Ceres Accelerator
FOR SUSTAINABLE CAPITAL MARKETS

Navigating Climate Risks

Progress and Challenges in U.S. Insurance Sector Disclosures

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Acknowledgments

Lead Author

Jaclyn de Medicci Bruneau, Director of Insurance, Ceres Accelerator for Sustainable Capital Markets, Ceres

Project Contributors

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About Ceres

Ceres is a nonprofit advocacy organization working to accelerate the transition to a cleaner, more just, and sustainable world. United under a shared vision, our powerful networks of investors and companies are proving sustainability is the bottom line—changing markets and sectors from the inside out. For more information, visit ceres.org.

About Ceres Accelerator for Sustainable Capital Markets

The Ceres Accelerator for Sustainable Capital Markets is center within Ceres that aims to transform the practices and policies that govern capital markets by engaging federal and state regulators, financial institutions, investors, and corporate boards to act on climate change as a systemic financial risk. For more information, visit ceres.org/accelerator.

About the Report

This report by Ceres analyzes and presents findings from insurance company responses to the National Association of Insurance Commissioners' (NAIC) reporting year 2022 Climate Disclosure Survey, which is aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework for climate risk disclosure. These reports were submitted to the California Department of Insurance in the fall of 2023. This report provides insights that may be valuable to insurance regulators, insurers, and other stakeholders. Ceres hopes this analysis will encourage continual improvement in the comprehensiveness and usefulness of climate-related disclosures in future years. Ceres commissioned AI-powered software provider Manifest Climate to measure TCFD-alignment with a machine learning-based algorithm.

To search for a specific NAIC Climate Risk Disclosure Survey submission, refer to the California Department of Insurance Results site.

Our interactive dashboard provides comprehensive TCFD pillar, recommendation, and action item results by company, group, or line of business. The dashboard offers a user-friendly interface to explore and analyze the data.

Contents

Foreword

Dear colleagues,

As an insurance regulator, I have witnessed firsthand the growing impact of climate risks on the insurance industry. The challenges posed by floods, hurricanes, wildfires, severe convective storms, atmospheric rivers, and other perils are complex, far reaching, and increasingly urgent.

This report by Ceres, now in its second year, provides a timely and insightful analysis of major U.S. insurers' climate risk strategies based on their responses to the National Association of Insurance Commissioners (NAIC) Climate Risk Disclosure Survey. Importantly, this report builds on the existing body of knowledge that has been shared with the NAIC. The Climate Risk Disclosure Survey, which aligns with the Task Force on Climate-related Financial Disclosures (TCFD) framework, plays a crucial role in promoting transparency and enabling regulators and other stakeholders to assess the insurance industry's preparedness for climate risk impacts.

The findings of this Ceres report reveal both areas of progress and opportunities for improvement. While some insurers have made strides in integrating climate considerations into their governance, strategy, and risk management processes, others have more work to do when it comes to the development and disclosure of clear metrics, targets, and scenario analyses.

This report serves as a valuable resource for regulators, insurers, and other stakeholders as we work together to navigate the challenges and opportunities presented by the increasing frequency and severity of natural disasters. By embracing transparency, innovation, and collaboration, we can build a more resilient and sustainable insurance industry that protects policyholders, ensures a healthy insurance marketplace, and supports economic stability.

Sincerely,

Andrew N. Mais
Commissioner, Connecticut Insurance Department
President, National Association of Insurance Commissioners

Executive Summary

Climate change poses significant challenges for the insurance industry. As the frequency and severity of climate-driven disasters increase, insurers face mounting costs from escalating claims, potentially even leading to insolvency and market disruption.

The consequences of these impacts extend far beyond the insurance industry itself, with profound implications for policyholders, businesses, the broader economy, communities, and governments.

As insurance becomes unavailable or unaffordable in high-risk areas—a situation that is playing out in an accelerating number of markets across the U.S.—property owners, renters, and businesses will be left unprotected or governments will have to step in as insurers of last resort, leading to significant financial losses and hindering economic growth.

This report is the second annual analysis Ceres has conducted of major U.S. insurers' climate risk strategies by examining the disclosures companies are making under the National Association of Insurance Commissioner's Climate Risk Disclosure Survey.

Our analysis this year, conducted with Manifest Climate, is based on the responses submitted to the California Department of Insurance (CDI) from 516 insurance groups, which total more than 1,695 individual companies representing 80% of the U.S. insurance market and over $2 trillion in direct premiums written in 2022.

Our analysis reveals a frustratingly mixed picture of progress and persistent challenges in addressing climate-related risks. While some insurance groups have made strides in integrating climate-related risks and opportunities into their governance, strategy, and risk management processes, significant gaps and disparities remain across the sector.

The urgency of climate risk for the insurance sector requires a significantly faster ramp-up in all the areas of the Climate Risk Disclosure Survey, given the accelerating pace of climate change and its devastating effects. As regulators and stakeholders increasingly recognize the systemic nature of climate risks, the pressure on insurers to improve their disclosure practices will only intensify.

Disclosure itself is not the end goal. It is the crucial starting point to achieving a more resilient and sustainable industry that can effectively manage the challenges posed by climate change. Enhancing climate risk disclosure is not merely a matter of compliance but a strategic imperative for insurers seeking to maintain their competitive edge and long-term viability in a rapidly changing risk landscape. Once there is disclosure, Ceres urges all insurers to have climate transition plans to address their underwriting and their investments.

Figure 1 · TCFD Recommendations for Disclosing Climate-Related Risks and Opportunities

Aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework, the Climate Risk Disclosure Survey plays a crucial role in promoting transparency and enabling regulators and other stakeholders to assess the insurance industry's preparedness for climate risk impacts.

The TCFD, the standard-bearer for corporate climate disclosure, lays four broad categories: governance, strategy, risk management, and metrics and targets (Figure 1) that are broken down into 11 specific recommendations of specific actions and processes companies should disclose.

Key Findings

1. **More insurance groups provided disclosures this year**, building on an already high rate of response last year — 516 groups submitting responses this year, up from 494 last year.
2. **94% of the 516 insurance groups are reporting on risk management**, 86% on strategy, 81% on governance, and 29% on metrics and targets.
3. **Just 26% of the 516 insurance groups reported on parameters** across the four TCFD broad categories, while 44% disclosed on three of the four.
4. **A year-over-year review of the disclosures** from the same insurance groups shows improvement in some of the sub-areas, including in reporting on how insurers are integrating climate-related risk into their risk management processes, how they are identifying climate-related risks and opportunities, and how they are reporting on scope 1, 2, and 3 GHG emissions.

5 **However, the number of insurer groups reporting declined** in two of the sub-areas: (1) in describing the role that management is playing in assessing and managing climate-related risks and opportunities and (2) in describing the targets they use to manage their risks and opportunities and how the company is performing against those targets. Any area of decline is an especially concerning trend, given the increasing urgency and materiality of climate risks for the insurance industry.

6 **The overall low performance in the metrics and targets area** emphasizes the continued challenges insurers are experiencing as they grapple with developing and adopting risk measurement and management processes.

7 **The increasing adoption of climate scenario analysis by insurers is encouraging**, as it demonstrates a growing recognition of the importance of assessing the potential long-term impacts of climate change on insurer's business models and financial performance.

8 **But the lack of transparency on greenhouse gas emissions** reductions hinders the ability of regulators, investors, and other stakeholders to fully understand the carbon footprint of companies and their exposure to climate-related risks.

The urgency of climate risk for the insurance sector requires a significantly faster ramp-up in all the areas of the Climate Risk Disclosure Survey, given the accelerating pace of climate change and its devastating effects. As regulators and stakeholders increasingly recognize the systemic nature of climate risks, the pressure on insurers to improve their disclosure practices will only intensify.

Enhancing climate risk disclosure is not merely a matter of compliance but a strategic imperative for insurers seeking to maintain their competitive edge and long-term viability in a rapidly changing risk landscape. While disclosure itself is not the end goal, it is the crucial starting point on the path to achieving a more resilient and sustainable industry that can effectively manage the challenges posed by climate change. Once there is disclosure, Ceres urges all insurers to have climate transition plans to address their underwriting and their investments.

Highlights of 2021 Responses Compared with 2022, Same Carrier Reporting*

*The report includes analysis of the reports filed from 516 groups this year, and of the comparable reports filed over the past two years. To ensure a fair and accurate comparison, in this section, the current year's analytical methodology was applied to both the 2021 and 2022 submissions of all 418 groups reporting in both years.

TCFD Pillars

- **Risk Management Disclosures:** Across all lines of business (property and casualty, life, health, title, all others), there was minimal improvement in the number of companies disclosing risk management information, from 386 (92% of responding groups) in 2021 to 390 (93% of responding groups) in 2022. However, risk management remains the strongest overall reporting area across both Survey years and over all lines of business.

- **Strategy Disclosures:** The total number of companies disclosing climate-related strategies slightly increased from 352 (84%) to 364 (87%), with slight improvements demonstrated by all lines of business.
- **Governance Disclosures:** There was a slight increase in the number of companies disclosing governance oversight of climate-related issues, growing from 335 (80%) in 2021 to 337 (81%) in 2022, with property and casualty companies and health insurers showing improvement, while life insurers experienced a slight decline.
- **Metrics and Targets Disclosures:** The total number of companies disclosing climate-related metrics and targets continued to be very low and the area most in need of attention. It increased from 126 (30%) to 135 (32%), with property and casualty companies, life, and health insurers all showing improvement, while the all other lines remained unchanged.

TCFD Pillar Recommendations

The year-to-year analysis of the 11 TCFD recommendations reveals mixed results, with improvements in some areas and a slight decline in others. Overall, there is a positive trend towards greater disclosure and alignment with the TCFD framework.

- The risk management pillar saw the highest number of recommendation disclosures, with climate risk management process being the most reported recommendation in both years, despite a small decrease from 364 in 2021 to 357 in 2022. Climate risk integration showed improvement, increasing from 336 to 354 groups reporting discussion in this area.
- The strategy pillar also demonstrated some progress, with climate impact on organization increasing from 321 to 333, and climate risks and opportunities Identified showing a marked increase from 283 to 310 companies. Climate scenario analysis, although still relatively very low in absolute numbers, showed a promising rise from 93 in 2021 to 116 company groups in 2022.
- In the governance pillar, board oversight saw a modest increase from 309 in the previous year to 315 in the current, while management's role experienced a noteworthy decline from 275 to 262. Any area of decline is an especially concerning trend.
- The metrics and targets pillar, which generally had the lowest levels of disclosure between both reporting years, showed mixed results. Scope 1, 2, 3 GHG emissions rose from 89 to 102 in 2022, and metrics in use increased from 78 the previous year to 88 in the recent report. However, targets in use experienced a small decrease, from 79 to 77.

As mandated corporate climate disclosure is debated and enacted in the United States and across the globe, U.S. insurance regulators and insurers deserve credit for their leadership. While they have been requiring an initial version of climate disclosure for years, in April 2022 the National Association of Insurance Commissioners approved a requirement for insurers with $100 million or more in premiums in certain states to file an updated Climate Risk Reporting utilizing the structure of the Task Force of Climate-related Financial Disclosures. The TCFD framework for climate risk disclosure has gained widespread acceptance across jurisdictions and economic sectors. TCFD-aligned reporting is now supported in over 120 countries and has been implemented or required by various

financial regulators worldwide. The International Sustainability Standards Board's global baseline of sustainability disclosure standards builds upon TCFD recommendations. The TCFD has been incorporated into the work of International Financial Reporting Standards.

This review provides several key benefits, including guidance for insurance companies on improving the specificity of their disclosures by sharing more comprehensive information about their exposure and efforts in response to climate risk. Insurers can review other companies' reports to ensure they are adopting leading practices, with concrete examples from specific companies highlighted throughout this report. This analysis also provides insights for insurance regulators in the U.S. and internationally to understand how companies are considering and responding to climate risk and opportunities, demonstrated through these real-world examples.

Recommendations for Continued Improvement

- Participate in industry initiatives to establish common methodologies and frameworks.
- Leverage decisions, useful open-source models, and tools to better identify, assess, and manage climate-related risks.
- Establish clear roles and responsibilities for the board and management in overseeing climate-related issues.
- Engage in dialogue to identify best practices and guidance on setting tangible targets.
- Invest in tools to accurately measure and report greenhouse gas (GHG) emissions.
- Regulators and insurers should use this data to compare and contrast how insurers are addressing the risks and the opportunities they and their customers face to improve completeness in the reports.
- Engage constructively, directly, and through associations on climate policy and regulatory oversight.
- Annually determine areas to build deeper capacity to ensure a more comprehensive analysis in the upcoming reporting cycles.

Context

As the frequency and severity of climate-related disasters continue to rise, insurers face mounting costs from escalating claims. In 2023 alone, natural disasters caused an estimated $380 billion in losses globally, of which only roughly 40% was insured. At the same time, with a growing population, and accelerated development in high-risk areas, the overall number of people, homes, and businesses exposed to these events has increased.

The impacts of this increasingly costly combination of more destructive disasters more often affect not only insurers but also have far-reaching consequences for individuals and businesses, potentially jeopardizing the availability and affordability of insurance coverage—a vital tool for recovery.

The diminishing time between catastrophic events severely limits the resources and opportunities for affected communities to respond effectively, recover sufficiently, and adequately prepare for future risks, with vulnerable populations often bearing a disproportionate burden due to systemic inequities and limited access to resources.

They also pose significant challenges to insurers' liquidity and solvency as the industry faces a growing risk of overwhelming claims that can deplete their reserves and hinder their ability to meet policyholder obligations, potentially jeopardizing their financial stability and the availability of insurance coverage in high-risk areas. As of September 2023, more than 35.6 million homes in America faced reduced coverage options and sharply increased premium costs.

