



Journal of Insurance Regulation

Volume 45, Number 3

DOI: <https://doi.org/10.52227/27364.2026>

Artificial Intelligence and Insurance Regulation

Cassandra R. Cole
Stephen G. Fier
Chad Marzen

Journal of Insurance Regulation: A Forum for Opinion and Discussion of Major Regulatory and Public Policy Issues in Insurance

The Journal of Insurance Regulation (JIR) strives to make state insurance departments more aware of the cutting-edge, high-quality research occurring in the regulatory arena. All authors having articles that deal with insurance regulation are invited to submit manuscripts to the Journal for review. Before appearing in the Journal, each article is rigorously evaluated by the JIR Editorial Review Board to ensure that all information provides a true benefit to its readers and is of the utmost quality. The ideas expressed in the Journal are not endorsed by the NAIC, CIPR, the Journal's editorial staff, or the Journal's board.

The NAIC is the authoritative source for insurance industry information. Our expert solutions support the efforts of regulators, insurers and researchers by providing detailed and comprehensive insurance information. The NAIC offers a wide range of publications in the following categories:

Accounting & Reporting

Information about statutory accounting principles and the procedures necessary for filing financial annual statements and conducting risk-based capital calculations.

Consumer Information

Important answers to common questions about auto, home, health and life insurance — as well as buyer’s guides on annuities, long-term care insurance and Medicare supplement plans.

Financial Regulation

Useful handbooks, compliance guides and reports on financial analysis, company licensing, state audit requirements and receiverships.

Legal

Comprehensive collection of NAIC model laws, regulations and guidelines; state laws on insurance topics; and other regulatory guidance on anti-fraud and consumer privacy.

Market Regulation

Regulatory and industry guidance on market-related issues, including anti-fraud, product filing requirements, producer licensing and market analysis.

White Papers

Relevant studies, guidance and NAIC policy positions on a variety of insurance topics.

Special Studies

Studies, reports, handbooks and regulatory research conducted by NAIC members on a variety of insurance-related topics.

Statistical Reports

Valuable and in-demand insurance industry-wide statistical data for various lines of business, including auto, home, health and life insurance.

Supplementary Products

Guidance manuals, handbooks, surveys and research on a wide variety of issues.

Capital Markets & Investment Analysis

Information regarding portfolio values and procedures for complying with NAIC reporting requirements.

NAIC Activities

NAIC member directories, in-depth reporting of state regulatory activities and official historical records of NAIC national meetings and other activities.

For information about NAIC publications, visit us at:
<https://content.naic.org/publications>

© 2026 National Association of Insurance Commissioners
All rights reserved. Reprinting or distributing this material is prohibited without written permission from the NAIC.

ISBN: 978-1-64179-530-2

NAIC Executive Office
1101 K Street, N.W.
Suite 650
Washington, DC 20005
202.471.3990

NAIC Central Office
1100 Walnut Street
Suite 1000
Kansas City, MO 64106
816.842.3600

**NAIC Capital Markets
& Investment Analysis Office**
One New York Plaza
Suite 4210
New York, NY 10004
212.398.9000

Artificial Intelligence and Insurance Regulation

Cassandra R. Cole, Florida State University

Stephen G. Fier, Virginia Commonwealth University

Chad Marzen, The Pennsylvania State University

ABSTRACT

The use of artificial intelligence and machine learning (AI/ML) by businesses, including U.S. insurers, has grown considerably over time. While there are clear benefits to using AI, there are also significant concerns about how AI/ML usage could negatively impact consumers and insurers. In this article, we discuss how insurers are using AI across multiple lines of business and to what extent. A review of the NAIC AI model bulletins and their take-up rates is provided, along with suggested considerations for future AI-related bulletins that could strengthen adherence to the guiding principles. Furthermore, we review existing and proposed state laws as well as current federal laws that directly or indirectly impact the insurance industry's use of AI.

EXECUTIVE SUMMARY

IMPORTANCE:

The use of AI/ML is becoming ubiquitous, with businesses, including insurers, embracing this powerful technology at a rapid pace. Although benefits such as potential increased efficiency and cost savings can be derived from the use of AI, there are mounting concerns regarding the appropriate use of AI in the insurance industry, with some asserting that the technology is being used in a discriminatory manner or in a way that is disadvantageous to insureds while also exposing insurers to potential liability. As such, a discussion of insurers' use of AI and the current status of both state and federal regulations on AI usage should be of interest to a variety of stakeholders, including regulators, insurance companies, and consumers.

OBJECTIVES:

This study provides a comprehensive review of insurers' AI use and the current regulatory landscape surrounding it. This includes a summary of the key findings from industry surveys conducted by the NAIC, which focus on four distinct lines of business: private passenger automobile, homeowners, life, and health insurance. In addition, we review the guidelines developed by the NAIC on the use of AI and offer suggested enhancements. Next, we discuss existing and proposed state regulations and current federal laws impacting the utilization of AI by insurers. Finally, in the concluding remarks, we offer insight into the specific operational areas that regulators can focus their efforts on moving forward.

FINDINGS:

In the examination of the four surveys conducted by the NAIC, we find that over 70% of automobile, homeowners, and health insurers responding to the surveys are currently using, planning to use, or exploring the use of AI, while 58% of life insurer respondents report current or expected future use. Insurers electing not to use AI/ML primarily attribute their decision to a lack of business need, limited resources and expertise, and reliance on legacy technology, which would require system upgrades. Additionally, the operational functions in which AI is used vary among insurers, though there are some areas in which AI utilization is more common. In the discussion of AI/ML bulletins, we provide suggested modifications of the NAIC model bulletin or considerations for future bulletins. This includes additional best practices guidance on measurable benchmarks and disclosure of information by insurers to improve the transparency of company AI practices. We also propose a potential expansion of the NAIC annual statements to include an artificial intelligence systems supplement. This would allow for continuous and specific disclosure of AI usage by insurers and provide information on how usage and other AI-related practices change over time. In examining state laws, we find that some states have set forth specific guidelines or passed laws that directly or indirectly impact the insurance industry's use of AI. In addition, several existing federal laws, including HIPAA, FCRA, and GLBA, establish regulations complementary to those of the states. Finally, there appears to be some consensus that AI usage in underwriting/pricing and claims are the most critical operational functions. As such, given the challenges associated with AI use and the management of potential risks, these may be the operational areas in which regulators may elect to focus going forward.

CONCLUSIONS AND RELEVANCE:

The evidence presented in this article suggests that states are proactively providing guidelines and specific legislation for the appropriate use of AI/ML in insurer business operations, which should ultimately serve to protect consumers while still allowing the insurance industry to benefit from this increasingly important technology. Moving forward, legislative and regulatory actions should focus on areas of greatest concern for policyholders. This would allow insurers to continue to benefit from the efficiency and potential cost savings of AI while ensuring adequate consumer protections are in place.

INTRODUCTION

The use of artificial intelligence (AI) and machine learning (ML) by businesses has become pervasive in the U.S. and abroad. In 2024, 78% of respondents to an international survey conducted by McKinsey & Company indicated that their organizations used AI in at least one function, while only 55% responded affirmatively to that question in 2023, representing a 40% year-over-year increase (Stanford University, 2025). Among many potential benefits of AI use, this technology allows for improved decision making, completion of business tasks, risk management, and customer experience, and can lead to increased efficiency and reduced costs. Insurance companies are among the firms that have embraced the use of AI/ML, incorporating it into different aspects of their operations, including product development, ratemaking, claims payments, customer relations, fraud detection, distribution, and underwriting (e.g., Bellano, 2025; Eckert et al., 2022; Eling et al., 2022; Pressley, 2025).¹ Recent surveys conducted by the National Association of Insurance Commissioners (NAIC) indicate that 88% of personal automobile insurers, 70% of homeowners insurers, 58% of life insurers, and 84% of health insurers use, intend to use, or are exploring the use of AI/ML (NAIC, 2022; NAIC, 2023a; NAIC, 2023b; NAIC, 2025a).²

Although there are clearly benefits associated with the use of AI in the insurance industry, there are also legitimate concerns about the appropriate use of AI. First, AI is only as good as the information it is trained on, and it can incorporate biases which could affect insurer decision making. Potential biases could result in unfair discrimination of insureds, impacting whether they receive insurance coverage, the terms of coverage, and the price they pay (Filabi & Duffy, 2021; Jacobs, 2024). For example, a class action lawsuit was filed against State Farm Fire and Casualty Company, asserting that its use of AI for fraud detection and claims processing purposes resulted in discrimination against Black insureds (Rao et al., 2024).³ Second, the use of AI for claims handling could result in litigation, as has already been observed within the health insurance space. In one such instance, a suit (*Kisting-Leung et al. v. Cigna Corporation et al.*) was filed against Cigna Health and Life Insurance Company following a report alleging that an “AI-based algorithm” was used to reject claims without physician review (Bendix, 2023). Third, concern has been raised about using AI for prior authorization, which would prevent individuals

¹ The NAIC defines an AI system as “a machine-based system that can, for a given set of objectives, generate outputs such as predictions, recommendations, content (such as text, images, videos, or sounds), or other output influencing decisions made in real or virtual environments.”

² The results of these NAIC surveys of automobile, homeowners, life, and health insurers are discussed in detail later in the paper. Intend to use/planning to use and exploring the use of as noted throughout this paper refers to what is described in the surveys as AI/ML “Under Construction” and includes models that are in the “Research, Proof of Concept, (or) Prototype” phase.

³ The plaintiffs argued that the claims process was significantly different than that experienced by a White neighbor after both the plaintiff and neighbor sustained similar roof damage. As stated in the court’s Memorandum Opinion and Order, “Rather than discriminatory animus, Plaintiffs blame State Farm’s use of algorithmic decision-making tools that allegedly resulted in statistically significant racial disparities in how the insurer processed the claims” (*Huskey v. State Farm Fire & Casualty Company*, 2023).

from receiving medical care they might otherwise receive if the case were evaluated by a physician rather than AI (American Medical Association, 2025). Finally, the data fed into the AI system is likely to include sensitive information, which can expose insurers to potential liability in the event of a data breach or similar release of personally identifiable information. This concern is quite real, as evidenced in September 2025, when HealthCare Interactive, a company that develops AI-based medical insurance benefit and enrollment systems, confirmed a data breach that had occurred in July 2025. The company verified that details such as patient names, diagnoses, provider names, lab results, and health insurance enrollment data were compromised as a result of the breach (Van Alstin, 2025).

