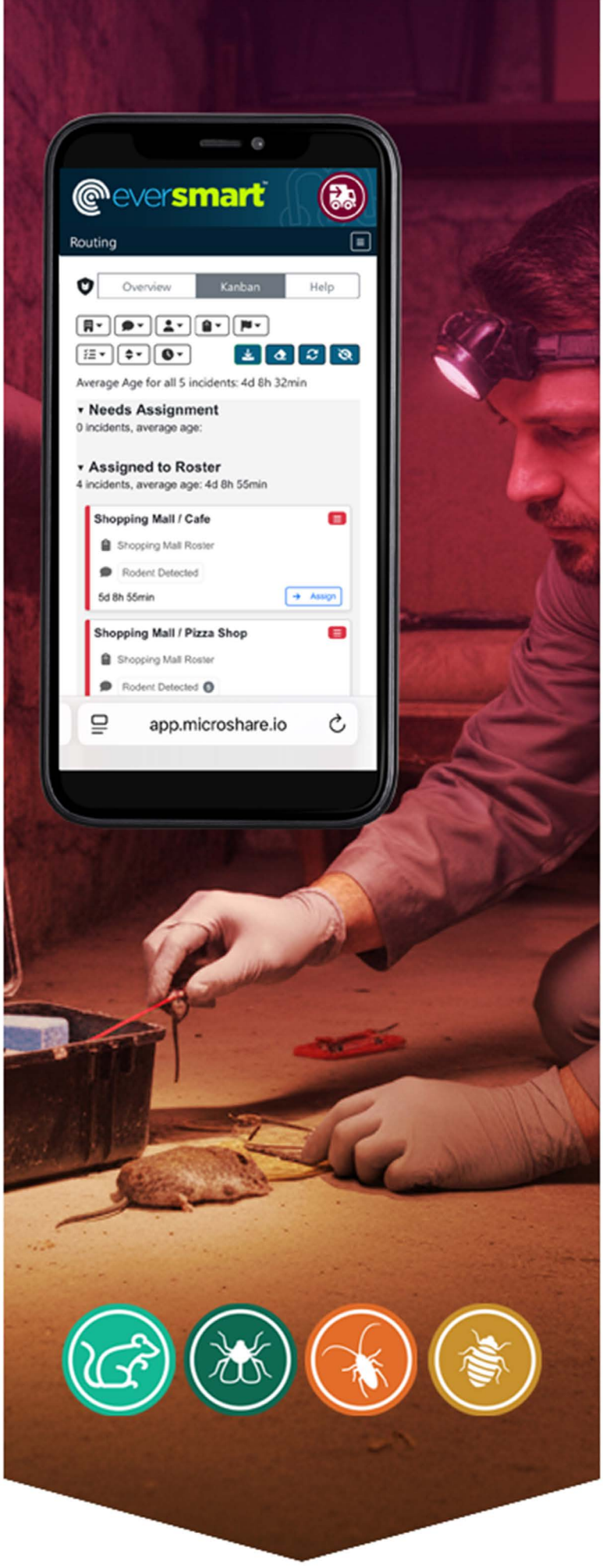

Making the world safe for Pest Control workers

How EverSmart™ Pest remote monitoring reduces workplace injuries, insurance claims and improves staff retention

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WHITE PAPER

Making the world safe for Pest Control workers

How EverSmart™ Pest remote monitoring reduces workplace injuries, insurance claims and improves staff retention

By Michael Moran

Executive summary

The Pest Control industry operates at the intersection of essential public health service and significant occupational risk. Technicians routinely perform physically demanding work in confined crawlspaces, on ladders reaching drop ceilings and attic spaces, and crouching repeatedly to inspect and service bait stations – sometimes as many as hundreds per shift. Over time, this labor model generates substantial costs: Workers' compensation claims average $2.43 per $100 of payroll—roughly five times the rate of claims in low-risk jobs like office workers or retail clerks. While no single number is published putting that in perspective, industry analysts believe the annual cost in Workers' Compensation and related legal claims in the United States topped $100 million in 2025. What's more, this strain and laboriousness encourages a very high annual technician turnover rate of one to two years for the average Pest Control technician, creating a perpetual cycle of recruiting and retraining expense.

Remote pest monitoring technology, exemplified by Microshare's EverSmart™ Pest platform, fundamentally reorders this equation. By deploying sensors in bait stations and traps, as well as "outside-the-box" sensors in drop ceilings and crawl spaces, the vast majority of bend-and-check tasks are eliminated. Only those places where activity is indicated need to be serviced, often less than 10% of deployed inventory, and without activity on roofs, in ceilings or in crawl spaces, no action is needed. The time saved is a widely understood benefit: The dramatic reduction in injuries, insurance claims, absenteeism and attrition costs are only now becoming clear. Customers report cutting unnecessary trap checks by as much as 70 percent—transforming physically exhausting, high-frequency inspection rounds into targeted, data-driven service calls.