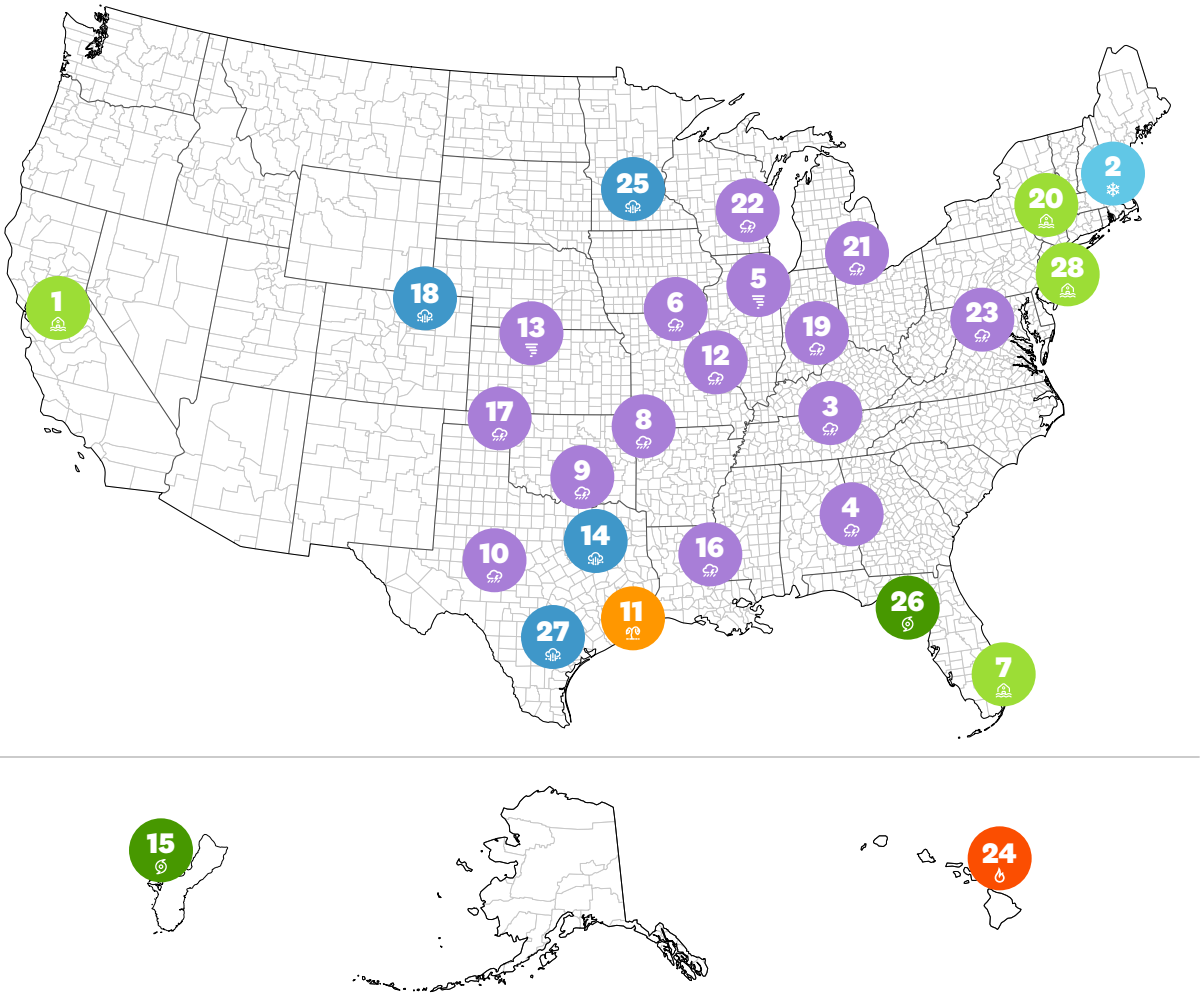
Severity of Each Disaster Increasing:

- In 2023, the U.S. was hit with an unprecedented 28-billion-dollar weather and climate disaster, surpassing the previous annual record of 22 disasters set in 2020 (Figure 4).
- These 2023 disasters resulted in an estimated 492 lives lost and over $93 billion in damages.
- Among the historic events were an unparalleled number of severe storms and tornadoes in the central U.S., a devastating wildfire in Maui, extensive drought in the South and Midwest, heavy flooding in California, Hurricane Ida's landfall in Florida, and flooding in the Northeast (Figure 2).
- Tropical cyclones have been the costliest, accounting for 52% of all billion-dollar disaster costs since 1980, and severe storms the most frequent.

Frequency of Each Disaster Increasing:

- From 2019 to 2023,the average time between disasters was 16 days, compared to 82 in the 1980s.
- 2023 reached a new extreme of just 12 days between disasters on average (Figure 4).

Figure 2 • U.S. 2023 Billion-Dollar Weather and Climate Disasters



1	Jan–Mar	California flooding	
2	Feb 2–5	Northeast winter storm/cold wave	
3	Mar 2–3	Southern/Eastern storms	
4	Mar 24–26	Southern/Eastern storms	
5	Mar 31–Apr 1	Midwest tornadoes, Eastern storms	
6	Apr 4–6	Midwest and Eastern storms	
7	Apr 12–13	Fort Lauderdale flooding	
8	Apr 15	Central/Southern storms	
9	Apr 19–20	Central storms	
10	Apr 25–27	Southern storms	
11	Spring–Fall	Southern/Midwest drought/heat wave	
12	May 6–8	Central storms	
13	May 10–12	Central/Eastern tornadoes/hail	
14	May 18–19	Texas hail storms	
15	May 24–25	Guam Typhoon Mawar	
16	Jun 11–14	Southern storms	
17	Jun 15–18	Central/Southern storms	
18	Jun 21–26	Rockies hail, Central/Eastern storms	
19	Jun 28–Jul 2	Central storms	
20	Jul 9–15	Northeast flooding, Midwest storms	
21	Jul 19–21	Midwest/Southeastern storms	
22	Jul 28–29	Midwest/Eastern storms	
23	Aug 5–8	Northeast/Eastern storms	
24	Aug 8	Hawai‘i firestorm	
25	Aug 11	Minnesota hail storms	
26	Aug 29–31	Hurricane Idalia	
27	Sep 23–24	Southern hail storms	
28	Dec 16–18	East Coast storm/flooding	

Figure 3 • U.S. Billion-Dollar Disasters, 1980–2023

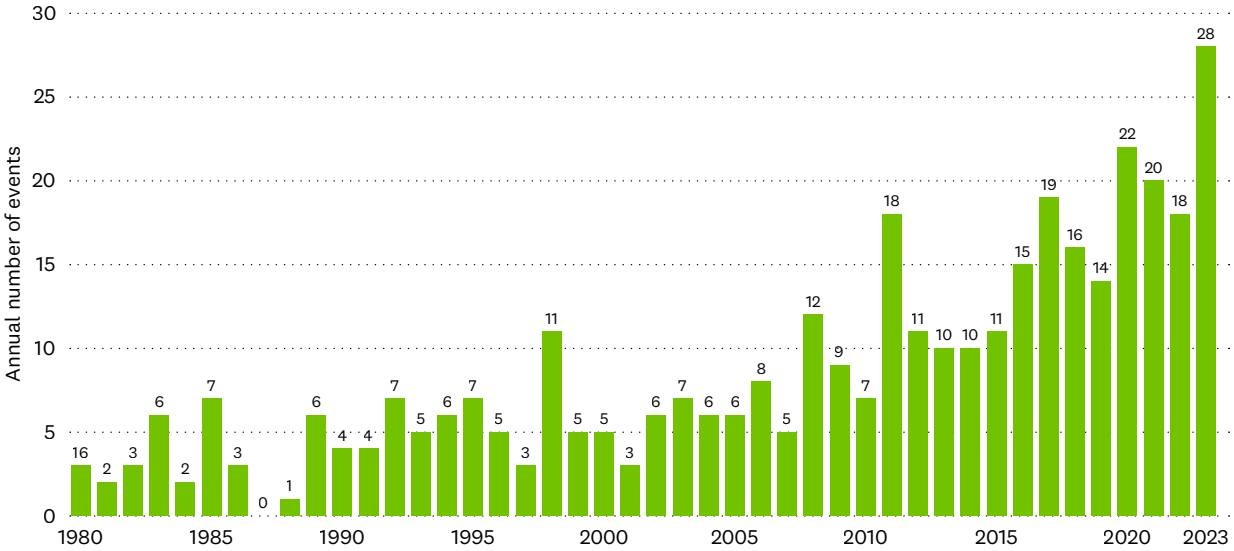
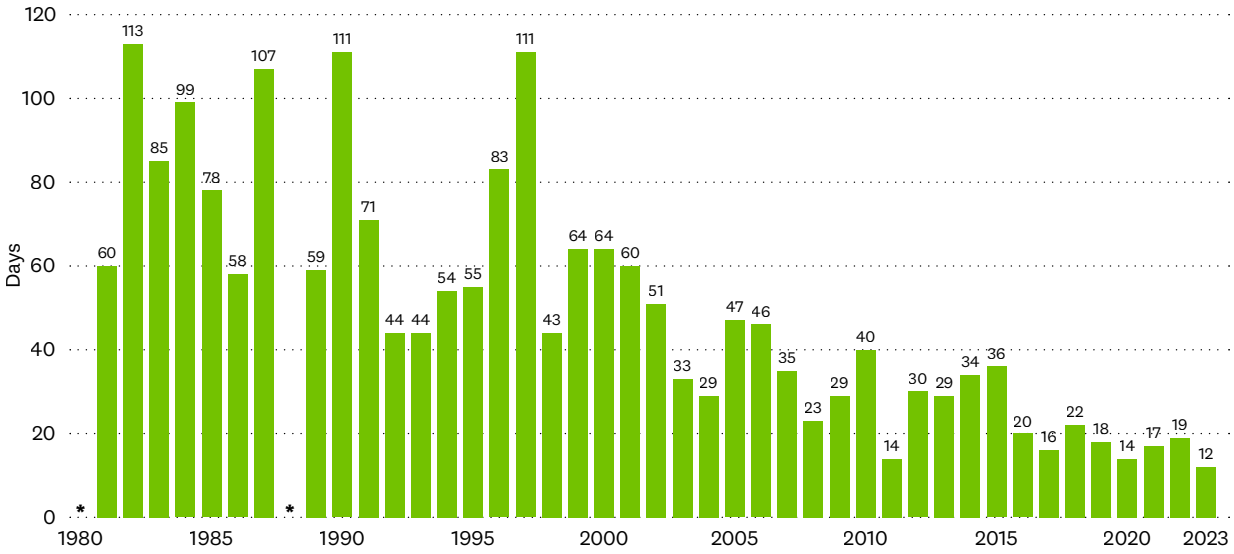


Figure 4 • Days Between Billion-Dollar Events, 1980–2023



* One or zero events in 1980 and 1988

Methods in Brief

The TCFD Pillars and Recommended Disclosures

The TCFD framework is built upon four central themes, referred to as pillars: governance, strategy, risk management, and metrics and targets. Each of these pillars is reinforced by a set of key recommended disclosures that delve into specific aspects of an organization's approach to climate-related issues. These recommended 11 disclosures provide a more comprehensive and detailed view of how reporting entities perceive, evaluate, and manage climate-related risks and opportunities, offering valuable insights to investors and other stakeholders seeking to understand the organization's climate strategy and resilience. (Figure 5).

Figure 5 • TCFD Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the company's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning where such information is material.	Disclose how the company identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
a Describe the board's oversight of climate-related risks and opportunities.	a Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.	a Describe the company's processes for identifying and assessing climate-related risks.	a Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.
b Describe management's role in assessing and managing climate-related risks and opportunities.	b Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.	b Describe the company's processes for managing climate-related risks.	b Disclose scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management	c Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.

Adapted from Task Force on Climate-related Financial Disclosures

In addition to assessing insurance groups' reporting under the TCFD pillars and recommendations, Ceres expanded the analysis this year to include Manifest Climate's proprietary 41 specific action items which are mapped to the TCFD recommendations and other global climate-related financial reporting framework. These 41 items are actions that an organization can take to improve its overall climate response. Ceres selected these action items to provide more granular insights into the steps insurers are taking to support and implement the TCFD recommendations effectively. This deeper level of analysis enables the identification of areas where insurers are demonstrating leadership and best practices, as well as opportunities for further development and improvement. By providing this additional layer of insight, Ceres hopes to support the continued evolution and maturation of climate-related disclosures in the insurance sector.

Methods Overview

The study uses a machine learning (ML) based approach that provides an indicator for whether a given report includes any information related to each of the 11 detailed TCFD recommended disclosures and 41 action items. The machine learning analysis was performed by Manifest Climate and commissioned by Ceres. A complete description of the methodology can be found here.

Results

Overview

To understand how and to what extent U.S. insurance companies are aligning their Climate Risk Disclosure Survey responses with each of the recommendations of the TCFD framework, nearly 5,000 pages of survey submissions were examined using machine learning. In this report, the results are presented a) in comparison with other sectors and geographies using published information from the TCFD 2023 Status Report, b) by type of insurer (for instance, life, property & casualty (P&C), health, title), and c) by company size.

Of the submissions, approximately half of the responses (248) are from P&C insurers, a quarter (119) are from life insurers, 84 are from health insurers, and 11 are from title insurers. The remaining quarter is split between groups of insurers covering multiple types, with the most common combination being groups that have both life and P&C companies (35 submissions). This reflects the insurers with $100 million in premiums in one or more of the 27 states and territories that require this.

Number of Reports Containing Each of the TCFD Recommended Disclosures (ML Approach)

The machine learning-based analysis provides an indicator of whether the report included any information related to a given recommended disclosure of the TCFD Framework, regardless of the level of detail provided for that recommended disclosure.

Most Climate Risk Disclosure Survey reports (57%) provided information on six or more of the 11 TCFD recommended disclosures. A significantly low number of reports, 13%, provided information in 10 or more of the TCFD recommended disclosures. Only 16 reports, from a variety of types of businesses, made none of the TCFD recommended disclosures.

Current Year Analysis

In the current year's reporting, a comprehensive analysis of insurance groups' alignment with the TCFD framework reveals a mixed picture, with varying levels of adherence to the four pillars and 11 recommendations. While some groups demonstrate a strong performance, others struggle to meet the full scope of TCFD benchmarks. For purposes of this analysis, Ceres is focusing on what sections were commented on, not necessarily on the specific actions and standards they recommend.

Approximately 25% of the groups manage to address all four pillars, with 44% meeting three pillars of alignment for a total of 70%. The metrics and targets pillar emerges as the weakest area for most

groups, indicating a need for improved disclosure and target-setting in relation to climate-related risks and opportunities.