The purpose of this article is to provide a comprehensive review of AI usage by insurers and the current state of regulation around that usage. Specifically, we first report the key findings of a series of industry surveys conducted by the NAIC, which focus on four distinct lines of business: private passenger automobile, homeowners, life, and health insurance. Next, we present the NAIC's guidelines on the use of AI, which emphasize consumer protections and suggest modifications or considerations for future AI-related bulletins. The subsequent sections summarize specific state regulations currently in place regarding insurers' use of AI, as well as legislation being considered by states. This is followed by a discussion of commonalities and areas of focus observed among enacted and proposed state laws. Finally, we review current federal laws impacting insurers' use of AI, followed by concluding remarks.

Given the benefits and costs of insurers' use of AI, this article should be of interest to a variety of stakeholders. For companies, it provides useful benchmarking information on how insurers within their segment of the industry and other areas of the industry are using AI across different operational functions. For both state regulators and insurers, the article summarizes state regulatory approaches to AI use that could impact insurers' strategic business decisions and signal the future of state-based legislative approaches to addressing concerns about AI use among insurers. Finally, consumers may benefit from an improved understanding of how insurers employ AI, the current restrictions on AI use, and how their personal information is used.

NAIC ARTIFICIAL INTELLIGENCE/ MACHINE LEARNING INDUSTRY SURVEYS

Between 2021 and 2025, the NAIC conducted a series of surveys regarding the use of AI/ML within four segments of the industry—private passenger automobile, homeowners, life, and health insurance (NAIC, 2022; NAIC, 2023a; NAIC, 2023b; NAIC, 2025a).⁴ The surveys asked several key questions:

- Is the insurer using AI/ML? If not, why?
- For those using AI/ML:
 - Within what functional areas of the company is AI/ML used?
 - Are the systems being used internal or external to the organization?
 - What are the existing levels of governance, transparency, and consumer disclosures?
 - What methods exist for consumers to resolve incorrect information?

As shown in Table 1, the number of participating companies ranged from 93 (health insurers) to 194 (homeowners insurers). Insurers *not* using or planning to use AI/ML provided a variety of responses about why. One of the most commonly cited reasons by automobile, life, and health insurers, other than “no compelling business reason,” was a “lack of resources and expertise.”⁵ “Reliance on legacy systems requiring IT, data, and technology upgrades” was also a top reason cited by all but automobile insurers.⁶ Another frequently mentioned reason among life and health insurers was that “risk is not commensurate with current strategy or appetite.” Homeowners insurers indicated that they were “waiting on regulatory guidance” as a factor for their non-use of AI.

⁴ The first survey conducted was the automobile survey in 2021. It defined AI/ML systems to include the following: “(1) (s)ystems that adapt and adjust to new data and experience without manual human intervention; (2) (s)ystems that arrive at results for which the outcomes and the stepwise approach toward the outcomes were not configured in advance by a human programmer; (3) (s)ystems that dynamically respond to conditions in the external environment without the specific nature of such responses being known in advance to the designers of the systems; (4) (s)ystems that utilize neural networks and/or deep-learning algorithms, such as supervised, semi-supervised, and unsupervised learning algorithms; (5) (s)ystems that engage in automatic speech recognition, facial recognition, image recognition, text recognition, natural language processing, generation of customer-specific recommendations, automated customer communications (e.g., chatbots with non-preprogrammed prompts), autonomous or semi-autonomous vehicle operation or data gathering, or any other approach that does not require either preprogramming or a manual human intervention in every instance of an action or decision; (6) (s)ystems that automatically generate adaptive responses based on interactions with a consumer or third party; and (7) (s)ystems that determine which data elements to rely upon, in a non-preprogrammed fashion, among a variety of possible alternatives.” Similar definitions are used in the subsequent surveys. The life and health surveys also explicitly stated that “(g)eneralized linear modeling (GLM) or generalized additive modeling (GAM) are considered ML.”

⁵ Note that more than one reason could be selected by respondents.

⁶ Polisetty et al. (2023) provide evidence that AI compatibility with existing systems significantly influences the firm’s readiness to adopt AI.

TABLE 1
Summary of NAIC Survey Data

	PPA	Home	Life	Health
Survey Year	2021	2023	2023	2025
Survey States	Connecticut, Illinois, Iowa, Louisiana, Nevada, North Dakota, Pennsylvania, Rhode Island, and Wisconsin	Connecticut, Illinois, Iowa, Louisiana, Nevada, North Dakota, Pennsylvania, Rhode Island, Vermont, and Wisconsin	Colorado, Connecticut, Illinois, Iowa, Louisiana, Minnesota, Nebraska, North Dakota, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, and Wisconsin	Colorado, Connecticut, Illinois, Iowa, Louisiana, Maryland, Minnesota, Nebraska, North Dakota, Oklahoma, Oregon, Pennsylvania, Vermont, Virginia, West Virginia, and Wisconsin
Survey Company Requirements	Write more than \$75 million in auto premiums	Write at least \$50 million in homeowners premiums	Write at least \$250 million, cover at least 10,000 lives (term insurance), or identify as an InsurTech company	Write at least \$250 million in premiums or account for a "significant portion of the market share in one or more of the lines of business" in one of the identified states
No. of Participants	193	194	161	93
Currently Using, Planning to Use, or Exploring the Use	169 (88%)	136 (70%)	94 (58%)	78 (84%)
Company Operations				
Claims	155 (80%)	117 (60%)		
Claims Adjudication				50 (54%)
Fraud Detection	112 (58%)	107 (55%)		60 (65%)
Marketing	103 (53%)	103 (53%)	128 (80%)	
Sales and Marketing				53 (57%)
Rating	77 (40%)	89 (46%)		
Pricing			64 (40%)	
Pricing and Plan Design				59 (63%)
Underwriting	59 (31%)	120 (62%)	121 (75%)	
Loss Prevention	15 (8%)	34 (18%)		
Risk Management			40 (25%)	51 (55%)

Note: Usage areas included in the reports vary across the surveys. This chart includes the categories generally common across all four surveys. The number of companies (percentage of companies) represents the insurers that are currently using, planning to use, or exploring the use of AI in each of the operational areas listed. These are not distinct categories; insurers often use AI across multiple operational areas. In the life insurance survey, companies reported a number of other operational areas; however, the number of companies using, planning to use, or exploring the use of AI in those categories was not provided. This list, which appears on page 11 of the survey report, included fraud detection and claims approval/processing. The health insurance survey reported several additional operational categories, including prior authorization, utilization, severity, quality management, risk adjustment, data processing, and strategic operations. Between 58 and 66 companies report using, planning to use, or exploring the use of AI/ML in these functional areas. This information can be found on pages 14 and 15 of the survey report.

In terms of AI/ML usage, the surveys indicate that a greater percentage of automobile, health, and homeowners insurers (88%, 70%, and 84%, respectively) use or plan to use AI/ML than those writing life insurance (58%).⁷ When operations are considered, one of the most common areas where AI/ML is used, or companies plan to use AI/ML, is in marketing/sales. The survey results indicate that 53% of automobile insurers and homeowners insurers, and 80% of life insurers use or plan to use AI/ML within this operational area. The top function identified is targeted online advertising. Other specific marketing functions vary by type of insurer but include offering discounts to existing customers, customer acquisition and retention, identifying potential customers/recipients of mail or phone advertising, and online sales, quoting, and shopping.⁸

The high use of AI in marketing/sales is not unique to insurance companies. In a 2024 report, marketing/sales was identified as the top business function in which AI is being used (Singla et al., 2025). Reasons why firms (including those outside of the insurance industry) may choose to use AI for marketing purposes include the ability to analyze large amounts of data, reduce human mistakes, “enable convenient customer support,” “improv(e) stock control,” and customize the shopping process (Haleem et al., 2022). While using AI in this operational area may improve the customer experience, it could also positively affect firm profitability and revenue growth (Wu & Monfort, 2022). To illustrate, one recent report finds that 19% of companies reported AI use in sales/marketing resulted in an increase in revenue of 6% or more during the first half of 2024, and 30% reported an increase in revenue of 6% or more during the second half of 2024 (Singla et al., 2025).⁹ Similarly, a report released by McKinsey & Company stated: “Our research indicates that players that invest in AI are seeing a revenue uplift of 3 to 15 percent and a sales ROI uplift of 10 to 20 percent” (Deveau et al., 2023).

When we examine the other common operational areas, another high-use/plan-to-use category across all insurers except life insurers is claims. AI/ML in claims practices is highest among automobile insurers (80%), followed by homeowners insurers (60%), and health insurers (54%). Nearly 50% of automobile insurers surveyed are already using AI/ML as an informational resource for adjusters, greater than any other uses of AI within the claims function. AI has also been incorporated into the processes of determining settlement amounts, making claims assignment decisions, and evaluating images of losses. For homeowners insurers, AI is most commonly

⁷ As noted earlier, the most common response by life insurers for not using AI/ML was “no compelling business reason at this time.” More specifically, 48 of the 67 life insurers (72%) cite this as the reason. Filabi and Duffy (2021) may offer insight into this issue in their discussion of how using AI in underwriting can result in unfair discrimination risks. This may be somewhat reflected in this response, as well as in the fact that 26 of the life insurers surveyed who are not using AI/ML (39%) indicate it is because the “risk is not commensurate with current strategy or appetite.”

⁸ A 2025 study by J.D. Power reported that 47% of shoppers for auto insurance “purchase their policies through digital channels.”

⁹ One plausible explanation for the improved profitability attributed to the use of AI/ML in marketing is that AI use can help firms “achieve significant cost reductions across various aspects of their operations, contributing to improved profitability and long-term sustainability” (Kumar, Ashraf, and Nadeem, 2024), as well as lead to increased operational efficiency (Eling et al., 2022).

used in the subrogation process, with nearly 23% of insurers currently using AI for this purpose, almost 10% having developed an AI/ML claims model prototype, and nearly 6% researching its usage. Among the health insurers surveyed, determining benefit eligibility is one of the most common functions in which AI/ML is currently being used or is under consideration.

Fraud detection is another function in which all but life insurers are using or plan to use AI/ML.^{10,11} Utilization ranges from a low of 55% for homeowners insurers to a high of 65% for health insurers. Within this functional area, AI/ML is being employed or is being considered by nearly 50% to approximately 67% of insurers to identify and refer claims for further investigation. Insurers are also using AI/ML to identify low-fraud-risk claims that can be fast-tracked and to detect first- and third-party liability. Other uses vary by industry. For example, automobile and health insurers appear to also use or plan to use AI/ML to aid in the detection of fraud by medical providers while homeowners insurers are using or plan to use AI/ML to identify crime rings or analyze social media for “signs of potential fraud or material misrepresentation” by insureds and/or claimants.

