry, this backdrop threat of shrinking claims can be equated to global warming. Maybe you don't feel things heating up in your air conditioned office, but it's happening all the same. In Texas, an industry leader in workers' comp in many respects, the heat is clearly turned up in terms of needing to innovate and find new ways to compensate for the decline in claims. And those who practice in other states need to be equally proactive because, in this case, what happens in Texas definitely doesn't stay in Texas—it only amplifies the reality of shrinking claims.

### A Short History of Workers' Comp (aka Predicting Future Trends by Looking at the Past)

America's workers' compensation system arrived in the 1910s, several decades after goods-producing industries eclipsed farming in their share of national economic output. Originally, the workers' comp system was primarily designed for a male industrial workforce engaged in full-time, lifetime work in which risk was high, and the worker was susceptible to serious, even fatal, injuries.

Industrial workers, mostly male, led the sometimes violent fight for protection and benefits. An incomplete list of changes includes: child labor laws; the obligation of the employer to pay for workplace tools; and standardized hours of work—all provocative demands at the time.

## SECTION 1

## The Shift from Manufacturing to Service

Going into the 20<sup>th</sup> Century, the service sector was roughly equal to the goods-producing sector in its share of national output. That started to change in the 1920s, and by the 1960s, the service sector had eclipsed industry in creating economic value. Employment in services climbed from 55% to 85% of total employment.

**The Decline of the Classic Workers' Comp Demographic**  
(jobs as share of national employment)

	1950	1980	1990	2005
Hand craft production	5.1%	4.8%	3.5%	3%
Transport, const., mining, farming	29.2%	21.6%	18.8%	18.2%
Machine operators & assemblers	12.6%	9.9%	7.3%	4.6%

Manufacturing employment (a workforce that is 70% male), has dropped precipitously, and today any revival of manufacturing uses just a fraction of the factory workers employed in the past. In addition, manufacturing employment is much safer today; with the risk of a "time lost" injury today about the same as in the service sector.

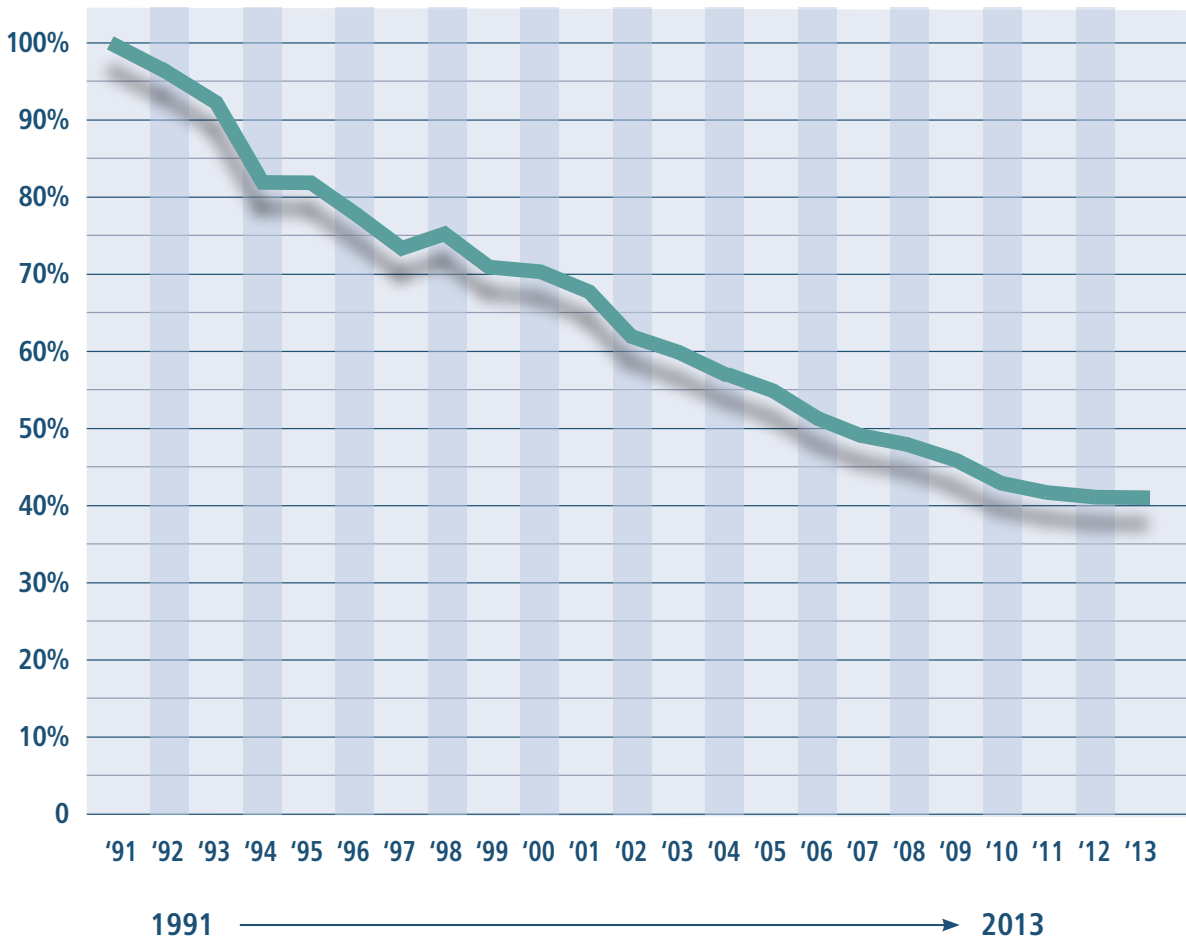
- ☐ **1994:** For every ten manufacturing work injuries involving at least one day's lost time, there were eight such service sector injuries.
- ☐ **2012:** For every two manufacturing lost-time injuries, there were ten service sector injuries.

**Manufacturing employment (a workforce that is 70% male), has dropped precipitously, and today any revival of manufacturing uses just a fraction of the factory workers employed in the past.**

## SECTION 1

The graph below shows how national rates of lost-time claims have relentlessly declined for some two decades.