Figure 6 • Pillar Index

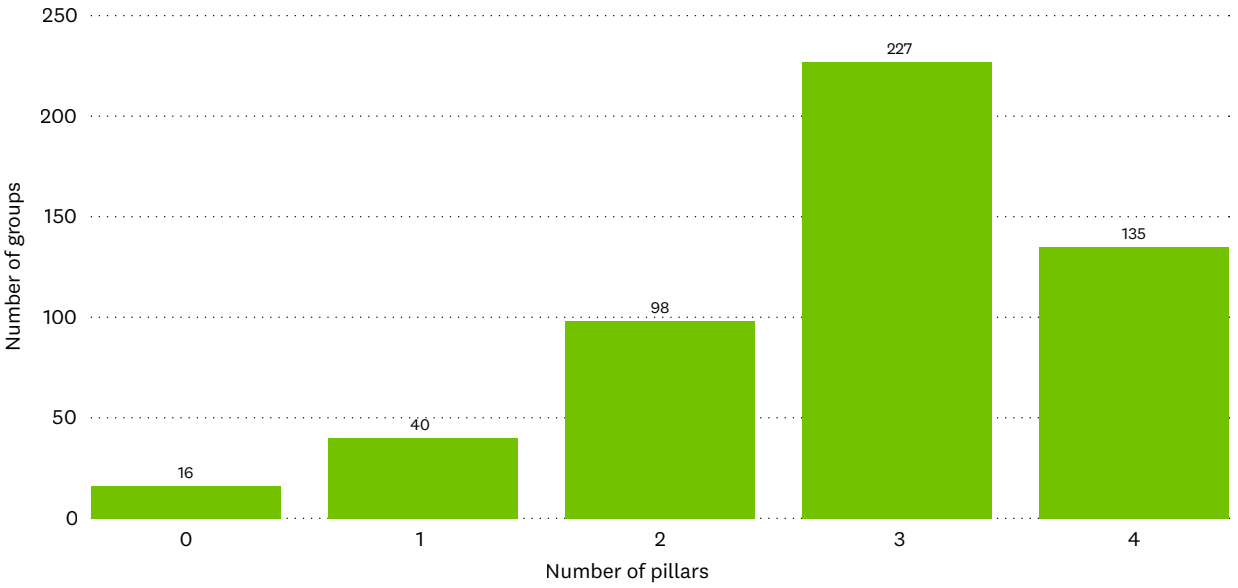
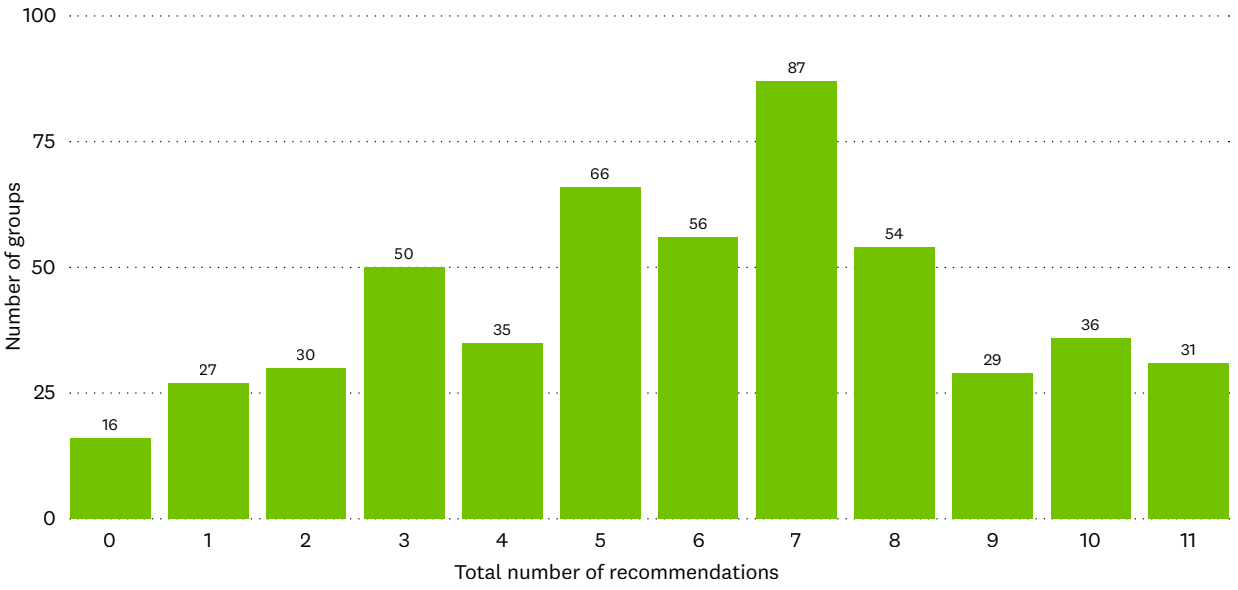


Figure 7 • Recommendations Index



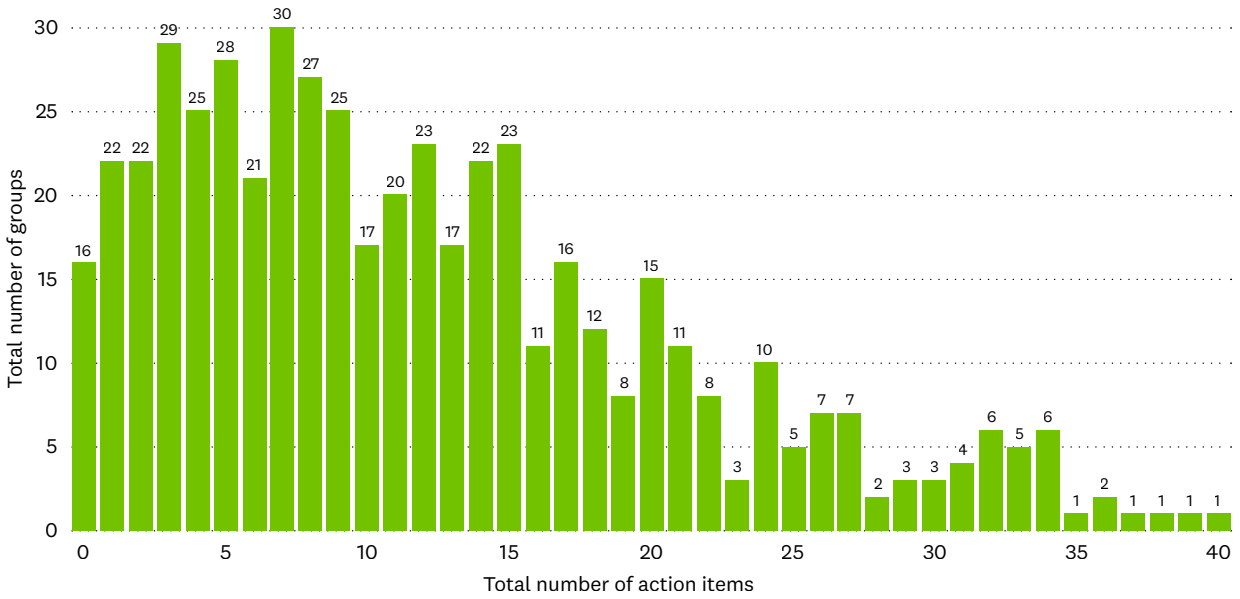
Of the 11 recommendations, around 57% (293) of the groups scored in six or more recommendations, while only 13% managed to address 10 or more. The overall recommendation alignment follows a normal distribution pattern, suggesting that most groups fall within the middle range of adherence to the TCFD framework. With the understanding that accurate climate-related data is imperative for effective risk management and strategic planning, Ceres is optimistic that more

organizations will invest in the capacity-building required to produce robust reports aligned with the TCFD framework.

The risk management pillar stands out as the most extensively covered area with climate risk management processes and Integration recommendations being the most frequently addressed across all pillars. Here again the metrics and targets pillar was the least addressed recommendation area, with only 92 companies (18%) disclosing information on metrics in use. This recent TCFD report highlights the importance of metrics and transition plans.

Of the 41 action items, the analysis reveals alignment following a long-tailed (characterized by a high frequency of low values and a low frequency of high values) distribution, with most insurers covering fewer than 15 items out of 41. Risk integration and risk management processes emerge as the most disclosed action items while materiality assessment, climate response planning, and carbon pricing processes are rarely mentioned. This suggests that while some groups are taking comprehensive action to address climate-related risks and opportunities, many others have yet to implement a wide range of best practices to describe the approaches, methods, and strategies that have been proven to work well in helping companies disclose their climate-related risks and opportunities in a clear, consistent, and useful manner.

Figure 8 • Action Items Index

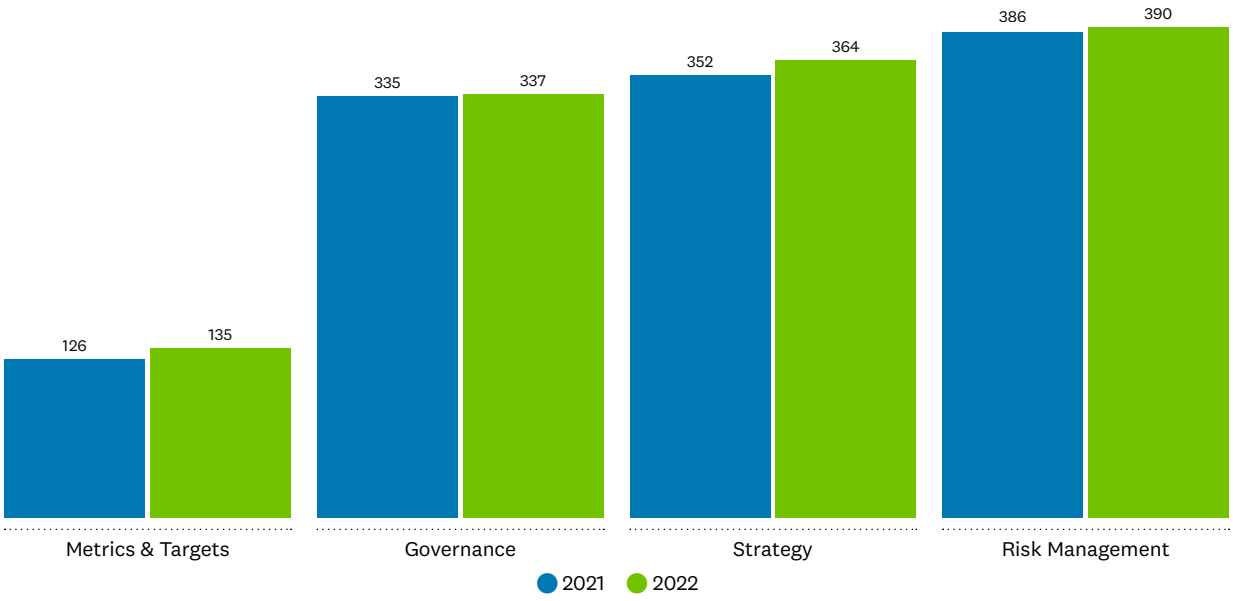


For a more detailed examination of the current year's TCFD reporting results, including breakdowns by line of business and company size, click here to jump to this analysis in the report appendix. This comprehensive deep dive analysis offers valuable insights into the nuances of climate risk disclosures across various segments of the insurance industry.

Comparative Analysis of Survey Responses (Reporting Year 2021 vs. 2022)

The 2022 climate risk disclosure survey (submitted in 2023) responses demonstrate a modest positive trend of improvement in alignment with the TCFD recommendations compared to 2021. Prior to 2021, Ceres is not aware of any U.S. insurance companies that were reporting TCFD climate risk disclosures, making the second reporting year score increases especially encouraging. Across the 418 companies that filed responses in both years, more companies provided information aligned with the key TCFD pillars of governance, strategy, risk management, and metrics and targets.

Figure 9 • All Lines, 2021 vs 2022



TCFD Pillar: Risk Management

The TCFD framework's risk management pillar recommends that organizations disclose their processes for identifying, assessing, and managing climate-related risks. The Climate Risk Disclosure Survey prompts insurers to provide information on their underwriting exposure to climate-related risks, actions taken to encourage policyholders to manage their physical and transition climate risks, and the impact of climate change on their investment portfolios. Insurers are also asked to disclose whether they address climate risks through their enterprise risk management process or a separate process and if they use climate scenarios to evaluate underwriting and investment risks.

In addition to the general TCFD recommendations, the supplemental guidance for insurance companies suggests that insurers and reinsurers should describe their risk management processes for their underwriting portfolios, covering physical risks, liability and litigation risks, and transition risks. These transition risks may arise from factors such as a reduction in insurable interest due to declining asset values, changes in energy costs, or the implementation of carbon regulations. For asset owners, the supplemental guidance recommends describing their engagement efforts with investee companies to encourage better disclosure and practices related to climate risks and to improve data availability.

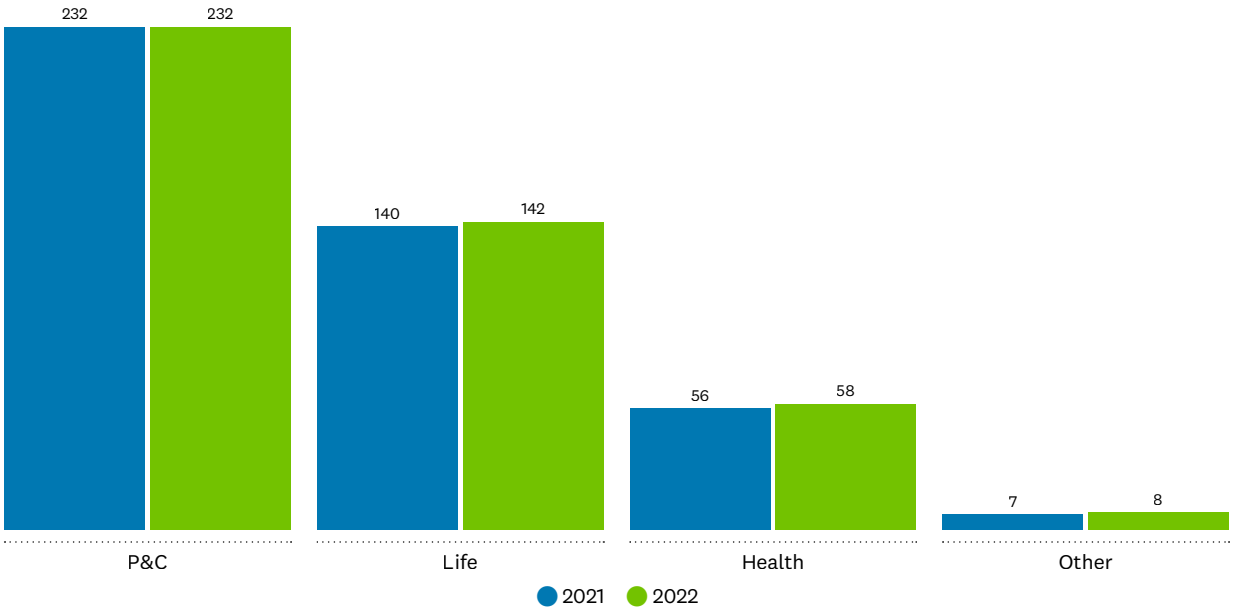
Results

The largest reporting area overall was in the risk management pillar. In 2021, 386 companies (92% total) across all lines of business disclosed information aligned with some of the three risk management recommendation disclosures. In 2022, this slightly rose to 390 companies (93% of total), representing a two percentage point increase in companies that have established processes to identify, assess, and manage climate-related risks over the past year.

