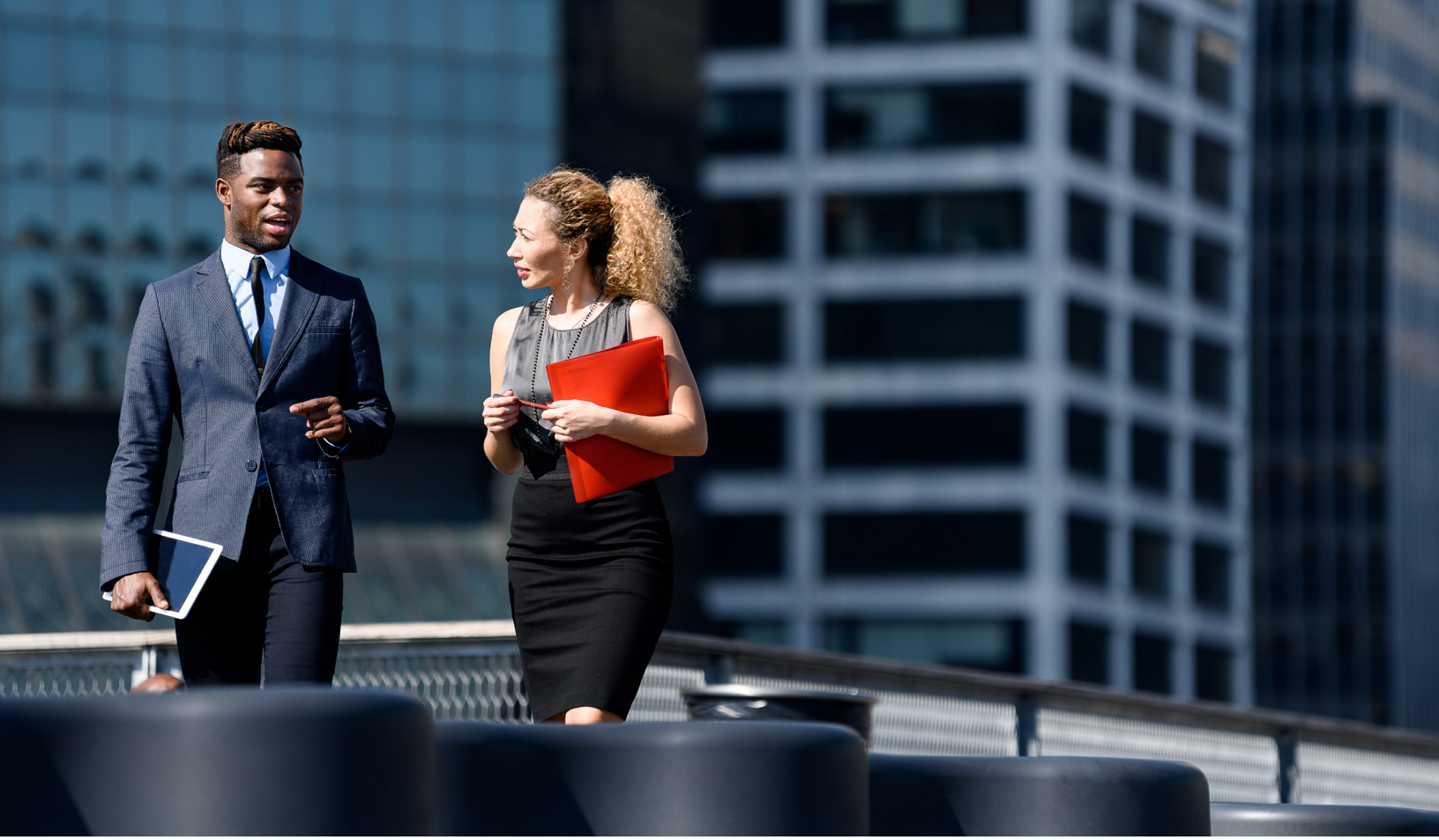

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The future of workers' compensation and auto no-fault insurance in the United States: A 10-year outlook

Introduction

The next decade will usher in a period of profound change for the U.S. workers' compensation and auto no-fault insurance sectors. Driven by demographic shifts, technological innovation, and evolving labor and mobility patterns, these industries must adapt to remain effective and relevant. This paper explores the anticipated transformations through 2035, focusing on workforce dynamics, artificial intelligence (AI), emerging risks, and the implications of autonomous mobility and provides a synopsis of recommendations for payers to stay on top of emerging changes.