(Source: NCCI)



It's possible to project how work injuries will trend in the future. The 100 largest occupations (measured by number of jobholders) generated in 2012 roughly 685,000 lost-time compensable injuries (see the table below). The federal government has projected that jobholders will increase in these occupations by 2022 by about 11%. Between 1991 and 2013, the rate of lost-time claims declined on average by 3.8% a year. Assuming a continuation of this trend, the top 100 jobs are likely to generate far fewer lost-time claims in 2022. Even the jobs projected to grow fast (noted in the table) will generate fewer lost-time claims.



## SECTION 1

## How Did We Miss the Elephant in the Room?

It can be perplexing how the workers' comp industry has not really noticed this trend in declining injuries and claims. But two factors can make the industry look bigger, even as it is actually shrinking. The first factor is ever-rising medical costs, driven in part by innovation in medical care, such as in surgeries and pharmaceuticals. Innovation breeds complexity, making understanding the medical issues, and managing medical care, even more challenging. Think Medicare Settlements, Utilization Review, Opioid prescribing, and network management, all of which have been attention-consuming since 2000.

The second factor that distracts attention from the shrinking industry is provider profiteering. An example of this is physician dispensing of drugs, which, incidentally, is associated with lengthening disability.

## The Top Four (Most Likely) Reasons for Declining Injuries and Claims

No authoritative study exists on what is driving the number of injuries and claims down. But here are four of the most likely reasons for this trend.

- 1 Workers may be reporting and claiming less, out of intimidation or unhappiness with the benefit package, which has shrunk in past few decades. This is a serious concern, yet unlikely to account for the massiveness of the change.
- 2 Employment sector shifts, notably in the sharp reduction of high-risk manufacturing jobs. Certainly this is only a partial explanation, given that we've seen improved worker safety across all jobs, from farm workers to workers in customer fulfillment centers. In addition, the foreseeable future suggests a continuation, if not acceleration, of injury declines, even without the collapse of employment in a major high-risk sector.
- 3 Employers are devoting more attention to work safety. Consultants who advise thousands of employers throughout the workforce share the firm impression that corporate managers, as a whole, are much more attentive to safety and injury response today than 20 years ago. (Perhaps safety success breeds more success in an industry.)

To be sure, some jobs are more conducive to safety solutions, particularly of a technological nature (ergonomic and machine improvements). For instance, between 2002 and 2013, the lost-time injury rate for workers in metal forging and stamping worksites dropped by 54%, but among real estate professionals only by 6%.

- 4 Employers are pushing down lost-time claims by stay-at-work arrangements, or expediting return-to-work before convalescence goes on long enough for the worker to qualify for lost-time benefits. (The median waiting period is five days.) Lost-time claims have fallen at a faster rate than injuries, as reported by the federal Bureau of Labor Statistics.

Employers have assumed much more exposure to claims costs through self-insurance and high deductibles. They can afford to, because they have learned how to contain these costs.

## SECTION 1

## And Just In . . . Claims Costs May Also Decline

The writing is on the wall, and it's suggesting in big block letters that the cost of claims is likely to moderate in growth and even decline in the near future. Section 3 of this guide delves further into this subject, but let's focus here on the biggest driver of claims cost inflation in the past 15 years: medical costs. These costs are a combination of medical utilization and the cost per unit of treatment. The most up-to-date data on medical costs in workers' comp indicates that past years' annual increases per claim in the 5% to 10% range have decreased to about 3%. Some lines of treatment (such as drugs) may have seen a decline.

In addition, a correlation exists between general healthcare costs and medical cost trends in workers' comp. It is well known that increases in the cost of healthcare have moderated throughout all lines of that industry: Medicare, health insurance, and workers' comp. Thus it only follows that the cost of claims is likely to follow suit.

Close observers of medical dynamics in workers' comp, such as Joe Paduda of the Managed Care Matters blog, speculate that the overall moderation in healthcare costs reflects a sea change in the alignment of power among contending forces.

The Affordable Care Act (Obamacare) contains some features, such as accountable care organizations, that aggressively promote self-restraint among medical providers. Price transparency tools are shining a spotlight on high priced providers.

In addition, Medicare has begun to penalize hospitals for errors leading to re-admissions. True, high deductibles in health plans may induce individuals to seek medical care in workers' comp, 100% paid for by employers, for personal conditions. Claims payers must be vigilant.

In sum, a case can be made that for the foreseeable future the core medical cost index in national healthcare will remain low. In workers' comp, that can translate into a flat rate of zero, and in selected areas a negative rate, because workers' comp claims payers have relatively greater legal authority to influence medical treatment than any other major payer class.

## And Finally . . . the Good News

Fewer claims. Smaller claims. Yes, major shifts are underway in the workers' comp industry, and one thing is certain: there is no going back. But you can go forward by seizing the opportunities described in the rest of this guide. A preview: Just know that "Big Data" has come to roost in workers' comp, and if you're willing to "Get Lit," the future looks bright.

## SECTION 1

## Even High-Projected-Growth Jobs Will Have Far Fewer Lost-time Claims.

?: projected increase in jobs 2012-2022

Occupation	2012	2022
Driver/Sales Workers and Truck Drivers (9%)	63,000	47,000
Laborers, Freight, Stock and Material Movers, Hand (11%)	51,000	38,000
Janitors and Building Cleaners (12%)	49,000	38,000
Construction Laborers (24%)	37,000	32,000
Nursing, Psychiatric and Home Health Aides (6%)	37,000	27,000
Top 100 occupations as of 2012 (11%)	685,000	500,000

### Fewer Manufacturing Injuries

From 1995 through 2013, lost-time injuries involving at least 31 days off among manufacturing workers went from 95,900 to 33,180 – a 65% decline. Lower manufacturing sector employment and worksite changes shared about equally in causing the decline. Changes include safer work design, safety enforcement, and faster injury response.

## SECTION 2

## Section 2: The Onrush of Automation: How to Stay in the Lead

In 2006, a driver took the head of safety for one of the country's leading workers' comp insurers out for a test ride in an underground parking garage. The sedan they were using had been outfitted with a telematics device that monitored driver behavior. The driver made a point to veer and hit the brakes to trigger the recording system. Why test the device in a parking garage? Because the head of safety didn't think it was wise to try it out on the city streets.