Greater consistency in the use of AI/ML is observed between automobile and homeowners insurance companies. This could be due to product similarity and the likelihood that the same or affiliated companies are included in these two surveys. For example, both automobile and homeowners insurers sell personal lines products that typically consist of a mix of property and liability coverages. As such, they may benefit from AI/ML technology in a similar way. Additionally, seven of the top 10 writers of homeowners insurance in 2024 are also among the top 10 writers of automobile insurance.¹² To the extent that survey participants are writing both automobile and homeowners insurance products, they may be using the same AI tools in the same operational areas across both lines of business. Alternatively, if they are members of groups that include companies selling the other product, they may be sharing knowledge or resources that allow them to leverage the technology across affiliates.¹³

All company types use or plan to use AI/ML to some extent in underwriting, rating, and pricing. Automobile insurers are using or plan to use AI/ML to determine rating classes and to automate approval and denial decisions. Homeowners insurers are employing or plan to employ AI/ML to verify policy characteristics and process

¹⁰ It should be noted that while fraud detection was reported by some life insurers as an area in which AI/ML is being used, there may not have been a large enough number of companies reporting usage in this area for it to appear on the summary list.

¹¹ A survey of insurance executives conducted by Deloitte found that “35% of respondents chose fraud detection as one of the top five areas for developing or implementing generative artificial intelligence applications over the next 12 months” (Kamalapurkar et al., 2025).

¹² Specifically, these companies are Allstate Corp., American Family Insurance Group, Farmers Insurance Group of Companies, Liberty Mutual, State Farm Insurance, Travelers Companies Inc., and USAA Insurance Group. This information was obtained from the annual list provided on the Insurance Information Institute’s website at <https://www.iii.org/fact-statistic/facts-statistics-insurance-company-rankings>.

¹³ Existing research has shown that the group structure can result in a variety of benefits, including the sharing of knowledge and expertise among group members (e.g. Keller, 2007; Menon, 2018; Xie et al., 2020).

renewals and reinstatements.¹⁴ Life insurers are using or plan to use AI/ML to determine criteria for creating risk classes, to reduce the time to issue policies, and to automate policy approvals and denials. Finally, health insurers are utilizing or plan to utilize AI/ML to design and develop health insurance plans for specific groups and conditions.

In addition to the standard operational categories reported across all insurer types, information is provided on operations specific to health insurers. One of the highest usage or planned usage of AI/ML among health insurers in these categories is utilization management practices (60%).¹⁵ Within the context of utilization management, health insurers employ or plan to employ AI/ML primarily to improve health outcomes and reduce hospital readmissions, as well as to support wellness and improved health initiatives. Some argue that using AI/ML in utilization management could reduce strain on administrative resources and speed up approvals (Consumer Health Advocacy at the NAIC, 2024). This includes medical providers. As reported in a recent survey, 57% of physicians indicate that the use of AI, specifically automation, can reduce administrative burdens, thereby helping address challenges faced by the medical community, such as workforce shortages and burnout (American Medical Association, 2025).¹⁶

While there is some consistency in how AI/ML is used among insurers in various segments of the insurance industry, there is variation in the level of decision-making afforded to these systems across operational functions and industry focus. For example, while AI/ML is used in sales/marketing to some degree by all insurers, in the automobile insurance market, there are several uses of AI/ML that involve no human intervention, whereas that is not the case within the other segments of the industry. However, in functions such as fraud detection and claims, AI/ML is more often used to augment or support human decision-making.

When examining the source of the technology, companies use a mix of in-house and third-party AI/ML models, again depending on industry segment and operational function. For example, among automobile and homeowners insurers, in-house models are primarily used for claims functions such as assignments and claim approvals. Alternatively, third-party models are primarily used for determining claim settlement amounts and in first-party and third-party liability fraud detection, though homeowners insurers use third-party models to a greater extent than automobile insurers as it relates to third-party liability fraud detection (89% in comparison to

¹⁴ The homeowners survey defines verification of policy characteristics as “(e)valuation of whether the attributes of the customer or risk provided at the time of the application or at the time of a request for a policy modification are accurate and supported by additional data or likely to be true based on any other set of considerations used by the AI/ML system.”

¹⁵ Since these functions are specific to health insurance products, they are not included in Table 1. However, given that health insurers use AI/ML in these operational areas more than in any others, it warrants discussion. Other areas with reported or planned high usage of AI/ML include strategic operations (66%) and prior authorization for approval processes (62%).

¹⁶ Additionally, when asked “(h)ow do you anticipate tools using AI will impact” specific factors, 75% of respondents indicated it would assist with work efficiency, and 54% said it would be helpful in addressing stress and burnout.

60%). Finally, over 90% of automobile, homeowners, and life insurers use third-party AI/ML for targeted online advertising.

The survey also asks several questions pertaining to AI/ML governance documentation. These generally relate to the NAIC Principles on Artificial Intelligence that were specified within the insurers' governance program. The Principles were developed in 2020 and addressed five distinct areas: (1) fairness and ethics, (2) accountability, (3) compliance, (4) transparency, and (5) security, safety, and robustness of risk protections.¹⁷ However, the questions asked and response rates to these questions vary across the surveys.

One question specifically asks whether the insurer is "using data, scores and/or AI/ML models aggregated or developed by a third-party" under a contract that would "limit disclosure or otherwise limit transparency to regulators," with the homeowners survey specifically inquiring about "reviewing a filing related to rating." While not asked in the first survey of automobile insurers, around 16% of homeowners insurers surveyed and 12% of health insurers responded affirmatively. In the life insurance survey, the question was asked in relation to three operational areas—pricing and underwriting, marketing, and risk management. The positive response rate was much lower for life insurers, ranging from 2% to 4% across the operational areas. This suggests that concerns related to disclosure/transparency associated with third-party models may be lower among life insurers. However, additional research in this area is warranted in order to draw more definitive conclusions.

NAIC MODEL BULLETINS

The use of AI has permeated many aspects of insurer operations and will undoubtedly continue to do so. As insurers embrace AI across their operations, regulators have recognized potential challenges associated with its use and have taken steps to put guardrails in place to protect consumers. In 2020, the NAIC created the "Principles on Artificial Intelligence" model bulletin, the first model bulletin to address AI in the insurance industry (NAIC, 2020). The bulletin "establish(ed) consistent high-level guiding principles for AI actors." Topics addressed in the model bulletin included key regulatory issues, such as the fair and ethical use of AI, accountability, compliance with insurance laws and regulations, transparency, and security of AI systems.

Subsequently, the NAIC created a more comprehensive model bulletin in 2023, titled the "Model Bulletin on the Use of Algorithms, Predictive Models, and Artificial Intelligence Systems by Insurers" (NAIC, 2023c).¹⁸ The purpose of the bulletin is to "ensure the responsible deployment of AI in the insurance industry" and notes that,

¹⁷ For more details, refer to

<https://content.naic.org/sites/default/files/inline-files/NAIC%20Principles%20on%20AI.pdf>.

¹⁸ The 2020 model bulletin is referenced in the 2023 model bulletin. The 2023 bulletin notes that the 2020 model provides guidance and that the "fundamental principles" addressed in the bulletin "should guide insurers in their development and use of AI Systems and underlie the expectations."

absent proper controls, the use of AI could “increase the risk of inaccurate, arbitrary, capricious, or unfairly discriminatory outcomes for consumers” (NAIC, 2023c). The key aspects of the model bulletin are described in greater detail below.

GUIDELINES FOR THE CREATION OF AI SYSTEM PROGRAM

Insurers are expected to develop an AI system program that provides direction to ensure the responsible use of AI within the firm’s operations. The model bulletin specifically notes that AI systems can pose several risks to consumers, including “the potential for inaccuracy, unfair discrimination, data vulnerability, and lack of transparency and explainability” (NAIC, 2023b).

The model bulletin states that the AI system program should do the following:

- Be designed to mitigate the risk of an “adverse consumer outcome,” which the bulletin defines as “a decision by an insurer that is subject to insurance regulatory standards enforced by the Department that adversely impacts the consumer in a manner that violates those standards.”
- Address governance, risk management controls, and internal audit functions. A key component is protecting proprietary information and trade secrets.
- Ensure that the monitoring of the AI system program is completed by senior management of the insurance company, accountable to the board of directors or other appropriate board of directors committee. The program itself should be structured either independently or as part of an existing enterprise risk management program.
- Address the utilization of the AI system program among all aspects of an insurance company’s life cycle, “including areas such as product development and design, marketing, use, underwriting, rating and pricing, case management, claim administration and payment, and fraud detection” (NAIC, 2023b).

The model bulletin also notes that insurance companies should expect to be asked about the utilization of AI system programs during regulatory investigations and any market conduct actions, so documentation of the AI system program should be retained. In addition, the model bulletin specifies that insurers should retain documentation relating to any AI system programs, data, and/or predictive models developed by third parties (NAIC, 2023b).

As of August 2025, 24 states in the U.S. have adopted the Model Bulletin on the Use of Artificial Intelligence Systems by Insurers, with Alaska being the first (adopting on February 1, 2024) and Wisconsin being the most recent (adopting on March 18, 2025). Figures 1 and 2 illustrate the geographic locations of all adoptions and the adoption timeline. Several observations can be made from Figures 1 and 2. First, we observe that many adoptions occurred in the first half of 2024, with 15 of the 24 states adopting the model bulletin during this time. This is shortly after the bulletin was adopted by the NAIC in December 2023. Second, 60% of the adopters are geographically concentrated. Specifically, we find that nine of the 15 states that

adopted the bulletin during the first half of 2024 are on the East Coast, including Connecticut, Delaware, Maryland, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont, and the District of Columbia.¹⁹ Third, we find that many of the most southern states have not yet enacted the model bulletin, including Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, and Tennessee.²⁰

PROPOSED ENHANCEMENTS TO AI SYSTEMS BULLETINS

The Model Bulletin on the Use of Algorithms, Predictive Models, and Artificial Intelligence Systems by Insurers outlines expectations for insurers regarding documentation, corporate governance, and the desire to minimize the potential for adverse consumer outcomes. While the bulletin offers strong guidance, we propose several modifications to this bulletin or considerations for future AI-related bulletins that provide more tangible direction for insurers.²¹ First, bulletins could offer additional best practices guidance tied to measurable benchmarks. Some best practices that could be encouraged include recommended frequency of testing for models (e.g., quarterly, semi-annually, or annually) and baseline testing requirements that address aspects related to fairness, accuracy, and model drift.²² Second, more explicit guidance could be provided for what an insurer might do in order to improve transparency with consumers. A general guideline in the bulletin states: “The AIS Program should include processes and procedures providing notice to impacted consumers that AI Systems are in use and provide access to appropriate levels of information based on the phase of the insurance life cycle in which the AI Systems are being used.” While the guidelines clearly encourage consumer transparency, they provide little direction. Some potential recommendations include suggested language for AI disclosures, guidance on notification language when adverse decisions are made using AI, and a clear description of the process to be followed when an adverse decision is made by an AI system. Finally, greater direction could be provided on the types of documentation that should be maintained regarding the quantification of the fairness, accuracy, and performance of the systems (e.g., track and document error rates).