By Line of Business:

- For property and casualty companies (244 total), 232 (95%) disclosed risk management information in both 2021 and 2022, showing no change.
- Life insurers (151 total) saw little movement, from 140 companies in 2021 to 142 (94%) companies in 2022.
- Health companies (62 total) grew from 56 disclosing risk management processes in 2021 to 58 (95%) in 2022.
- All other lines of business combined (12 companies) increased from 7 disclosing in 2021 to 8 (67%) in 2022.

Figure 10 · Risk Management Pillar by Line of Business, 2021 vs 2022



Risk Management Pillar Recommendations

Risk Identification and Assessment Process

The comparative analysis of the risk identification and assessment process recommendation reveals a slight decline in the overall number of insurers discussing this metric, from 364 in 2021 to 357 in 2022. This disappointing decrease is reflected across multiple lines of business, with P&C (from 225 to 220), life (130 dropping to 128), and title (from 6 to 5 groups) scoring lower in this recommendation, and health remaining steady at 50 groups reporting in this area across both years.

The decline in the number of insurers meeting this recommendation across all lines of business is a concerning trend, given the increasing urgency and materiality of climate risks for the insurance industry.

> ▶ **Company Spotlight** Arbella Insurance Group, a property and casualty insurer, provided a detailed example of how it identifies and assesses climate-related risks using catastrophe modeling. Its disclosure states: "We use catastrophe-modeling software to estimate potential losses from all major perils, including tropical storm/hurricane. We use multiple models and run them biannually with updated exposures using both a long-term and a medium-term view of weather patterns as well as with or without storm surge. The company uses this distribution of estimated losses to perform various stress tests to evaluate the company's exposure to more severe losses than experienced using historical experience," (p. 5).

Risk Management Categorization

The risk management categorization recommendation, which assesses insurers' disclosure of their processes for identifying and quantifying climate-related risks, saw a modest overall increase from 284 groups providing information in 2021 to 289 groups in 2022. When examining by line of business, the health insurance sector demonstrated the most progress, from 37 groups to 42 scoring in 2022. Property and Casualty also saw a small increase, from 172 groups to 176. Life insurance, however, experienced a slight decrease, from 114 groups proving recommendation disclosure in 2021 to 111 groups in 2022. This decline reemphasizes the need for life insurers to maintain and strengthen their focus on climate risk categorization principles, as climate change can impact their investment portfolios and long-term financial stability. Title insurance remained consistent with four groups reporting in this area both years.

> ▶ **Company Spotlight** Property and casualty group Hudson Insurance Company included the following description of their investment risk categorization: "Environmental, social and governance issues have become factors in the investment analysis and decision-making process. Deficiencies or excessive risk in these areas could lead to the rejection of investment opportunities or the sale of existing positions. In some cases, climate change or other environmental issues will be a risk to a business—perhaps as products are phased out, capital expenditures increase to comply with stricter environmental laws, carbon taxes reduce demand, new technology creates substitutes for a company's high carbon footprint," (p. 3).

Integration into Overall Risk Management

This recommendation, which evaluates the extent to which insurers incorporate climate-related risks into their overall risk management processes, saw a relatively notable increase from 336 total groups discussing this area in 2021 to 354 groups in 2022, a 5% improvement. This is particularly notable when compared to the slight decrease observed in the risk identification and assessment area and modest increase in the related categorization recommendation.

The property and casualty sector demonstrated the most substantial progress, with a year-to-year increase from 197 groups to 211 in 2022. The health line of business also showed improvement, with groups reporting in this area rising from 46 to 52. The life insurance sector saw a minor increase from 132 groups in 2021 to 133, and title insurance rose from six groups to seven in 2022.

The progress observed in the integration reporting area is encouraging, and especially noteworthy given the slight decline in the risk management process recommendation. Taken in context, these results may suggest that insurers are prioritizing the integration of climate risks into their existing risk management frameworks over the development of standalone climate risk management processes. Regardless, this analysis further highlights the need for continued effort across all line of business to ensure full climate-related risk integration into the industry's risk management processes and that these efforts are transparently communicated to stakeholders.

> ▶ **Company Spotlight** Coface North American Insurance Company, a credit insurance group, has taken a proactive approach to incorporating climate-related risks into its overall risk management plans. One notable example is its consideration of climate-related reputational risks, as evidenced by its disclosure: "Credit risk exposures guaranteed by Coface concern companies having their own environmental impact. The Coface Group has thus decided to implement a tool to measure the environmental impact of the debtors making up its guaranteed exposure. This tool subsequently enables Coface to steer its business towards more environmentally responsible activities and thereby reduce reputational risk or investor withdrawals," (p.10).

TCFD Pillar: Strategy

The strategy pillar recommends that organizations disclose the actual and potential impacts of climate-related risks and opportunities on their businesses, strategy, and financial planning, if such information is deemed material. The Climate Risk Disclosure Survey asks insurers to provide more information on the steps they have taken to engage key stakeholders on climate risk and resilience. Insurers are also requested to disclose their plans for reducing greenhouse gas emissions within their operations and to assess the resilience of their strategies under a scenario where global warming is limited to 2°C or less.

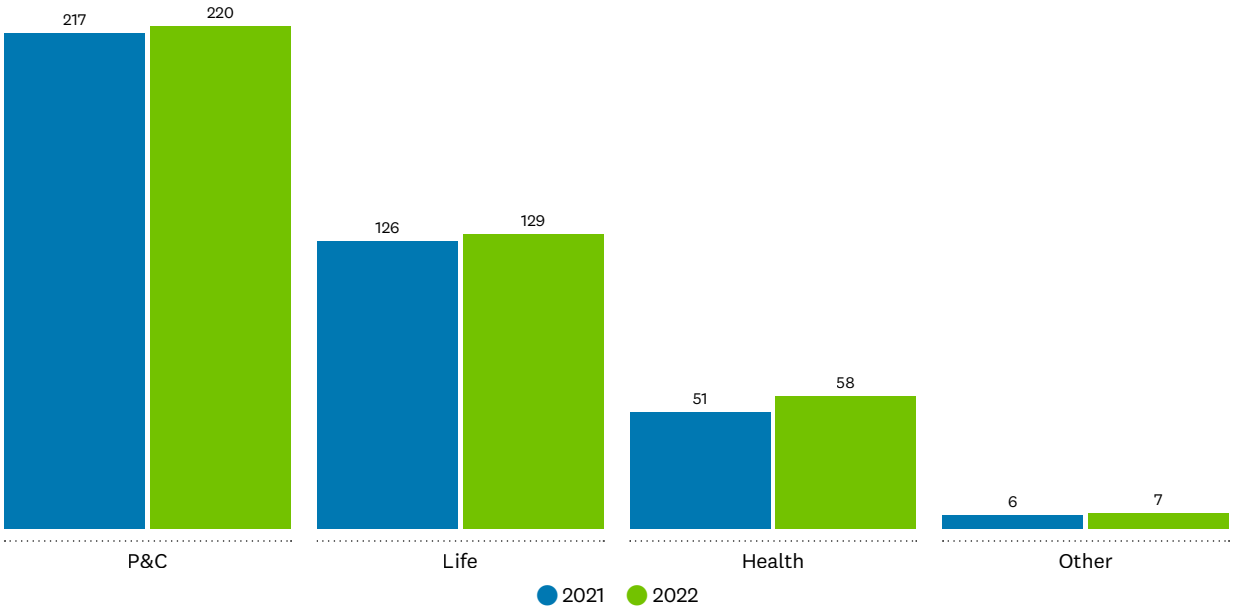
The Survey also asks insurers to disclose any products or services they offer that support the transition to a low-carbon economy or help their customers adapt to climate-related risks. This information is crucial for understanding how insurers are positioning themselves in response to the challenges and opportunities presented by climate change and the global effort to mitigate its effects.

Results

The strategy pillar also saw a slight increase, with 352 companies (84%) providing strategy disclosures in 2021, rising to 364 companies (87%) in 2022. This suggests more companies are assessing the potential impacts of climate-related risks and opportunities on their businesses and financial planning.

▶ **Company Spotlight** Emblem Health demonstrated comparative-year improvement, as the company did not provide sufficient information to score in the strategy pillar in the previous reporting year. In the latest response, Emblem Health disclosed a detailed approach to assessing and managing climate-related risks and opportunities. The latest Survey response highlighted Emblem Health's approach of annually evaluating the relevance and significance of climate risk exposures as part of its ERM program. The carrier continued to determine these risks as immaterial to its business, strategy, and financial planning, yet also stated that the assessment and materiality determination "takes into consideration all possible types of risk (physical, transition, etc.) and all possible impacts from risk (including all NAIC risk factors)." Furthermore, the 2022 response elaborated on the company's efforts to engage key constituencies on the topic of climate risk and resiliency, stating, "the company's annual climate risk materiality determination and assessment is shared with the Audit, Finance, and Investments Committee of the Board. When any element of climate risk is determined to be material, the company will engage all relevant parties for full awareness of the risk, their role in risk management or action items," (p. 2).

Figure 11 • Strategy Pillar by Line of Business, 2021 vs 2022



By Line of Business:

- Property and casualty companies (244 total) rose from 217 disclosing in 2021 to 220 in 2022.
- Health insurers (62 total) saw the largest jump from 51 disclosing in 2021 to 58 in 2022.
- Life insurers (151 total) grew marginally from 126 in 2021 to 129 in 2022.
- All other lines of business (12 total) was essentially the same, with six companies providing strategy disclosures in 2021 and seven in 2022.

Strategy Pillar Recommendations

Risks and Opportunities Identified

Under the strategy pillar, the climate risks and opportunities Identified recommendation exhibited a greater increase in reporting than the three risk management pillar-associated recommendations. Here, there is a group increase from 283 in 2021 to 310 in 2022, an overall improvement within all reporting insurance groups. All lines of business experienced an increase in this sub-pillar, with property and casualty moving from 184 to 195, health carriers growing from 38 to 47, life insurance increasing from 101 to 111, and title insurance improving from three groups in 2021 to five in 2022.

▶ **Company Spotlight** Primerica Group, a life insurance company, included a chart (p. 4) describing not only risks but also opportunities, including an "increased demand for life insurance" driven by climate change impacts:

Impact	Risk	Opportunity
Chronic temperature rise	Could lead to increased mortality and related claims; impact on customer disposable income	Increased demand for life insurance policies
Extreme weather events	Could lead to increased mortality and related claims; impact on customer disposable income; prevent sales force from traveling to clients; cause power outages	Increased demand for life insurance policies
Climate-related regulation	Could cause shifts in labor markets and reduce customer disposable income	Capitalize on labor market shifts and build a more climate-resilient investment portfolio
Reputational risk	Investment portfolio has some exposure to carbon-intensive sectors	Enhance communications with investment advisor to ensure that investment community has all relevant information

Fidelity & Guaranty Life Insurance Company also included this detail, with its chart (p. 5) description highlighting opportunities and time horizons:

Opportunity Category	Description	Time Horizon	Potential Impact
Product	There may be increased demand for climate and sustainable insurance products and while this is less mature today, it may develop further in the future.	Medium- and long-term	Increased revenues
Operational	Increased efficiency through operational innovations or low carbon building features.	Short-, medium-, and long-term	Reduced expenses
Reputational	Some employees are increasingly concerned with climate and sustainability matters, which may be a driver for attracting and retain top talent.	Short-, medium-, and long-term	Increased revenues

Impacts on Organization

The impacts on organization reporting recommendation also demonstrated a moderate increase, from 321 in 2021 to 333 in 2022. This recommendation assesses insurer disclosures on the actual and potential impacts of climate-related risks and opportunities on their businesses, strategies, and financial planning.

> ▶ **Company Spotlight** Clear Spring Property and Casualty Company described its footprint reduction efforts: "The Company has taken steps to limit the extent of its environmental footprint at its primary office facilities, including: utilizing energy-reducing solutions in its facilities (e.g., motion-based sensors and LED lighting); participating in local utility programs for recycling, where available; and limiting the number of printing devices deployed in its operations. In addition, the Company mitigates the extent of its environmental impact by leveraging electronic delivery methods for communications with its customers rather than physical documents, unless required by regulation or requested by preference. The Company further mitigates the environmental impact of its operations by providing a hybrid workplace model for its employees, thereby significantly reducing the impacts of daily workplace commuting," (p. 7).

Here again, all lines of business exhibited an increase in the number of groups reporting under this recommendation, although this expansion is more modest than the previous strategy pillar recommendation. The property and casualty sector rose from 194 groups to 199 in 2022, health insurance from 48 groups to 52, the life insurance line of business a more modest increase from 121 to 124, and title insurance improving from five groups in 2021 to six in 2022.

> ▶ **Company Spotlight** Molina Healthcare Group described its financial and physical risk impact disclosures specific to its line of business: "The premiums we receive for our three major lines of business are based on rates that are developed and approved for actuarial soundness on an annual basis. Therefore, we have the ability to capture changes in medical costs that may be due to environmental factors. Among physical risks, environmental factors such as a major earthquake or wildfire in California, or a major hurricane affecting Florida,

South Carolina or Texas may cause widespread illness or medical conditions, or a disruption in members' services each of which may result in increased health care costs," (p. 9).

Resilience of Strategy: Climate Scenario Analysis

The climate scenario analysis recommendation, a component of the strategy pillar, has historically been a weaker area of reporting across the insurance industry. The comparative analysis does indicate growth and improvement in this area, with a 5% increase from 93 groups including discussion in their 2021 surveys to 116 in 2022. All lines of business experienced an increase in climate scenario analysis reporting: property and casualty, with the largest increase from 52 to 63 groups, health from 12 to 17, life insurance from 49 to 58, and title groups moving from one group to three in 2022.

While there is a higher degree of improvement in these three key areas under the strategy pillar than in the risk management segment, the number of groups incorporating discussion of these strategy recommendations remains alarmingly low. Climate scenario analysis, in particular, remains a challenging area for many insurers due to the complexity of modeling future climate conditions, the lack of standardized methodologies and data, and the uncertainty surrounding the timing and magnitude of climate impacts. Overcoming these challenges is vital and will require significant investments in research, data collection, and collaboration among insurers, regulators, and other stakeholders.

▶ **Company Spotlight** Allstate Insurance Group, a property and casualty insurer, highlighted its use of "qualitative and quantitative climate-related scenario analysis to inform [its] strategy," with specific details on transition and physical climate scenarios. Specifically, the company explained that its "Catastrophe Modeling and Analytics Team (CMAT) and Pricing Groups monitor climate change information as part of their analysis in weather-related trends." The company explained that it "capture[s] a distribution of potential scenarios using assumptions calibrated to varying climate change scenarios" and that "Allstate's Business Continuity Management team has business continuity plans for Allstate's critical processes," which "address a variety of scenarios, including loss of facility due to weather-related occurrences." The company further elaborated on its use of transition scenarios, stating that "Losses and changes in exposure, as well as business continuity, resiliency, and solvency, are analyzed and reported to senior leaders biannually. Projections are also reported annually, with additional monitoring provided as needed for both actual and projected reporting." Allstate's survey response described the collaboration between its Catastrophe Modeling and Analytics Team and its Investments group, noting that the "CMAT also partners with the Investments group to model the catastrophe exposure of real estate investments and portfolios," (p. 6).