Today, telematics is ubiquitous. Currently, this monitoring technology is placed inside vehicles. Tomorrow it may be beamed in from the roadside. *The Second Machine Age*, authored by two faculty members at the Massachusetts Institute of Technology, is an often-cited rallying cry for this kind of technology. The authors write, "Technological progress is going to leave behind some people, perhaps even a lot of people, as it races ahead . . . there's never been a better time to be a worker with special skills or the right education, because these people can use technology to create and capture value."

**A 2014 study reported the following results among drivers of trucks with telematic devices:**

- \* **55% fewer less-severe unsafe events**
- \* **60% fewer more-severe unsafe events**
- \* **5.4% improved fuel economy for sleeper cabs**
- \* **9.3% improved fuel economy for day cabs**

But there are other side effects of telematics technology that also need to be highlighted. The same 2014 trucking study also found that "workers under constant electronic monitoring are subject to increased levels of stress, resulting in short-term illness and potential long-term changes in health status." Another telling bit of info comes from surreptitious observation of taxi drivers in Munich, Germany, which revealed that cab drivers there who knew their cars had anti-lock brakes drove more recklessly.

***Technology may propose but humans dispose.*** In other words, there's no getting around the fact that humans are still at the wheel.

Collectively, these good and bad effects suggest an extraordinary opportunity for workers' comp professionals. Indeed, the future of workers' comp is fused into the future of 21<sup>st</sup> Century technology. Today's rush of injury-saving advances is so pervasive, so easily connectable with workers' comp insurance, and so complex in the human and organizational dimension, that it matches if not exceeds in importance the role of managed care since the early 1990s. And if past is prolog, it won't be formally credentialed technologists who seize these opportunities, but rather someone like you—a workers' comp professional (lawyer, nurse, underwriter, broker, physical therapist, worksite executive) with imagination, ambition, and an aptitude for working with people. You do not need to be an expert; you need to be an adapter.



## SECTION 2

## 21<sup>st</sup> Century Technology: How It Works (and Thinks)

Experts point out a crucial difference between today's emerging technology and that of the 20<sup>th</sup> century, which was more mechanical in design. The new technology thinks. Inside the 21<sup>st</sup> century robot, assistive resource, or self-driven car is a computer that makes it all work (unless the computer is down, in which case little works). Indeed, sometimes 21<sup>st</sup> century technology doesn't do anything but think, listen, report, and respond. Even analytical products qualify as injury-saving technology. The following four categories highlight key uses for technology relevant to the workers' comp industry.

- ☐ **Prediction.** This technology includes devices and software designed to predict accidents. It's useful for avoidance, prevention, and insurance underwriting.
- ☐ **Real-time monitoring** (i.g., vehicle telematics). This technology diagnoses worker behavior, work demands, and machinery in real time. For prevention and post-accident assessment (for example, to determine causation), its value is self-evident.
- ☐ **Computer-controlled production.** This is intended to help people deliver services or produce goods safely and productively. It helps in tasks such as sorting, packaging, and constructing. This technology reduces ergonomic and other risks.
- ☐ **Autonomous robotics.** This technology takes over onerous tasks, and is rapidly expanding beyond routine to non-routine assignments. Robots will increasingly be used for physical functions involving strength, dexterity, environmental exposures, endurance, and other demands. (Imagine how self-driving cars will revolutionize mobility among the disabled and elderly for gainful work and – ready for more? – romance.)

## Hello Injury-Saving Advances... Goodbye Claims (by 60%)

In 2013, two researchers at Oxford University examined 702 occupations in America, and gave each a factor that represents the potential for complete computerization. The researchers concluded that 47% of these 702 jobs fall into the "high risk category, meaning that associated occupations are potentially automatable over some unspecified number of years, perhaps a decade or two." This study assumes the key advance in technology is the way robots can increasingly "perform a wider scope of non-routine manual tasks."

While the Oxford research didn't address occupational injuries, or consider what a workforce would look like after aggressive computerization, its research methods are adaptable for estimating the impact of technology on reducing work injuries. The following table shows the results after looking at the largest 100 occupations in the United States, recording for each the Bureau of Labor Statistics' 2012 injury rate, and applying the factors developed by the Oxford researchers. The injury rate used was the BLS rate for injuries with a duration of at least six days of disability, this being the rough equivalent of lost-time workers' comp claims.

For the entire top 100 jobs, the estimated number of claims would decline by 60%.

## SECTION 2

## Top 100 Jobs in America: What Could Happen with Work Injuries (Estimated lost-time claims)

Occupation	Before	After	Reduction
All	685,000	272,000	-60%
Construction	100,000	30,000	-70%
Healthcare	80,000	55,000	-31%
Hospitality	80,000	15,000	-81%
Institutional	75,000	20,000	-73%
Manufacturing	30,000	7,000	-77%
Transportation	160,000	60,000	-63%
Other sectors	160,000	85,000	-47%

**Note:** Table only includes the top 100 U.S. occupations. Count is for all members of an occupation; i.e., construction includes all carpenters regardless if in construction, furniture making, maintenance, etc.

\*Frey C.B., Osborne M.A. The future of employment: how susceptible are jobs to computerization? 2013. Oxford Martin Programme on the Impacts of Future Technology.

### Scenario 1: How Vehicle-Related Technology Can Put You in the Driver's Seat

There seems to be no speed limit in the pace of advances in injury-saving technology. Take self-driving cars for the open road. In the mid 2000s, experts cautioned that it would take many years to solve a paradigmatic problem: how could a self-driving car safely turn left? Only a few years later, Google introduced a prototype; on its hood was a device making over a million observations a minute. (Latest wrinkle: these cars have a hard time in snow.)

While to some people, a self-driving car still feels like a futuristic fantasy, some technologies, such as telematics, have been around quite a while. For example, commercial fleet risk managers began piloting telematics technology more than a decade ago. In fact, today, collision avoidance technology has become a standard feature in some private car lines. (Drivers amuse themselves by aiming their new \$30,000 sedans straight at cement barriers.) An increasing number of cars are also being routinely equipped with lane change alert systems.

## SECTION 2

The following table—a snapshot from the Accident Fund Holdings claims database—reaffirms why injury-saving vehicle technology matters to you. Note the lost-time compensable claims recorded for selected sectors.