The hidden cost of old-school pest management: Occupational injuries

Pest control occupies an unusual position in the landscape of occupational risk. Unlike construction or mining—industries whose physical dangers are well known—pest control presents risks that are repetitive and cumulative rather than dramatically acute. The result is an industry that carries a meaningful injury burden that often goes underappreciated. For workers, this translates into lower job satisfaction and high absentee and injury rates, often from repetitive strain and back problems. For Pest Control Operators (PCOs), this translates to recruitment and retention challenges, higher in insurance premiums and claim histories that have a material impact on margins.

The U.S. Bureau of Labor Statistics records a Total Recordable Incident Rate of approximately 3.2 per 100 full-time workers in Pest Control—well above the national average for private industry. The workers' compensation cost rate of $2.43 per $100 of payroll places pest control among the higher-cost service sectors, and specialty insurers that focus exclusively on the industry employ dedicated medical performance managers specifically to manage claim costs.

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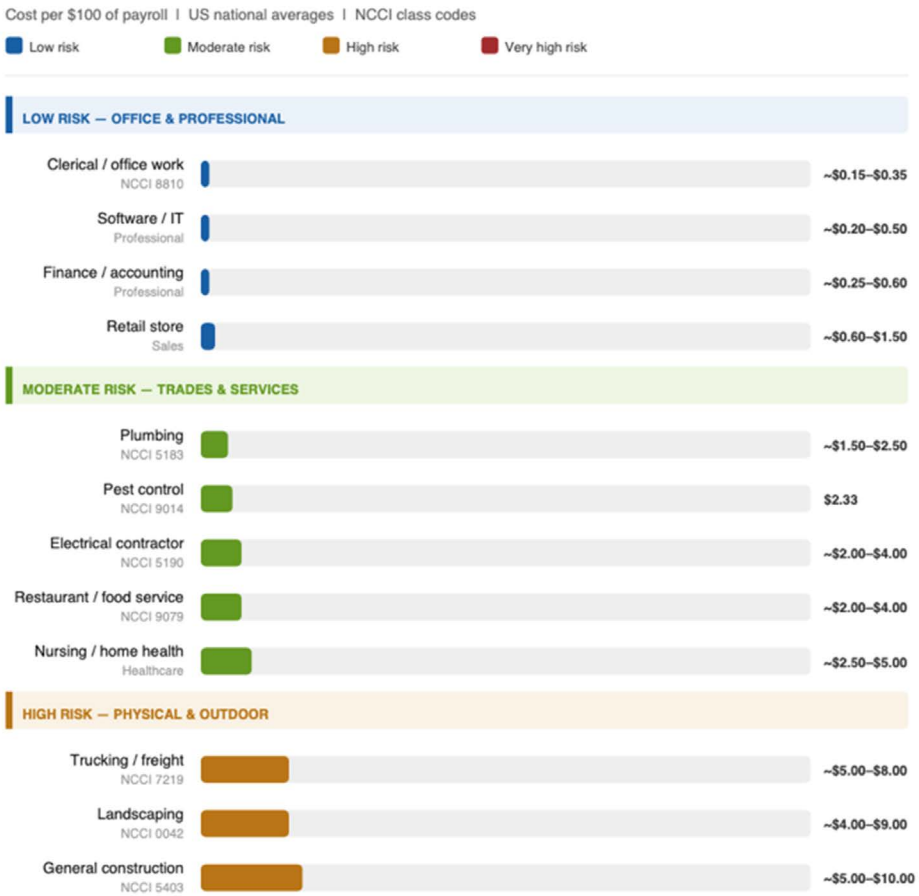
Workers' compensation rates by industry



The physical mechanics of injury

Three categories of physical demand drive the majority of musculoskeletal claims in pest control:

- Repetitive bending and crouching to inspect, bait and document ground-level and sub-floor stations. Commercial accounts may have hundreds of stations per facility, each requiring a technician to lower their body, inspect the unit, record its status and rise again. This is often repeated dozens of times daily and across multiple accounts.
- Ladder use for attic access, drop ceiling inspection and elevated bait placement. Falls from ladders represent one of the costlier acute injury categories in the industry, with even falls from modest heights capable of producing serious orthopedic injuries.
- Crawlspace and confined space entry for subterranean inspection and treatment. These environments compound physical strain with awkward postures, limited visibility and exposure to debris, moisture, and biological hazards.