Workforce transition and talent renewal

Data from the U.S. Bureau of Labor Statistics shows that the number of insurance professionals aged 55 and older has risen by 74% in the past ten years, and projections suggest that by the mid-2030s, nearly half of the current workforce will retire, leaving more than 400,000 positions unfilled[1]. This transition is not merely a matter of numbers — it represents a potential loss of deep institutional knowledge, particularly in specialized areas such as workers' compensation. A recent survey found that 28% of claims adjusters intend to retire within five years[2], a trend that could significantly disrupt operational continuity. These professionals often carry decades of experience in claims handling, medical review, and regulatory compliance, and their departure risks creating a gap that cannot be easily filled by new hires as the nuanced judgment and contextual understanding they bring to complex cases are not readily replicated through onboarding alone.

To address this, insurers are prioritizing strategies that preserve and transfer expertise before it exits the workforce. Digital tools are increasingly being used to embed expert insights directly into claims systems, so less experienced adjusters can access real-time guidance and decision-support features[3]. These technologies are not only bridging knowledge gaps but also redefining how expertise is delivered in day-to-day operations.

Training models are evolving in parallel. The traditional classroom-based approach is giving way to modular, on-demand learning formats that align with the expectations of younger professionals. These programs emphasize scenario-based instruction, interactive simulations, and just-in-time learning, enabling adjusters to build skills incrementally and apply them in real-world contexts. Rather than simply replacing retirees, the industry is reimagining the adjuster role as a strategic, tech-enabled profession that combines analytical rigor with human judgment.

Workplace structures are also adapting; hybrid work arrangements have become standard, offering flexibility while preserving opportunities for in-person collaboration. In addition, many organizations now require 2-3 days of office presence per week, striking a balance between autonomy and team cohesion. This model supports mentorship and informal learning, which are especially valuable for early-career professionals navigating complex claims processes[4].

And, recruitment strategies are shifting to reflect these changes. Insurers are building partnerships with universities, expanding internship programs, and reframing workers' compensation as a mission-driven career path. By emphasizing the social value of helping injured workers recover and return to work, companies are appealing to a new generation of professionals who seek purpose alongside professional growth. These efforts aim to attract candidates who are not only comfortable with technology but also motivated by the human impact of their work.

Artificial intelligence and operational transformation

In 2025, nearly 90% of insurance executives identified AI as a strategic priority[5]. However, despite widespread interest, only approximately 20% of insurers have implemented AI solutions at scale[6]. The coming decade will be defined by the integration and expansion of these technologies across core business functions. Examples include:

Fraud detection. Within workers' compensation, AI offers diverse applications. Fraud detection remains among the most promising. Machine learning algorithms can evaluate large volumes of claims data to identify irregularities, including duplicate submissions, inconsistent medical documentation, and patterns indicative of exaggeration[7]. These capabilities enable insurers to transition from reactive to proactive fraud mitigation.

Claims processing. Claims processing is undergoing similar transformation. Natural language processing tools interpret unstructured inputs, such as injury narratives and clinical notes, and extract structured data for adjudication. Robotic process automation facilitates routine administrative tasks, including data entry and form routing, which allow claims professionals to concentrate on complex cases[8].

Predictive analytics. Predictive analytics further enhance decision-making. AI models can estimate claim severity, duration, and cost by analyzing historical trends and real-time variables. These forecasts support early interventions, such as assigning nurse case managers to high-risk claims or recommending alternative treatment pathways[9].

Customer service. Customer service is also evolving. AI-powered virtual assistants and chatbots provide continuous support, offering claim updates, answering inquiries, and guiding users through procedural steps. These tools improve responsiveness and standardize communication, particularly for injured workers navigating recovery.

Complementary technologies. The Internet of Things (IoT) introduces wearable sensors and environmental monitors that collect real-time data on workplace conditions. AI systems analyze this data to identify hazards and prevent injuries[10]. Virtual reality (VR) is reshaping rehabilitation by offering immersive, task-specific therapy environments tailored to individual recovery needs[11]. Blockchain technology supports secure and transparent data exchange among stakeholders, enhancing trust and operational efficiency[12].

Despite these advancements, several challenges persist. Legacy IT infrastructure, fragmented data systems, and organizational inertia continue to impede scalability. Ethical concerns, including algorithmic bias and data privacy, necessitate robust governance. Insurers must implement transparency protocols, conduct regular audits, and ensure compliance with evolving regulatory standards.