### Vehicle-related Lost-time Claims, Selected Sectors

(Source: Accident Fund Holdings)

Sector	Motor Vehicle Claims	Total Claims	Pct Claims
Heavy Construction	99	2612	3.8%
Excavation	20	255	7.8%
Stores	52	364	1.4%
Towing	118	783	15.1%
All Trucking	666	4981	13.4%
Trucking Other	43	240	17.9%
Trucking Long Dist.	194	1224	15.8%

### Finding the Diamonds in the Data

Say you're an underwriter for a workers' comp insurer. What do you note in the findings from the database? First, most, but not all, claims are in the trucking industry. Thus, different technology solutions apply to different sectors. For instance, excavation vehicles benefit from extremely high-precision vertical awareness, to track below-surface objects. In contrast, heavy construction is enhanced with small, onsite-self-driving vehicles. Second, there is a large number of non-vehicle-related claims, even in the trucking industry. Why? Because once the truck has reached its destination, the driver puts on a new hat, as laborer, moving contents out of the portable warehouse. These dual functions call for very different technology solutions.

Between these lines exists opportunity, even as you take into account other considerations such as the size of the employer. (Small employers, for example, may be too limited in money and executive attention to embrace telematics and collision-avoidance investments.) You can work with your insureds to fit into their technology plans. You can set aside reliance on experience modifications and consider a variety of rating tools, including continuous 24/7 risk profiling.

You can use your awareness of injury-saving technology to design the best insurance package that includes premium credit incentives, training, and real-time monitoring of exposures and worker behavior.

## SECTION 2

## Scenario 2: How Patient Mobility Technology Can Move Your Business Forward

In the 1980s, patient mobility technology was designed explicitly to eliminate injury risk when repositioning or moving patients. It also improves patient care, because it enables staff to more easily deliver clinical care. Commonly referred to as patient lifting technology, the more accurate term is patient mobility, as it comes into play in transfers to and from beds and repositioning, showering, dressing with compression stockings, and other patient care tasks. The Veterans Administration installed the technology in their facilities at a cost of \$200 million, and the NCCI confirmed its positive effect on workers' comp costs.

Across the board, healthcare safety professionals tout the technology. Yet the large majority of 17,000 long-term care facilities and 5,500 acute care facilities have yet to invest in patient mobility, and of those that have, their workers neglect to use it even after the considerable expense of installation. The stakes are revealed in the table that follows.

### Patient Mobility–Related Lost-Time Claims

(Source: Accident Fund Holdings)

Code	Description	Lifting Claims	Total Claims	% Lifting
8829	Convalescent/Nursing Home, All	664	1950	34.1%
8833	Hospital, Professional	270	1132	23.9%
8841	Nursing Home, Professional	2	10	20.0%
8835	Nursing Home Health, All	384	1475	26.0%
8826	Retirement Centers, All Other	27	182	14.8%
8825	Retirement Centers, Food Service	2	112	1.8%
8824	Retirement Centers, Health Care	260	608	42.8%



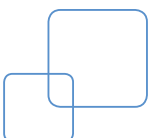
## SECTION 2

If you're an underwriter, right about now you're probably thinking, "Huh? Why wouldn't the healthcare profession embrace this technology?" A report by the consulting firm Atlas Lift Tech offers an explanation: Most workers' comp insurers in the healthcare market, while aware of this technology, fail to share with their clients an easy-to-use method for correctly predicting financial impact. Instead, they leave it to the equipment vendor sales people to do the math. In addition: facilities fail to apply a comprehensive set of policies and procedures regarding use after installation, and high staff turnover imposes a high penalty on facilities that don't follow through.

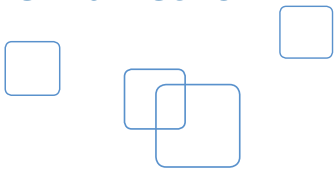
But within this scenario is uplifting news for you. You might ask yourself how you can design an insurance package that will encourage your healthcare clients to better use this mobility technology, since the payback appears so high. Surely there is a way to leverage this technology into profitable workers' comp insurance sales. Perhaps not many insurers (or brokers) are willing to invest in the soft technology of consultative advice to clients (advice that falls far outside the comfort zone of most safety professionals). But this gives you, the underwriter, a competitive opportunity.

Say you are not in insurance, but rather in medical care. Patient mobility risks involve overexertion. Wearable monitoring devices are currently being tested by academic centers for possible use in measuring physical effort, such as speed, angle and force of tasks. We are still several years away from ubiquitous use of these devices for occupational application. But now is the time to frame the technology adapter questions. Can these devices accurately identify the discrete steps in patient care that contributed the most to injury? Can rehabilitation and return to work succeed by closely monitoring how the worker performs these tasks in the physical therapy clinic and back in the medical ward?

The bottom line: Start thinking about riding the wave of technology innovation as it affects work injury risk. Yes, technology lowers the number of injuries and claims, but for the intrepid practitioner, it also creates a new, lucrative market for analysis and collaboration. And with that perspective, technology can be your best professional ally.



**Technology lowers the number of injuries and claims, but for the intrepid practitioner, it also creates a new, lucrative market for analysis and collaboration.**



## SECTION 3

## Section 3: Claims: Are You Lit Up?

Not long ago, an executive of a major insurer told an audience at the National Workers' Compensation & Disability Conference that his employer "owns" the claims data and has no obligation to share it with policyholders. Today, that speaker's words would elicit catcalls.

Yet another seismic shift in the industry is that insurers and other claims payers can no longer get away with unilaterally withholding information. Claims data is becoming more transparent, more analytical, and more collaborative. In other words, more lit up. At times, it may not seem this way, and in important respects claims-related activity is being bifurcated between two scenarios, one which imposes tighter controls over individual workers, and one which imposes greater challenges for individual creativity.

Still, the ability to perform at a lit-up level is now a firm reality, thanks in part to technology embedded in machines and vehicles, in claims, and in legal and medical treatment systems. In addition, the cost of claims-related data—cost in dollars, but also in the time and effort required to access and use it—has been declining sharply. Data services from firms such as Verisk Analytics, the Reed Group, ODG, Advisen, and others are constantly being refined. More providers of analytical services are certain to emerge. And other firms such as CS Stars, Origami Risk, and Riskconnect are providing platforms to employers to manage these resources.