While the above recommendations are not intended to serve as requirements but rather to provide more specific direction to insurers consistent with the original intent of the model bulletin, an additional recommendation is the creation of a new artificial intelligence systems supplement to the NAIC Annual

¹⁹ This is consistent with the findings of Alexander et al. (2025), who report geographic trends in the adoption of model laws.

²⁰ Some states have elected not to adopt the NAIC model bulletin and have passed their own laws that address the use of AI in the insurance industry. Laws adopted outside the NAIC model bulletin are discussed later in this article.

²¹ The bulletin notes that “The goal of the bulletin is not to prescribe specific practices or to prescribe specific documentation requirements.” Consistent with the spirit of this approach, these recommendations are intended to provide an additional roadmap for insurers as they navigate potential regulatory issues that could arise from AI systems.

²² The bulletin defines model drift as “the decay of a model’s performance over time arising from underlying changes such as the definitions, distributions, and/or statistical properties between data used to train the model and the data on which it is deployed.”

Statements. The supplement could collect information similar to that obtained in the previously discussed NAIC surveys, allowing for a better understanding of the use of these systems over time and insurers' varying approaches to governance. Information collected could include: (1) whether AI systems are being used within the firm's operations, (2) the functional areas in which they are employed (e.g., pricing, underwriting, claims, marketing, risk management, etc.), (3) whether an internally written AI system program document exists, and (4) whether third-party data or systems are being used. Completion of such a supplement should not be particularly onerous and would provide valuable information to regulators, consumers, and other stakeholders.

STATE-SPECIFIC LAWS AND REGULATIONS

While 24 states have adopted the NAIC model bulletin discussed above, one (New York) has issued industry guidance, and four (California, Colorado, Illinois, and Texas) have enacted their own statutory mechanisms that are intended to regulate the use of AI in their insurance markets, bringing the total number of states that have enacted some form of regulation associated with AI in the insurance industry to 28 (NAIC, 2025b).²³ Given the unique nature of these state-specific statutes, we discuss each individually below.

CALIFORNIA

In 2024, the Physicians Make Decisions Act (Senate Bill 1120) was signed into law by Governor Gavin Newsom (Metnick et al., 2024). The law dictates that health insurers using AI to determine "medical necessity" of procedures must also have medical provider oversight (Becker, 2024a). The Act states that a licensed physician or "qualified health care provider with expertise in the specific clinic issues at hand" reviews cases where a "denial, delay, or modification of care based on medical necessity" takes place (Becker, 2024b). In essence, the Physicians Make Decisions Act requires that determinations of "medical necessity" be made only by a licensed physician or a licensed health care professional (California Senate Bill 1120, 2024).

COLORADO

In September 2023, Colorado adopted a regulation (Regulation 10-1-1) affecting life insurers that focuses on governance and risk management as it relates to the use of "external consumer data and information sources" (ECDIS) and algorithms and predictive modeling (Sidhu et al., 2023). ECDIS is defined in the regulation as "a data or information source that is used by a life insurer to supplement or supplant traditional underwriting factors or other insurance practices or to establish lifestyle indicators that are used in insurance practices" (Bryan Cave Leighton Paisner LLP, 2023). The regulation requires life insurers to establish a risk-based governance and risk management framework to determine whether the use of ECDIS, algorithms,

²³ Illinois has both adopted the NAIC model bulletin and passed legislation. Though it falls into both categories, it is only counted once.

and predictive models results in unfair discrimination due to race. If unfair discrimination is detected, then it must be remedied. The regulation also requires oversight of the insurer's risk management and governance framework by either the insurer's board of directors or a board committee. Finally, the regulation notes that the insurer is ultimately responsible for third-party vendors that use ECDIS, algorithms, and predictive models (Regulation 10-1-1). An amended version of Regulation 10-1-1 was adopted in August 2025 (effective October 2025), further expanding its scope to include automobile and health insurers, in addition to life insurers.²⁴

In 2024, SB24-205, the Colorado Artificial Intelligence Act (CAIA), was enacted. Originally set to take effect on February 1, 2026, the law requires developers of "high-risk" artificial intelligence systems to protect consumers from known or reasonably foreseeable risks of algorithmic discrimination (SB24-205, Consumer Protection for Artificial Intelligence, 2024). The law defines an AI system as "high-risk" if it makes "consequential decisions" related to humans, which includes the field of insurance (Siegal & Garcia, 2024). Additionally, the CAIA provides that "an insurer, a fraternal benefit society, or a developer of an artificial intelligence system used by an insurer is in full compliance with the act if the entity is subject to specified laws governing insurers' use of external consumer data and information sources, algorithms, and predictive models and rules adopted by the commissioner of insurance" (SB24-205, Consumer Protection for Artificial Intelligence, 2024). Therefore, insurers in compliance with Regulation 10-1-1, as well as the CAIA, are covered by a safe harbor, and thus the penalties mentioned in the CAIA would not apply (Troutman Pepper Locke, 2025). Violations of the law are defined as an "unfair trade practice" pursuant to the Colorado Consumer Protection Act. The law is enforced by the Colorado Attorney General, and violations of the law can result in a \$20,000 penalty per violation (Siegal & Garcia, 2024). Significantly, the law places a general duty of reasonable care upon both the developers and deployers of high-risk AI systems (Siegal & Garcia, 2024). Deployers must disclose known or reasonably foreseeable risks from the use of high-risk AI systems and provide consumers with a right of explanation of any adverse consequential decision as well as the right to appeal that decision for human review (Siegal & Garcia, 2024). In 2025, the Colorado Legislature passed a special-session bill that delays implementation of the Colorado Artificial Intelligence Act until June 30, 2026 (Tyman & Priebe, 2025). The special-session bill, in essence, allows the Colorado Legislature time to consider potential revisions to the law in 2026 (Laszlo, 2025).

ILLINOIS

In August 2025, Illinois enacted the Wellness and Oversight for Psychological Resources Act. The law prohibits AI from making therapeutic decisions, recommendations, or treatment plans independent from oversight from a licensed

²⁴ Notification regarding this amendment was issued in August 2025. To review the notice and the revised regulation, refer to <https://doi.colorado.gov/announcements/notice-of-adoption-amended-regulation-10-1-1-governance-and-risk-management-framework>.

professional, as well as making “therapeutic communications” to clients (Ceriotti & Fowler, 2025).

If AI is utilized for “supplementary” support, for example, activities such as recording or transcribing a session between a licensed professional and a client, the client must give informed consent that AI is being used (Ceriotti & Fowler, 2025). The law specifically exempts the use of AI for “administrative support,” which includes “processing and billing insurance claims” (Illinois House Bill 1806, 2025). However, it is possible that an insurer that utilizes a behavioral health algorithm could fall under this statute. Enforcement of the law is carried out by the Illinois Department of Financial and Professional Regulation, and violations can result in a fine of up to \$10,000 per violation (Lagasse, 2025).

NEW YORK

In early 2024, New York released a proposed circular letter titled “Use of Artificial Intelligence Systems and External Consumer Data and Information Sources in Insurance Underwriting and Pricing.” Following the comment period, Insurance Circular Letter No. 7 was finalized in July 2024 (New York Department of Financial Services, 2024). The guidance applies to all insurers and addresses a variety of areas. It states that an insurance company should not use ECDIS or AI in either underwriting or pricing “unless the insurer can establish that the data source or model, as applicable, does not use and is not based in any way on any” protected class. It also indicates that companies should have a governance framework in place that includes written policies for the development and management of ECDIS and AI, the management of risks associated with the use, and specific oversight procedures. Finally, the letter states that companies must disclose to insureds and potential insureds if they use AI systems in underwriting or pricing.

TEXAS

In June 2025, Texas Governor Greg Abbott signed the Texas Responsible AI Governance Act into law. This law, which went into effect on January 1, 2026, is not intended solely for the regulation of the insurance industry, but its provisions do apply to insurers as well as other public and private entities. The Act prohibits AI systems that: (1) manipulate human behavior, (2) infringe on constitutional rights, (3) unlawfully discriminate against protected classes, and/or (4) develop or distribute sexually explicit content (Latham & Watkins LLP, 2025). The enacted law was a compromise, as the original version of the bill included provisions similar to the Colorado Artificial Intelligence Act in that it included a provision creating a duty to protect consumers from foreseeable harm (Latham & Watkins LLP, 2025). The law defined an AI system as “any machine-based learning system that, for any explicit or implicit objective, infers from the inputs the system receives how to generate outputs, including content, decisions, predictions, or recommendations, that can influence physical or virtual environments” (Texas House Bill 149, 2025).

The Texas Responsible AI Governance Act also contains provisions that require disclosure of the utilization of AI systems to consumers, but only by state agencies or health care providers to their patients, not private employers generally (Parker et al., 2025). Additionally, the law prohibits the utilization and deployment of “an artificial intelligence system with the intent to unlawfully discriminate against a protected class in violation of state or federal law” (Texas House Bill 149, 2025). However, evidence of disparate impact is not, under the law, sufficient to prove intentional unlawful discrimination (Texas House Bill 149, 2025).

Significantly, while the Texas Responsible AI Governance Act has provisions that apply to insurers, the provisions relating to intentional unlawful discrimination in the law do not apply specifically to insurers if the insurer “is subject to applicable statutes regulating unfair discrimination, unfair methods of competition, or unfair or deceptive acts or practices related to the business of insurance” (Texas House Bill 149, 2025). Violations of the law can be pursued by the Texas Attorney General, and in cases of a curable violation, a penalty of \$10,000 to \$12,000 can be imposed. For incurable violations, a penalty of \$80,000 to \$120,000 can be imposed (Parker et al., 2025).