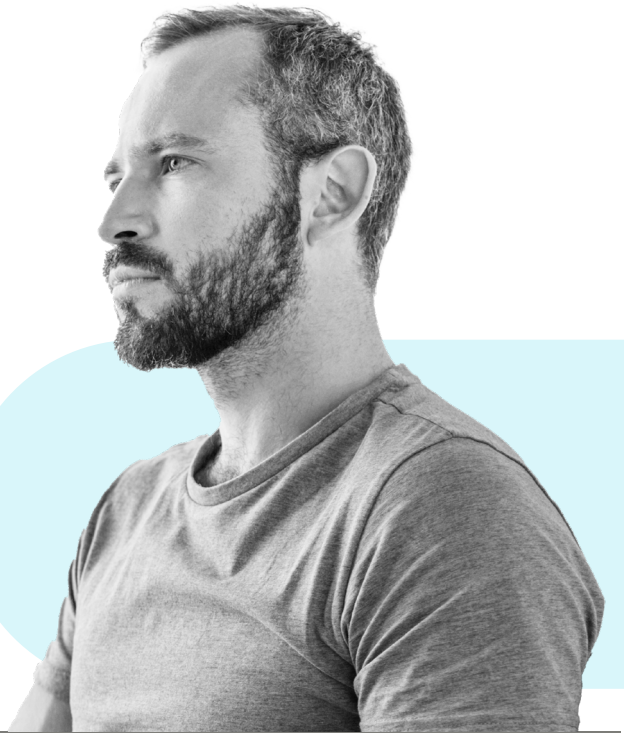
Evolving risk landscape

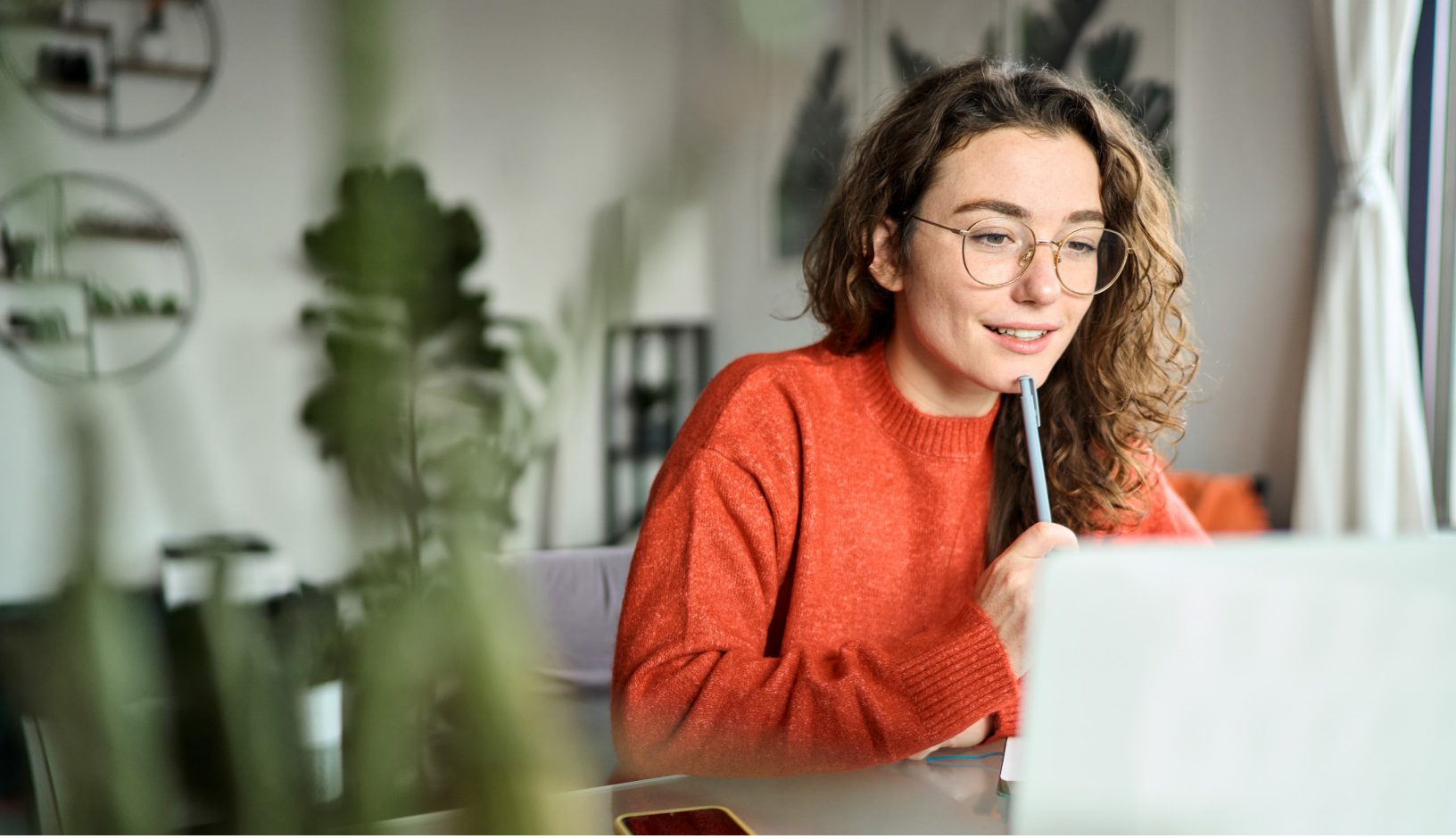
Over the past two decades, workplace safety improvements have led to a steady decline in injury rates. In 2023 alone, lost-time claim frequency decreased by 8%[13]. This trend is expected to continue as safety technologies become more widespread. Wearable devices, AI-driven hazard detection, and ergonomic interventions are reducing exposure to physical risks. For example, smart hard hats and exoskeletons are being deployed in construction and manufacturing to prevent musculoskeletal injuries. These innovations not only protect workers but also reduce claim frequency and severity.