TCFD Pillar: Governance

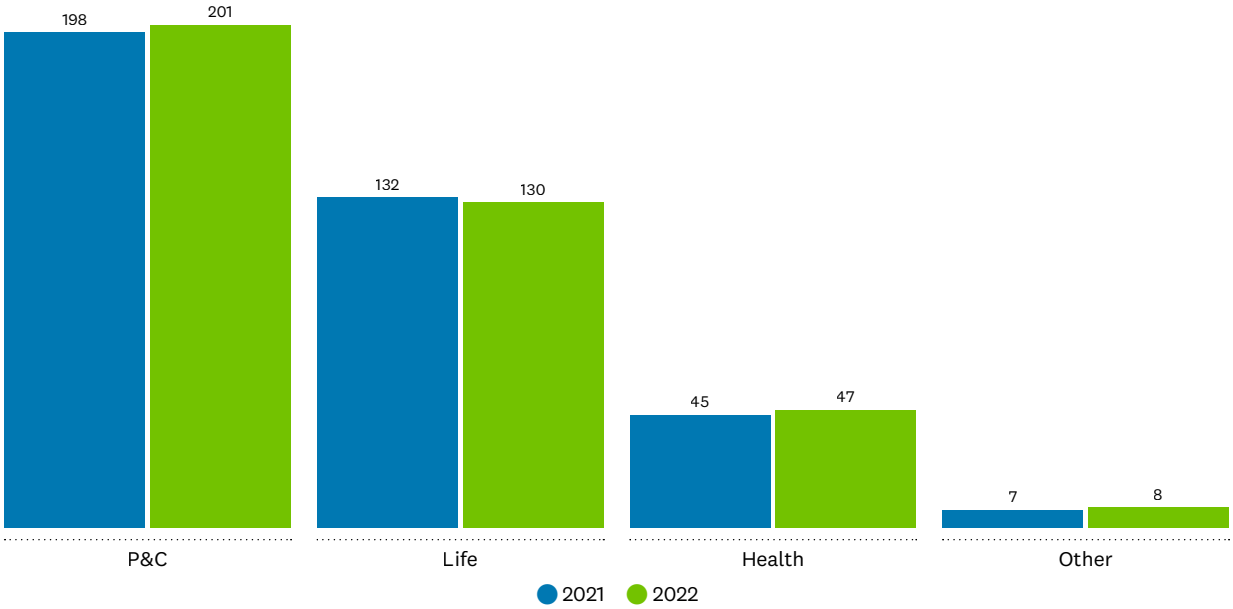
The TCFD framework emphasizes the importance of climate risk assessment and awareness for insurance companies to develop robust risk management strategies. The governance pillar specifically recommends that organizations disclose their governance structures and processes for managing climate-related risks and opportunities. The Climate Risk Disclosure Survey directly aligns with the TCFD's recommendations under this pillar, requesting insurers provide information on how they govern and oversee climate-related issues.

This includes disclosing the roles and responsibilities of the board and management in assessing and managing these risks and opportunities, as well as the processes in place to ensure that these risks are effectively integrated into the organization's overall governance framework. By providing transparent disclosures on their governance practices related to climate change, insurers can demonstrate to stakeholders that they are proactively addressing this critical issue and are well-prepared to navigate the complex and evolving landscape of climate-related risks.

Results

Disclosures related to governance oversight and management of climate issues were essentially level, with 335 companies (80%) in 2021 and 337 companies (81%) in 2022.

Figure 12 · Governance Pillar by Line of Business, 2021 vs 2022



By Line of Business:

- Property and casualty companies (244 total) increased slightly from 198 disclosing governance oversight in 2021 to 201 in 2022.
- Health insurers (62 total) rose from 45 in 2021 to 47 in 2022.

- Life insurers (151 total) dropped marginally from 132 disclosing in 2021 to 130 in 2022.
- All other lines of business (12 total) grew from seven disclosures in 2021 to eight in 2022.

Governance Pillar Recommendations

Role of Governing Board Oversight

This recommendation, which measures the level at which insurers disclose their board's oversight of climate-related risks and opportunities, including the processes and frequency by which the board and board committees are informed about climate related issues, exhibited negligible improvement from year to year. Here, total groups with board oversight disclosures rose slightly, from 309 to 315. Ceres believe this should be 100% of the reporting companies. Property and casualty carriers gained four companies, from 183 to 187 in 2022 and health insurers increased by one group to 44 in 2022 from 43 the year prior. Life insurer groups actually decreased slightly, from 123 to 122 in the current year reporting. Title insurers grew from five groups in 2021 to seven in 2022.

> ▶ **Company Spotlight** Palomar Specialty Insurance Company, a property and casualty group, described its board oversight strategy: In 2020, the Board of Directors established an Environmental, Social and Corporate Governance Committee. In 2021, the Audit Committee established an Enterprise Risk Management Sub-Committee that consists of the Chairperson and a company member, as well as the Chief Underwriting Officer and Chief Risk Officer, who act as management participants (p.14).

Role of Senior Management Oversight

The management's role recommendation underwent a highly concerning decline in the number of insurance groups reporting in this area, from 275 in 2021 to 262 in 2022. This recommendation evaluates insurers' disclosure of the role of management in assessing and managing climate-related risks and opportunities, including the processes and frequency by which management is informed about and monitors climate-related issues. Property and casualty lines decreased from 163 groups to 157, and life insurers declined from 119 In 2021 to 111 in 2022. Health companies rose one group, from 31 to 32 total in the current year reporting, and title carriers remained static at five groups in both years.

> ▶ **Company Spotlight** Fidelity & Guaranty Life Insurance Group's 2022 response provided additional insight into the company's planned ESG governance structure and responsibilities. While the 2021 response noted that board governance was handled at the parent company level (Fidelity National Finance, or FNF) due to the corporate structure, the 2022 response elaborated on the establishment of dedicated ESG bodies with F&G. Specifically, the response stated, "The day-to-day initiatives including climate-related matters is overseen by the ESG Working Group, with the ESG Executive Steering Committee having more senior oversight." Furthermore, the 2022 response emphasized that "F&G's management team leads ESG efforts with oversight from the Audit Committee, who reports our ESG progress and efforts to the Board of Directors," demonstrating a clear line of responsibility and accountability for climate-related matters, (p.3).

The governance pillar of TCFD recommendations saw mixed results among the number of insurance groups reporting between years. To address these issues and strengthen the governance of climate-related risks and opportunities, Ceres recommends that insurers take proactive steps to enhance their board-level oversight and management's involvement in these areas. Insurers can enhance board-level oversight by establishing clear roles and responsibilities for the board and relevant committees, set regular agenda items on climate-related topics, and ensure that the board has access to the necessary expertise and information to effectively oversee the company's climate strategy and risk management processes.

To address the overall decline in management's role, insurers need to prioritize the development and implementation of clear processes and frameworks for management's involvement in climate-related issues. Ceres recommends this includes regular reporting to and engagement with the board, and the allocation of appropriate resources and expertise to support management's assessment and monitoring in this area. This may involve establishing dedicated teams or committees focused on climate-related issues, providing training and resources to management on climate risk assessment and management, and confirming that management has the necessary authority and support to effectively implement the company's climate strategy.

> ▶ **Company Spotlight** Oceanview Life & Annuity Company disclosed its roadmap for improvement in governance planning: "Beginning in 2024, it is expected that the working groups at the executive and management levels of the Company will be charged with providing the Company's sustainability goals, the detailed plan to reach them, and efforts to monitor the results of the initiatives designed to achieve them" (p. 7).

TCFD Pillar: Metrics and Targets

The metrics and targets pillar advises organizations to disclose the metrics and targets they use to assess and manage relevant climate-related risks and opportunities, provided that such information is considered material. The supplemental guidance for insurance companies and asset owners provides more specific recommendations on what types of metrics and targets should be disclosed.

For insurers and reinsurers, the supplemental guidance suggests disclosing aggregated risk exposure to weather-related catastrophes and the extent to which their underwriting activities align with a scenario where global warming is limited to well below 2°C. Where data and methodologies allow, insurers and reinsurers are also encouraged to disclose weighted average carbon intensity or greenhouse gas emissions associated with their commercial property and specialty lines of business.

Asset owners, including insurance companies, are advised to provide metrics used for making investment decisions related to climate risk and disclose how their investment portfolios align with a well below 2°C scenario. The supplemental guidance also recommends that asset owners disclose the greenhouse gas emissions associated with the assets they own and the weighted carbon intensity of their investments, calculated using the Global Greenhouse Gas Accounting and Reporting Standard.

By providing these specific metrics and targets, insurers and asset owners can offer stakeholders valuable insights into their exposure to climate-related risks, their progress in aligning their activities

with global climate goals, and their efforts to manage and mitigate the potential impacts of climate change on their business.

Results

A year-on-year increase was demonstrated in the metrics and targets pillar, yet this remains the weakest reporting area overall. The number of companies disclosing climate-related metrics and targets climbed from 126 companies (30% of total) in 2021 to 135 companies (32%) in 2022. While the 2% increase signifies small progress, there is considerable scope for improvement on disclosure of climate risk measurement and management via measurable metrics and targets. This is the area Ceres hopes urgently improves in the next reporting cycle.

By Line of Business:

- Property and casualty companies (244 total) increased somewhat from 72 disclosing metrics and targets in 2021 to 76 (31%) in 2022.
- Health insurers (62 total) were essentially flat from 21 in 2021 to 23 (38%) disclosing in 2022.
- Life insurers (151 total) climbed marginally from 62 in 2021 to 67 (45%) in 2022.
- All other lines (12 total) stayed flat at two (17%) companies disclosing in both reporting years.

Metrics and Targets Recommendations

Metrics in Use

The metrics in use recommendation, which measures the reported metrics insurers use to evaluate and manage climate-related risks and opportunities, including metrics related to their underwriting activities, investment portfolios, and operational performance, saw a slight increase in an historically low-performing pillar with a change from 78 total groups in 2021 to 88 (21%) in 2022.

The absolute number of groups reporting on this recommendation remains distressingly low, indicating that insurers across all lines of business are still struggling to develop and disclose meaningful metrics related to their climate-based risks and opportunities. The property and casualty sector scored a minimal increase from 44 groups reporting in 2021 to 49 in 2022, while the life groups gained a very minor improvement from 44 to 46 groups. The health and title lines of business remained unchanged between the reporting years, with health remaining static at 12 groups reporting under this recommendation and title remaining at one.

▶ **Company Spotlight** Coface North America Insurance Company, a credit insurance company, disclosed its emissions measurements, describing: "To measure the emissions generated by the financial flows of claims, Goodwill Management has adapted the Bilan Carbone methodology, mapping financial flows by sector and country. A methodology developed by Carbone was then applied to eliminate most of the double counts in Scope 3 of emissions related to financial flows. The Carbon Impact Analytics methodology is used to

quantify emissions related to energy consumption across the entire value chain by removing repeated counts from the same energy source." Coface further included a description of the metrics it uses to transition its investment portfolio (p.15), indicating it has stopped investing directly in:

- Companies that develop or plan to develop new mines, power plants, or infrastructure relating to thermal coal.
- Companies generating 25% to 50% of total revenue from thermal coal extraction and electricity generation from thermal coal and whose ESG rating calculated by Amundi has deteriorated significantly.
- Companies' extraction of 100 MT of thermal coal or more with no goal to reduce this extraction.

Targets in Use

The targets in use recommendation, which analyzes insurer disclosures on the targets they use to manage climate risks and opportunities and their performance against those targets, decreased for total number of companies reporting in this area. This decline is discouraging as it suggests that insurers continue to struggle to set and disclose meaningful targets related to climate risks. The property and casualty sector scored a very minimal increase, gaining one carrier from 43 in 2021 to 44 (18%) in 2022. Life carriers remained unchanged, with 41 groups (27%) reporting under this recommendation in both years, and the health insurance groups losing ground, decreasing from 16 groups to 15 (25%) in 2022. Title insurance carriers did not attain any measurable score under this recommendation in either reporting year.

▶ **Company Spotlight** Fidelity & Guaranty Life Insurance (F&G) reporting year 2022 response marked a significant improvement by disclosing the company's scope 1 and 2 emissions, as well as total electricity consumption from its Des Moines headquarters for 2021 and 2022. This information was not provided in the 2021 response, indicating the company's progress in measuring and reporting its climate-related metrics. The recent response also noted F&G's plans to expand the scope of its emissions reporting, explaining, "F&G anticipate gathering Scope 1 and Scope 2 emissions in the coming year for additional office locations in New York and Bermuda." Furthermore, the Survey response acknowledged the importance of assessing scope 3 emissions, particularly those related to the company's investment portfolio (financed emissions), and mentioned that F&G is evaluating industry developments related to quantifying and collecting these emissions, (p.11).

Scope 1, 2, 3 GHG Emissions (B)

This recommendation metric analyzes how insurers disclose their greenhouse gas (GHG) emissions, including either direct emissions from their own operations (scope 1), indirect emissions from purchased electricity, heat, or steam (scope 2), and other indirect emissions that occur in their value chain, including those generated by their policyholders, which may be difficult to accurately assess

and disclose, depending upon the level of policyholder disclosure (scope 3). This recommendation experienced an increase in the number of insurance groups reporting, from 89 in 2021 to 102 (24%) in 2022. Property and casualty groups increased from 49 to 56 in 2022 and life insurers rose from 51 in 2021 to 57 groups. Health insurance groups, however, declined from 16 groups to 14, and title remained unchanged, with one group disclosing detail under scope 1, 2, and 3 GHG emissions.

▶ **Company Spotlight** Palomar Specialty Insurance Company, property and casualty lines, provided a chart (p. 9) calculation of its scope 1, 2, and 3 GHG emissions:

2022 Greenhouse Gas Emissions (tCO_2e/yr)	
Scope 1 and CO_2e emissions	98.11
Scope 2 and CO_2e emissions	143.71
Scope 3 and CO_2e emissions	6,527.06
Total CO_2e emissions	6,768.88

Equitable Holdings, Inc, life insurers, disclosed its scope 1 and 2 emissions over time (p. 8), describing its methodology: GHG emissions calculated according to World Resources Institute and World Business Council for Sustainable Development GHG protocol.