The cumulative effect of these demands on a technician's body is significant. Lower back strain, knee deterioration, shoulder impingement from overhead work and soft tissue injuries in the wrists and hands are among the most commonly filed musculoskeletal claims. These injuries rarely result from a single dramatic event—they accumulate silently across years of service, making them both difficult to prevent through conventional safety messaging and expensive to treat once manifested.

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Industry snapshot: The cost of occupational injuries

$2.43	3.2x	1-2 years
per $100 payroll	**Recordable incidents**	**Average tenure**
Average Workers Comp premium rate for pest control	Per $100 FTE workers annually	Before technician turnover or exit

TOTAL COST TO INDUSTRY (minus recruitment/retention costs)

$108 million per year [i]

Remote monitoring as an injury prevention strategy

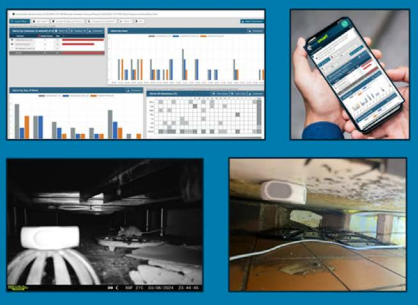
The core operational inefficiency that remote monitoring addresses—and the root cause of much of the repetitive physical strain—is the empty check: the routine, scheduled inspection of a bait station or trap that reveals no activity and yields no actionable outcome. Under traditional protocols, technicians are required to physically visit and document every device on a set schedule, regardless of whether any pest activity has occurred. At a large commercial account, this may mean bending or kneeling to service 200 or more stations in a single visit.

EverSmart™ Pest's sensor technology eliminates this inefficiency by replacing the presumption of physical inspection with real-time intelligence. Sensors embedded in bait stations and traps detect and transmit activity data continuously, so technicians arrive on site knowing precisely which devices require attention. Industry data indicates that smart monitoring systems reduce unnecessary trap checks by up to 70 percent—directly and proportionally reducing the number of bending, crouching, and crawlspace-entry events per shift.

Data that makes the workforce safer and more secure

AI in some settings threatens to replace workers. But EverSmart™ data makes the workforce both safer and even more important to IPM methodology by providing precision intelligence that relies on human intervention to achieve superior results

MORE OF THIS ...



... MEANS LESS OF THIS

- Harnessing AI and other technologies in service of workers, not to replace them
- Predictive, preventative data with easy-to-understand recommended actions

- Paring back "trap checking" tasks to free time for inspection and IPM activities
- 'Outside-the-box' sensors mean less time on dangerous ladders or in crawl spaces

Reducing elevated access hazards

Ladder falls and elevated-access injuries represent the most acutely severe category of pest control worker injury, with ladder-related incidents capable of producing traumatic orthopedic injuries even from modest heights. The standard inspection protocol for drop ceiling spaces, roof voids, and high wall cavities requires technicians to physically ascend to each access point—an activity that poses fall risk on every repetition.

Remote monitoring reduces the frequency of these high-risk access events by ensuring that technicians only ascend when sensor data confirms an actionable need. Additionally, leading pest control companies have begun deploying drones for preliminary inspection of elevated and hard-to-reach areas, providing visual confirmation of conditions before a technician commits to ladder access. The combined effect of IoT-based monitoring and drone inspection is a measurable reduction in the number of ladder and elevated-access events per technician per week.

The workers' compensation connection

The financial mechanism connecting reduced physical exposure to lower workers' compensation costs operates through the Experience Modification Rate, or ExMod. This NCCI-calculated factor adjusts a company's base premium up or down based on its actual claims history relative to industry peers. Companies with fewer and less severe claims achieve an ExMod below 1.0, paying less than the industry average; those with elevated claim histories pay more.

A 70 percent reduction in the number of repetitive physical exposures per technician per shift does not translate directly to a 70 percent reduction in claims—but it meaningfully reduces the probability of cumulative injury events over time. As claim frequency falls and ExMod improves, the compounding effect on annual premium costs can be substantial. For a pest control company with 50 technicians earning an average of $45,930 per year, a one-point improvement in ExMod can represent tens of thousands of dollars in annual premium reduction.

Demographics, turnover and burnout

The pest control industry's workforce challenges are structural, not cyclical. The average pest control technician tenure of one to two years creates a perpetual demand for new hires that the available labor pool increasingly struggles to satisfy. More than half of pest control companies report persistent hiring difficulties, and in the 2025 State of the Pest Control Industry survey, nearly half of operators ranked recruiting and retention as both their top goal and top threat to business continuity.