Texas has also enacted Senate Bill 1188, which requires healthcare providers and health insurers to store all electronic health records within the United States or its territories (Vold & Tai, 2025). In addition, the law also requires any utilization of AI in the diagnosis or treatment of a patient to be conducted under the oversight of a licensed healthcare practitioner (Dawson & Taylor, 2025). As it pertains to AI specifically, the law requires healthcare practitioners to inform patients of the utilization of AI tools in diagnosis or treatment (Dawson & Taylor, 2025). Violations of the law may allow the Attorney General of Texas to impose a civil penalty of approximately \$5,000 for a negligent violation and \$25,000 per violation for a knowing or intentional violation. (Dawson & Taylor, 2025). Finally, in cases of a knowing or intentional violation resulting in financial gain, a civil penalty of \$250,000 per violation may be imposed (Dawson & Taylor, 2025).

Most recently, Texas enacted Senate Bill 815 in 2025, which prohibits an automated AI system (an algorithm) from making, wholly or partly, an adverse determination (Texas Senate Bill 815, 2025). AI can be used in utilization review to detect fraud or for administrative support functions (Texas Senate Bill 815, 2025). The new law also enables the Commissioner of Insurance to audit health benefit plan companies that employ AI in utilization review (Texas Senate Bill 815, 2025).

PROPOSED STATE LAWS

In addition to the laws and regulations enacted by California, Colorado, Illinois, and Texas, as well as the regulatory guidance proffered by New York, proposed legislation has been introduced in several other states to regulate the utilization and

deployment of AI in insurance. Key provisions of these bills are discussed in this section.

CONNECTICUT

In early 2025, a bill was introduced in the Connecticut General Assembly (Connecticut House Bill 5590, 2025). The bill would completely prohibit the use of AI by an insurer to deny a health insurance claim (Connecticut House Bill 5590, 2025). The bill did not progress beyond the Committee stage in the General Assembly (Connecticut House Bill 5590, 2025).

NEW YORK

About one year after the state published industry guidance on the use of AI, New York attempted to pass legislation focused on accident and health insurers and health maintenance organizations. Specifically, New York Assembly Bill 1456, introduced in January 2025, would require insurance companies to notify insureds and enrollees of the use of intelligence-based algorithms in utilization reviews on an accessible website (New York Assembly Bill 1456, 2025). The proposed legislation would also require that the intelligence-based algorithms and datasets be submitted to the Department of Financial Services for review (New York Assembly Bill 1456, 2025). The Department would then implement a process to certify that the algorithms and datasets “have minimized the risk of bias based on the covered person’s race, color, religious creed, ancestry, age, sex, gender, national origin, handicap or disability and adhere to evidence-based clinical guidelines” (New York Assembly Bill 1456, 2025).

Additionally, the bill would require a clinical peer reviewer who engages in a utilization review that employs intelligence-based algorithms in the review process to document “the utilization review of the individual clinical records or data prior to the issuance of an adverse determination” (New York Assembly Bill 1456, 2025). The superintendent of the Department of Financial Services can levy one or more penalties against the insurer, a health maintenance organization, or other corporation subject to the law which includes a fine of \$5,000 for a violation of the law, a fine of \$10,000 for a willful violation, and a suspension or revocation of license (New York Assembly Bill 1456, 2025).

PENNSYLVANIA

In October 2025, a bipartisan group of state lawmakers introduced House Bill 1925, which would regulate the utilization of AI by health insurers (Pennsylvania House Democratic Caucus, 2025). The bill would require that AI-based algorithms not supersede any clinical decision-making of a health care provider (Pennsylvania House Bill 1925, 2025).

With regard to insurance companies specifically, House Bill 1925 would require insurers to disclose to patients if intelligence-based algorithms are used in any utilization review process by the company (Pennsylvania House Bill 1925, 2025).

Under the provisions of the bill, algorithms must not, in any way, supersede the decision-making authority of the health care provider conducting a utilization review (Pennsylvania House Bill 1925, 2025). In addition, the algorithms “must not directly or indirectly discriminate against covered persons” and “must be fairly and equitably applied” (Pennsylvania House Bill 1925, 2025). House Bill 1925 would also require insurance companies to file an AI-based algorithm compliance statement annually with the Department of Insurance (Pennsylvania House Bill 1925, 2025). This compliance statement would need to include a description of the training datasets used in utilization review, and the insurer would also need to certify that the training datasets comply with the sections of the law relating to responsible use (Pennsylvania House Bill 1925, 2025).

Violations of the law could result in the Department of Insurance imposing a civil penalty of \$5,000 per violation against an insurer, with the potential for aggregate fines totaling up to \$500,000 in a calendar year (Pennsylvania House Bill 1925, 2025). Furthermore, the current version of H.B. 1925 notes that the enforcement remedies listed in the bill are nonexclusive, and a plaintiff could pursue a claim based upon alleged violations of the Pennsylvania Unfair Insurance Practices Act (Pennsylvania House Bill 1925, 2025).

RHODE ISLAND

In January 2025, a group of legislators introduced The Transparency and Accountability in Artificial Intelligence Use by Health Insurers to Manage Coverage and Claims Act in the Rhode Island General Assembly (Rhode Island House Bill 5172, 2025). The proposed bill would require insurance companies to disclose how they employ AI in claims management, how it is used with their algorithms, the data used to train the AI models, and the determinations made where AI is used (Rhode Island House Bill 5172, 2025). In addition, insurance companies would be required to retain documents related to AI decisions for at least five years (Rhode Island House Bill 5172, 2025). Insurance companies would also have to provide notice to consumers when AI has been used to make an adverse coverage determination (Rhode Island House Bill 5172, 2025). In addition, the bill requires insurance companies to have a process for consumers to appeal an adverse determination (Rhode Island House Bill 5172, 2025).

The bill would prohibit insurance companies from relying solely on AI tools in decisions to deny, reduce, or alter coverage, or in making determinations of medical necessity (Rhode Island House Bill 5172, 2025). Any adverse determination made using AI would be required to be reviewed by a physician or health care provider who has the authority to reverse it if warranted by their clinical judgment (Rhode Island House Bill 5172, 2025). The Office of the Health Insurance Commissioner, the Department of Business Regulation, the Secretary of State, and the Rhode Island Attorney General would have the power to enforce the provisions of the bill (Rhode Island House Bill 5172). Furthermore, the bill explicitly provided that consumers would have a private right of action to enforce its provisions (Rhode Island House Bill 5172).

ANALYSIS OF STATE REGULATORY APPROACHES TO AI AND INSURANCE

As of the date this article was written, it is too early to identify clear trends among states regarding the regulation of insurance companies' AI usage. However, as a preliminary matter, there are some key topics, such as restrictions on utilization review and ensuring that medical professionals retain ultimate decision-making authority, mandatory required disclosures, and enforcement of violations by state regulators, that appear to be the focus of state legislative activity.

MEDICAL PROFESSIONAL DECISION-MAKING AUTHORITY

One of the primary goals of state legislation that has emerged with insurer AI use is to ensure that medical professionals and clinicians retain ultimate decision-making authority over determinations of medical necessity. This is evident with the Physicians Make Decisions Act in California (Becker, 2024b), the Wellness and Oversight for Psychological Resources Act in Illinois (Ceriotti & Fowler, 2025), and Texas Senate Bill 815 (Texas Senate Bill 815, 2025). This is also a key goal of the current proposed legislation in Pennsylvania (Pennsylvania House Democratic Caucus, 2025). With proposed legislation, medical professional decision-making authority is also a priority in cases involving utilization review. For example, the proposed legislation in Rhode Island requires any adverse determination in which AI was utilized to be reviewed by a physician or healthcare provider (Rhode Island House Bill 5172).

MANDATORY DISCLOSURE REQUIREMENTS

Another theme emerging within state legislation related to AI is requiring insurers and entities reviewing insurance determinations to disclose to consumers and patients how AI is being used. The Texas Responsible AI Governance Act imposes this duty on health care providers to their patients, but not on private employers in general (Parker et al., 2025). By contrast, the proposed legislation in Pennsylvania requires insurance companies to disclose to consumers if AI-based algorithms are used in utilization reviews (Pennsylvania House Bill 1925, 2025). So, while the scope of the disclosures may vary from state to state as new laws are enacted, disclosure appears to be another key area of focus among states.

ENFORCEMENT OF VIOLATIONS - POTENTIAL REMEDIES

An additional common area of focus among states that have enacted statutes and in forthcoming legislation in other states is enforcement and penalties. Existing and proposed laws relating to insurance and the regulation of AI tend to vest authority in the state's attorney general or other state officials to enforce violations of the laws. For example, among states that have enacted legislation, the provisions of the Colorado Artificial Intelligence Act are enforced by the Colorado Attorney General (Siegal & Garcia, 2024), and the Texas Responsible AI Governance Act can be enforced by the Texas Attorney General (Parker, Hockaday, and Lewis, 2025). The Wellness and Oversight for Psychological Resources Act in Illinois can be enforced by the Illinois Department of Financial and Professional Regulation (Lagasse, 2025).

Interestingly, no enacted laws thus far have expressly provided a private right of action by a patient or consumer against an insurance company for improper denial of claims or for the improper use of AI systems. However, proposed legislation in Pennsylvania and Rhode Island would expressly allow a private right of action against an insurer (Pennsylvania House Bill 1925, 2025; Rhode Island House Bill 5172, 2025).

Under current law, the Pennsylvania Unfair Insurance Practices Act at 40 P.S. § 1171.5(a)(7)(iii) prohibits “making or permitting any unfair discrimination between individuals of the same class and essentially the same hazard with regard to underwriting standards and practices or eligibility requirements by reason of race, religion, nationality, or ethnic group, age, family size, occupation, place of residence or marital status” (Pennsylvania Unfair Insurance Practices Act, 2025). Pennsylvania’s unfair insurance practices statute is more sweeping, including occupation and place of residence. Purported violations of the statute may provide evidence of a bad-faith claim, although there is no independent cause of action for a violation of the Pennsylvania Unfair Practices Act.²⁵ In Pennsylvania, such statutory bad-faith claims are recognized by 42 Pa. § 8371 (Woodward, 2018).