	2019	**2020**	**2021**	**2022**
Scope 1	3,232	3,085	3,143	2,949
Scope 2	8,670	7,772	7,945	7,286
Total	11,902	10,857	11,088	10,235

In summary, the metrics and targets pillar of the TCFD recommendations experienced mixed progress among insurance groups between reporting years, with modest improvements in some areas and persistent challenges in others. While the scope 1, 2, and 3 GHG emissions recommendation showed a somewhat promising increase in reporting, the overall low performance in all metrics and targets areas emphasizes the ongoing difficulties insurers have in developing and disclosing tangible climate-related metrics and targets. Insurers must urgently address these challenges by collaborating with industry partners, regulators, and other stakeholders to establish standardized and comparable metrics and targets that align with their specific business activities and risk profiles. This may involve participating in industry-wide initiatives, investing in data collection and analysis capabilities, and engaging in dialogue to identify best practices and guidance on setting meaningful targets, such as those aligned with the Paris Agreement's goals. Insurers should also prioritize transparent and contextualized disclosures about their metrics and targets, including the methodologies, assumptions, and limitations underlying their calculations, as well as their progress towards achieving them over time.

Recommendations

Based on the comparative analysis of the insurance industry's TCFD-aligned disclosures over the past two years, some progress has been made in integrating climate-related risks and opportunities into insurers' governance, strategy, and risk management processes. However, there remain areas where further improvement is imperative to ensure that the industry is prepared to navigate the challenges and opportunities presented by climate change. As noted earlier, the machine learning process is a powerful tool, but it merely addresses "the floor" of comments on specific sections. It does not fully measure the nuanced quality of the disclosures in their entirety.

One key area for improvement is the metrics and targets pillar, which consistently had the lowest levels of disclosure across the 11 TCFD recommendations. While there were modest increases in the number of companies reporting on scope 1, 2, 3 GHG emissions and metrics in use, the overall adoption of clear, measurable targets and metrics related to climate-risk management and greenhouse gas emissions reduction remains relatively low. Insurers should prioritize the development and disclosure of such targets and metrics, as they are essential for demonstrating their commitment to addressing climate change and allowing stakeholders to assess their progress over time.

While the adoption of climate scenario analysis is slightly increasing, as evidenced by the rise in disclosures related to this recommendation from 93 to 116, there is still room for significant growth. Insurers should strive to incorporate climate scenario analysis into their strategic planning and risk management processes, considering a range of potential future climate scenarios and based on Paris Agreement aligned scenarios, as recommended by the TCFD framework. This will enable insurers to better understand the potential long-term impacts of climate risk on their business models and financial performance, and to develop strategies to mitigate risks and capitalize on opportunities.

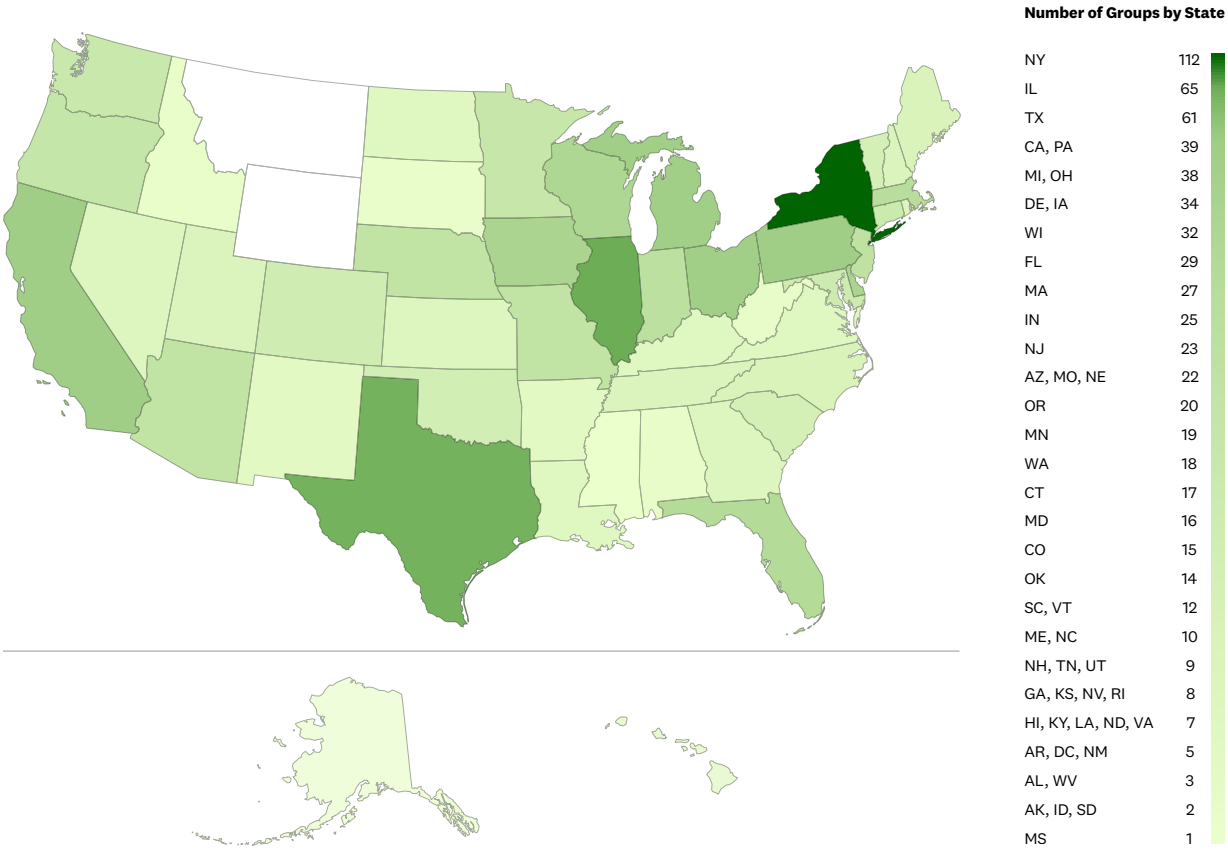
Another area where insurers can improve their disclosures is in the granularity and specificity of the information provided. While many companies are now addressing the various TCFD recommendations in their reports, the level of detail and clarity varies widely. Insurers should aim to provide more comprehensive and transparent disclosures, including specific examples of how they are integrating climate considerations into their governance structures, risk management processes, and investment strategies. Companies should also endeavor to use consistent, industry-specific metrics and methodologies to allow for better comparability across companies and to facilitate the aggregation of climate-related data at the sector level.

Insurers can also enhance their disclosures by providing more information on their engagement with policyholders, regulators, trade associations, and other stakeholders on climate-related issues. This could include details on how they are working to raise awareness of climate risks among their

customers, collaborating with regulators to develop climate-resilient policies and regulations, and partnering with other organizations to advance sustainable practices and technologies.

Lastly, insurers should continue to monitor and adapt to the rapidly evolving landscape of climate-related risks and opportunities, as well as the expectations of regulators, investors, consumers, and other stakeholders regarding climate-related disclosures. This may involve regularly reviewing and updating their disclosure practices, engaging with industry peers and experts to share best practices and lessons learned, and proactively communicating their progress and challenges to their stakeholders. While this report focuses on the climate risk disclosures of direct insurers, it is important to acknowledge the critical role reinsurers play in the global insurance market and their significant influence on the industry's overall approach to climate risk management. While a comprehensive analysis of specifically reinsurers' climate risk disclosures is beyond the scope of this report, it is an essential area for future research and consideration in the context of the insurance sector's response to climate change.

Figure 13 • State of Domicile



Regulators and stakeholders also have a crucial role to play in accelerating the insurance industry's adoption of TCFD recommendations and elevating the quality and comparability of climate-related disclosures. Regulators can create an enabling environment by setting clear expectations, providing guidance, and establishing consistent reporting standards. By harmonizing disclosure requirements across jurisdictions and lines of business, regulators can reduce fragmentation and promote a level

playing field for all insurers. Furthermore, regulators can use their supervisory powers to monitor compliance, identify best practices, and provide targeted support to help lagging insurers improve their disclosure and risk management practices. The map above (Figure 13) shows the state of domicile of the insurers covered by this analysis. Ceres recommends that regulators build this into their analysis of insurers.

Stakeholders, including investors, policyholders, civic organizations, academic institutions, and journalists can exert positive pressure on insurance groups to strengthen their climate risk disclosures. By engaging in active dialogue, asking pertinent questions, and advocating for greater transparency, stakeholders can further encourage insurers to align more closely with the TCFD framework. Moreover, stakeholders can collaborate with insurers to develop innovative solutions, share knowledge, and foster a culture of continuous improvement in climate risk management.

While the U.S. insurance industry has made meaningful strides in aligning its disclosures with the TCFD framework over the past two years, and the regulators and the insurers deserve credit for their efforts, there remain significant opportunities for further improvement and refinement. By prioritizing the development of clear metrics and targets, expanding the use of climate scenario analysis, enhancing the specificity and granularity of their disclosures, and proactively engaging with stakeholders, insurers can continue to strengthen their resilience to climate-related risks and capitalize on the opportunities presented by the global transition to a low-carbon economy.

Disclosure is simply the first step. Ceres encourages all insurers to continue to work on more specific disclosures while working on a climate transition plan for their underwriting and their investments. While this is critical for all their customers, it is of special importance to low- and moderate-income families and their access to insurance is at greater risk every day.

Appendix

Action Item Matrix

Figure 14 • Manifest Climate's Proprietary Set of Action Items

Governance Pillar

Board Oversight Recommendation

Board Review Cadence	Establish processes so the board reviews climate-related matters regularly
Board Responsibility	Assign clear climate-related oversight responsibilities to board members
Information Sharing	Establish processes to share climate information with the board and to enable board oversight of climate goals/targets
Organizational Decision-Making	Integrate climate-related matters into key areas of organizational decision-making
Organizational Engagement	Ensure the board, management, and broader organization have access to, or promote, the competencies needed to engage on climate matters

Management's Role Recommendation

Management Reporting Cadence	Establish processes so management reports regularly to the board on climate-related matters
Management Delegation	Delegate clear and appropriate authority to managers to support the organization's response to climate change
Information Sharing (Management)	Establish processes to share climate information with managers
Cross-Functional Communication	Establish cross-functional communication across the organization to manage climate change

Strategy Pillar

Climate Risks & Opportunities Identified Recommendation

Organizational Time Horizons	Establish short-, medium-, and/or long-term time horizons in the context of climate-related matters
Impact of Opportunities	Understand where climate-related opportunities impact the organization

Climate Impact on Organization Recommendation

Impact of Transition Risks	Understand where climate-related transition risks impact the organization
Impact of Physical Risks	Understand where climate-related physical risks impact the organization
Risk and Opportunity Analysis	Understand the strategic, financial, and/or operational impact of climate-related risks and opportunities on the organization
Climate Response Planning	Develop a plan to respond to climate-related transition risks and/or physical risks and opportunities

Figure 14 • Manifest Climate's Proprietary Set of Action Items

Strategy Pillar, continued

Climate Scenario Analysis Recommendation	
Scenario Analysis	Conduct climate-related scenario analysis to test the resilience of the organization's climate strategy

Risk Management Pillar

Climate Risk Management Processes Recommendation	
Materiality Assessment Process	Document the organizational process of conducting climate-related materiality assessments
Risk Management Process	Establish processes to manage climate-related risks
Policy and Legal Risks	Assess and/or manage climate-related policy and legal risks facing the organization
Market Risks	Assess and/or manage climate-related market risks facing the organization
Technology Risks	Assess and/or manage climate-related technology risks facing the organization
Reputational Risks	Assess and/or manage climate-related reputational risks facing the organization
Acute Physical Risks	Assess and/or manage climate-related acute physical risks facing the organization
Chronic Physical Risks	Assess and/or manage climate-related chronic physical risks facing the organization

Climate Risk Categorization Recommendation	
Impact of Transition Risks	Understand where climate-related transition risks impact the organization
Impact of Physical Risks	Understand where climate-related physical risks impact the organization
Risk and Opportunity Analysis	Understand the strategic, financial, and/or operational impact of climate-related risks and opportunities on the organization
Climate Response Planning	Develop a plan to respond to climate-related transition risks and/or physical risks and opportunities

Climate Risk Integration Recommendation	
Risk Integration	Integrate processes to identify, assess and manage climate-related risks into the organization's broader risk management system

Metrics and Targets Pillar

Metrics in Use Recommendation	
Non-GHG Climate Metrics	Use non-GHG climate metrics to measure climate-related risks and opportunities beyond GHGs
Intensity Metrics	Use, if appropriate, intensity metrics to measure climate-related risks and opportunities
Historical Data for Metrics	Use historical data to identify trends in climate-related metrics

Figure 14 • Manifest Climate's Proprietary Set of Action Items

Metrics and Targets Pillar, continued	
Targets in Use Recommendation	
Climate-Linked Pay	Incorporate climate-related performance metrics into remuneration policies
GHG Targets	Develop GHG targets to effect organizational change
Non-GHG Targets	Develop non-GHG climate-related targets to effect organizational change
Target Time Horizons	Set appropriate time horizons for climate-related targets
Target Baselines	Establish clear base periods for climate-related targets
Interim Milestones	Set appropriate interim milestones / goals for climate-related targets
Scope 1, 2, 3 GHG Emissions Recommendation	
Scope 1 Emissions Metric	Track organizational Scope 1 emissions
Scope 2 Emissions Metric	Track organizational Scope 2 emissions
Scope 3 Emissions Metric	Track organizational Scope 3 emissions
Carbon Pricing	Understand how carbon pricing affects the business, and how carbon pricing can motivate change over time
Carbon Offsets	Understand the role of carbon offsets, including how offsets impact climate-related targets

Methodology

Machine Learning Approach

Manifest Climate uses advanced machine learning coupled with proprietary modeling to assess organizational alignment to different disclosure frameworks and standards. Based on these assessments, Manifest Climate can recommend 41 specific actions (Action Items) that an organization can take to improve its overall climate response.

Manifest Climate's alignment model examines whether an organization's disclosures broadly address the information to demonstrate alignment with each Action Item. It can then overlay those findings against selected frameworks and standards.

For Ceres, the model was trained to identify whether an organization's disclosures generally trend toward alignment with the recommended disclosures of the TCFD, first by assessing disclosures against Manifest Climate's 41 Action Items, and then by mapping those findings onto the 11 recommended disclosures of the TCFD.

The Manifest Climate models take advantage of a dataset of climate-related disclosures from a variety of sources. These disclosures have been labeled by experts to indicate whether the human reader thought that it counted towards the recommended disclosure or not. Then the algorithm scans the Climate Risk Disclosure Survey responses (in this case) at a high level and uses natural language processing and machine learning to recognize patterns (words, phrases, and sentence structures) that would be expected if the reviewed organization was aligning to each of the Action Items, and

by extension, the 11 recommended disclosures of the TCFD framework. The algorithm uses these patterns to replicate this labeling. The result of the alignment model is a one (or a zero) for each of the 11 TCFD recommendations depending upon whether the report does (or does not) include information related to that recommendation. As valuable as the machine learning process is, Ceres recommends that this analysis be supplemented by human review of key documents.