Demographics compound the challenge. The industry's workforce is concentrated in the 25–44 age range. But workers aged 40 represent about 45 percent of the total. This cohort—mid-career, physically experienced and carrying the accumulated wear of years of bending, crawling and climbing—is at precisely the age where musculoskeletal injury risk accelerates and recovery times lengthen. Physical burnout is rarely cited explicitly in exit interviews, but the pattern is visible in the data: a workforce that skews toward mid-career exit, in a physically demanding trade, in an era of abundant alternative employment options.

"Show off your investments in technology. Drones and high-tech pest control monitors make your jobs safer— and more intriguing for digital-native young workers."

National Pest Management Association,
PestWorld Magazine, 2025

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What younger workers expect

The industry's recruiting challenge is not merely a competition for existing pest control technicians. It is a competition against the full range of service and trades employment available to workers without a four-year-degree. Pest control's average annual wage of $45,930 in 2023 sat approximately $21,800 below the national average—a significant deficit in an era of tight labor markets. Combined with the physical demands of the role, this creates a recruitment proposition that struggles against warehouse logistics, delivery services, and other field service trades.

Industry research from the National Pest Management Association (NPMA) finds that younger, digitally native workers are specifically attracted by technology-forward working environments. Companies that can demonstrate investment in smart tools—drones, IoT monitoring systems, route optimization software, digital reporting—present a meaningfully more compelling recruitment story than those that offer traditional, physically intensive inspection rounds.

EverSmart Pest's platform serves this function directly: it signals to potential recruits that they will be working with sophisticated technology, not just crawling through crawlspaces.

Retention through a better working environment

The connection between physical workload and retention operates through job satisfaction and physical sustainability. Technicians who spend their days performing data-driven, targeted service calls—arriving at a site knowing which three of 200 stations require attention, rather than inspecting all 200 as a matter of protocol—experience a qualitatively different working day. Their time is spent on skilled, consequential work rather than repetitive checking. Their bodies endure less cumulative strain. Their sense of professional agency and expertise is reinforced rather than eroded.

Industry operators who have deployed remote monitoring report that automation serves not only as a labor efficiency tool but as an employee experience improvement. The NPMA's 2025 research specifically notes that automation supports employee retention by reducing repetitive tasks and enhancing job satisfaction. For pest control companies operating on thin margins with high training costs, every percentage point improvement in technician retention carries significant financial value: a conservative estimate of $5,000 to $10,000 in recruiting, onboarding, and licensing costs per technician replaced suggests that retaining even a handful of additional technicians annually can fund the cost of deploying a monitoring platform.

EverSmart™ Pest: Data intensive not labor intensive

Microshare's EverSmart™ Pest system enables PCOs to transition from time-based inspection protocols to condition-based service delivery. Rather than dispatching technicians on a fixed schedule to inspect every device at every account, EverSmart™ Pest uses continuous sensor monitoring to surface only the conditions that require a technician response. The operational implications extend well beyond route efficiency:

- Technicians arrive informed, not investigating. Real-time activity data means every site visit has a specific, confirmed purpose—eliminating the cognitive load and physical effort of exploratory inspection.
- Documentation is automated. Service reports are generated from sensor data rather than hand-recorded during physical rounds, reducing administrative burden and improving accuracy.
- Risk exposure is proportional to need. A technician enters a crawlspace or ascends a ladder because the data indicates a specific need, not because the calendar says it's time.

- Account capacity increases. With routine empty checks eliminated, the same technician can service a meaningfully larger account portfolio—improving company revenue without adding headcount or physical burden per account.

Measurable outcomes

Outcome Area	Documented or Expected Impact
Physical Exposure Reduction	Up to 70% fewer routine trap check events per shift, directly reducing repetitive bending, crouching, and elevated-access events
Workers' Compensation	Lower claim frequency supports ExMod improvement; compounding premium savings over 3-year rating period
Ladder & Fall Risk	Condition-based dispatch reduces frequency of ladder access; drone pre-inspection further mitigates need
Technician Retention	Reduced physical burden and technology-enriched working environment improve job satisfaction and career sustainability
Recruiting	Technology investment signals modernized workplace to digitally native candidates; differentiates employer brand
Account Capacity	Same FTE can service larger account portfolios, improving revenue without proportional increase in physical exposure

The operational benefits of platforms like EverSmart™ Pest translate into measurable financial and human outcomes that directly address the workers' compensation, retention, and recruitment challenges documented in this paper.