In Pennsylvania, a consumer could pursue a claim under House Bill 1925 for violations of the Pennsylvania Unfair Insurance Practices Act. Assume, hypothetically, that a consumer has a discrimination claim against an insurance company in Pennsylvania based upon the utilization of an AI-based algorithm. If H.B. 1925 is enacted, then there will be a new enforcement mechanism and remedy while preserving the ability to cite Unfair Insurance Practices Act violations in other claims.

As more states consider legislation regulating AI in the insurance marketplace, the question of whether remedies should be made available to consumers is a key issue moving forward.

FEDERAL LAWS, ARTIFICIAL INTELLIGENCE, AND INSURANCE

On December 11, 2025, President Trump issued an Executive Order entitled “Ensuring a National Policy Framework for Artificial Intelligence” (President Donald Trump, 2025). The goal of the executive order is to establish a single federal standard on AI regulation (Elias, 2025). The Executive Order calls for the United States Secretary of Commerce, within 90 days of the date of the Order, to publish a listing of state AI laws that are “onerous” and conflict with its policy (President Donald Trump, 2025). The Executive Order specifically does not preempt state regulation of AI with state laws relating to: 1) child safety protections; 2) AI compute and data center infrastructure (other than generally applicable permitting reforms); and 3) state government procurement and use of AI (President Donald Trump, 2025).

²⁵ In the case of *Smith v. Nationwide Mutual Fire Insurance Co.*, 935 F.Supp. 616, 622 (W.D. Pa. 1996), the United States District Court for the Western District of Pennsylvania held that an insurance claimant did not have a private right of action under the Unfair Insurance Practices Act.

Significantly, the Executive Order does not specifically exempt the insurance industry. In a December 16, 2025 statement, the NAIC expressed “deep concern” about the order and cited the potential for “damaging uncertainty” in state regulation of AI (NAIC, 2025c).²⁶ Irrespective of the questions relating to the recent Executive Order, there are several federal statutes that intersect with state laws regulating AI in the insurance industry: the Employee Retirement Income Security Act of 1974 (ERISA), the Health Insurance Portability and Accountability Act of 1996 (HIPAA), the Fair Credit Reporting Act of 1970 (FCRA), and the Gramm-Leach-Bliley Act of 1999 (GLBA).

ERISA

The United States Department of Labor regulates certain employee benefits plans covered by the provisions of ERISA (U.S. Department of Labor, 2026). Employer-sponsored group health plans, including self-insured health plans, are subject to ERISA (Charaba, 2023). ERISA also preempts “any and all state laws” if they “relate to” employee benefit plans covered by ERISA (Stamm et al., 2022).

Self-insured health plans and employer-sponsored group health plans are thus not subject to any of the recently enacted state laws and regulations in the realm of AI and insurance. However, ERISA provides that ERISA plan fiduciaries shall act “solely in the interest of the participants and the beneficiaries” and with the “care, skill, prudence and diligence” of a prudent person (Legal Information Institute, 2026). It is unsettled and unclear how ERISA’s legal duties relate to the utilization of AI tools by self-insured health plans (Fattahian & Goodman, 2024). Given the uncertainty surrounding these duties, administrators of employer-sponsored and self-insured group health plans must exercise prudent care. Given that AI tools can detect fraud, such entities may not be acting with “prudence” if these tools are not utilized (Ostrower & Lazzarotti, 2025). On the other hand, these entities may also arguably be acting without prudence if AI tools make sole determinations regarding insurance coverage without human oversight (Mattinson et al., 2025).

HIPAA

HIPAA provides safeguards for the utilization and disclosure of an individual’s “protected health information” (PHI) through HIPAA’s privacy rule (U.S. Centers for Disease Control and Prevention, 2024). HIPAA’s “security rule” requires health care providers and health plans to protect the confidentiality of all individually identifiable information that the health care provider or health plan “creates, receives, maintains or transmits in electronic form” (U.S. Centers for Disease Control and Prevention, 2024). Health insurance companies are thus covered entities under HIPAA (Matthews,

²⁶ The McCarran-Ferguson Act ensures that states have a primary role in the regulation of insurance (Lenci, 2023). In addition, general federal laws that do not relate specifically to insurance are reverse preempted by state laws and regulations that relate to the “business of insurance” (Lenci, 2023). While it is uncertain how a court would rule in the event of a legal question of whether the Executive Order supersedes the applicability of a state law regulating artificial intelligence, it would appear that the McCarran-Ferguson Act would apply to protect a state law regulating artificial intelligence and preempt the Executive Order since the Executive Order is general in nature relating to artificial intelligence and does not specifically regulate the business of insurance.

2019). Violations of HIPAA can result in civil penalties being assessed against health care providers, health plans, or health insurance companies (American Medical Association, 2026).

HIPAA compliance generally appears to work more in tandem with state efforts to protect the privacy of patient information with AI systems rather than preempt those efforts (Pierce, 2025). For example, one analyst has specifically noted that “if a physician uses AI for tasks like documentation, image analysis, or patient communication, the AI vendor they use is most likely considered a HIPAA business associate,” and thus the AI vendor would be subject to HIPAA (Pierce, 2025).

FCRA AND GLBA

Similar to HIPAA, the FCRA and GLBA create complementary federal regulations that govern the utilization of AI tools by insurance companies. The FCRA requires that information furnished by consumer reporting agencies (CRAs) be as accurate as possible. In addition, with respect to insurance companies, if an insurer takes an adverse action against a consumer relying in any part on a consumer report (for example, a raise in premiums or cancellation of a policy), then the insurer must provide notice of the adverse action to the consumer (Federal Trade Commission, 2025). With regard to AI, it has been noted that AI tools utilized by insurance companies make any decisions relating to consumer access to insurance may qualify as a CRA and thus carry a duty under the FCRA to ensure information is accurate (Williford & DiResta, 2020).

The GLBA also regulates insurance companies at the federal level. The GLBA requires insurance companies to safeguard the privacy and confidentiality of “non-public personal information” (NPI) of their customers (Bryan Cave Leighton Paisner LLP, 2024). The GLBA specifically grants state insurance regulators the authority to enforce it (Bryan Cave Leighton Paisner LLP, 2024). Insurers who utilize AI tools must therefore ensure their customers’ NPIs are protected, and information security protocols are in place (Mallett, 2023).

CONCLUSIONS AND FUTURE CONSIDERATIONS

The use of artificial intelligence and machine learning is becoming ubiquitous, with businesses and individuals worldwide embracing this powerful technology at a rapid pace. Among industries that use AI/ML is the insurance industry, with the majority of insurers having either implemented, are planning to implement, or are exploring AI/ML implementation across underwriting, marketing, and claims functions, among others.

Given the increased utilization of AI/ML in the insurance industry and questions regarding the use of these tools, in this article, we provided a comprehensive review of AI usage by insurers and the current state of regulation around that usage. We started by examining the findings of four surveys conducted by the NAIC that

collected information from insurers operating in multiple product lines regarding AI/ML usage, the ways the technology is used, the reliance on in-house or third-party models, and governance. Among our observations, we find that over 70% of automobile, homeowners, and health insurers responding to the surveys are currently using, planning to use, or exploring the use of AI, while 58% of life insurer respondents report current or expected future use. Insurers electing not to use AI/ML primarily attribute their decision to a lack of a business need, limited resources and expertise, and reliance on legacy technology that would require system upgrades. Additionally, the operational functions in which AI is used vary among insurers, though there are some areas in which AI utilization is more common. For example, over 50% of survey respondents across the four segments report either using, planning to use, or exploring the use of AI/ML in marketing and claims. Furthermore, over 60% of homeowners and life insurers responding to the surveys report current or expected future use of AI/ML for underwriting purposes, and over 50% of automobile, homeowners, and health insurers report its use for fraud detection. Other areas where AI/ML are being used to a lesser extent include risk management, loss prevention, and pricing. Results from the surveys also indicate a mix of in-house and third-party AI/ML models depending on industry segment and operational function.

In addition to summarizing and synthesizing results from the four NAIC surveys, we provided detailed information on relevant NAIC model bulletins and their take-up rate. Further, we provided suggested modifications of the bulletin or considerations for future bulletins. This includes additional best practices guidance related to measurable benchmarks and disclosure of information by insurers to improve the transparency of company AI practices. We also discuss expanding the NAIC annual statements to include an artificial intelligence systems supplement. This would allow for continuous, specific disclosure of AI usage by insurers and provide information on how usage and other AI-related practices change over time.

Following this discussion, we provided a review of enacted and proposed state laws that address various aspects of insurer use of AI/ML. More specifically, one state (New York) has issued industry guidance, and four states (California, Colorado, Illinois, and Texas) have passed laws that directly or indirectly impact the insurance industry, with the guidance/laws typically focusing on various aspects of consumer protection and the use of AI for decision-making in the health insurance industry. Additionally, in at least four other states (Connecticut, New York, Pennsylvania, and Rhode Island) recent bills have been proposed which are intended to address the use of AI/ML but have not yet passed. In analyzing state regulatory approaches to AI and insurance, we identified key areas of focus in state laws, including medical professional decision-making authority, mandatory disclosure of AI use, and the enforcement of violations. Finally, we discuss federal laws governing insurers' use of AI. We find that most, including HIPAA, FCRA, and GLBA, create regulations that are complementary to those of the states. However, there is concern about the impact,

if any, that the recent Executive Order creating a single federal standard for AI regulation will have on insurers.

The use of AI/ML across all segments of the insurance industry will continue to grow and evolve over time. Although benefits such as potential increased efficiency and cost savings can be derived from the use of AI, there are mounting concerns regarding the appropriate use of AI in the insurance industry, with some asserting that the technology is being used in a discriminatory manner or in a way that is disadvantageous to insureds while also exposing insurers to potential liability. This has been discussed and documented in a variety of existing surveys, studies, and academic articles. As it relates to marketing/sales and pricing, if AI is used to identify consumers who are less price-sensitive and/or less likely to shop around, insurers could target these individuals and charge them higher rates, commonly called price optimization (Consumer Federation of America, 2024; NAIC, 2015). With risk management/loss control, devices used to monitor consumer behavior, such as telematics, are becoming increasingly common. While it could be argued that this leads to more accurate pricing of risk, the use of such devices can also lead to “unfair or exorbitant pricing, racial bias, abuse of consumers’ personal information, unfair practices in claims handling, and other unfair or anti-competitive insurance practices” (Bell, 2025; Waddell, 2021).