As an example, 1 below would be labeled 1 or "yes" for a description of board oversight, but zero or "no" for outlining management's role. And 2 would be labeled zero or "no" for board oversight and 1 "yes" for management's role.

1 The Board of Directors reviews the Group ESG performance and programs twice annually as a minimum, in addition to any specific review related to an ESG topic that falls within the remit of each of the Committees (i.e., the Nomination Committee's review of diversity and inclusion performance, the Audit Committee's of climate-related risks factors, and the Strategic Committee orientation and monitoring of the SustainAgility program).

2 Through the CCT, I am overseeing the implementation of the climate strategy we introduced in December 2020, and monitoring the Group's progress against the seven pathways to delivering our targets and net zero ambition.

Treatment of Climate Risk Disclosure Survey Responses

In 2023, insurance companies were given the option to submit their TCFD-aligned Climate Risk Disclosure Surveys to the participating US state regulators through the California Department of Insurance (CDI) managed public database through an online portal either by uploading a PDF document or responding to a survey with text boxes corresponding to questions based on each TCFD pillar.

Companies licensed in any of the participating states and jurisdictions making a $100 million and above in direct written premiums (DWPs) during their reporting year were required to submit responses individually to the database. There is, however, a notable occurrence of submissions with identical responses among multiple companies, especially among companies within the same group, reflecting a common practice of centralized climate risk management strategies at the group level.

For 2023, 521 unique reports were submitted, an increase from the previous year's 446 submissions. This uptick can be attributed to an expansion in the survey's reach, encompassing more companies because of the participation of additional states and jurisdictions. Upon request from Manifest Climate and Ceres, CDI compiled the 2023 reports, which are publicly accessible, and provided them to Manifest Climate for this analysis. This compilation excluded duplicates and converted text box entries into a machine-readable PDF format. In addition, CDI also provided files mapping report names to their corresponding company name and NAIC code, group name and codes, line of business, states of domicile, and DWPs.

To ensure clarity among reporting years, CDI also provided Manifest Climate a list correlating the file names from the 2023 survey (reflecting RY 2022 data) with those from the 2022 survey (reflecting RY 2021 data). Of these, 434 reports were directly matched. However, due to differences in reporting practices between the two years, such as companies submitting as individuals one year and as part of a group the next, only 418 reports were determined to be directly comparable in submission. This

adjustment accounted for variations, including 14 companies shifting from individual to group submissions and two companies making the opposite transition. Additionally, 15 companies that filed in 2022 did not report in 2023.

The methodologies used by Manifest Climate to assess climate-related disclosures evolve year on year, in response to new standards and refinements in machine learning and modeling. For this year:

1. **Enhanced Focus on Action Items:** Manifest Climate has focused on 41 action items, which are designed to provide indicative detail on organizational alignment to multiple standards, and targeted recommendations for improving climate action. This contrasts with the previous year's focus on a broader alignment assessment that used fewer climate frameworks, such as the TCFD recommendations.
2. **Integration with Proprietary Modeling:** The introduction of proprietary modeling alongside advanced machine learning techniques represents a significant development in Manifest Climate's approach to assessments. This integration is designed to deliver faster and more accurate assessments at a level that is more granular than the TCFD recommendations. It does this by completing a preliminary assessment using Manifest Climate's Action Items, before mapping that assessment onto the TCFD recommendations.
3. **Dataset and Algorithm Adjustments:** While both years' methodologies rely on a dataset of expert-labeled climate-related disclosures and the use of natural language processing and machine learning to recognize patterns indicative of alignment with the TCFD, this year's approach benefits from refinements in the algorithm and updates to the dataset. These adjustments aim to improve the precision of alignment assessments, making them more reflective of current expectations and standards.

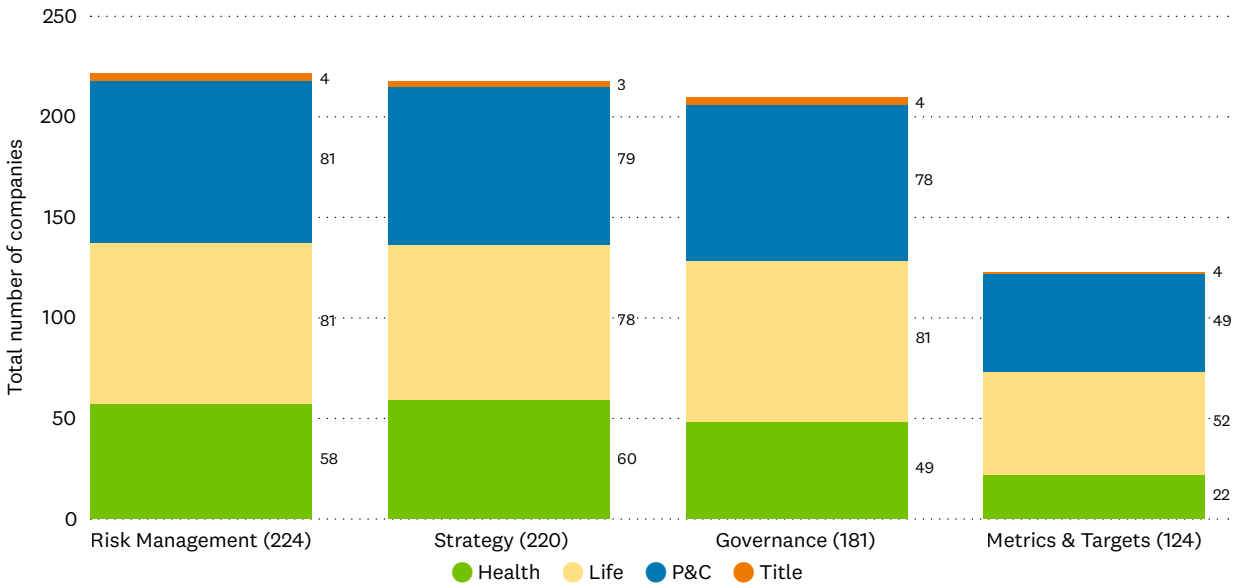
Due to these methodological changes, direct comparisons between findings from the two reporting years are not straightforward, as the basis for evaluation has evolved. However, to enable comparison, the Comparative Analysis charts use this year's methodology for both data sets. This approach is intended to allow an apples-to-apples comparison and to observe directional trends and changes over time.

Current Year Reporting Detailed Analysis

High DWP Companies

Company size, as measured by direct written premiums (DWP), appears to influence TCFD reporting capabilities. The 213 companies in the High DWP distribution (equal to or greater than $800 million) perform better overall, with roughly 50% addressing all four pillars and nearly 80% (167 companies) scoring in six or more recommendations. Within this bucket, life insurers outperform health and property and casualty, with 51 out of 85 companies covering all four pillars and 56 companies achieving eight or more recommendations. Only 19 out of 62 health insurers scored in all four pillars and merely one out of five reporting title companies achieved scoring in every pillar. Property and casualty scored with 48 out of 81 companies (59%) meeting thresholds across all pillars.

Figure 15 • High DWP Pillar Index



However, when examining the 41 action items, the High DWP category of insurers demonstrates a skewed distribution, with most carriers scoring less than 20 action items. This suggests that while larger insurance groups generally have stronger overall TCFD reporting capabilities, they still face challenges in addressing the full range of detailed action items. This even distribution indicates that there is room for improvement across all areas, from governance and strategy to risk management and metrics and targets. This finding highlights the need for even the largest insurance carriers to continue refining their approaches to climate risk assessment and disclosure, ensuring they are taking comprehensive action to manage climate-related risks and opportunities.

Figure 16 • High DWP Recommendations Index

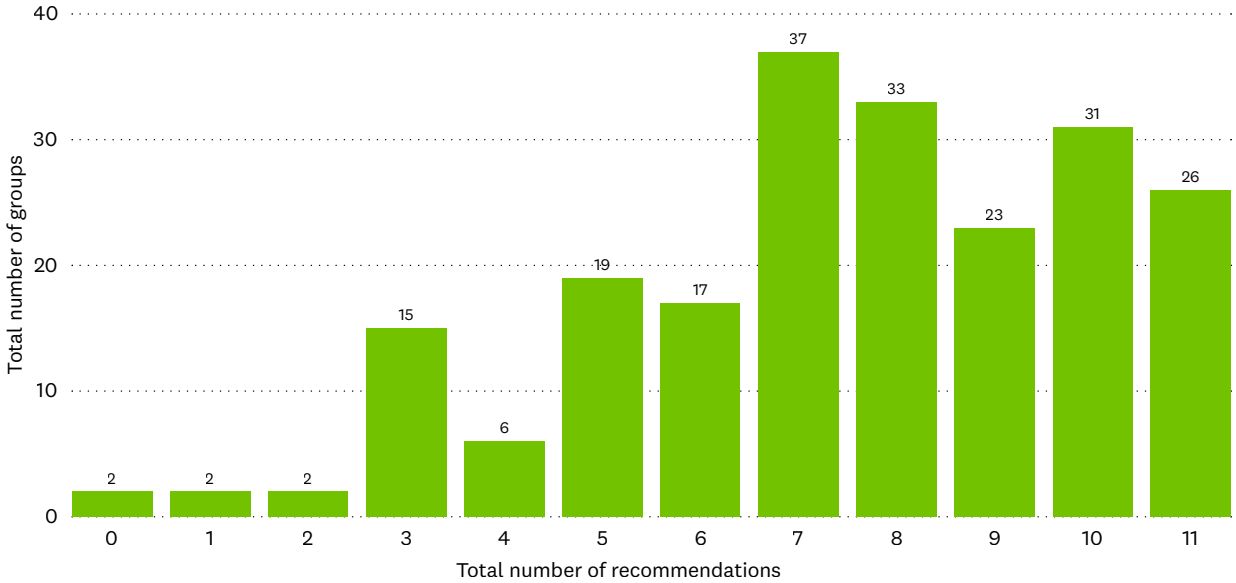
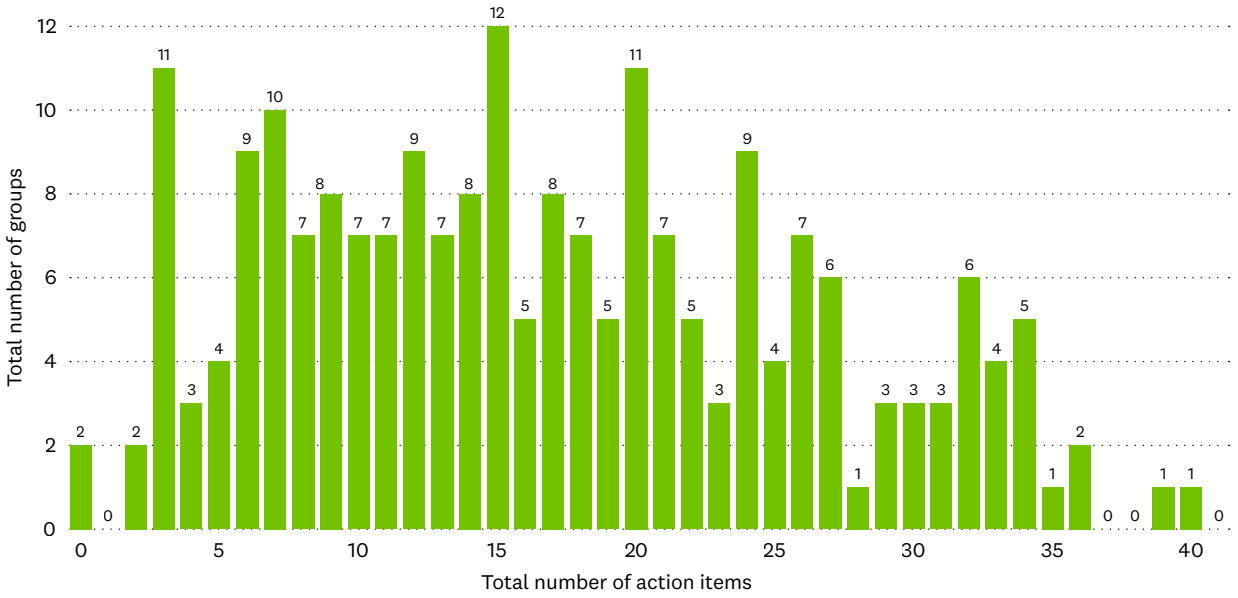


Figure 17 • High DWP Action Item Index



Medium DWP Companies

In the Medium DWP band ($200 million to $800 million), 79 out of 287 companies (28%) addressed all four pillars, and 173 companies (60%) met six or more recommendations. Life insurers measure 31 out of 81 (38%) total companies meeting all four pillars, health insurers score 23 out of 51 companies (45%) assessed, property and casualty had 47 companies in all four pillars out of 169 (28%), and title carriers with one company out of six receiving a score across all pillars.