However, new risks are emerging. Injured workers often experience depression, anxiety, or stress related to their condition and recovery and mental health is gaining recognition as a legitimate component of workers' compensation. States are expanding coverage for psychological injuries, particularly for first responders. Seven states are considering laws that presume PTSD diagnoses to be work-related, while others are extending coverage to educators, healthcare workers, and even all employees in some jurisdictions[14]. By 2035, it is likely that most states will routinely cover mental health conditions as part of workers' compensation.

Chronic health conditions are also influencing claim outcomes. Older workers and those with co-morbidities, such as diabetes or heart disease, tend to have longer recovery times and higher medical costs. Insurers are responding by integrating wellness programs and preventive care into their offerings. These initiatives aim to improve overall worker health, reduce claim severity, and support sustainable return-to-work strategies.

Climate change introduces additional complexities. Extreme heat, wildfire smoke, and severe weather events pose risks to outdoor workers. States like California are considering presumptions for heat-related injuries, while federal legislation is exploring the economic impact of climate-related workplace hazards[15].





Gig economy and coverage gaps

While most states mandate workers' compensation coverage exclusively for employees, the labor market is undergoing a structural shift. By 2027, more than half of the U.S. workforce is projected to consist of freelancers and independent contractors[16]. This growing segment (gig economy) includes roles such as rideshare drivers, delivery personnel, and freelance professionals—occupations that frequently fall outside the scope of traditional workers' compensation statutes. As a result, a substantial and expanding portion of the labor force remains unprotected by existing coverage frameworks, presenting a critical gap in occupational injury protection.

States are grappling with how to address this issue. California's AB5 law, enacted in 2020, reclassified many gig workers as employees entitled to benefits like workers' compensation[17]. Other states are considering similar reforms or exemptions for specific industries. In addition, insurers are exploring alternative coverage models. Occupational accident insurance (OAI) offers voluntary, flexible benefits for gig workers. These policies are tailored to short-term engagements and specific job types. While still emerging, OAI represents a potential growth area for insurers willing to innovate.

Technological barriers remain. Legacy systems are ill-suited to administer on-demand coverage. Insurtech startups are developing digital-first solutions, but widespread adoption will require investment and regulatory support. By 2035, insurers that offer scalable, gig-friendly products will be well-positioned to capture market share and demonstrate leadership.