Given the potential challenges with the use of AI across all operational areas, it may prove particularly difficult for the insurance regulatory community to focus its efforts to most effectively oversee the use of these tools and manage the associated risks. Based on available information, there appears to be some consensus that AI use in underwriting/pricing and claims are the most critical operational functions that regulators should focus on. This is because the biased outcomes that can occur can lead to unfair discrimination and unfair claims practices. As noted in recent testimony provided by Chuck Bell to the Assembly Standing Committee on Insurance and the Assembly Standing Committee on Science and Technology, “a fraud monitoring algorithm may systematically flag consumers on the basis of race or proxies for race, as illustrated in the recent lawsuit against State Farm claiming that its fraud detection software has a disparate impact on Black customers. A pricing algorithm may systematically charge similarly situated consumers differently based on race or other sensitive characteristics, or proxies thereof” (Bell, 2025). For example, if factors such as location, credit, and education are used, these could serve as proxies for race or gender. These issues may be due, in part, to the fact that AI training is based on historical data. As a result, the AI system is inherently biased by design, leading to undesirable outcomes that are not in line with current company or societal practices (Bhattacharya, 2023; Mello et al., 2026).

It is apparent that the challenges associated with overseeing the use of this ever-changing technology are daunting. However, the evidence presented in this article suggests that states are being proactive in providing guidelines and specific legislation for the appropriate use of AI/ML in insurer business operations, which

should ultimately protect consumers while still allowing the insurance industry to benefit from this increasingly important technology. Going forward, legislative and regulatory actions should focus on areas of greatest concern for policyholders. This would allow insurers to continue to benefit from the efficiency and potential cost savings of AI while ensuring adequate consumer protections are in place. Additional research in this area would be beneficial in assisting those tasked with this responsibility, including the development of a model AI governance program that would outline a specific governance structure, designate the roles and responsibilities of those involved, describe effective risk management controls, identify bias testing protocols, establish clear documentation standards, and define consumer-facing processes.

REFERENCES

- Alexander, C. S., M. F. Grace, & Luo J. (2025). The market for model laws: The diffusion of NAIC model laws, *Journal of Risk and Insurance*, 92(1), 5-32.
- American Medical Association. (2025, February 24). Physicians concerned AI increases prior authorization denials. <https://www.ama-assn.org/press-center/ama-press-releases/physicians-concerned-ai-increases-prior-authorization-denials>.
- American Medical Association. (2026). HIPAA violations & enforcement. <https://www.ama-assn.org/practice-management/hipaa/hipaa-violations-enforcement>.
- Becker, J. (2024a, September 30). Governor signs physicians make decisions act, keeping medical decisions between patients and doctors—not AI. <https://sd13.senate.ca.gov/news/press-release/september-30-2024/governor-signs-physicians-make-decisions-act-keeping-medical>.
- Becker, J. (2024b, December 9). Landmark law prohibits health insurance companies from using AI to deny healthcare coverage. <https://sd13.senate.ca.gov/news/press-release/december-9-2024/landmark-law-prohibits-health-insurance-companies-using-ai-to>.
- Bell, C. (2025, December 16) Testimony of Chuck Bell, programs director, advocacy, Consumer Reports. <https://advocacy.consumerreports.org/wp-content/uploads/2025/12/12-16-25-CR-Testimony-Regarding-AI-and-Big-Data.pdf>.
- Bellano, A. (2025, May). Insurance industry embraces AI innovation as technology advances “exponentially.” *Best’s Review*, 26-29.
- Bendix, J. (2023, August 7). Cigna using AI to reject claims, lawsuit charges. *Medical Economics*. <https://www.medicaleconomics.com/view/cigna-using-ai-to-reject-claims-lawsuit-charges>.
- Bhattacharyya, A. (2023, October 23). Beware data bias in AI models. WTW. <https://www.wtwco.com/en-ch/insights/2023/10/beware-data-bias-in-ai-models>
- Bryan Cave Leighton Paisner LLP. (2023, November 30). The future of insurance—Colorado’s new ECDIS and AI model regulations. <https://www.bclplaw.com/en-US/events-insights-news/the-future-of-insurance-colorados-new-ecdis-and-ai-model-regulations-1.html>.
- Bryan Cave Leighton Paisner LLP. (2024, October 28). Key concepts in privacy law for insurance companies: Part 1—GLBA. <https://www.bclplaw.com/en-US/events-insights-news/key-concepts-in-privacy-law-for-insurance-carriers-part-1-glba.html>
- California Senate Bill 1120. (2024). <https://legiscan.com/CA/text/SB1120/id/3023335>
- Cerioti, M., & Fowler, M. (2025). Illinois passes legislation on using AI in delivering mental health services. HeplerBroom LLC. <https://www.heplerbroom.com/blog/illinois-legislation-ai-mental-health-services>
- Charaba, C. (2023, November 30). What health plans are and aren’t covered by ERISA. People Keep. <https://www.peoplekeep.com/blog/what-health-plans-are-covered-by-erisa>.
- Connecticut House Bill 5590. (2025). <https://legiscan.com/CT/bill/HB05590/2025>
- Consumer Federation of America. (2024, August 2). Consumer Federation of America’s past work on price optimization. <https://consumerfed.org/wp-content/uploads/2024/08/Letter-to-FTC-on-Price-Optimization.pdf>

- Consumer Health Advocacy at the NAIC. (2024, November). *Artificial intelligence in health insurance: The use and regulation of AI in utilization management*.
- Dawson, B., & Taylor, C. (2025, August 25). S.B. 1188 Texas HER law: Data localization AI and access requirements. McDonald Hopkins. <https://www.mcdonaldhopkins.com/insights/news/s-b-1188-texas-ehr-law-data-localization-ai-and-access-requirements>
- Deveau, R., Griffin, S. J. & Reis, S. (2023, May). AI-powered marketing and sales reach new heights with generative AI. McKinsey & Company.
- Eckert, C., Neunsinger, C., & Osterrieder, K. (2022). Managing customer satisfaction: Digital applications for insurance companies. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 47(3): 569-602.
- Elias, J. (2025, December 12). Trump signs executive order for single national AI regulation standard, limiting power of states. CNBC. <https://www.cnn.com/2025/12/11/trump-signs-executive-order-for-single-national-ai-regulation-framework.html>
- Eling, M., Nuessle, D., & Staubli, J. (2022). The impact of artificial intelligence along the insurance value chain and on the insurability of risks. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 47, 205-241.
- Fattahian, S., & Goodman, L. (2024, December 20). Fiduciary considerations raised by the use of ai in group health plans. Morgan Lewis. <https://www.morganlewis.com/blogs/mlbenefits/2024/12/fiduciary-considerations-raised-by-the-use-of-ai-in-group-health-plans>
- Federal Trade Commission. (2025). *Consumer reports: What insurers need to know*. <https://www.ftc.gov/business-guidance/resources/consumer-reports-what-insurers-need-know>.
- Filabi, A., & Duffy, S. (2021). AI-enabled underwriting brings new challenges for life insurance: Policy and regulatory considerations. *Journal of Insurance Regulation*, 40(8): 1-20.
- Haleem, A., Javaid, M., Qadri, M. A., Singh, R. P., & Suman, R. (2022). Artificial intelligence (AI) applications for marketing: A literature-based study. *International Journal of Intelligent Networks*, 3, 119-132.
- Huskey v. State Farm Fire & Casualty Company, No. 1:2022cv07014 (N.D. Ill. 2023). <https://law.justia.com/cases/federal/district-courts/illinois/ilndce/1:2022cv07014/424467/52>
- Illinois House Bill 1806. (2025). <https://legiscan.com/IL/bill/HB1806/2025>
- Jacobs, M. (2024, November 18). AI revolution in insurance: Opportunities and legal pitfalls. *Insurance Journal*. <https://www.insurancejournal.com/magazines/mag-features/2024/11/18/801366.htm>
- J.D. Power. (2025, May 14). Auto insurer websites and apps become battleground for new customers as policy shopping activity skyrockets. <https://www.jdpower.com/business/press-releases/2025-us-insurance-digital-experience-study>
- Kamalapurkar, K., Sharma, N., & Canaan, M. (2025, April). Property and casualty carriers can win the fight against insurance fraud. Deloitte.
- Keller, P. (2007). Group diversification. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 32, 382-392.

- Kumar, V., Ashraf, A. R., & Nadeem, W. (2024). AI-powered marketing: What, where, and how? *International Journal of Information Management*, 77, 102783.
- Lagasse, J. (2025, August 11) Illinois bans therapeutic use of AI without clinician input. *HealthCare Finance*. <https://www.healthcarefinancenews.com/news/illinois-bans-therapeutic-use-ai-without-clinician-input>
- Laszlo, M. (2025, August 28). Colorado's AI law delayed until June 2026: What the latest setback means for businesses. <https://www.clarkhill.com/news-events/news/colorados-ai-law-delayed-until-june-2026-what-the-latest-setback-means-for-businesses/>
- Latham & Watkins LLP. (2025, June 23). Texas signs responsible AI governance act into law. <https://www.lw.com/en/insights/texas-signs-responsible-ai-governance-act-into-law>.
- Legal Information Institute. (2026). 29 U.S.C. Code § 1104. <https://www.law.cornell.edu/uscode/text/29/1104>.
- Lenci, E., (2023, August 22). Insurers and reinsurers, here and abroad, should pay attention: the second circuit may well reconsider reverse-preemption of the New York Convention by the McCarran-Ferguson Act. Hinshaw. <https://www.hinshawlaw.com/en/insights/insights-for-insurers-alert/insurers-and-reinsurers-here-and-abroad-should-pay-attention-the-second-circuit-may-well-reconsider-reverse-preemption-of-the-new-york-convention-by-the-mccarran-ferguson-act>
- Mallett, E. (2023, June). Financial services and AI: Regulatory developments. Loeb & Loeb LLP. <https://www.loeb.com/en/insights/publications/2023/06/financial-services-and-ai-regulatory-developments>
- Matthews, K. (2019, December 20). Does HIPAA matter for health and life insurance? *Health IT Answers*. <https://www.healthitanswers.net/does-hipaa-matter-for-health-and-life-insurance>
- Mattinson, J., Raaii, S., & Dow, H. (2025, September 15). AI in employer-sponsored group health plans: Legal, ethical, and fiduciary considerations. McDermott, Will & Schulte. <https://www.mwe.com/insights/ai-in-employer-sponsored-group-health-plans-legal-ethical-and-fiduciary-considerations>
- Mello, M. M., Trotsyuk, A. A., Mahamadou, A. J. D., & Char, D. (2026). The AI arms race in health insurance utilization review: Promises of efficiency and risks of supercharged flaws. *Health Affairs*, 45(1), 6-13.
- Menon, N. M. (2018). Information spillover and semi-collaborative networks in insurer fraud detection. *Management Information Systems Quarterly*, 42(2): 407-426.
- Metnick, C. V., Mitchel, L., & Sutton, M. D. (2024, November 7). California limits health plan use of AI in utilization management. *National Law Review*. <https://natlawreview.com/article/california-limits-health-plan-use-ai-utilization-management>
- National Association of Insurance Commissioners (2015, November 19). Casualty Actuarial and Statistical (C) Task Force Price Optimization White Paper. https://content.naic.org/sites/default/files/inline-files/committees_c_catf_related_price_optimization_white_paper.pdf