In short, we are witnessing an evolution in analytical resources for claims management. Take note that this release of pools of data can be a game changer, and a good number of workers' comp professionals can get on the winning team, if they're willing to pump up their analytic and social skills.

Unfortunately, many claims payers are behind where they should be. The supply of seasoned adjusters is tightening due to generational trends. Most claims systems are limited in key functions, such as integrating data from disparate sources. Adjuster training budgets are well below what one would expect. (See Rising Medical Solutions' survey reports on claims management.) The transformations explored in this section are taking place over years, incrementally and unevenly.

**We are witnessing an evolution in analytical resources...we are at the dawn of lit-up adjusting.**

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## The Evolution of Workers' Comp Claims Adjusting

Stage	High period	Characteristics
Generic adjusting	1985-1995	Adjusters viewed as multiline with some specialization among lines. Credentials: "trained at Liberty [Mutual]". Primitive, green screen claims systems.
Segmentation between lines	1996-2005	Less homogenous claims staff, spurred in part by growth of monoline companies. Crude connectivity with ancillary software systems
Sub-specialization within WC	2006 to today	Adjusters not specialized in WC claims now are considered poor performers. Early versions of decision-support ["predictive model"] systems
Lit-up adjusting	2020?	Mature decision support systems channel claims into highly routinized processing or into highly analytical and collaborative teams

### Dark vs. Lit-Up Adjusting

In any given workers' comp claims office, individuals with adjacent desks may subscribe to one or the other of the following approaches to claims adjusting. While both models reflect a sustained investment in automation, one adheres to a more prescriptive model of claims adjusting, while the other engenders more creative thinking.

### More Consistency, Less Adjuster Discretion

In the 1990s, insurers began investing heavily in information technology, with the idea that computers would routinize claims adjusting, in effect lowering the skills demands on adjusters. But reducing variance in claims management was often accompanied by initiatives to "dumb down" claims handling. Adjusters received less training, but higher workloads, and often had to contend with data scarcity and isolated decision-making.

This model reflects a more prescriptive approach to claims management. It uses medical treatment guidelines, duration of disability guidelines, and vendor management tools to essentially force the adjusting into a prescribed sequence of tasks. Adjuster discretion is less than before. The term "dark adjusting" is apt in the sense that the claims office bears similarity to a warehouse taken over largely by robots, and therefore requiring less lighting.

## Seeing the Light

Now we are at the dawn of a new era of lit-up adjusting. In fact, the seeds of change took hold perhaps 30 years ago, throughout the economy. American employers, as they laid off huge numbers, began valuing workers proficient in synthesizing diverse information, analysis, joint problem solving, and collaboration. The computer continues to play a vital role, performing the rote, routine tasks of compilation and ensuring data accuracy, but the need for workers to employ more analytical skills and creative thinking is higher than ever. Adjusters and other workers in fields as diverse as police, hospitals, shipping and college admissions are expected to take disparate pieces of data coming at them at rapid speed, synthesize and analysis them, and recognize information they need but do not have.

With complicated work injury claims, treatment guidelines may be insufficient because the injured worker presents complex medical and behavioral issues well outside the middle of the curve. With these claims representing the most expensive 5%, adjusters (some compensated at over \$80,000) are expected to plan out, revise and execute strategies.

Adjuster discretion is highly valued by employers. Corporate risk managers repeatedly confirm that for them the most successful adjusters will be those who listen to the employer, know when and how to depart from standard procedures, and have the authority to make decisions in the moment.

### Demanding Tasks in Claims Management

- ☐ Very early assessment
- ☐ Determining causality within a complex medical picture
- ☐ Identifying workers who are at risk for not recovering even with expert medical care
- ☐ Finding/creating opportunities to advance return to work
- ☐ Recommending settlement strategy

## Going beyond Actuarial Conventions to Operational Thinking

The actuarial mindset assumes that the primary users of actuarial information are parties who wish to sell a complete portfolio of claims at any time, go out of business, or generally learn the overall state of financial condition at one point in time. The actuarial average cost-of-claims figure may be useful for a claims department tasked with managing an inventory of open claims with no mandate to influence claims outcomes. But to actually manage claims towards optimal outcomes, the average claims cost is useless.



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In the following table, the Workers' Compensation Research Institute shows a conventional presentation of average benefits incurred for claims with at least seven days' duration.

### Average Claims Costs

(Source: WCRI)

State	Average
15-state average	\$33,032
California	\$32,032
Florida	\$26,703
Michigan	\$22,890
Texas	\$24,945

Contrast this with the next table, using claims data readily available from the Official Disability Guidelines. We included two states regarded as high cost (California and New York) and two states regarded as low cost (Arizona and Indiana). The claims cost estimates on the extreme right in this ODG table include claimants who are in the top 5% in claims costs, smoke and use prescribed opioids for at least 30 days.

The top benefit of this table is intelligent spur to action. Note that skewed results appear in every state. The data are urgent, not archival, and of real practical value.

### Skewing in TTD Claims Costs

(Source: ODG)

State	best practice	excludes 5% most costly	5% most costly	5% with opioids and smoking
Arizona	\$15,377	\$21,244	\$29,612	\$135,737
California	\$16,706	\$30,779	\$42,742	\$156,302
Florida	\$12,861	\$22,238	\$31,116	\$139,075
Georgia	\$12,905	\$21,977	\$30,834	\$138,009
Indiana	\$13,843	\$18,623	\$26,950	\$131,361
Michigan	\$12,912	\$22,805	\$31,766	\$141,113
New York	\$16,497	\$29,370	\$40,936	\$156,358
Texas	\$12,390	\$21,786	\$30,385	\$138,657

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## Segmentation: Reading the Data Right

Segmentation is built into every predictive system, and once you have the tools to segment there is an almost unlimited opportunity to add more data into the equation. You can segment not only by claim, but by occupation and other factors. This is basically how predictive models work. Segmented claims information is lightning; average claims information is a lightning bug.

In the table below, occupations are listed in descending order of smoking prevalence. Also factored in is the degree the occupation is physically demanding. It could well be that a claimant's smoking status and obesity (the threshold is 30 BMI) are far more important in influencing recovery and return to work than physical demands. Smoking behavior is a particularly interesting variable, yet still missing from many claims reports. Smoking impedes physical healing. It is a marker of frustrated solution seeking. It can be successfully targeted in worksite prevention, however, which is discussed in the following section.