Remote monitoring is a strategic workforce investment

The pest control industry's operational challenges—rising workers' compensation costs, chronic technician turnover, and difficulty attracting younger workers to physically demanding roles—are not independent problems requiring separate solutions. They share a common root: a labor model that imposes disproportionate physical burden on technicians through routine, repetitive, and frequently unnecessary physical inspections.

Remote pest monitoring technology, deployed through platforms like Microshare's EverSmart Pest, addresses this root cause directly. By replacing presumptive, schedule-based inspection rounds with condition-based, sensor-driven service delivery, operators reduce the frequency of the specific physical

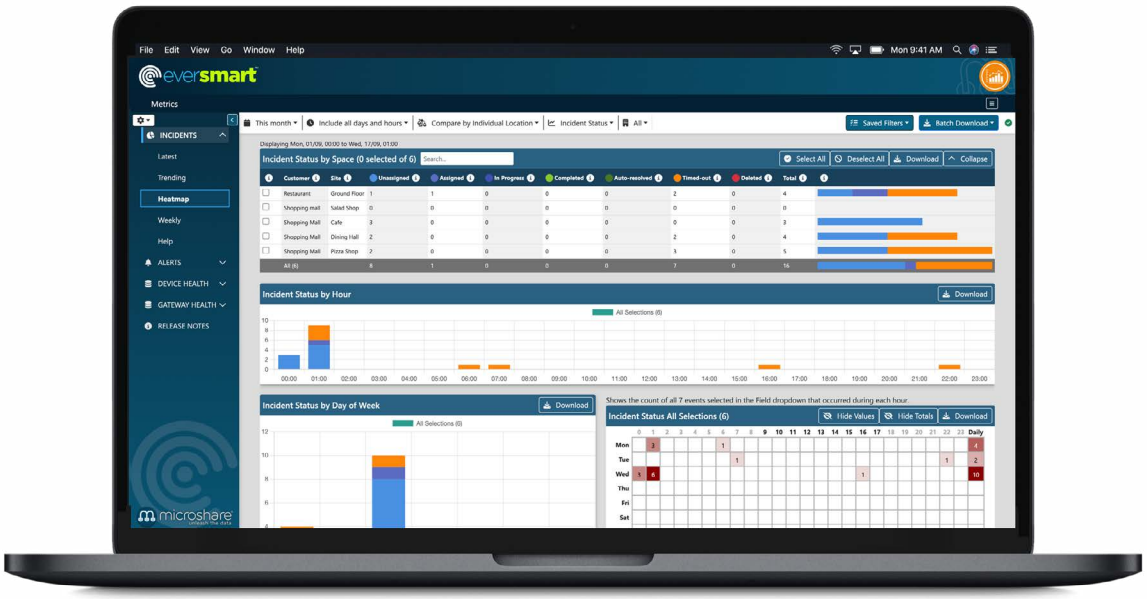
activities—crouching, ladder climbing, crawlspace entry—that generate the industry's most prevalent musculoskeletal injuries. The downstream effects are financially meaningful: fewer claims, lower ExMod scores, reduced premium costs, and a workforce that is physically less worn down and professionally more engaged.

The evidence from Microshare's EverSmart Pest customers supports what the broader industry data predicts: when technicians spend less time performing repetitive empty checks and more time applying their expertise to confirmed pest activity, they are safer, more productive, and more likely to remain. For an industry facing structural labor shortages and physical sustainability challenges, that is not a marginal improvement—it is a strategic transformation.

About Microshare EverSmart™ Pest

Microshare's EverSmart™ Pest platform provides IoT-powered remote monitoring solutions for the pest management industry. By combining sensor-equipped bait stations and smart traps with real-time data analytics and mobile-first technician interfaces, EverSmart Pest enables pest control operators to deliver condition-based service—reducing unnecessary site visits, improving documentation accuracy, and creating a safer, more sustainable working environment for field technicians. For more information, visit microshare.io.

Michael Moran is CMO, Chief Risk & Sustainability Officer at Microshare, Inc. and a former Partner of global advisory firm Control Risks.



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[i] There's no single published figure for the industry's total workers' comp spend, but it can be estimated reliably from the available data:

- The US pest control industry supports about 102,400 jobs. **Briostack**
- The average annual salary for pest control workers is $43,470 according to the Bureau of Labor Statistics. **Invoice Fly**
- The national average workers' comp rate for pest control in 2025 is $2.43 per $100 of payroll. **Kickstandinsurance**

Multiplying those together: 102,400 employees × $43,470 average salary = **~$4.45 billion in total industry payroll,** and at $2.43 per $100, that puts total workers' compensation spend at approximately **$108 million in 2025**