- National Association of Insurance Commissioners. (2020, August 14). National Association of Insurance Commissioners (NAIC) principles on artificial intelligence (AI). https://content.naic.org/sites/default/files/inline-files/AI%20principles%20as%20Adopted%20by%20the%20TF_0807.pdf
- National Association of Insurance Commissioners (2022, December 8). Private passenger auto artificial intelligence/machine learning survey results. https://content.naic.org/sites/default/files/committee_related_documents/PP%2520Auto%2520Survey%2520Team%2520Report%2520120822.pdf
- National Association of Insurance Commissioners (2023a, August 10). Home insurance artificial intelligence/machine learning survey results. https://content.naic.org/sites/default/files/committee_related_documents/Home%2520Survey%2520Team%2520Report_08102023.pdf
- National Association of Insurance Commissioners. (2023b, December 1). Life insurance artificial intelligence/machine learning survey results. https://content.naic.org/sites/default/files/national_meeting/Life%20Insurance%20AI-ML-Survey-Results_Posted121423.pdf
- National Association of Insurance Commissioners. (2023c, December 4). NAIC model bulletin: Use of artificial intelligence systems by insurers. <https://content.naic.org/sites/default/files/cmte-h-big-data-artificial-intelligence-wg-ai-model-bulletin.pdf.pdf>
- National Association of Insurance Commissioners. (2025a, May). Health insurance artificial intelligence/machine learning survey results. <https://content.naic.org/sites/default/files/inline-files/NAIC%20AI%20Health%20Survey%20Report%20.pdf>
- National Association of Insurance Commissioners. (2025b, August 5). Implementation of NAIC model bulletin: Use of artificial intelligence systems by insurers. <https://content.naic.org/sites/default/files/cmte-h-big-data-artificial-intelligence-wg-map-ai-model-bulletin.pdf>
- National Association of Insurance Commissioners. (2025c, December 16). Statement from the National Association of Insurance Commissioners on AI executive order. <https://content.naic.org/article/statement-national-association-insurance-commissioners-naic-ai-executive-order>
- New York Assembly Bill 1456. (2025). <https://legiscan.com/NY/text/A01456/2025>.
- New York Department of Financial Services. (2024, July 11). Insurance circular letter No. 7: Use of artificial intelligence systems and external consumer data and information sources in insurance underwriting and pricing. <https://www.dfs.ny.gov/industry-guidance/circular-letters/cl2024-07>
- Ostrower, M., & Lazzarotti, J. (2025, July 29). Harnessing AI Under ERISA: A compliance and oversight guide for retirement and health plan fiduciaries. Jackson Lewis. <https://www.benefitslawadvisor.com/2025/07/articles/ai/harnessing-ai-under-erisa-a-compliance-and-oversight-guide-for-retirement-and-health-plan-fiduciaries>
- Parker, K., Hockaday, B., & Lewis, G., (2025, June 25). Pared-back version of the Texas Responsible Artificial Intelligence Governance Act signed into law. K&L Gates. <https://www.klgates.com/Pared-Back-Version-of-the-Texas-Responsible-Artificial-Intelligence-Governance-Act-Signed-Into-Law-6-24-2025>

- Pennsylvania House Bill 1925. (2025). <https://legiscan.com/PA/bill/HB1925/2025>
- Pennsylvania House Democratic Caucus. (2025, October 6). State lawmakers introduce bipartisan legislation to regulate the use of artificial intelligence in health care. <https://www.pahouse.com/InTheNews/NewsRelease/?id=140470>
- Pennsylvania Unfair Insurance Practices Act. (1974). <https://www.legis.state.pa.us/WU01/LI/LI/US/PDF/1974/0/0205.pdf>
- Pierce, A. (2025, December 15). Physicians must disclose AI use alongside existing HIPAA requirements, per state laws. Texas Medical Association. <https://www.texmed.org/TexasMedicineDetail.aspx?Pageid=46106&id=67060>
- Polisetty, A., Chakraborty, D., Kar, A. K., & Pahari, S. (2023). What determines AI adoption in companies? Mixed-method evidence. *Journal of Computer Information Systems*, 64(3), 370–387.
- President of the United States. (2025, December 11). Ensuring a national policy framework for artificial intelligence. The White House. <https://www.whitehouse.gov/presidential-actions/2025/12/eliminating-state-law-obstruction-of-national-artificial-intelligence-policy>
- Pressley, J. P. (2025, March 4). How artificial intelligence is transforming the insurance underwriting process. *BizTech*. <https://biztechmagazine.com/article/2025/03/how-artificial-intelligence-transforming-insurance-underwriting-process>
- Rao, N. L., Badalamenti, N. T., & Wilinski, N. E. (2024, December). Artificial intelligence and the insurance industry. *Michigan Bar Journal*. <https://www.michbar.org/journal/Details/Artificial-intelligence-and-the-insurance-industry?ArticleID=4986>
- Regulation 10-1-1. (2023, November 23). Colorado Department of Regulatory Agencies, Division of Insurance. <https://drive.google.com/file/d/1dLPKJCDo76iHfJZDopQEhTDCmKbuYnNI/view>
- Rhode Island House Bill 5172 (2025) <https://legiscan.com/RI/bill/H5172/2025>
- SB24-205: Consumer protections for artificial intelligence. (2024, May 17). Colorado General Assembly. <https://leg.colorado.gov/bills/sb24-205>
- Sidhu, V., Feldman, Y., & Hamilton, L. R. (2023, September). Colorado adopts artificial intelligence regulation for life insurers. Mayer Brown. <https://www.mayerbrown.com/en/insights/publications/2023/09/colorado-adopts-artificial-intelligence-regulation-for-life-insurers>
- Siegal, A., & Garcia, R. (2024, October 26). A deep dive into Colorado's artificial intelligence act. National Association of Attorneys General. <https://www.naag.org/attorney-general-journal/a-deep-dive-into-colorados-artificial-intelligence-act>
- Singla, A., Sukharevsky, A., Yee, L., Chui, M., & Hall, B. (2025, March). The state of AI: How organizations are rewiring to capture value. McKinsey & Company.
- Stamm, C., Glass, R., & Calloway, M. (2022, March 22). A primer on ERISA's preemption of state laws. Mercer. <https://www.mercer.com/insights/law-and-policy/a-primer-on-erisas-preemption-of-state-laws>

- Stanford University. (2025). *Artificial intelligence index report 2025*. https://hai.stanford.edu/assets/files/hai_ai_index_report_2025.pdf
- Texas House Bill 149. (2025). <https://legiscan.com/TX/text/HB149/2025>
- Texas Senate Bill 815. (2025). <https://legiscan.com/TX/text/SB815/id/3245515>
- Troutman Pepper Locke. (2025, September 8). What businesses need to know: Colorado's first-in-the-nation AI act diverges from federal approach to disparate impact. <https://www.regulatoryoversight.com/2025/09/what-businesses-need-to-know-colorados-first-in-the-nation-ai-act-diverges-from-federal-approach-to-disparate-impact>
- Tyman, A., & Priebe, J. (2025, September 12). Artificial intelligence legal roundup: Colorado postpones implementation of AI law as California finalizes new employment discrimination regulations and Illinois disclosure law set to take effect. Seyfarth. <https://www.seyfarth.com/news-insights/artificial-intelligence-legal-roundup-colorado-postpones-implementation-of-ai-law-as-california-finalizes-new-employment-discrimination-regulations-and-illinois-disclosure-law-set-to-take-effect.html>
- U.S. Centers for Disease Control and Prevention. (2024, September 10). Health Insurance Portability and Accountability Act of 1996 (HIPAA). <https://www.cdc.gov/phlp/php/resources/health-insurance-portability-and-accountability-act-of-1996-hipaa.html>
- U.S. Department of Labor. (2026). Fact Sheet: What is ERISA. <https://www.dol.gov/node/64128>.
- Van Alstin, C. (2025, September 29). AI-driven medical benefits servicer hit with data breach. *Health Exec*. <https://healthexec.com/topics/health-it/cybersecurity/ai-driven-medical-benefits-servicer-hit-data-breach>
- Vold, A. & Tai, H. (2025, August 20). Texas passes new law regulating electronic health records and the use of AI by healthcare professionals. BakerHostetler. <https://www.bakerdatacounsel.com/blogs/texas-passes-new-law-regulating-electronic-health-records-and-the-use-of-ai-by-healthcare-professionals>
- Waddell, K., (2021). What you're giving up when you let your car insurer track you in exchange for discounts. *Consumer Reports*. <https://www.consumerreports.org/money/car-insurance/how-car-insurance-telematics-discounts-really-work-a1549580662>
- Williford, K., & DiResta, A. (2020, April 16). Navigating artificial intelligence and consumer protection laws in wake of the COVID-19 pandemic. Holland & Knight. <https://www.hklaw.com/en/insights/publications/2020/04/navigating-ai-consumer-protection-laws-in-wake-of-covid19>
- Woodward, C. (2018, June) The Pennsylvania Supreme Court clarifies the standard that courts must use when considering claims for insurance bad faith under 42 P.A.C.S. § 8371. *Defense Digest*. <https://marshalldennehey.com/articles/pennsylvania-supreme-court-clarifies-standard-courts-must-use-when-considering-claims-made>
- Wu, C., & Monfort, A. (2022). Role of artificial intelligence in marketing strategies and performance. *Psychology & Marketing*, 40, 484-496.
- Xie, X., Lee, C., & Eling, M. (2020). Cyber insurance offering and performance: An analysis of the U.S. cyber insurance market. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 45, 690-736.