### Personal Health in Washington State

occupation	smoking	obesity	physically demanding
all occupations	17%	25%	36%
truck drivers	34%	39%	42%
construction trades	31%	20%	85%
protective services	14%	34%	42%
registered nurses	10%	22%	61%
teachers (secondary)	7%	21%	2%

## Shifting from a "Predictive Model" to "Decision Support"

If you haven't already, now is the time to get into a 21<sup>st</sup> Century mindset. Yes, prediction has its place, if it is used solely to set reserves. But as an aspect of the decision-making process, it is only one factor for consideration, and has little value unless other factors are brought to light.

Simplistic segmentation can mislead more than enlighten, and analytics can go astray. Avoiding these pitfalls demands someone capable of triage and follow-up to capture the potential for prediction to segment claims for specialized intervention. In fact, interpreting claims data requires even more creativity due to the "Red Queen Effect," a concept taken from *Through the Looking Glass*. In the book, the Red Queen tells Alice, "Now, here, you see, it takes all the running you can do, to keep in the same place."

The bottom line: While no one will argue that supportive data is key, it is only the adjuster—as both engineer and master craftsman—who can translate predictions into insight and superior claims management.

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## You—Yes, You—Can Be a Claims Leader (without Being a Professional Adjuster)

Rising Medical Solutions recently coined the term “claims leaders” in its extensive surveying of workers’ comp professionals. These leaders are deeply engaged in claims management. Clearly, in an industry where “Big Data” has finally and firmly taken roost, claims leaders can be many things. But they often aren’t professional adjusters. It’s interesting to note that insurance and broker executives sometimes cite how they purposely recruited analytical staff members with no workers’ comp experience.

You can be one of these leaders. The era of better analysis and collaboration is at your fingertips, made possible by technology embedded in machines and vehicles, in claims, and in legal and medical treatment systems. Equally important, the liberation of claims data means employers are demanding more accuracy and accountability in the information provided by their insurers, TPAs and brokers.

You do not want to be left behind. Embrace and master 21<sup>st</sup> Century technology. Access and use claims data cheaply, and in as unrestricted a manner as you can. Think creatively. And partner with clients and suppliers to make claims data fully accessible. In other words, perform at a lit-up level—and you will outshine the competition.

### Injured While Co-Morbid

The WCRI interviewed injured workers in North Carolina by phone. With an average age of 46 at time of injury, as a whole they were healthier than their peers in and outside the workforce. But they had a large number of co-morbidities. 43% were smokers for at least 10 years. 30% had hypertension. 13% had diabetes. 7% had lung conditions. 4% had heart problems. 38% had one co-morbidity, and 24% had at least two co-morbidities.

Co-morbidities were defined as hypertension, diabetes, lung and heart conditions, and at least 10 years’ smoking history. Obesity was not included in the survey.

Source: Vennela Thumula et al. Predictors of Workers Outcomes in North Carolina. Workers’ Compensation Research Institute. June 2014.

## SECTION 4

## Section 4: Diversification: Making Your Presence Felt in the Absence Business

**"Injury used to represent the bulk of employee absence managed by companies. In recent years, the FMLA and state and local laws have made leave the most pressing, complex — and possibly litigious—type of absence in the workplace."**

— Terri Rhodes, Executive Director of the Disability Management Employer Coalition

We are in the midst of a demographic and employee benefit evolution, one in which work injury risk is declining (call it the Big Fade in workers' comp), while other non-occupational absences and disabilities are becoming more prominent. The upshot: the "absence business" just may be the most attractive avenue for professional diversification for you personally, and for a workers' comp company.

A few have already heeded the call.

For example, third-party administrators Broadspire, Sedgwick and York invested in personnel and technology to help employers manage non-occupational employee risks, such as personal disability, other absences from work, and job accommodations for disabilities of any kind. Other insurers have invested in worksite wellness at their insureds, one of them going so far as to found a health plan and sell health insurance in conjunction with its workers' comp product. And on the government front, the National Institute of Occupational Safety and Health launched its Total Worker Health program in 2011 to formally recognize the connection between occupational and non-occupational health.

The changing world of work injury risk brings to the foreground the question: In five or ten years, what industry will you be in?

### Not Your Father's Work Injury Risk

In 1993, when the Family and Medical Leave Act (FMLA) was introduced, there were about 40 federal, state and local absence-related laws on the books. Today there are over 200.

According to a survey by the Integrated Benefits Institute, the incidence rate of FMLA leaves is about 5%, five times the rate of lost-time work injuries. About 60% of these absences are for the employee's own health conditions, followed by leaves for the birth or adoption of a child, then leaves caused by the health condition of another family member. The survey also found that the incidence rates of short-term disability claims, among workforces covered by a corporate short-term disability policy, is about 3% a year. Long-term disability claims incidence was only about 0.2%. Work injuries account for a mere 7% of lost productivity days for an employer (see table).



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It's worth noting that this profile is distinctly female-centric. Why? Partly because the working female demographic drove the creation of FMLA, to help mitigate workers against myriad absence risks that often involve caring for other people or giving birth. Between 1960 and 2012, the percentage of households with children having the mother as one of the breadwinners (or the only one) rose from about 20% to 49%.

### Distribution of Non-Productive Days

(Source: Integrated Benefits Institute)

<b>Presenteeism</b>	<b>36%</b>
<b>Sick days</b>	<b>31%</b>
<b>LTD</b>	<b>11%</b>
<b>STD</b>	<b>8%</b>
<b>Workers' Comp</b>	<b>7%</b>
<b>FMLA</b>	<b>6%</b>

In addition, more FMLA claims are made by women than by men. And last but hardly least women, not men, are driving benefits policy in corporations and government agencies. They are the leading employee-risk demographic because they exert the most influence over societal expectations for what a disability safety net is all about. In effect, this group is setting the rules, and has been for some time.