Auto no-fault insurance and autonomous mobility

The auto no-fault insurance sector is entering a period of significant transformation, driven by the rapid advancement of autonomous vehicles (AVs), increasingly sophisticated driver-assistance technologies, and evolving patterns of vehicle ownership and mobility. As AV capabilities mature, the traditional framework of liability is being redefined. In incidents involving vehicles operating in autonomous mode, responsibility may shift from the human driver to the original equipment manufacturer (OEM) or the software provider responsible for the vehicle's decision-making systems[18]. This shift necessitates the development of new insurance models that can distinguish between human and system control and allocate liability accordingly.

Commercial applications of AV technology, such as robotaxis and autonomous freight transport, are progressing more rapidly than private ownership, offering insurers early insights into operational risks and coverage needs. These deployments have prompted the creation of policies that address specific vehicle subsystems, including vision modules and decision engines, effectively treating the vehicle as a mobile software platform rather than a conventional automobile[19]. Regulatory frameworks are evolving in parallel. For example, California requires AV operators to maintain substantial insurance bonds to test or operate autonomous vehicles, including those used for commercial passenger services, underscoring the role of regulation in shaping insurance obligations[20].

Forecasts suggest widespread adoption of AV technologies over the next decade. By 2035, S&P Global Mobility projects that nearly 87 million vehicles on U.S. roads will be equipped with Level 2 automation, with an additional 45 million featuring Level 2+, 3.5 million with Level 3, and 1.7 million with Level 4 autonomy[21]. These vehicles will introduce new risk profiles and demand dynamic coverage structures capable of adapting to varying levels of autonomy and operational contexts.

The claims process in this environment will rely heavily on digital data. Fault determination will increasingly depend on electronic data recorders (EDRs), sensor logs, and software configurations that capture vehicle behavior and environmental conditions at the time of an incident. Artificial intelligence will play a central role in analyzing these data sources, offering structured assessments that support timely and accurate adjudication[22]. As automation reduces the frequency of accidents, insurers may anticipate a decline in claim volume. However, this reduction may be offset by rising repair costs, driven by the complexity and expense of AV components and the specialized labor required for maintenance. Additionally, robotaxis and other fleet-operated AVs are expected to generate significantly higher annual mileage than traditional vehicles, prompting a shift from per-vehicle to per-mile exposure models[23].

Despite these technological advancements, access to operational data remains a persistent challenge. OEMs often retain control over vehicle logs and system data, limiting insurers' ability to accurately price policies and adjudicate claims. This lack of transparency may hinder the development of equitable and efficient insurance products. To address this, regulatory mandates and industry-wide standards will be essential to ensure consistent data access, promote fairness in liability assessment, and support the broader integration of AVs into the insurance ecosystem.

Strategic recommendations

To navigate the coming decade, insurers and stakeholders should consider the following strategies:

1. Institutionalize knowledge from retiring professionals through digital tools, documentation, and mentorship programs.
2. Scale AI deployments by aligning them with business priorities and investing in infrastructure and talent.
3. Cultivate a culture of innovation and accountability to overcome organizational resistance and unlock AI's full potential.
4. Advocate for inclusive coverage models that address the needs of gig workers and non-traditional labor arrangements, such as OAI.
5. Prepare for AV-related liability shifts by developing hybrid policies and enhancing data analysis capabilities.
6. Expand behavioral health and wellness integration to address the full spectrum of worker needs.
7. Engage in policy dialogue to shape regulatory frameworks around AI, data governance, and emerging risks.
8. Partner with insurtech firms to accelerate product development and access cutting-edge technologies.

Conclusion

The U.S. workers' compensation and auto no-fault insurance sectors are entering a period of accelerated change. Fewer traditional claims, more complex risk profiles, and transformative technologies will redefine how insurers operate. Organizations that embrace innovation, invest in talent, and contribute to policy development will not only adapt but lead.

Optum Workers' Compensation and Auto No-Fault, with its expertise in healthcare integration, analytics, and operational excellence, is uniquely positioned to guide stakeholders through this transformation. By anticipating trends and offering thoughtful solutions, Optum can help shape a more resilient, equitable, and effective insurance landscape for the decade ahead.

Source

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About Optum Workers’ Compensation and Auto No-Fault Solutions

Optum Workers’ Compensation and Auto No-Fault Solutions collaborates with our clients to lower costs while improving health outcomes for the injured persons we serve. Our programs include pharmacy, ancillary, medical bill review, and PPO network solutions, and combine data, analytics, and extensive clinical expertise with innovative technology so injured persons receive safe, appropriate, and cost-effective care throughout the lifecycle of a claim. For more information, email us at expectmore@optum.com.

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