Figure 18 • Medium DWP Pillar Index

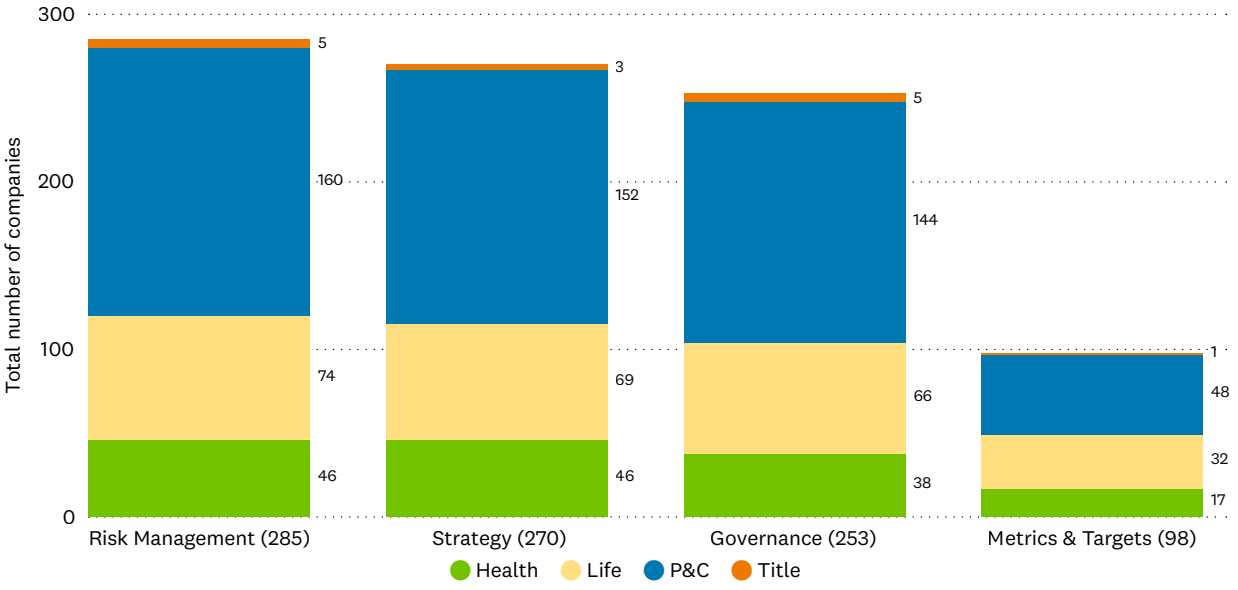
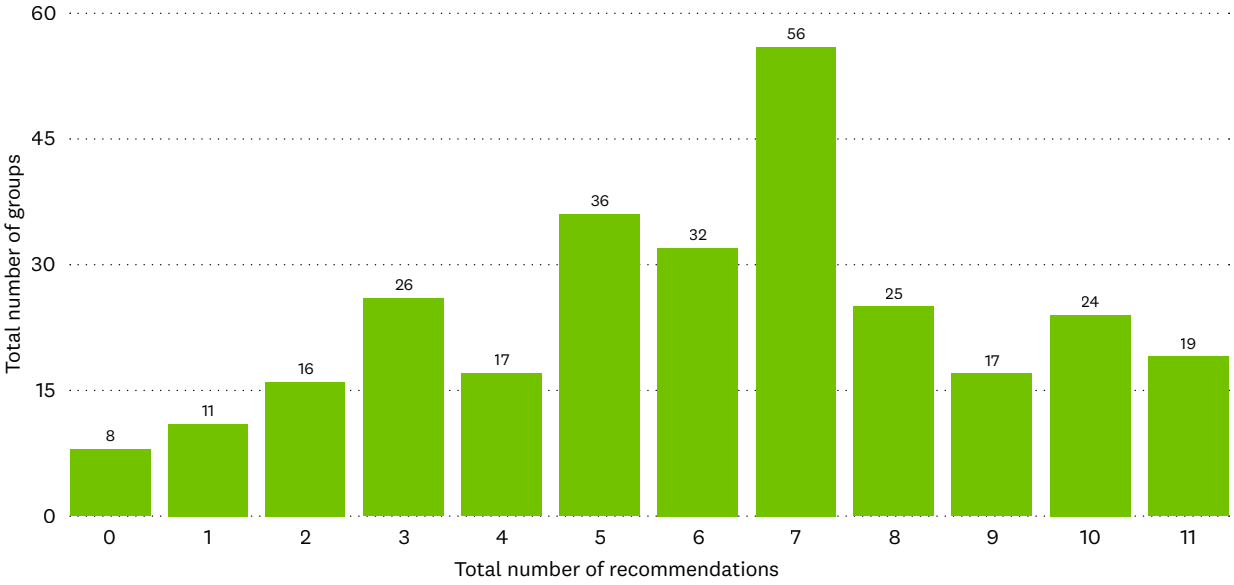
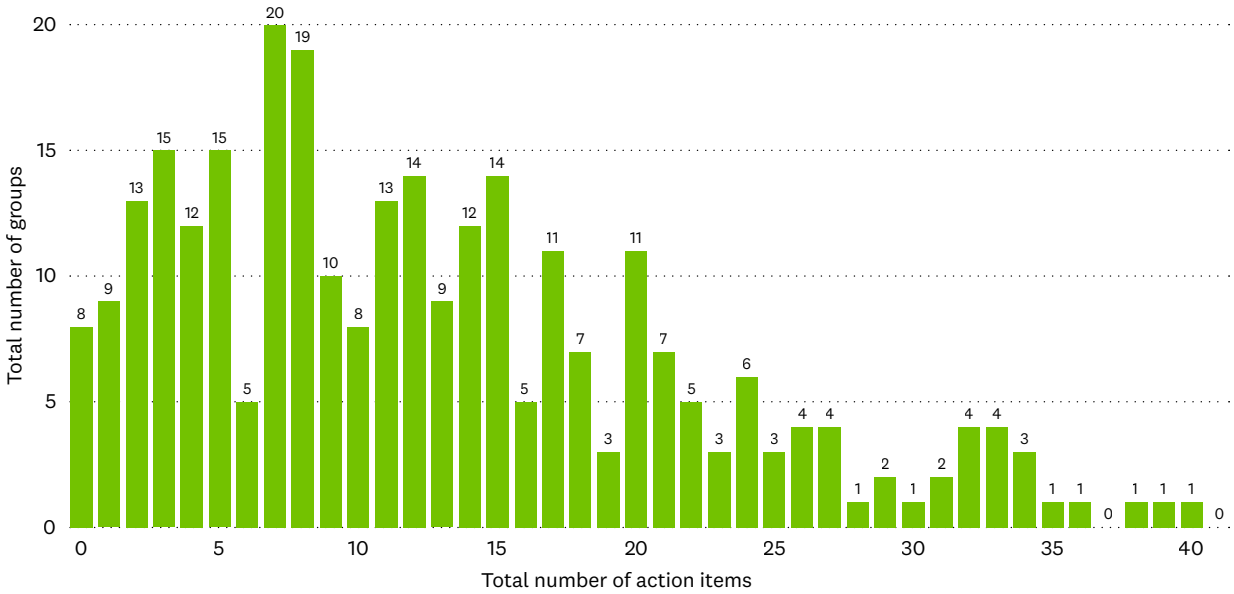


Figure 19 • Medium DWP Recommendations Index



When analyzing the distribution of the 41 action items within the medium band, a notable trend emerges. The action item alignment is more heavily skewed to the lower end of the range, with a significant concentration of companies addressing less than 20 items. This suggests TCFD reporting among medium-sized insurance companies is currently limited. Adoption of the TCFD framework appears to be in its early stages, with disclosures likely inconsistent and incomplete, and there is significant room for improvement.

Figure 20 • Medium DWP Action Item Index



Low DWP Companies

The Low DWP bucket (less than $200 million) exhibits similar distribution across the ranges for both pillars and recommendations. Only 27% of the 266 companies in this stratum address four pillars. The recommendation distribution is also more evenly allocated across this segment with no clear outliers across the different lines of business.

Figure 21 • Low DWP Pillar Index

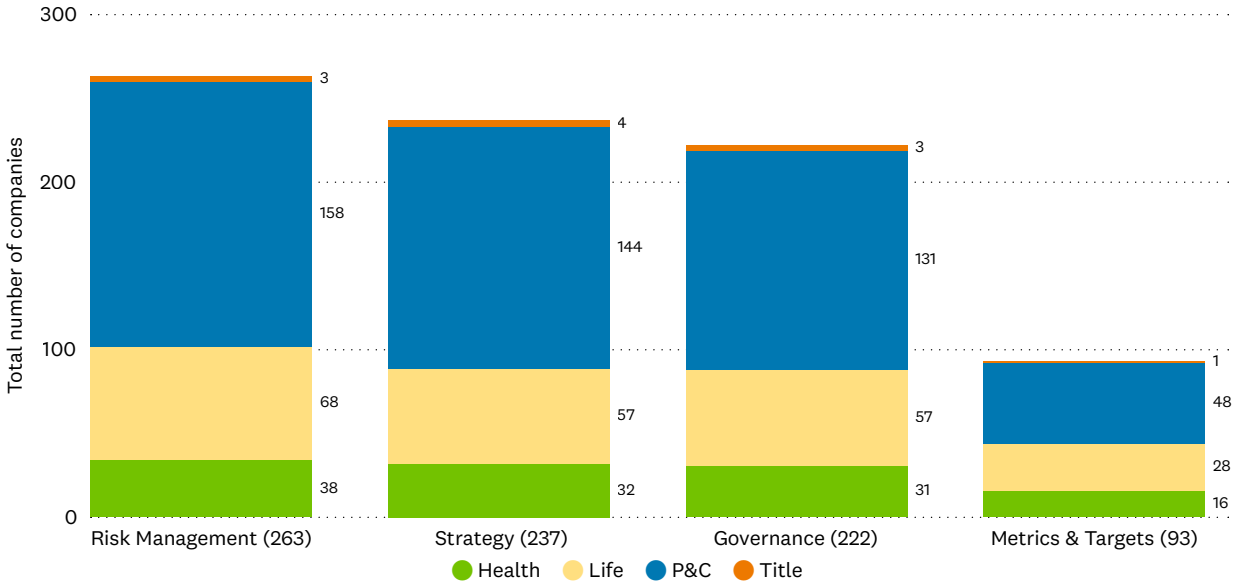
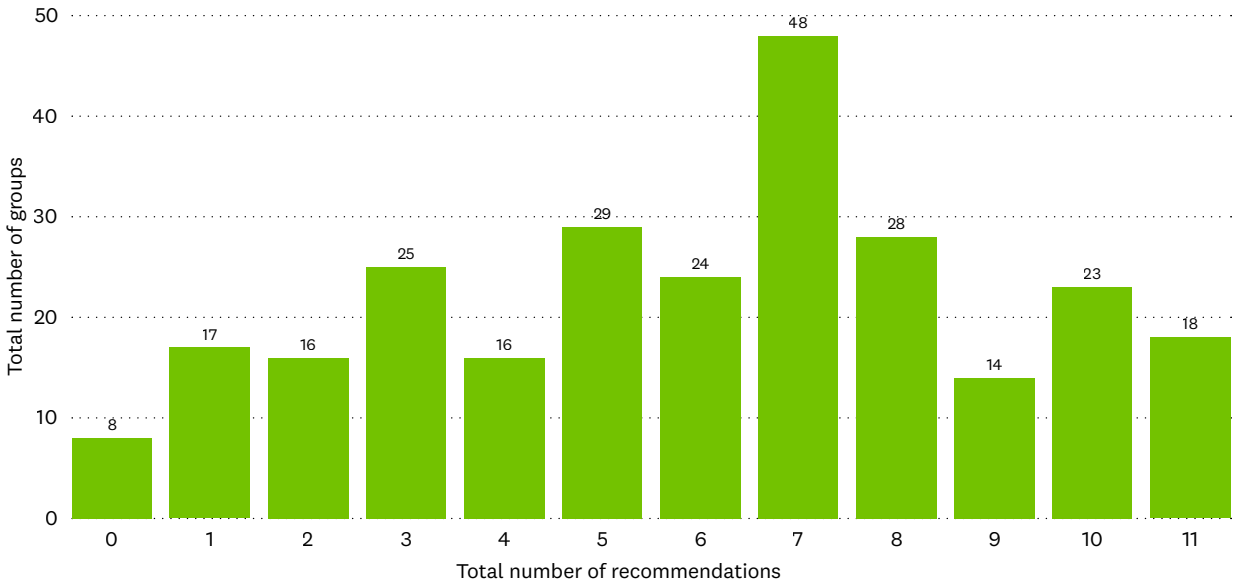
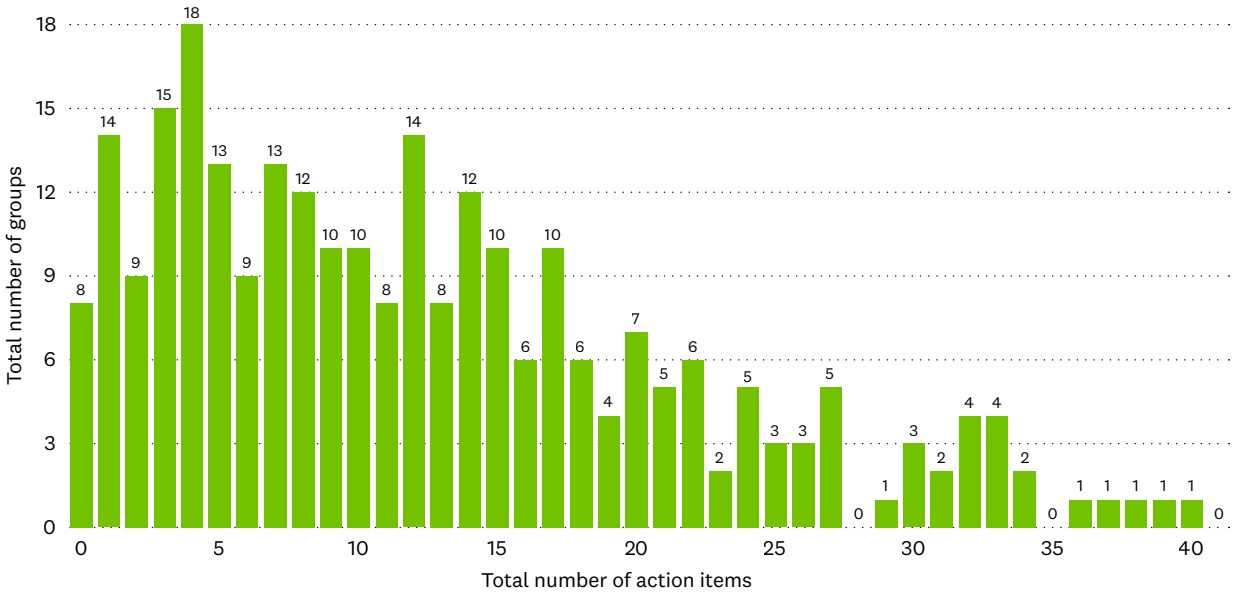


Figure 22 • Low DWP Recommendations Index



When examining the Low DWP company action item metrics, however, the distribution skews even more significantly towards the lower end of the range. Like the other companies, most insurers in this category meet fewer than 20 of the Items, with a relatively even spread within this range. Only a small number of companies of this size manage to address more than 20 items. This trend indicates that smaller insurance companies face considerable challenges in their first year or two of developing actionable strategies, likely due to resource constraints, limited expertise, or competing priorities. These findings underscore the need for targeted support and guidance to help these smaller insurers enhance their disclosure and climate risk management practices. By providing tailored resources, best practice use cases, and capacity-building initiatives, the industry can work towards improving the overall alignment of smaller insurers, thereby strengthening the sector's resilience. Since entities of all sizes have completed TCFD climate reports around the globe, even the small insurers should be able to produce high quality reports. In some ways, because of their size, they are less diversified and therefore potentially exposed to even greater potential climate risk of their portfolio on the underwriting and possibly on the investment side of their business.

Figure 23 • Low DWP Action Item Index



The current year's TCFD reporting in the insurance industry presents a nuanced picture, with varied levels of alignment across pillars, recommendations, and action items. As the industry continues to navigate the challenges posed by climate change, it is crucial for all insurance companies, regardless of size or specialty, to strive for improved transparency and TCFD alignment to effectively manage the threats and opportunities arising from climate risk.