### Integrated Disability Management: Planting the Seeds

In the early 1990s, a talent pool of West Coast individuals developed the idea of coordinating all absence risks, packing these responsibilities into a single centralized unit. This novel approach, with its centralized intake of employees seeking benefits, was intended to strengthen the employer's capacity for addressing myriad health and absence risks in its workforce. It spoke of smoother benefit delivery, dollar-saving coordination, greater internal transparency, and in the end, a healthier and more productive workforce.

The concept was called "integrated disability management" (IDM). It's still called that today, though it's sometimes given a more meaningful label such as "total absence management" or "health and productivity management."

In 1995, Tom Parry and some colleagues founded the Integrated Benefits Institute. Headquartered in downtown San Francisco, IBI now has 1,000 corporate members. It describes itself as providing "the data, research and tools professionals need to make sound decisions in how they invest in the health of their workforces."

In a way, IBI serves as the de facto chief economist for the absence business. For example, IBI's Absence Cost Estimator—a methodology that incorporates variables such as hard and soft costs—was used by executives at Sutter Health to quantify the cost of employee absence. (See profile on page 29.)

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Another founding player in the absence business is the Disability Management Employer Coalition, located in San Diego. The organization is a chief talent developer, assembling a cadre of professionals proficient in integrated disability, absence management, and return-to-work solutions. DMEC's 15 local chapters and 15,000 members are a common source for IDM talent for employers. The group also sends monthly legislative updates to members, and maintains a compliance resource center.

Rounding out the IDM talent infrastructure is the National Business Group on Health, lending its expertise in health plans. (The organization was originally called the Washington Business Group on Health, before it embraced a national focus on health plans and, later, worker productivity and absence.)

Given the promise behind integrated disability management, the players described above, and many others, thought the concept would fly right away. They thought wrong. In the 1990s, employers were stifled by internal bureaucratic silo culture. Vendors such as insurers and service providers were quirky, narrow in focus, and too few. And primitive information systems weren't up to handling the complex benefit rules and process flows.

Fortunately that internal resistance has passed, and leaps in technology are more than capable of fulfilling promise with process.

## The Coming of the Age of the Absence Business

Today, employers have warmed up to what we call the business of absence management, in large part due to the following four developments.

**1. An explosion in mandated employee absence benefits.** Starting in 2014, for example, virtually all Californian employers must grant at least three days' annual paid leave to employees who wish to care for themselves or a family member.

**2. The rise of expensive and very public litigation for compliance gaps.** Individual and class action suits against titan targets like Wal-Mart, United Airlines, and FedEx hog the headlines, but a growing number of smaller employers have also felt the heat. Lawyers and professional associations urge employers to make sure their disability and leave policies are correct, and that they consistently apply these policies, because federal and city enforcement teams are ready to act.

**3. A variety of employers are much more likely than in the past to ask for multi-benefit claims services.**

**4. To meet demand, claims vendors now offer services geared to a more coordinated approach toward all employee absences.** Spring Consulting Group says that "there are now three times the number of competent providers for integrated disability, absence and health management services than there were five years ago."

## SECTION 4

## Strategies for Entering the Absence Business

If you can speak Spanish, you can definitely learn Portuguese. The analogy being, if you already understand the language of workers' comp, you won't have too hard a time diversifying into the absence business. And it's a big business.

The first step is to not let the gap between occupationally driven absences (work injuries) and non-occupational absences make you feel daunted. Instead, consider the three main overlaps: intake platforms, job accommodation, and behavioral risk factors.

**1. Efficient front-end intake.** The workers' comp industry has invested a huge amount of effort into streamlining intake, including instant triaging of cases, advice on OSHA recording, leveraging worksite medical staff if applicable, and fast follow-through. Non-occupational absence management demands equal dedication to efficient intake. See the profile on page 29 of Sutter Health for insights into how one large employer created order out of near chaos by creating a central intake function.

**2. Job accommodations.** Most workers' comp professionals are unaware that the Americans with Disabilities Act (ADA) applies to work-related disabilities. According to this federal law, every person with a disability, which includes every worker during recovery and after she has achieved maximum medical improvement, is entitled to an "interactive" search for job accommodation.

**Note:** Both front-end intake and job accommodation functions are largely compliance-driven. Federal, state and even local laws need to be observed; employee benefit programs often are subject to the procedural demands of the Employee Retirement Income Security Act (ERISA). Collective bargaining contracts can also come into play.

**3. Behavioral risk factors drive both occupational- and non-occupational-driven absences.**

Obesity, smoking, depression and diabetes may not trigger an absence but they can seriously complicate recovery. Workers' comp claims payers have been struggling to address behavioral risk factors. Surprise! They have something in common with employers struggling to control behavioral drivers of absences and healthcare costs.

Few workers' comp insurers have invested aggressively in non-occupational risk. The Colorado state fund, Pinnacol Assurance, sets an example. Pinnacol introduced its Health Risk Assessment program in 2010 to policyholders. The program includes an annual health risk assessment, telephonic health coaching, and assistance in setting up worksite programs and incentives. It retained researchers from the University of Colorado and the Integrated Benefits Institute to measure the program's impact on health risk factors, productivity, and workers' comp. So far, so good, and more positive data is likely forthcoming.

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## Diversification: A Risk Worth Taking

A battle-hardened insurance executive recently said, "The disciplined insurer takes more risks intelligently and thereby maximizes its return. The undisciplined insurer fires off a lot of creative shots, but only knows if it has been successful once the smoke clears. Over time, this type of insurer will not win."

The bottom line: work safety, underwriting, and claims management are changing. Most claims payers have already experienced a gradual shrinking of their business, even if they have yet to notice it due to claims cost inflation. For insurers giant and small, this boils down to one truth: the biggest risk is not taking any risk. Every insurer has to understand and enter the absence business, soon, sooner, or soonest.

### A.I.M. Mutual: A Poster Demo of Diversification

A.I.M. Mutual, a monoline insurer headquartered in Burlington, Massachusetts, has crafted an affordable diversification strategy. A key success factor is expanding patiently in directions that make sense to the broker and employer communities. The insurer sought to respond to a latent market demand. According to Aon Hewitt's 2014 Health Care Survey, a large majority of employers view good health as a foundational element of employer programs in wellness, workers' comp, absence management, and safety.

A.I.M. Mutual partnered with a small external team expert in occupational medicine, health promotion, and health insurance. Best Doctors Occupational Health Institute began working with the insurer in 2005, at first strictly in improving workers' comp claims outcomes. It focused on predictive analytics, doctor evaluation, and soft channeling of care to the most appropriate providers. The two partners documented the high impact of behavioral issues, such as smoking, and the risk of doctor misdiagnosis and inappropriate care, which the Institute says is prevalent throughout the country.

The insurer launched a wellness initiative, re-titling its worksite safety program "Injury Prevention and Worksite Wellness." Its Wellness Advantage Initiative is offered to policyholders willing to make a one- or two-year commitment. The program customizes a set of interventions based on the circumstances of the employer and includes management coaching.

It then developed an appetite for a health plan, noting evidence that preventive programs, such as smoking cessation, pay off in lower workers' comp and health insurance costs. The insurer approached brokers that have both Property & Casualty and employee benefits distribution teams. It coached brokers to understand that the P & C and health benefits teams can best service their clients by pointing out a shared agenda of health risk reduction, and a focus on quality medical care. After several years of design and piloting, AIM Health was aggressively launched in 2014.

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## Sutter Health Takes the Plunge

Through its owned and affiliated centers, Sutter Health offers 48,000 healthcare services in over 100 Californian communities. Like other healthcare organizations, it faces a constant risk of a talent shortage and needs to keep employee absence low.

In 2006, the company revamped its workers' comp program, and saw its costs decline significantly. This emboldened executives to implement integrated disability management. Using an analytical method created by the Integrated Benefits Institute, it uncovered the total cost of non-occupational absences in a calendar year. The company also encountered wide variations in absence practices, which made it vulnerable to compliance problems.

In 2013, Sutter Health installed a single master platform of staffs and systems to manage virtually all absences, ensuring "the right benefit delivered at the right time to the right person." While staffing up to manage the program, Sutter had a hard time finding people who understood both human resources and disability. Some of its new staff was located within the informal network of Disability Management Employer Coalition members.

## SECTION 5

## Section 5: Summing Up by Looking Ahead to 2022

That former registered nurse we met in the introduction had her lucky day in 1993. That year, there were about 450,000 work injuries with durations of disability of over 30 days. These injuries accounted for almost all the claims costs and close to all the serious medical, legal and claims adjusting challenges as well. In 2015 there will be about 250,000. In 2022, there will be about 175,000 – or even fewer, if work safety and injury response improve at a faster pace than in the past.

Think for a moment: over, 30 years, the archetypical workers' comp case declines in numbers by 275,000 or close to 60% even while the American workforce increases by 39 million workers.

Could the trend be reversed? Benefits to injured workers could increase, state legislatures willing. Some 34 states have not even gotten halfway to meeting standards for benefits prescribed by a federal commission in 1972. States could expand mandated benefits to cover occupational conditions that in various ways have been removed from the workers' comp system or were never in the system. New major exposures, such as in nanotechnology, might arise.

However, plan for the shrinking of the classic product to continue. Let's take a final, market-based look how the transition might impact you by first impacting employers.

In the table below, the middle column shows the distribution of the workers' comp business among insureds in Minnesota. For example 10.2% of premium in that state is paid for by insureds with a premium of under \$5,000. The right column includes an estimate of the self-insured employer market. For example, 43.6% of the workers' comp business involves employers that have or would have a workers' comp premium (were they insured) of at least \$250,000.

### Distribution of the Workers' Comp Business Today

(Source: insured data from Minnesota Workers' Compensation Insurers Association)

Premium Range	% of insureds	% of all
0 - 5K	10.2	7.6
5K - 7.5K	3.8	2.8
7.5K - 12.5K	5.6	4.1
12.5K - 25K	9.1	6.7
25K - 100K	21.7	16.1
100K - 250K	15.7	19.0
250K plus	33.9	43.6

Consider how these large employers, which account for close to half of today's workers' comp business, will behave in the changing environment. They may have large human resource departments and be increasingly attentive to their absence obligations. Personnel in risk management and safety are at least fairly alert to ways to further reduce costs. They have likely thought about telematics and work injury risk (along with other exposures).

Many want out of the workers' comp system, for they do not like it. Where these employers enjoy the legal option to leave the conventional workers' comp system, they will be increasingly tempted to do so. The option is available



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now in Texas and Oklahoma and likely to expand to more states. There are fewer headaches in paying work injury benefits. The employer has a far easier time integrating its work injury benefits with its other absence benefits.

The 40% of the market at the high end is therefore primed to speed the decline of the classic workers' comp business.

Next, look at the other end of the spectrum. Employers with very little work injury exposure, say under \$12,500 in premium today, represent about 15% of the workers' comp business today. None are self-insured. For this market segment, incumbent claims payers may face new competition from tech-driven carriers which sell directly online, underwrite largely by computer, and train their adjusters to make fullest use of computer-based, decision support tools. Their worker's comp insurance product could easily come with compliance tools for managing absences.

The future, in sum, will not be kind to workers' comp professionals who are not ready for change.

This future will not happen overnight. But it will happen by 2022. Where do you want to be in 2022? What risks do you want to address? How can technology help you?

### Note on data sources

All data on injuries or claims come from either workers' compensation claims databases or from injury databases created by federal government agencies.

When workers' comp databases are used, the source is identified. Sources include published NCCI reports, the WCRI, the Texas Department of Insurance and ODG. Accident Fund Holdings responded graciously to a request for information about claims involving vehicles and patient mobility. The Minnesota Workers' Compensation Insurance Association graciously responded to a request for information about the distribution of workers' comp premium by size of policyholder.

When the source of injury data is not specifically identified, the source is the Bureau of Labor Statistics (BLS). These data originate in worksite OSHA logs; BLS extrapolates them to create national and state estimates of occupational injuries and illnesses. BLS presents the data in many ways, including duration of days away from work. Its estimates of injuries with at least 6 days' lost time provide a proxy for lost time compensable (LTC) claims of all employers.

Employment estimates for the top 100 jobs come from the American Community Survey (ACS). For 2012, the top 100 jobs accounted for about 115 million workers compared with a total of 154 million workers in all jobs. These estimates include employed and unemployed. Using ACS data permits projections to 2022 and access to otherwise hard to obtain information.